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98TH CONGRESS
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SENATE

REPORT
No. 98-284

SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983

REPORT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

TO ACCOMPANY

S. 757

together with

ADDITIONAL VIEWS

OCTOBER 28 (legislative day, OCTOBER 24), 1983.—Ordered to be printed

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Mr. CHAFEE, from the Committee on Environment and Public Works, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany S. 757]

The Committee on Environment and Public Works, to which was referred the bill (S. 757) to amend the Solid Waste Disposal Act to authorize funds for fiscal years 1983, 1984, 1985, 1986, and 1987, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill (as amended) do pass.

RELATED LEGISLATIVE HISTORY

It is the intention of the Committee to offer the text of this bill as a committee-sponsored amendment to S. 1283. That bill, containing a one-year authorization for the Solid Waste Disposal Act, was reported May 16, 1983, in order to comply with requirements of the Congressional Budget Act. When the Senate adopts the committee-sponsored amendment to S. 1283, the legislative history of S. 1283 shall then include this report. S. 1283, as amended, will be known as the "Solid Waste Disposal Act Amendments of 1983".

GENERAL STATEMENT

The Resource Conservation and Recovery Act (RCRA) was enacted as an amendment to the Solid Waste Disposal Act (the Act) in 1976. The amendment established this Nation's basic hazardous

waste management system under subtitle C of the Act, and provided complementary authority to encourage the conservation and recovery of valuable materials and energy.

Since the date of enactment, attention has been focused on the implementation of the subtitle C program. In May 1980 the Agency published its first major package of regulations to implement subtitle C. These regulations put into place waste identification, manifesting, transportation and interim status treatment, storage and disposal requirements. While these requirements were long in coming, they represented an important step in bringing the management of hazardous waste under some control. Since May 1980 a semblance of a hazardous waste regulatory and enforcement program has begun to take shape with the promulgation of several proposed final standards for treatment, storage and disposal facilities, and financial responsibility requirements.

However, despite this progress, the disposal of wastes, epecially hazardous wastes, is a worsening national problem. The failure of the Environmental Protection Agency (EPA) to promulgate necessary regulations and, on occasion in recent years, the promulgation and revision of some regulations have exacerbated this problem. Two examples are the decision to exempt from regulation all generators who produce 1,000 kilograms per month or less of hazardous waste and the abrupt decision to suspend, on February 25, 1982, a ban on placing drums of liquid hazardous waste in landfills. The ban, which had been promulgated on May 19, 1980, and went into effect on November 19, 1981, was suspended without advance notice or opportunity for public comment. Fortunately, the Agency recognized its mistake and quickly reimposed the ban. Unfortunately, damage had already been done to both the environment and the Agency's credibility.

Preliminary findings from EPA's "National Survey of Hazardous Waste Generators and Treatment, Storage and Disposal Facilities Regulated under RCRA in 1981", published on August 30, 1983, highlight the need for amendments to the law. The scope of the problem and the inadequacies of the law and the current regulatory program appear to be worse than was originally estimated. For example, previous estimates stated that approximately 40 million metric tons of hazardous waste are produced in the United States each year. These estimates were among the factors influencing various regulatory decisions. The new preliminary findings, however, suggest that the correct figure is roughly 150 million metric tons of hazardous waste each year, almost four times the previous estimate. (One hundred fifty million metric tons equals 40 billion gallons.) Furthermore, the study indicates that less than 25 percent of the 60,000 firms that identified themselves to the Agency as hazardous waste generators were, in fact, subject to EPA's subtitle C regulations.

Additional shortcomings in the regulatory system are suggested by the preliminary estimates which indicate that less than 60 percent of the treatment, storage, and disposal facilities listed with the Agency managed hazardous waste in regulated processes during 1981. Approximately 58 million metric tons (15.6 billion gallons) of hazardous waste were disposed of in 1981 by the following methods: underground injection (37 percent); surface impoundment (38 percent); landfill (3 percent); land treatment (1.4 percent); and other (0.6 percent).

In the 97th Congress, the Subcommittee on Environmental Pollution conducted two days of hearings on amendments to the Solid Waste Disposal Act. Testimony was received from more than 40 witnesses on the need to amend the Act. The Administrator of the Environmental Protection Agency submitted amendments to the Solid Waste Disposal Act which were introduced by request. Congress failed to act on the amendments last year.

During this session of Congress, the Subcommittee on Environmental Pollution held two additional hearings on the need to amend the Solid Waste Disposal Act. One bill, S. 757, provided the focus for the hearings. The Administrator did not submit proposed amendments. Testimony was received from more than 30 witnesses on a variety of subjects. A number of problems were identified and are addressed in the reported bill.

As the result of an EPA regulatory decision, small quantity generators (those who produce 1,000 kilograms per month (kg/mo) or less of hazardous waste) are currently exempt from subtitle C requirements and may dispose of their wastes into sanitary landfills and into sewers that are connected to publicly owned treatment works. Neither of these types of facilities is suited to the disposal or treatment of toxic organics or metals. In addition, such generators are not required to package the waste in a safe manner nor to notify the transporters that the waste being transported is hazardous. In addition to being toxic, many of the wastes are ignitable, reactive or corrosive and, therefore, create an occupational safety hazard for the unwitting transporter. Although the unregulated community may represent less than 10 percent of the universe, the Office of Technology Assessment has estimated that up to four million metric tons (one billion gallons) of hazardous waste per year are escaping effective control through this exemption.

Delayed promulgation of final regulations to implement subtitle C and prolonged use of interim status permits by EPA has allowed some facilities to operate without assurances that design and performance standards will utilize adequate and available control technology. The application of available technology, at a minimum, is necessary to minimize hazardous waste releases into the environment.

Current EPA regulations do not require facilities receiving permits under subtitle C to address all releases of hazardous wastes from solid waste management units at the facility. A facility which is causing, for example, groundwater contamination from inactive units could, therefore, seek a permit under current regulations and receive the permit without the permit addressing the contamination.

The process for listing hazardous wastes under section 3001 is a general screening to determine that a kind of waste typically can cause harm to human health and the environment if mismanaged. The delisting process set forth in current regulations allows petitioners (usually individual hazardous waste generators or treatment facilities) the opportunity to show that their wastes are significantly different--because of treatment, or because they are generated in a different process from listed wastes of the same type

Consequently, their wastes can be excluded—i.e. delisted—from the hazardous waste lists. Under the Agency's regulations, EPA will delist those wastes which do not, or no longer, meet the criteria for which those waste was listed.

EPA's listing regulations do not fully address the fact that wastes are frequently composed of numerous hazardous constituents. In some instances, because listing is a general screening process, EPA may not have taken all the hazardous constituents in a waste into consideration when the waste was originally listed. Although EPA has authority under the Act to reject a delisting petition based on the presence of these additional constituents, EPA's regulations currently do not allow the Agency to do so. This has resulted in some wastes which are still hazardous being exempted from the hazardous waste lists and consequently, from all subtitle C regulation.

Under the Agency's present regulations, to be a hazardous waste, a waste must exhibit a characteristic of hazardous waste or be listed by name. None of the characteristics of hazardous waste promulgated so far—ignitability, corrosivity, reactivity, or extraction procedure toxicity—identifies wastes on the basis of organic toxicity. In addition, EPA's listing process has been virtually stalled for several years.

Currently, the Agency exempts from regulation facilities that burn hazardous waste for the primary purpose of energy recovery. EPA has estimated that 10 to 20 million metric tons of hazardous wastes are burned each year in boilers; a substantial amount of hazardous waste generated is burned in facilities not now regulated under subtitle C. The Agency has acknowledged that burning hazardous wastes for energy recovery is similar to incinerating them and "could pose a parallel or greater risk of environmental dispersal of hazardous waste constituents and products of incomplete combustion."

Fuel blending is one of several areas where EPA's failure to promulgate regulations had led to direct threats to human health and the environment. Hazardous wastes have been blended with heating oil and sold to unsuspecting customers who burn them under conditions which may not protect human health or the environment. The potential impact of this loophole is even more significant as more and more wastes may be burned in boilers, cement kilns, or other heat recovery units to avoid hazardous waste regulation and treatment costs.

Current law does not mandate that facilities that treat, store, and dispose of hazardous wastes be regularly inspected. Although officers, employees, and representatives of the States and EPA are authorized by section 3007(a) to enter and inspect any facilities where hazardous wastes are handled, too few inspections are being conducted to effectively monitor compliance with subtitle C and applicable regulations. Inspections that do occur are conducted under widely varying State formulated criteria regarding the qualifications of inspectors and the scope of the inspection.

Subtitle C provides criminal penalties for transporting waste to an unpermitted facility and for submitting false information in documents required to be filed under the Act. However, the statute presently does not specifically address the criminal liability of generators of hazardous waste who knowingly cause the waste to be transported to an unpermitted facility. It also does not address material omissions or the failure to file required reports. Similarly, where hazardous waste is knowingly transported without a manifest, there is no criminal liability unless the waste is subsequently delivered to an unpermitted facility. Although most facilities are operating under interim status permits, there is currently no criminal liability for knowing violations of such requirements. Portions of the current "knowing endangerment" provisions are redundant and unnecessarily restrictive.

Current regulations allow hazardous wastes to be exported from the United States with minimal notice to receiving countries. There is currently no requirement that receiving countries be fully apprised of the nature of the shipment nor a requirement that they consent to receipt of the shipment.

Even with the phaseout of the small quantity generator exemption, sizeable amounts of hazardous materials from such generators, household wastes, and illegal dumping are disposed of in municipal landfills. Current criteria for sanitary landfills are inadequate to deal with these facts. In addition, there is a need to provide for better implementation of the open dumping ban and upgraded criteria for sanitary landfills.

There is a need for more complete and reliable data on hazardous wastes facilities, sites, and exposures to and effects from releases.

Section 7003 currently authorizes suits to immediately restrain any person contributing to handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste that may present an imminent and substantial endangerment to health or the environment. Though the issue of inactive waste sites is not addressed explicitly in section 7003, the Congress, most courts and every administration which has administered the Act has construed the section to apply to such sites. Notwithstanding an opinion from the U.S. Court of Appeals for the Third Circuit and several district court decisions upholding the government's position, two district courts have recently ruled to the contrary. Both cases are on appeal. The Administration testified that clarifying language amending section 7003 would be helpful.

The Administrator is authorized by section 7003 to sue to abate an endangerment whenever the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste may present an imminent and substantial endangerment to health or the environment. There is presently no comparable authority for citizen suits. As exemplied by the Superfund experience, the number of potential problem sites exceeds the Government's ability to take action each time such action is warranted. The problem is primarily one of inadequate resources.

The reported bill, the Solid Waste Disposal Act Amendments of 1983, authorizes appropriations to carry out the purposes of the Solid Waste disposal Act. Several amendments with significant policy implications are included to bring implementation of the Act closer to the original intent of the Congress. Two new and related program directions are included in the bill.

Land disposal of hazardous wastes has been the least expensive and, therefore, most widely used method of managing hazardous waste. It is undisputed that the problems of the present are a direct result of the disposal practices of the past. Unfortunately, these practices are continuing. Particularly troublesome are landfills and surface impoundments of highly toxic, mobile, persistent wastes and wastes that have the potential to bioaccumulate. For many wastes, alternative technologies exist, currently with excess capacity. Where the capacity does not exist it can be developed if a viable market can be assured.

These amendments reaffirm the Administrator's authority to prohibit land disposal methods that cannot be shown to be protective of human health and the environment and direct the Administrator to use that authority. Reliance on land disposal should be minimized and land disposal, particularly landfill and surface impoundments, should be the least favored method for managing hazardous wastes.

These amendments also recognize that safe disposal, storage and treatment opportunities are limited and that the most effective way to protect human health and the environment is to minimize the opportunities for exposure by reducing or eliminating the generation of hazardous waste as expeditiously as possible. Rather than creating a rigorous regulatory program, provisions are included to encourage generators to voluntarily reduce the quantity and toxicity of all wastes. The amendments do not authorize the EPA or any other organization or person to intrude into the production process or production decisions of individual generators.

Taken as a whole, the reported bill emphasizes two concepts. First, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Second, waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.

Section-by-Section Analysis

SHORT TITLE

This Act may be cited as the Solid Waste Disposal Act Amendments of 1983.

AUTHORIZATIONS

This section authorizes appropriations under section 2007(a) of the Act as follows: $43,628,000 for fiscal year 1983; $45,000,000 for fiscal year 1984; and $47,000,000 per fiscal year for fiscal years 1985, 1986, and 1987. The authorization under this section includes the funds for EPA's basic program activities under the Act, including regulatory functions, permit processing, and enforcement.

Appropriations under section 3011(a) of the Act are authorized as follows: $45,000,000 for fiscal year 1983, $47,000,000 for fiscal year 1984; $50,000,000 for fiscal year 1985; and $52,500,000 per fiscal year for fiscal years 1986 and 1987. The authorization under this section funds grants to the States for purposes of assisting the States in the development and implementation of authorized State hazardous waste programs.

SMALL QUANTITY GENERATOR REGULATION AND STUDY

The reported bill adds a new subsection (b) to section 3002 of the Solid Waste Disposal Act, closing out the administrative exemption of hazardous waste from small quantity generators from regulation under subtitle C. The amendment establishes requirements for notice to transporters and disposers of such waste and for proper containerization of such wastes. The Agency is required to conduct a study of wastes from generators of less than 1,000 kilograms (2,200 pounds) per month and to establish standards under subtitle C for those generators.

The purpose of this amendment is to correct a current regulatory exclusion from the subtitle C program that was not contemplated or intended by the Congress in enacting the 1976 Act. Under the existing regulations promulgated on May 19, 1980, the Agency conditionally excluded from hazardous waste control most generators who generate less than 1,000 kilograms per month. As discussed in the preamble to those rules, the decision to establish an exclusion limit of 1,000 kilograms per month was not based on a detailed evaluation of the risks associated with exempting small quantity generator wastes, but on considerations of administrative convenience. The Agency recognized the need to regulate these smaller quantity generators when it stated in that preamble that it would "initiate rulemaking within 2 to 5 years to phase in expanded Subtitle C coverage of small quantity generators down to those generating more than 100 kg/mo."

It is questionable whether such an exclusion is authorized by the Act, which requires all hazardous waste to be regulated to protect human health and the environment. The Committee registered its opposition to the 1,000 kilogram per month exclusion when the regulations were originally promulgated in 1980, having earlier objected to the proposal for a 100 kilogram per month exclusion. More recent evidence confirms the validity of those concerns.

As a consequence of the exclusion, most generators have chosen to manage these "small quantities" as conventional trash rather than as the hazardous waste which they are. A survey of one "small quantity generator" industry provided by the Chamber of Commerce of the United States indicated that 85 percent of the small quantity generators in that industry placed their hazardous waste in amongst their conventional solid wastes when they place those wastes for collection. As a direct result, there have been a series of serious accidents injuring unsuspecting trash collectors, destroying their vehicles, and jeopardizing the integrity of the sanitary landfills which receive these wastes. Testimony indicated solid waste collectors are not being told when hazardous waste is being placed for disposal. Hazardous wastes have been taken to sanitary landfills where disposal of these wastes represents an unanticipated environmental risk.

On the basis of the most recent estimates available to the Committee, as much as 15 million metric tons per year of hazardous

waste from "small quantity generators" may be excluded from regulation under subtitle C.

The reported bill responds to this problem in two stages. Within 270 days after enactment, several minimal requirements are placed on hazardous waste from small quantity generators. A major study of such wastes is mandated as well, to produce regulations more completely eliminating this regulatory exclusion by March 31, 1986.

There is an immediate need to provide notice to transporters, treaters, storers, and disposers of small quantities of hazardous waste of what they are handling or receiving. Such notices will enable the handlers of those wastes to properly manage them and be aware of the dangers they present. Accordingly, new section 3002(b)(1) requires that any off-site shipment of hazardous waste listed or identified under section 3001 that is generated by a generator who generates between 100 kilograms and 1,000 kilograms of hazardous waste in any calendar month must be accompanied by a copy of the Environmental Protection Agency's uniform hazardous waste manifest form signed by the generator. This requirement is intended to be self-implementing and becomes effective 270 days after enactment.

In using the uniform hazardous waste manifest, small quantity generators are not being required to fill out the entire form but only the following information:

1. Name and address of the generator of the waste;
2. The United States Department of Transportation (DOT) description of the waste (including the proper shipping name, hazard class, and identification number (UN/NA), if applicable) or, if the DOT description of the waste is not provided under the applicable DOT and EPA regulations, the EPA identification number or a generic description of the waste or a description of the waste by hazardous waste characteristics;
3. The number and type of containers;
4. The quantity of waste being transported; and
5. The name and address of the facility designated to receive the waste.

Care has been taken in assuring that there be no excessive burden in the notification requirements. Many hazardous wastes are required to be subject to the Hazardous Materials Transportation Act. This provision allows compliance with the written notice requirement under that Act to satisfy the requirements of this section. Alternatively, a generator can identify his waste in terms of the EPA identification number, a generic description of the waste such as "waste paint" or "used solvents", or merely by describing the waste in terms of its hazardous waste characteristic. Unless the Administrator finds that additional requirements are necessary to protect human health and the environment, this is the extent of the required notice under this section.

The Administrator is authorized to apply this notice requirement to hazardous waste from generators of levels of less than 100 kilograms per month. In exercising this authority, the Administrator is to establish a lower threshhold for the new section 3002(b)(1) notice requirement at that level necessary to protect human health and the environment.

None of the requirements in this amendment is intended nor should be construed to limit the Agency's authority to impose additional requirements on acutely hazardous wastes or to list additional wastes as acutely hazardous wastes. New section 3002(b)(6) specifically preserves the current regulations regulating acutely hazardous wastes generated in quantities of one kilogram per month or more.

New section 3002(b)(2)(A) requires that generators who generate between 100 kilograms and 1,000 kilograms of any hazardous waste identified under section 3001 on the basis of the characteristics of ignitability, reactivity, or corrosivity, or listed under section 3001 place those wastes in suitable, sound, non-leaking containers when they are transported off the premises on which generated. This requirement is effective 270 days after enactment. A suitable container is one that will not be adversely affected when the hazardous waste in placed in the container (i.e., the waste will not be incompatible with the container). The intent is that the containers prevent spills or leakage. Such containers as 55 gallon drums, if sound and non-leaking, could contain within them smaller containers which may or may not be intact (subject to new section 3004(c)). Of course, any container deemed appropriate for transporting particular wastes under EPA regulations applicable to other generators would be considered suitable for small quantity generators as well. The amendment allows the generator and the transporter of such wastes to mutually agree on the type of container or method of handling to be used. Under the provisions of this bill, hazardous waste identified on the basis of the characteristic of extraction procedure toxicity are not covered by these container requirements.

New section 3002(b)(2)(B) provides that until the Administrator completes the study and regulations required by paragraph (7)(A) and (B), or except as required under State law, no small quantity generator shall be subject to additional manifesting, recordkeeping, or reporting requirements beyond those in EPA regulations promulgated prior to January 1, 1983. The primary purpose of this provision is to limit the types of requirements which may be imposed on small quantity generators pending completion of the regulations required by paragraph (7)(B).

Paragraph (3) of new section 3002(b) requires that until the special small quantity generator regulations under paragraph (7)(B) go into effect, or until the fallback requirements of paragraph (7)(C) apply due to a failure a meet the statutory deadline for publishing those regulations, all hazardous waste from small quantity generators can be disposed of only in a facility which is permitted, licensed, or registered by a State to manage municipal or industrial solid waste. This codifies the existing regulatory requirement, excluding from subtitle C regulation only those small quantity generator wastes which are disposed of in approved facilities. There is no delay in the effective date of this provision since it continues the current requirement.

This language does not allow these waste to go to any municipal or industrial disposal facility, but only to sanitary landfills or other facilities that are approved by the State to handle such wastes. Under current law, these facilities should comply with the sanitary landfill criteria under subtitle D.

New section 3002(b)(5) requires the Agency to modify the regulations for storage facilities under section 3004 to allow small quantity generators to store their waste on-site in tanks or containers for up to 180 days without a permit. If the generator must ship or haul such waste over two hundred road miles, small quantity generators may store wastes on-site without a permit for up to 270 days, up to a total accumulation of 6,000 kilograms of hazardous waste.

Certain generators may be located long distances from the appropriate treatment storage, disposal or recycling facility, and the additional time for storage and quantity of waste that can be stored without having to receive a permit is not unreasonable. The longer storage period provided by paragraph (5) will allow the generator to consolidate wastes into larger loads for shipment off the premises. The period 270 days for remote generators was chosen primarily to accommodate schools and universities, which could accumulate wastes through an academic year for a single shipment. Of course, the more liberal storage requirements also mean that a single shipment from a single "small quantity generator" could total 6,000 kilograms, or 13,200 pounds—over 6 tons.

Paragraph (7)(A) of new section 3002(b) requires the Administrator to conduct a study, in cooperation with the States, of all hazardous waste generated by small quantity generators. The study, to be submitted to Congress by March 31, 1985, is to include a characterization of the number and type of small quantity generators, the quantity and characteristics of hazardous waste generated by such generators, State requirements applicable to such generators, the waste management practices used by individual generators and by industry classes to manage such wastes, the potential costs of modifying these practices, any impact such modifications will have on treatment and disposal facility capacity on a national scale, and the threat presented to human health and the environment and the employees of transporters and solid waste management facilities posed by such hazardous wastes or such management practices. The study is also to consider whether the containerization requirement of new section 3002(b)(2) should be extended to wastes which are identified as hazardous on the basis of toxicity or additional characteristics which may be promulgated by the Agency. The Administrator may require from such generators any information as may be necessary to conduct the study. This statement simply clarifies that the authorities of section 3007 are available to the Administrator in conducting the study and developing regulations under this subsection.

This study is already underway. If, however, it proves difficult to complete by March 31, 1985, this should not be allowed to delay the promulgation of regulations by the statutory deadline. More than 20 States presently regulate hazardous wastes excluded from subtitle C regulations under the small quantity generator definition. The experience of these States should be a major focus of this study.

The basic standard of subtitle C is the protection of human health and the environment. While the exposure of some individuals to hazardous waste from small quantity generators occurs in a primarily occupational setting, protection of their health is still the object of subtitle C regulation. The provision directs the Agency in

conducting the study and preparing regu
eration to the need to protect such emplo

New section 3002(b)(7)(B) requires the
than March 31, 1986, to promulgate ad
sections 3002, 3003, 3004, and 3005 for ha
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lished by paragraphs (1) through (5) of this

Many small quantity generators may be
may be adversely affected if the full set of subtitle C regulations are required. These quantities of wastes from smaller individual generators may cause potential harm if they are improperly managed. Given these considerations, the Agency should determine whether requirements for small quantity generators can be varied from those applicable to other generators while assuring protection of human health and the environment. In particular, the Administrator should examine whether, because of the smaller amount of waste involved, it is possible to simplify, reduce the frequency of, or eliminate the existing reporting and record keeping requirements and still provide adequate protection of human health and the environment. Distinctions may be made from requirements for larger generators, and among classes of small quantity generators or of wastes produced by them.

At the time the Agency promulgates standards for small quantity generators under this new subsection, notification would not be required under section 3010(a) because the Agency is not listing or identifying a hazardous waste under section 3001. However, in developing such standards, the Agency may, of course, use its authorities under section 3010 or 3002 to require small quantity generators to notify the Agency or obtain identification numbers if the Agency believes such requirements are necessary to protect human health and the environment.

The provision directs the Administrator in developing revised requirements for small quantity generators to consider State requirements applicable to small quantity generators. In the event the requirements developed by the Agency are different than those State requirements, the Administration must explain the basis for those differences. The purpose of this provision is to assure that the Agency fully considers the States' experience with small quantity generators in developing revised Federal regulations under paragraph (7)(B). Thus, where States have adopted alternative regulatory approaches and articulated a rationale for their requirements, it is appropriate for the Agency both to evaluate such approaches and explain its decision to impose different requirements in Federal regulations. On the other hand, if States have simply adopted EPA's existing small quantity generator regulations (or its 1978 proposal) by reference, it is not necessary to exhaustively analyze State requirements or to explain or to justify differences between State and Federal requirements.

While paragraph (7)(B) allows standards for waste from small quantity generators to vary from those for other generators' waste, some minimum requirements are specified for small quantity generator wastes. The notice requirement of paragraph (5) is [illegible]

mum, as is the requirement for suitable containers under paragraph (2). In addition, standards for small quantity generators must also provide that all treatment, storage, and disposal of hazardous waste generated by small quantity generators must be at a facility with a permit under section 3005. This includes both facilities that have a subtitle C permit issued by either EPA or an authorized State or facilities with interim status, since interim status facilities are deemed to have a permit under the language of section 3005. Paragraph (7)(B), however, authorizes the Administrator to establish a level of total generation of waste by a generator, not to exceed 100 kilograms per month of hazardous waste, which the generator would be allowed to continue to manage at a facility which is permitted, licensed, or registered by a State to handle such waste (i.e., a subtitle D facility), if the Administrator determines that such practice will be adequate to protect human health and the environment for that quantity of waste. The Administrator may distinguish among classes or categories of wastes in establishing that level. Any use of this authority should be on the basis of the study of small quantity generator wastes: a 100 kilogram per month cutoff for this requirement should not become a general use. Along with the requirement that small quantity generator wastes go to a subtitle C-permitted facility, the Agency must promulgate whatever additions to the manifest requirement are necessary to enforce the adequate disposal facility requirement.

In the event the Administrator does not promulgate revised small quantity generator requirements by March 31, 1986, new section 3002(b)(7)(C) provides that three requirements (in addition to those set forth in paragraph (1) and (2) and (2)(A)) will automatically go into effect. First, under subparagraph (C)(1), effective March 31, 1986, all small quantity generator waste from a generator producing more than 100 kilograms in any month must be treated, stored, or disposed of at facilities with permits under section 3005. Again, this phrase encompasses not only facilities which have obtained individual permits from EPA for from an authorized State, but also those with interim status.

Second, also effective March 31, 1986, generators subject to subparagraph (C)(i) must begin filing manifest exception reports, although only twice a year. These reports should be filed with EPA in non-authorized States and with the appropriate State agency in authorized States. Similarly, the contents of the reports should be governed by Federal law in unauthorized States and State law in authorized States.

Finally, the generator must begin retaining a copy of the manifest form which has been signed by the designated facility. Consistent with EPA regulations, this copy must be kept for at least three years from the date the waste shipment was accepted by the initial transporter.

The Administrator is expected to promulgate small quantity generator regulations under paragraph (7)(B) by March 31, 1986. The Agency should seek whatever resources are necessary to allow it to complete this task and the others established by this legislation. After such regulations are promulgated as required by March 31, 1986, the requirements of paragraph (1) will remain in effect in authorized States as a Federal requirement until such time as the

States adopt regulations equivalent to EPA's and those regulations are approved by EPA under section 3006(b). Similarly, if the Administrator fails to meet the March 31, 1986, deadline and the requirements of paragraph (7)(C) go into effect automatically, the requirements of paragraph (1) and this subparagraph shall remain in effect in each authorized State until such time as the State issues regulations equivalent to those ultimately developed by the Administrator under paragraph (7)(B) and those State regulations are authorized by EPA under section 3006(b). The requirements of paragraph (7)(C) are not an indication of what is adequate to protect human health and the environment under paragraph (7)(B). Rather they are requirements of a minimum nature intended to provide some protection on an interim basis until the paragraph (7)(B) regulations are promulgated.

The first new requirements of new section 3002(b) come into effect 270 days after enactment. This period prior to implementation is necessary to assure sufficient time for small quantity generators to become aware of and prepare for their responsibilities under this provision.

To this end, under paragraph (7)(B) the Administrator is also required to undertake activities to inform and educate small quantity generators of their responsibilities. Since many small quantity generators are small businesses, they may not be aware of their legal responsibilities unless the Agency makes an effort to inform them. Unless small quantity generators are advised of their responsibility, many of them will not comply with the rules. Thus, the Agency is required to inform them of their responsibilities, to the extent possible, to help assure compliance. In doing so, the Agency should continue working closely with the appropriate trade associations and trade press to inform small quantity generators. In addition, the Agency may also find it helpful to hold public meetings, seminars or workshops as another means to advise small quantity generators of their responsibilities.

LAND DISPOSAL LIMITATIONS

This section amends section 3004 of the Act and establishes a program to reduce significantly current dependence on land disposal as a waste management practice by prohibiting the land disposal of certain hazardous wastes. This program is based upon a finding that land disposal in general is the least desirable form of waste management because of the problems associated with assuring long-term containment of hazardous wastes. Therefore, in order to avoid substantial risk to human health and the environment, reliance on land disposal should be minimized and land disposal of hazardous wastes, particularly in landfills and surface impoundments, should be the least favored method for managing hazardous waste. Where treatment and recovery options are or will become available, there is no reason to accept the residual risk associated with land disposal facilities, even those meeting state-of-the-art standards.

Based upon these findings, new section 3004(b) directs the Administrator to promulgate regulations prohibiting the land disposal of hazardous wastes, except for [illegible]

method combinations that the Administrator determines will be protective of human health and the environment. The section imposes on the Administrator a stringent standard for determining that the continued land disposal of certain wastes is advisable. The presumption will be against land disposal as a waste management technique.

A ban on one or more methods of land disposal for a specified waste does not necessarily mean that all methods of land disposal of that waste must be prohibited. For example, a particular hazardous waste might be prohibited from disposal in a surface impoundment or landfill but not from disposal in an injection well. Similarly, land treatment may be an acceptable disposal method for those hazardous wastes which can be biodegraded or transformed directly by the land treatment process or, if hazardous constituents remain after land treatment, where the hazardous constituents can be immobilized.

This scheme requires a two-step assessment. The first step involves an examination of the inherent characteristics of a waste. During this step, the Administrator shall consider the persistence, toxicity, mobility, and propensity to bioaccumulate of a particular hazardous waste or toxic constituents in the waste and the potential effect of the waste on the integrity of containment mechanisms (such as clay or synthetic liners or the fabric of an injection well or an injection zone). If a waste contains significant concentrations of one or more hazardous constituents that are highly toxic, highly mobile, or have a strong propensity to bioaccumulate, step one of the assessment results in a presumption that land disposal of that specific waste will be prohibited.

For each waste, these characteristics could be reviewed separately or in combination. For example, a particular waste or constituent may be so extremely toxic that the waste is a candidate for a ban on that basis alone. Another waste may be appropriate for a ban based on a combination of factors, for example because it is highly toxic and mobile. Also, a waste may not be mobile or toxic itself but could render other wastes more toxic or mobile, thus it may be appropriate to ban such a waste.

The Administrator shall also consider concentrations of waste constituents when reviewing a particular waste type. The concentration levels that are "significant" will, of course, differ for various constituents. The Administrator may establish "concentration limits" for waste constituents and then ban the land disposal of wastes which contain these constituents in excess of the stated concentration limits.

Step two of the assessment involves a consideration of wastes identified in step one in combination with the various land disposal technologies. A presumption for prohibition of a waste made in step one may be overcome with respect to a particular method of land disposal if the Administrator determines that the particular method of land disposal of such waste will be protective of human health and the environment. This determination may be made if the Administration finds, to a reasonable degree of certainty, that no migration of the highly mobile, highly toxic, or highly bioaccumulative constituents will occur from the disposal unit or injection zone, for as long as the waste remains hazardous.

Interested members of the regulated community may demonstrate that a method of land disposal will be protective of human health and the environment because there will be no migration for as long as the waste remains hazardous. The requirement for an application by an "interested person" is intended to place the burden on the applicant or industry to prove that a specified waste can be safely contained in a particular type of individual disposal unit or injection zone. This demonstration could be made either by an individual applicant for a particular facility, or alternatively, it could be made for a class of facilities with like containment mechanisms and natural hydrogeological conditions. Such a demonstration could be made by a State with an approved underground injection control program, for injection wells under such program which meet the test of new section 3004(b)(2). This is a limited variance, requiring the applicant to sustain the burden of meeting this standard without the use of artificial barriers such as liners. Artificial barriers cannot provide the assurances necessary to meet the standard.

Protection of human health and the environment requires a demonstration that the disposal practice in question provide a "reasonable degree of certainty" that the waste can not escape to cause damage to human health of the environment. Wastes chemically decompose in a land disposal facility, although often this decomposition occurs very slowly stretching over centuries. The Administrator is required to find that the nature of the facility and the waste will assure that migration of the wastes will not occur while the wastes still retain their hazardous characteristics in such a way that would present any threat to human health and the environment. Absent such a finding the waste in question is to be banned from that type of disposal. In determining appropriate confinement from which migration shall not be allowed to occur, the terms disposal unit or injection zones should be construed not in terms of the property ownership but in terms of the overall environmental integrity of the disposal practice, keeping in mind, in particular, the potential for contamination of groundwater or surface water resources. Injection of hazardous wastes into deep wells allow dispersion of these wastes in a defined strata deep beneath the surface in a pattern totally without regard to the land ownership of the surface above. The disposal practice must be viewed in terms of its environmental and human health consequences and assure that, to a reasonable degree of certainty, no migration of hazardous constituents can occur for as long as the wastes remain hazardous. The phrase "reasonable degree of certainty" is intended to discount only the unpredictable future events. Certain geologic events such as earthquakes and floods, the likelihood of which can be predicted, should be considered by the Administrator when determining if migration will occur.

If the Agency reviews a particular waste and finds that it does not meet the step one criteria, or if EPA determines that a prohibition is not warranted for certain methods of land disposal, it must publish the basis for that determination in the Federal Register. Thus, each time the Agency finds that a waste should not be prohibited from some or all methods of land disposal, it must publish

an explanation of why those methods of land disposal are protective of human health and the environment.

These are several key terms used in the step one standard for prohibiting wastes. These terms are "significant concentrations of hazardous constituents," "highly toxic," "highly mobile," and "a strong propensity to bioaccumulate." Because of their highly technical nature, definition of these terms is left to the Agency. However, the word "highly" or "strong" should not be read to be unduly restrictive. Land disposal is not appropriate for many wastes, particularly wastes containing hazardous constituents significantly in excess of existing ambient standards. The Agency may set up a ranking system for assigning priorities to wastes based on these characteristics and then determine the appropriate cut-off point for determining which wastes are candidates for prohibition. Alternatively, EPA could develop a set of characteristic tests for toxicity, mobility, and propensity to bioaccumulate, similar to the characteristic tests now used to determine whether a waste is hazardous. These characteristic tests would be used for determining which wastes are candidates for land disposal prohibitions.

A key term for step two, "injection zone" has an existing usage in the underground injection control program under the Safe Drinking Water Act. Its meaning here is intended to be same as defined in 40 CFR Part 146.3.

Treatment standards

Treatment of hazardous wastes will sometimes result in residuals that must be land disposed. Therefore, in combination with promulgation of rules prohibiting one or more methods of land disposal of a hazardous waste, the Administrator is directed to promulgate regulations establishing what would essentially be "pretreatment standards" for hazardous wastes prior to allowing land disposal. These pretreatment standards are essential to implementing a successful program of land disposal prohibitions.

For example, for a highly mobile waste, the Administrator could allow land disposal if the waste were stabilized so as to reduce its mobility. This type of standard could be expressed in various ways. It could be stated as a measure of the reduced mobility that must be achieved, or as the type of pretreatment that must be undertaken prior to land disposal, or as a maximum concentration of the waste constituents which contribute to the waste's mobility. In the latter case, this determination would be made in conjunction with the determination of significant concentrations in step one.

A requirement for treatment of hazardous constituents under other statutes is another factor that may be considered. For example, the Administrator should impose, as a condition of land disposal, a treatment requirement that is consistent with categorical pretreatment standards required pursuant to the Clean Water Act. Increased regulation under the Solid Waste Disposal Act should complement and reciprocally re-enforce regulations under the Clean Water and Clean Air Acts. It makes little sense to improve or accelerate regulations under these statutes only to have environmental goals frustrated by loopholes allowing less stringent treatment under the Solid Waste Disposal Act.

There are certain hazardous wastes with constituents (e.g., some heavy metals) that are highly toxic or bioaccumulative which cannot be transformed to a less hazardous chemical form through treatment. In these cases it would be preferable to recover these constituents. Where recovery is not technologically feasible, however, such wastes should be treated using the best available treatment technologies (e.g., stabilization or fixation) to immobilize the highly toxic or bioaccumulative constituents prior to land disposal.

The dilution of wastes by the addition of other hazardous wastes or any other materials during waste handling, transportation, treatment, or storage is not an acceptable method of treatment to reduce the concentration of hazardous constituents. Only dilution which occurs as a normal part of the process that results in the waste can be taken into account in establishing concentration levels.

Schedule

Paragraphs (4), (5), and (6) of new section 3004(b) contain schedules for the three phases of the program for making determinations as to which wastes to prohibit from which land disposal methods. The Agency has stated in hearings that it plans initially to review dioxin-containing hazardous wastes and spent solvent hazardous wastes numbered F001, F002, F003, F004, and F005 in regulations promulgated pursuant to section 3001 (40 C.F.R. 261.31). Therefore, these wastes have been selected to be reviewed first. The Agency is directed to determine by July 1, 1985, if prohibitions of one or more methods of land disposal of these wastes is appropriate.

Paragraph (5) contains a list of hazardous wastes the Administrator must review, within 32 months of enactment, and consider for land disposal prohibition. These hazardous wastes and specified concentration levels were selected primarily because the State of California has conducted a rulemaking procedure and begun implementing restrictions on these wastes. The specified concentration levels—10,000 times the Interim Primary Drinking Water Standards—are a conservative starting point for the analysis. These wastes at these concentrations clearly meet the "highly toxic" standard. The specified concentrations are not intended to be binding on the Agency. Indeed, the Administrator may substitute more stringent concentration levels for the levels specified in paragraph (5).

The Administrator may, in reviewing particular wastes on this list, determine that some subset of a listed waste such as halogenated organic compounds should be prohibited from certain forms of land disposal, while other examples of a generally listed category are appropriate for land disposal.

The schedule for the third phase of the program is contained in paragraph (6). This paragraph directs the Administrator to publish within 12 months of enactment a schedule for reviewing all hazardous wastes listed under section 3001. For the purposes of section 7002, the issuance of the schedule is a mandatory duty. This schedule must provide for review and determination of whether or not to prohibit land disposal of one-third of all listed wastes within 32 months of enactment, two-thirds of all listed wastes within 47

months of enactment, and all listed wastes within 52 months of enactment. Even if the schedule is issued late, these deadlines are binding. The wastes already covered in paragraph (4) shall not be included as part of this schedule. Any new wastes listed after enactment must be reviewed and a determination of whether or not to subject them to a land disposal prohibition must be made within 32 months after their listing. In addition, within 52 months of enactment, the Administrator must determine whether or not to prohibit the land disposal of hazardous wastes identified by any toxicity characteristic. This includes the existing extraction procedure toxicity characteristic or revisions to its as well as any additional toxicity characteristics that may be developed by the Agency prior to that time, including any characteristics developed under the amendments contained elsewhere in this bill.

In making these determinations, the Agency should not start from the point of having to justify the imposition of a land disposal restriction. The presumption is that land disposal is the least preferred management method. This makes the Agency's decision far simpler than if the Act were neutral as to different management options. The Agency should not start from an assumption that it must begin a new research effort or regulatory analysis before any determinations can be made. There is an information base at the present time to begin to make the phased determinations required by this section. This includes the information from the years of work EPA and others have devoted to developing a degree of hazard system and the extensive analysis on land disposal, including research and development on the effects of wastes on different liners and the behavior of wastes when placed in the ground, as well as the work done by the State of California. The Agency should also utilize its data on incidents of groundwater contamination from hazardous wastes, and wastes found in sites on the National Priority List.

Effective date of prohibitions

A prohibition of one or more methods of land disposal of a specified hazardous waste shall be effective immedintely upon promulgation unless the Administrator determines that there does not exist adequate alternative treatment, recovery or disposal capacity which is protective of human health and the environment. The prohibitions should go into effect immediately upon promulgation whenever and wherever possible. The Agency should expend every effort to assure that unsafe practices are terminated as quickly as possible. The purpose of new section 3004(b)(3) is to assure that sufficient capacity for alternative treatment, recovery or disposal is available to accommodate the wastes affected by a prohibition. This provision allows the Administrator to grant a general two-year extension of the prohibition deadline if necessary to assure the availability of alternative treatment, recovery or disposal capacity. Additionally, the alternative capacity must be determined to be protective of human health and the environment. The availability of adequate storage capacity (either in or on the land or in tanks and containers) is not an acceptable alternative capacity for the purpose of determining whether to establish an early effective date. Rather, alternative capacity must be for the treatment, recovery

(including legitimate use, re-use, and recycling), or disposal of the waste.

Claims of inadequate capacity can become a "self-fulfilling prophecy" if the regulated community believes that land disposal deadlines will normally be extended and that immediate investment in development of alternative capacity will be premature and economically non-productive. Extensions based on capacity shortfalls should be infrequently granted. Given consistent regulatory and economic incentives, adequate capacity will be quickly developed.

The available capacity determination is to be done on a national basis. Otherwise, different regions of the country would be receiving varying degrees of protection and could be used as dumping grounds for the rest of the country. In addition to creating "pollution havens", an attempt to regionalize capacity considerations would place industries within regions subject to the prohibition at a competitive disadvantage. Furthermore, regionalization would generate the kind of self-fulfilling capacity shortfalls discussed above. A nationwide availability of capacity approach might necessitate the transportation of wastes to treatment facilities over significant distances; however, this kind of waste transportation is occurring today. With the elimination of cheap, unsafe land disposal alternatives, treatment capacity and inexpensive "milk run" style collection services will develop to meet regional demands.

In order to encourage the development and construction of alternative capacity, the effective date of prohibitions should not extend beyond two years except in narrowly defined circumstances. Therefore, extensions beyond an effective date established by the Administrator may only be granted on a case-by-case basis for one year and renewable for no more than one additional year (i.e., a maximum of two years total), where an applicant demonstrates to the Administrator that there is a binding contractual commitment to construct or otherwise provide such alternative capacity but due to circumstances beyond the control of the applicant, such alternative capacity cannot reasonably be made available by the effective date. This provision is intended only to accommodate those making a good faith effort to meet the effective date but who are unable to do so due to circumstances beyond their control.

The Administrator should use this discretion sparingly and only in cases of an extraordinary nature. It is not intended that a generating industry, for example, could be allowed to continue to have its wastes disposed of in an otherwise prohibited manner solely by binding itself to using a facility which has not been constructed. Thus, when an "alternate technology" facility is operating at less than maximum capacity, the Administrator should determine that alternative capacity is available whether or not an individual company applying for an extension is constructing its own alternative facility. In such cases, the company should be required to use the available alternative capacity until such time as its own capacity has been constructed and permitted.

Additional conditions

In order to assure timely and consistent application of the program of land disposal limitations, some additional conditions have

been included in paragraphs (8) and (9) of new section 3004(b). New section 3004(b)(8)(A) addresses the concern that hazardous wastes placed in treatment or storage surface impoundments comply with at least minimum standards to protect human health and the environment. Under this provision, a hazardous waste prohibited from disposal in a surface impoundment may be treated or stored in a surface impoundment only if the impoundment has at least one liner. (Because of new section 3004(f), this principally deals with existing impoundments.) The requirements of this section are a minimum and do not necessarily meet the Agency's responsibility to assure that the storage or treatment of the prohibited hazardous waste is protective of human health and the environment. Specifically, the reference to "at least one liner" in this section is intended to mean a liner of the type called for in 40 CFR 264. The Agency has defined a liner to mean any barrier which restricts the migration of a waste from the disposal zone. A loose interpretation of this language could mean that *in situ*, highly permeable soils could be interpreted to constitute a "liner" because even these soils would "restrict" the movement of wastes into groundwater. Such an interpretation, however, is unacceptable. The intent is to require at least a single liner either of a synthetic or natural material with a very low permeability such as that called for in the July 26, 1982, regulations. The Administrator may impose additional requirements on such impoundments as may be necessary to eliminate or minimize the potential for waste migration.

Under new section 3004(b)(8)(B) placement of hazardous wastes in a surface impoundment or waste pile for more than six months is to be regulated as disposal, whether the ostensible purpose is for treatment and storage or for disposal. Many surface impoundments and waste piles have been designated as long-term "storage" rather than "disposal" facilities, although they have indistinguishable environmental consequences. Thus, in new section 3004(b)(8), only short-term storage of up to six months or treatment performed within that same time period avoids being defined as disposal. Hazardous wastes may not be circulated during a six month period in a surface impoundment facility where the liner may become contaminated with the waste. In such cases the Agency shall require the facility operator to remove that contaminated portion of the liner within six months or discontinue use of the surface impoundment for storage or treatment.

As an overall strategy under paragraph (8), the Agency should encourage operators of unlined facilities to drain and retrofit these facilities as quickly as economically feasible. This paragraph is intended to prevent the use of unlined facilities or facilities whose liners may become contaminated with hazardous wastes from remaining in operation and receiving such wastes.

Paragraph (9) contains certain restrictions that apply if the Administrator fails to promulgate regulations regarding wastes referred to in paragraphs (4) (dioxin-containing hazardous wastes and spent solvent hazardous wastes numbered F001, F002, F003, F004, and F005) and (5) (the list of wastes adopted from the California program). If the Administrator fails to determine whether a land disposal prohibition is warranted for these wastes by the specified deadline (by July 1, 1985, for paragraph (4) and by the date thirty-

two months from the date of enactment for paragraph (5)), then beginning not later than six months after these deadlines, such wastes may be disposed of in a landfill or a surface impoundment only if the unit is in compliance with the requirements of section 3004(f)(1), as added by these amendments. That section requires that new or expanded landfills and surface impoundments are at least double-lined and have a leachate collection system above (in the case of landfills) and between such liners or that the facility owner or operator demonstrates that alternative design and operating practices, together with locational characteristics, will prevent the migration of hazardous constituents into ground-water or surface water at least as effectively as such liners and leachate collection systems would at the same location. In addition, such units must be monitoring groundwater, consistent with the provisions of new section 3004(1). These requirements remain in effect until such time as the Administrator makes a determination that a prohibition of land disposal of these wastes is not warranted. This provision is intended to provide temporary protection against the migration of particularly dangerous wastes. However, it should not be considered a substitute for the land disposal prohibitions intended by this section. The Agency is expected and required to meet its statutory deadlines.

The requirements of paragraph (9) do not apply to contaminated soil and debris from the cleanup or removal of any release of a hazardous substance, even if that soil or debris would otherwise fall within one of the categories of waste referred to in paragraphs (4) and (5). This exception was included to assure that the clean-up of contaminated sites under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (Public Law 96-510) and removal and remedial actions and clean-ups undertaken pursuant to orders issued under section 7003 of the Act and section 106 of CERCLA could proceed in an orderly fashion.

A question was raised during the Committee's consideration of this bill as to whether the restrictions on land disposal contained in this section are intended to apply to uranium or thorium tailings subject to regulation under the "Uranium Mill Tailings Radiation Control Act of 1978" (UMTRCA), as amended. This section is not intended to affect the statutory program that has been established by Congress in UMTRCA, as amended. Under section 1004(27) of the Solid Waste Disposal Act, "solid waste" (the definition on which "hazardous waste" is based) excludes "source, special nuclear, or byproduct material as defined by the Atomic Energy Act". Section 11e of the Atomic Energy Act, as amended, defines "byproduct material" to include uranium and thorium tailings. Accordingly, uranium and thorium tailings are not hazardous wastes subject to the restrictions on land disposal contained in new section 3004(b). Requirements under section 81 and 275 of the Atomic Energy Act are to assure the protection of human health and the environment, and need not comply with the special provisions of new section 3004(b) of the Solid Waste Disposal Act.

Liquids in landfills

A new subsection (c) is being added to section 3004 to require the Agency to promulgate final regulations [illegible]

al of liquid hazardous waste in landfills. The Agency currently regulates liquid waste in two forms: (1) bulk liquids and (2) containerized liquids (e.g., 55 gal drums containing liquids). Containerized liquids are of particular concern because metal drums ultimately, at some unpredictable time, decay. If the drums collapse or leak after the post-closure care period, significant uncontrolled releases and subsidence of the cover could occur at a time when the leachate collection and removal system is no longer operated, the ground water may no longer be routinely monitored, and the final cover is no longer maintained. Bulk liquid hazardous wastes in landfills are also of concern because wastes in liquid form are relatively mobile, landfill liners can be damaged during placement of wastes, and hydrostatic pressures increase the likelihood of leachate escaping. Alternative technologies are available to deliquify wastes prior to disposal in a landfill. Therefore, the Agency is directed to prohibit bulk liquid hazardous wastes and minimize containerized liquids in landfills.

Liquid wastes means both "liquids" in the conventional sense of the term (i.e., the state of matter in which a substance exhibits a characteristic readiness to flow, little or no tendency to disperse, and relatively high incompressibility) and the free flowing or liquid portion of sludges that readily separates under gravitational forces. The latter meaning EPA adequately refers to as "free liquids" which is defined in 40 CFR 260.10 as "liquids which readily separate from the solid portion of a waste under ambient temperature and pressure." The current hazardous waste landfill regulations promulgated by EPA use the term "free-standing liquid" as well as "free liquids" which EPA describes in the preamble (47 FR 12317, March 22, 1982) as "those (liquids) that form distinct pools or layers within a container." Thus, "free-standing liquid" is a subset of "liquid" and "free liquids" and, therefore, is covered by these two terms.

The Agency is currently evaluating two test protocols it is developing to define the term "free liquids": a paint filter test and an inclined plane test. Because of the technical aspects of this, the Agency is authorized, in promulgating its final regulation under this subsection, to define what is meant by liquids and free liquids, and to specify any test protocols the Agency deems appropriate. The term "minimize" is used in the amendment to give the Agency the flexibility to develop a test and rule that restricts or limits liquid hazardous waste or free liquids, yet is practical both to achieve and to measure for compliance determinations (as waste is received and disposed of during inspections). This flexibility is not intended to give authority to allow significant quantities of liquid hazardous wastes to be disposed of in landfills. Rather, it is intended to allow the Agency to deal from a practical standpoint with very small quantities of liquid wastes and with difficult wastes (e.g., gelatinous wastes and sludges with high moisture content but little free flowing moisture under gravitational forces).

As discussed previously, the goal of minimizing liquids is to reduce the potential migration and leachability of hazardous constituents, and the potential for subsidence. To this end, the preferred treatment methods are decanting or deliquifying (via centrifuge, vacuum drums or conveyor, or filter presses, etc.), and mixing

with agents (e.g., bentonites and chemical reagents) that result in a material that provides structural stability as well as removal of "free liquids." Unacceptable mixing agents include sawdust, municipal waste, shredded paper, and other absorbent materials that biodegrade, and thereby collapse and release free liquids. Also unacceptable are absorbent materials that have sponge-like behavior, i.e., that absorb liquids but readily release them again under pressure (as may be expected in a landfill), such as sawdust, fly ash, shredded paper, and certain vermiculites. Such materials also tend to produce free-standing liquids in containers during shipment. The Agency is expected to develop and publish criteria distinguishing between acceptable and unacceptable mixing agents or to test and publish a list rating mixing agents and distinguishing between acceptable and unacceptable agents, based on the above guidance. These amendment require that free liquids be minimized by means other than the addition of absorbent material, where technologically feasible.

The Administrator may continue to allow the disposal in landfills of small containers of hazardous waste placed in overpacked drums according to EPA specifications issued on November 17, 1981. This method of disposal--generally known as disposal by lab pack--is commonly used by laboratories which produce small amounts of many different wastes. These wastes are collected in small containers ranging in size from one ampule to five-gallon containers. This inside containers are surrounded by a sufficient quantity of compatible absorbent material, such as vermiculite, and overpacked in large drums (usually 55 gallon) prior to disposal in a secure landfill. EPA regulations require that the inside containers be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by, the waste held therein. In addition, the placement of incompatible wastes in the same outside container is prohibited. The regulations also ban the landfill disposal of reactive wastes in lab packs unless the waste is rendered non-reactive prior to packaging.

Finally, language is included in these amendments to assure that the current regulations remain in effect and are not temporarily suspended pending further revisions or reviews.

Ban on dust suppression

A new subsection (d) is added to section 3004 to prohibit the use of contaminated waste or used oil or other material for dust suppression or road treatment. It was such use of oil mixed with dioxin that created the serious situation at Times Beach, Missouri. These amendments are designed to prevent the recurrence of such situations. Such use of hazardous waste contaminated materials is flatly banned, as a matter of Federal law.

Ban on certain wells

A new subsection (e) is added to section 3004 to prohibit the disposal of hazardous waste by underground injection into or above any formation which contains, within one-half mile of the well used for such underground injection, an underground source of drinking water. The one-half mile distance refers to the distance between the aquifer and the injection well and the distance is

tween the injection well and a withdrawal source. An "underground source of drinking water" means actual drinking water sources as well as high quality aquifers such as those containing water with less than 10,000 milligrams per liter of dissolved solids.

Liners and leachate collection and removal systems at interim status facilities

The current hazardous waste land disposal regulations require liners at landfills, surface impoundments, and waste piles, and leachate collection and removal systems at landfills and waste piles after permitting, unless exempted or waived. The bill amends section 3005(e) to require interim status facilities to install liners and leachate collection and removal systems prior to permitting at each new unit, each replacement unit, and at lateral expansions. Waste pile units must meet the liner and leachate collection system requirements of current regulations for new facilities. Landfill and surface impoundment units must meet the requirements of new section 3004(f). New units, replacement units, and lateral expansions are defined for purposes of the requirements of this amendment as those units or lateral expansions within the waste management area of a facility defined in the Part A permit application which first receive waste after enactment of these amendments. The requirements then apply to all such facilities which will receive waste after the date six months after enactment of the Solid Waste Disposal Act Amendments of 1983. Landfill trenches or cells, impoundments, or waste piles not operational by the date of enactment are required to meet standards for new units (including the new standards for landfills and impoundments) if the units will continue to receive hazardous waste six months after enactment. After that date, waste may still be received at units in existence at the time of enactment, but all new units, replacement units, and lateral expansions must have the required liner and leachate collection system to receive wastes after that date.

A replacement unit includes a surface impoundment that is taken out of service and emptied by removing all or substantially all the liquid and solid waste in it. Before this impoundment may be reused, it must be lined or otherwise designed according the new minimum technological requirements mandated in this bill. Similarly, a replacement unit can be a waste pile that is taken out of service and all or substantially all waste is removed from it. Before the pile may be reused, it must meet the liner and other design requirements of EPA's permit regulations.

Since the liner and leachate collection and removal system (or the possible demonstration of equivalent protection) may be implemented outside the permit process for interim status facilities, of the rules may not be adequately complied with. The Agency should not require retrofitting at the time of first permitting for units that were lined during interim status provided the liner and leachate collection and removal system were in compliance with the law and the Agency's regulations and guidance and were installed in good faith. (This does not preclude the Agency from requiring installation of new liners at some later time if, for example, the unit is in violation of the ground-water protection standard or liner requirements are strengthened.) Anyone who follows the EPA technical guidance documents for surface impoundments, landfills, or waste piles is presumed to have acted in good faith. Retrofit should be required in cases of fraud or gross noncompliance. Examples of fraud or gross noncompliance includes cases where: a liner was not installed or a liner not in compliance with EPA guidance document specifications was installed; a leachate collection and removal system was not installed or was not designed according to the formula presented in the technical guidance documents to meet the 30 cm. (one foot) leachate depth requirement; or there is grossly inadequate documentation of any major design feature or construction activity.

The owner or operator of a new unit or lateral expansion is required to provide sixty days notice to the Administrator before the unit receives waste, so the unit can be inspected by EPA to assure compliance with the requirements of this subsection or so that EPA or the State can require full permitting before operation. Failure to provide EPA with the requisite notice will result in the elimination of the "good faith" protections of this provision.

The amendment to section 3005(e) of the Act requires liners, leachate collection and removal systems or, in the case of waste piles, a demonstration of equivalent protection. The reference to "equivalent protection" is to authorize the application of variances to the liner and leachate collection system that exist in current EPA regulations (other than the "existing portions" variance), to these units. For landfills and surface impoundments, new section 3004(f) allows the demonstration of the adequacy of alternative practices. However, waivers to the liner and leachate collection system requirements at new units, replacement units, and lateral expansions of all interim status facilities cannot be self implementing, i.e., there must be a mechanism for advance approval by EPA of a waiver demonstration. The Agency is directed to establish a mechanism for reviewing such demonstrations. No unlined new or replacement units or lateral expansions may take wastes after the date six months from the date of enactment unless they have an EPA-approved waiver.

It is recognized that EPA may revise the liner and leachate collection and removal system rules from time to time to increase protection for human health and the environment, and wording has been added to provide for this. Any such changes must apply equally to new units, replacement units, and lateral expansions at interim status facilities after the six month period and prior to permitting as well as after permitting.

Monitoring and corrective action

This amendment adds a new subsection (g) to section 3005 to correct a serious deficiency in land disposal facility regulations which allowed waste management units or entire facilities to escape monitoring and clean-up requirements simply by not accepting waste after January 2d, 1983. Reference to "units" as opposed to "facilities" is designed to assure that partial closures of facilities are subject to monitoring and clean-up requirements.

The new subsection applies the requirements for corrective action, groundwater monitoring, and unsaturated zone monitoring, now applicable to new facilities, to all [illegible]

poundments, land treatment facilties, or waste piles which received hazardous waste after July 26, 1982, the promulgation date of the land disposal regulations.

MINIMUM TECHNOLOGICAL REQUIREMENTS AND PERMIT LIFE

The reported bill adds a new section 3004(f) to the Solid Waste Disposal Act, establishing minimum technological requirements for landfills, surface impoundments, and incinerators. The purpose of this new subsection is to minimize the migration of hazardous wastes into the environment. Hazardous waste facility control and measurement technologies (including monitoring), as well as information on the capabilities and limitations of such technologies, are continually improving. This amendment requires the Administrator to revise the regulation under section 3001 from time to time as necessary to take into account those technological improvements. As information becomes available, the Agency is to expeditiously initiate rulemaking to amend or add to the treatment, storage, and disposal regulations.

Because of the necessity to minimize migration of hazardous waste, and the availability of particular technologies, the amendment establishes several minimum requirements for landfills, surface impoundments and incinerators.

Double liner requirement

Any landfill or surface impoundment permit issued after the enactment of these amendments for a new facility, or a new unit, replacement unit, or lateral expansion at an existing facility, must require the installation of two or more liners and a leachate collection system. In both landfills and surface impoundments, there must be a leachate collection system between the liners, operating in part as a leak detection system. In addition, a landfill must have a leachate collection system above the uppermost liner. Groundwater monitoring is also required for all landfills and surface impoundments, consistent with section 3004(f). This amendment is intended to correct the deficiency in the existing regulations allowing double liners and groundwater monitoring to be alternatives.

This requirement is applicable to each new landfill or surface impoundment (including each new landfill or surface impoundment unit at an existing facility), each replacement of an existing landfill or surface impoundment unit, and each lateral expansion of an existing landfill or surface impoundment unit, for which a completed application for a permit under section 3005(c) is received after the date of enactment of the Solid Waste Disposal Act Amendments of 1983. A completed application is what is known in the EPA regulations as a Part B application, that is found by the appropriate Regional Administrator or State to contain the applicable components of an application as identified in any Agency or State guidances, of acceptable quality for review.

This multiple-liner and groundwater monitoring requirement applies to all waste received after issuance of a permit to any such landfill or surface impoundment unit. This means all new landfills and surface impoundments, and new units, lateral expansions, or replacement units at existing landfills and surface impoundments

must have multi-liners and groundwater monitoring. (See section 3005(c) as amended for application to interim status facilities.) Existing units with wastes in place on the date of enactment of these amendments need not be retrofitted to continue to receive waste. Where all or substantially all waste is removed, the unit is a replacement unit.

This provision does not require that both liners be of synthetic material. Well-designed compacted natural materials of very low permeability may be adequate. The Agency must define in regulations the type of liners (e.g., natural, synthetic, or both) and the specifications or performance criteria for the design of the liners, leachate collection and removal systems, and groundwater monitoring systems. However, to avoid bringing the permitting process to a standstill until such time as EPA issues these new regulations, permitting of new or replacement landfill and surface impoundments units in accordance with this amendment (i.e. with the required double liners and leachate collection systems) can continue under the existing section 3004 specifications. The Agency should revise the regulations as quickly as possible to specifically require the double liners, leachate collection systems, and groundwater monitoring mandated by this amendment. However, until new regulations are promulgated, permits may be issued incorporating the double liner systems described in the existing regulations in conjunction with the existing groundwater monitoring program (not currently required for double-lined facilities). Permit applicants can refer to existing EPA guidance documents for specifications for acceptable double liner systems.

The requirements of this provision do not apply to injection wells, waste piles (which by regulatory definition are only used for storage), or land treatment units. Land treatment units utilize a different control strategy for managing hazardous wastes than surface impoundments and landfills, thus liners are not required for land treatment units.

Alternative design and operating practices

The amendment authorizes exceptions to the double liner and leachate collection system requirement (but not the groundwater monitoring requirement) only in those cases where the owner or operator can demonstrate to the satisfaction of the Administrator on a case-by-case basis for a particular landfill or surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into groundwater or surface water at least as effectively as the prescribed liners and leachate collection systems. The test for granting this exception is whether the owner or operator can demonstrate that at that specific site, the proposed alternative technology can prevent migration at least as effectively as would double liners and leachate protection. The burden is on the owner or operator to make such a case. Knowledge of the fate and transport of hazardous constituents into the environment is limited, and uncertainties of evidence in this regard must be resolved in favor of the application of the statutory double-liner requirement.

There are currently a relatively few facilities located throughout the country which, because of their unique hydrogeological [illegible]

tions and type of operation, may successfully make this demonstration. One other possible candidate for this exemption would be monofills, or landfills containing a single type of waste, as described in the preamble to EPA's July 26, 1982, land disposal regulations. The Agency is evaluating the feasibility of monofilling various wastes, including foundry wastes, and determining what minimum landfill requirements should apply. Nothing in this new subsection should be seen to interfere with this evaluation.

In making and evaluating demonstrations under this provision it is important to keep in mind that liners are a necessary component in a system designed to detect and collect leachate containing hazardous constituents. Demonstrations for an exception should not be based exclusively on a showing that an alternative to the double liner and leachate collection system in conjunction with the naturally occurring locational characteristics will assure containment equivalent to synthetic or other emplaced liners in conjunction with the naturally occurring locational characteristics, since long-term or permanent containment is not the main objective of the double liner-leachate collection system requirements.

Mining wastes

Also included in this amendment is a provision which authorizes the Administrator to promulgate an exception to the double liner-leachate collection system requirement for certain wastes generated by the mining industry. The 1980 amendments to the Solid Waste Disposal Act (section 3001(b)(3)(A)(ii)) deferred from coverage under subtitle C, solid wastes from the extraction, beneficiation and processing of ores and minerals including phosphate rock, and overburden from uranium mining, pending completion of the studies mandated under section 8002 (f) and (p). Those EPA studies have not been completed. When the studies are completed, the EPA is required to determine which of those wastes should be regulated under subtitle C.

Solid wastes from mining and mineral beneficiation and processing are primarily waste rock from the extraction process and crushed rock, commonly called tailings, produced from concentrating steps such as grinding, crushing, sorting, sizing, classification, washing, dewatering, amalgamation, gravity treatment, flotation, agglomeration and cyanidation. The 1980 amendments covered wastes from the initial stages of mineral processing, where concentrations of minerals of value are greatly increased through physical means, before applying secondary processes such as pyrometalurgical or electrolitic methods. Smelter slag might also be included. Massive volumes of this waste ore are produced annually at mining and mineral processing facilities—roughly estimated by the American Mining Congress (AMC) to be approximately 1.75 billion tons in a typical year, which is clearly significantly greater in volume than the solid waste generated by all other industries combined. These wastes were considered "special wastes" under the 1978 proposed regulations as being of large volume and relatively low hazard.

On an individual mine basis, past AMC estimates for a typical lead/zinc underground mine producing 50,000 tons of metal per year requires removal of as much as 5,000-6,000 tons per day of rock. That tonnage breaks down as follows: roughly 1,000 tons per day of development rock, which is the rock that has to be removed to reach the ore, and 4,000 to 5,000 tons of mineral bearing ore. Of that 4,000-5,000 tons of ore, 150 to 200 tons of mineral concentrate are produced. Because of such large volumes of waste and rock tailings, mine surface impoundments and landfills typically cover large areas close to the mine. These land disposal facilities, unlike those of other industries, often cannot be dredged, bulldozed or dug out of the earth, and cover very large areas where the corresponding natural features, such as boulders, trees, stumps, depressions, and elevations, cannot always be reasonably cleared or excavated in connection with disposal. Maintaining the integrity of a liner with the massive weight of typical mining waste would be extremely difficult. Consequently, lining such areas may be impractical in many cases.

If landfills and surface impoundments containing mining and mineral processing wastes are determined by the Administrator to be appropriate for regulation under subtitle C after conclusion of the studies mandated under section 8002 (f) and (p) of the Act, new section 3004(f) requires groundwater monitoring at the site and whatever other requirements are necessary for the landfill or impoundment to assure the protection of human health and the environment. The Administrator must determine, however, whether to modify the statutory double liner-leachate collection system requirement for such mining wastes, and if he determines that requirement is not necessary to protect human health and the environment, he may promulgate substitute requirements. The amendment, therefore, preserves the performance standards of subtitle C but provides the Agency with the flexibility it needs to determine the most appropriate approach to manage the particular hazardous waste at the site. The amendment does not preclude EPA from requiring double lining of landfills or surface impoundments for mining and mineral processing wastes in those cases where it is appropriate to do so.

In making a determination on whether or not an exception to the double liner requirement for mining waste is appropriate, EPA is to conside whether the modified requirements assure protection of human health and the environment. Practical or economic considerations can only be used to select among alternative requirements which assure protection of human health and the environment.

The mining waste modification authority of this amendment does not cover wastes specifically listed as hazardous wastes prior to the 1980 legislation because of their hazardous nature.

Incinerator requirements

New section 3004(f)(2) requires that all incinerators receiving permits after enactment of these amendments attain at least the destruction and removal efficiency required by the current regulations.

Incineration of hazardous waste must also be regulated in a way that minimizes migration of hazardous constituents into the environment, reflects the best available technology and thereby assures protection of human health and the environment. This is particu-

larly important given the prohibitions on land disposal required by this bill. It is likely that the volumes of wastes that will be incinerated will increase significantly as a result of these bans.

The performance standard of 99.99 percent destruction and removal, efficiency required by the current regulations represents a performance level that is achievable by virtually any modern commercial incinerator. In view of the inherent uncertainty associated with analysis of impacts on human health, it is necessary to statutorily establish such a standard as a minimum. Higher performance levels may be established if analysis suggests that such higher levels are necessary to provide protection for human health and the environment. Regulations must also be revised to reflect improvements in control or measurement technology.

Locational criteria

New section 3004(f) also requires the Administrator to promulgate criteria for the acceptable location of new and existing treatment, storage, and disposal facilities. A significant deficiency in the current land disposal regulations is the lack of hydrogeological locational standards. Existing standards are limited to provisions dealing with flood plains and fault zones. Studies recently conducted by the Agency have emphasized the importance of locational factors in determining the environmental performance of hazardous waste facilities. The broadened criteria should address such factors as proximity to groundwater or surface waters and, in particular, potential drinking water supplies (including sole source aquifers), wetlands, and population concentrations. These criteria are to establish whether locations are acceptable for existing facilities, as well as for new facilities.

Permit life

The bill amends section 3005(c) of the Act to require that any permit for a treatment, storage, or disposal facility be for a fixed term, not to exceed ten years in the case of land disposal facilities, incinerators, or other treatment facilities. This amendment was in response to a recent EPA proposal to amend its current regulations and issue permits for the life of the facility. With the advancing state of technology and the long projected useful life of many of these facilities, it is preferable to limit permit life to the minimum period consistent with the cost and administrative burden of issuing a permit. Ten years is the maximum acceptable duration for permits involving land disposal, incinerators, or evolving treatment technologies.

Limited permit duration will assure that facilities are periodically reviewed and requirements for them upgraded to reflect the current state of the art. The amendment to section 3005(c) also requires the permitting authority in any permit renewal to consider improvements in the state of control technology and measurement technology, as well as changes in applicable regulations. Such improvements and changes must be incorporated in the renewed permit.

In addition, any permit for a land disposal facility must be reviewed after five years. This review, while not involving the full procedures of a permit renewal, must be thorough and based in

part on inspections of the facility. The required review of a land disposal facility permit every five years is intended to assure that no facility is allowed to operate in a manner which does not meet the standards of EPA's (or the State's) most current applicable regulations, which is not consistent with improvements made in hazardous waste control and management approaches for such facilities made since issuance of the permit, or which does not adequately protect human health and the environment. In conducting such reviews and in deciding whether or not to modify the permit, the Agency (or the State) shall consider any changes that may have occurred in operation of the facility since the permit was issued, standards and requirements of current regulations under sections 3004 and 3005, advances in hazardous waste control practices and technology since permit issuance, and other information concerning the impact of the facility on human health and the environment. The Agency (or the State) shall modify the permit if examination of any of these factors indicates that such action is appropriate. Where the Agency (or the State) determines that a permit modification is required, the Agency (or the State) shall follow its current procedures for such modifications. Nothing in the law or this amendment precludes the Administrator from modifying any permit at any time during its term.

This provision also gives the Administrator, or the State if it has been authorized to issue permits, the authority to add permit terms and conditions beyond those mandated in regulations, if, in the judgment of the Administrator (or the State, if the State is issuing the permit), such terms and conditions are necessary to protect human health and the environment. This amendment gives the Agency the authority to address special cases and unique circumstances. The provision is designed to deal with factors or situations different from those addressed in the regulations. It can also be used to address areas already covered by the regulations in order to incorporate new or better technologies or other new requirements in permits, where EPA intends to add such technologies or requirements to the regulations but has not yet issued a final regulatory amendment. The permitting authority is not required to impose every condition suggested by commentators on proposed permits.

CONTINUING RELEASES AT PERMITTED FACILITIES

The reported bill adds to section 3004 of the Act a new subsection intended to assure that appropriate corrective action is taken to protect human health and the environment from any past, present or future release of hazardous waste from a permitted hazardous waste facility.

New subsection 3004(g) requires that corrective action be taken in response to all releases of hazardous waste (or constituents of hazardous waste) from any solid waste management unit at a treatment, storage, or disposal facility seeking a permit, regardless of when the waste was placed in the unit or when the release occurred. This requirement is effective immediately upon the enactment of the bill; the Administrator is directed to promulgate new standards implementing the requirement, but any permit issued

before the promulgation of regulations establishing those standards must require compliance with the statutory mandate for corrective action.

Corrective action is required whether or not the unit at which a release occurred is still in operation. The owner or operator of a hazardous waste management facility will not be allowed to escape the responsibility to take corrective action by closing a unit at which a release has occurred and limiting the permit application for the facility to other units at the site.

The requirement for corrective action is a continuing one, applying not just to releases that have occurred prior to permit issuance, but also to any releases that occur after permit issuance.

To assure corrective action is taken in response to releases of hazardous wastes or constituents from an inactive unit at a facility seeking or having received a permit, the Administrator will need to revise groundwater monitoring requirements to detect possible releases from all inactive units from which a release could occur at a facility. It will be necessary to determine background groundwater quality at a point unaffected by any waste management activities at the facility.

The requirement for corrective action applies not just to releases of hazardous wastes, but also to releases of hazardous constituents, including hazardous constituents from solid waste and hazardous constituents that are reaction by-products.

The corrective action must be completed as expeditiously as practicable, including, whenever practicable, prior to issuance of the permit. Completion of the corrective action is the best guarantee that human health and the environment will be fully protected. However, if the corrective action cannot be completed prior to issuance of the permit, the Administrator may issue the permit so long as the permit contains schedules of compliance for completion of the corrective action as expeditiously as practicable and the permit applicant has satisfactorily demonstrated both a financial ability and a commitment to complete the corrective action.

LISTING/DELISTING MODIFICATIONS

Section 3001 of the Solid Waste Disposal Act requires the Environmental Protection Agency to list and identify wastes that are to be managed in accordance with the hazardous waste provisions of the Act. Until a waste is so listed or identified, it is not subject to regulation as a hazardous waste under the Act, regardless of how harmful it may actually be. Once a waste has been listed as hazardous, a company may petition the Administrator to exempt from regulation ("delist") a specific waste from a particular facility because that waste is significantly different from the listed or identified waste and is not hazardous.

The listing, identification and regulation of hazardous wastes has not proceeded as rapidly as the law contemplated. At the same time, exemptions from regulation have been granted for particular wastes without assurance that they do not constitute hazards. To clarify the intent of section 3001 in current law, this bill includes provisions to prescribe in greater detail the responsibilities of the

Agency with respect to listing and identifying hazardous wastes and granting exemptions from regulations.

The bill adds a new paragraph (4) to section 3001(b) to correct several deficiencies in the exemption, or delisting, process. In judging whether to delist a waste, the Agency's practice has been to consider only the constituents given as the original justification for the Agency's decision to list a waste. In many, if not all instances, the hazardous constitutents enumerated by EPA as a basis for listing specific wastes do not exhaust the universe of constituents which would justify such a listing. Thus, the petitioning company's waste could be nonhazardous with respect to a constituent used as a basis for listing and be exempted from regulation under recent EPA practices, but still constitute a hazard with respect to constituents not evaluated.

Before making a decision to delist waste from a particular facility, the Administrator is required by the bill to consider criteria, constituents and other factors which, in addition to those used as the original basis for listing, he has reason to believe could cause the waste to be listed as hazardous. If the Administrator denies the petition for exemption on the basis of additional constituents, he is required to amend the basis for the listing of such waste to indicate the additional constituents.

In the recent past the Agency has granted so-called "temporary" delistings without notice or opportunity for public comment and with no deadline for a final decision. The bill requires that every decision on a petition to exempt a waste—whether classified as temporary or final—must be preceded by notice and opportunity for public comment.

Temporary delisting decisions made before enactment of these amendments will cease to be in effect 12 months after they were made or six months after enactment, whichever is later, unless, within that period, a final decision to grant the delisting petition has been made after notice and opportunity for public comment. In making final determinations on these petitions, the Administrator must comply with the provision of the bill that requires him to consider all potentially hazardous constituents.

The Agency currently adheres to no standard as to what constitutes adequate information upon which to base a delisting decision. In particular, the Agency has no standardized procedure to assure that waste samples, which are taken by the petitioner and from which data are derived, are representative of the waste stream for which an exemption is sought. In order to provide a sound information base and one that is consistent for different petitioners, the bill directs the Agency to develop guidelines for the collection and submission of delisting information and requires that the information be certified by a responsible official of the petitioning company.

The bill adds a new paragraph (5) to section 3001(b) which specifies ways by which the Administrator is to improve the process for identifying and listing hazardous wastes.

New paragraph (5)(A) directs the Administrator to identify within six months of enactment those wastes for which a decision whether to list as a hazardous waste will be made within time periods of two and five years. It is expected that the schedule will be

an ambitious one. While the wastes should include those currently being studied by the Agency, this provision is intended to accelerate Agency action and commitment of resources beyond the inadequate level of the past several years. The Agency should also indicate those wastes and waste characteristics which may be hazardous but will not be listed, identified or studied within the next five years. Additionally, the Agency should identify any industries it intends to study and provide a general schedule for completing these studies.

New paragraph (5)(B) directs the Administrator to promulgate, in accordance with section 3001(b)(1), regulations listing as hazardous those wastes containing chlorinated dioxins and those containing dibenzofurans. The Agency proposed listing such wastes in April 1983; final action on this proposal, after review of public comment, is contemplated by this section. The bill requires the Agency to issue a regulation listing these wastes within six months. In light of the potency of these toxicants, the Agency should assure that these wastes are not excluded from regulation under the exemption provisions for small quantity generators or that for recycled hazardous wastes.

The Agency is also encouraged to list, where appropriate, additional wastes containing halogenated dioxins and dibenzofurans, again based on the listing criteria set forth in section 3001(b)(1), and to do so within two years of enactment.

Under the Agency's present regulations a waste must exhibit at least one of several specified characteristics or be listed by name before it may be regulated as a hazardous waste. The characteristics of hazardous wastes currently specified in regulations—ignitability, corrosivity, reactivity, or extraction procedure toxicity—are not comprehensive.

One serious deficiency is the lack of any characteristic which identifies wastes that pose a problem due to toxic organic constituents. Among the toxic compounds that have been found to cause serious damage to human health and the environment are halogenated solvents, pesticides, and vinyl chloride. All of these are organic compounds, and none of the existing characteristics would necessarily identify as hazardous those wastes which contain significant concentrations of these materials.

In order to improve the regulation of hazardous wastes, especially those containing hazardous organic constituents, the bill adds a new paragraph (5)(C) to section 3001(b) directing the Administrator to promulgate regulations identifying additional characteristics of hazardous waste. There will be some technical problems involved in establishing regulatory thresholds for the broad group of toxic organic substances. However, the deficiencies in current regulatory coverage are severe enough to require action by the Agency. Where technical questions cannot yet be definitively answered, EPA should not delay but should make reasonable assumptions based on the need to protect human health and the environment. The Agency should give priority to expanding the identified hazardous waste characteristics to bring under control those wastes which pose a carcinogenic, teratogenic, mutagenic, reproductive or neurotoxic hazard. New subparagraph (C) also requires the Administrator not later than two years after enactment, either to promulgate

regulations listing each of the wastes identified under paragraph (5)(A) as candidates for listing decisions within two years or to publish a statement as to why a particular waste so identified does not warrant listing as a hazardous waste.

A new paragraph (5)(D) is added to require the Administrator to detemine in which situations use of the extraction procedure toxicity characteristic may be in sufficient to protect human health and the environment. The extraction procedure, which simulates the mobility of certain toxicants in a municipal landfill disposal situation, does not, in many cases in which it is used, represent a likely mismanagement situation, or may represent only one of several reasonable mismanagement scenarios. For example, the test does not address potential air emissions or surface water contamination from run-off. In addition, certain wastes which are inherently of moderate to high alkalinity, or which are placed in highly alkaline sites, may exhibit higher levels of leaching than the extraction procedure indicates.

In some instances involving wastes containing metals, the Agency has relied solely on the extraction procedure to evaluate delisting petitions. Because of the Agency's reliance on the procedure and its clear limitations, the bill directs the Agency, to determine, within six months, the appropriateness of continuing to use its current extraction procedure to evaluate delisting petitions. Short and long-term measures in lieu of or in addition to the existing procedure are needed. Possible corrective measures include revision of or supplements to the existing extraction procedure to represent more adequately the mobility of toxicants under a wider variety of specific conditions. Methods to estimate potential air and surface water contamination resulting from reasonable mismanagement scenarios may also be required. Furthermore, a pre-test may be appropriate to determine the specific leaching procedure to be followed, e.g., acid or alkaline. Finally, the extraction procedure is not very effective for evaluating the mobility of organic toxicants. The Agency should continue its policy of not using this test procedure in evaluating the leaching potential or organic contaminants. Rather, until the Agency develops, after notice and comment, a procedure for measuring the leaching potential of organic toxicants, any decision to delist wastes containing these toxicants should be based on their concentration in the waste.

The bill also requires that, within two years, EPA revise its extraction procedure toxicity characteristic where necessary in order that it reflect more accurately the concentrations of toxic metals that will leach from wastes subject to more aggressive leaching media than those used in the present test.

Pending development of new tests to determine the leaching potential of wastes, the Agency should, for waste identification purposes, continue to employ the extraction procedures currently used.

The bill also adds a new paragraph (6) to section 3001(b) to clarify the Agency's authority and specifically direct it to identify wastes which are hazardous solely because they contain constituents at levels in excess of those which adversely affect human health and the environment. Health data on substances that are carcinogenic, mutagenic, or pose other hazards are constantly updated and improved and will continue to be [illegible]

future. It is necessary, however, to begin immediately to regulate on the basis of the best available information. As additional data is developed, by EPA and others, the Agency should use this information to revise its regulations, lowering concentrations where necessary and adding new toxicants to the characteristic.

BURNING AND BLENDING OF HAZARDOUS WASTE

This provision corrects a major deficiency in the present subtitle C regulations. The Environmental Protection Agency has adopted regulations that govern the burning of hazardous wastes in incinerators. These regulations, however, exempt facilities that burn hazardous wastes for the primary purpose of recovering usable energy. It has been estimated that some 10 to 20 million tons of the hazardous waste generated annually in this country are being burned as fuel, a practice that is now exempt from subtitle C regulation.

The reported bill amends various parts of subtitle C to direct the Agency to develop and implement a regulatory program that establishes requirements, as may be necessary to protect human health and the environment, for the burning and blending of hazardous wastes for energy recovery. The provisions of this bill reaffirm the Agency's full authority to regulate all hazardous wastes that are blended or burned for energy recovery—including hazardous wastes mixed with used oil—and to regulate the owners and operators of the blending, distributing, and burning facilities. This authority over these facilities should be exercised in an expeditious manner.

Under some circumstances, it may be difficult to determine if a waste-derived fuel should be classified as a used oil fuel or a hazardous waste fuel. for example, used oil contains contaminants, such as lead, that may be present either through use of the oil or through deliberate adulteration. Both hazardous waste fuel and contaminated used oil fuel should be regulated in accordance with these new provisions, as necessary, to protect human health and the environment. The Agency, however, has some discretion as to how to classify these types of fuel mixtures.

Notification

The bill adds a new sentence of section 3010 that requires the filing of a notice by anyone who is producing a hazardous waste-derived fuel, burning a hazardous fuel for energy recovery (other than in a single or two-family residence), or distributing and marketing a fuel produced from a hazardous waste. "Hazardous waste-derived fuel" means fuel derived from hazardous waste, used oil, or from a mixture of either hazardous waste or used oil and other materials. The notification requirement goes into effect twelve months after the date of enactment of this legislation. The notice, to be filed with the Administrator and the State (where there is an authorized State hazardous waste program), must include a statement containing the location and general description of the facility involved, the identified or listed wastes involved, a description of the production or energy recovery activity being carried out, and such other information as the Administrator deems necessary. This notification requirement is self-implementing. All persons covered by the provision are required to file a notification, unless the Administrator by regulation determines that such notification is not necessary to obtain sufficient information with respect to current practices of facilities using hazardous wastes for energy recovery.

The notification requirement applies to hazardous waste-derived fuels, fuels blended with hazardous wastes, and hazardous wastes burned without being blended as fuels. The term "hazardous wastes", as used in this provision, includes not only wastes identified or listed as hazardous under EPA's regulations, but also includes any commercial chemical product (and related materials) listed pursuant to 40 CFR 261.33, which is not used for its originally intended purpose but instead is burned or processed as fuel. (Under current EPA regulations, burning as fuel is not deemed to be a form of discard; hence listed commercial chemical products, unlike spent materials or by-products or sludges, are not deemed to be "wastes" when burned as fuel. They are only "wastes" when actually discarded or intended for discard. This amendment changes that interpretation.)

Hazardous waste or used oil generaters, who do not deal directly with the persons who ultimately burn the waste (or used oil) as a fuel or offer the material for sale or use as a fuel and who do not burn these materials themselves, are not covered by this provision. Such generators neither market nor distribute a hazardous waste-derived fuel, and, therefore, they do not know and do not control the ultimate disposition of their waste.

All notifications filed under this provision will go both to EPA and to States with authorized hazardous waste programs rather than to one or the other, as with other notifications.

The notification is a prerequisite for interim status (see section 3005(e)(2)) if the Administrator later determines that these persons should be regulated as hazardous waste management facilities. This should create a strong incentive for persons subject to the notification requirement to comply.

The amendment also provides that activities involving special classes of waste material listed in section 3001(b)(3)(A), which are not now subject to regulation as hazardous wastes, are not subject to the notification requirements. For example, the high volume wastes generated from the combustion of coal or other fossil fuel, typical of the utility industry, are not covered. However, utilities that burn hazardous wastes such as spent solvents, spent acids, or corrosive boiler cleaning wastes in their boilers are subject to the notification requirement, and could be subject to the technical standards as well.

Standards, labeling, recordkeeping, and transportation

The reported bill amends section 3004 by adding three new subsections—(h), (i), and (j), to require standard setting, labeling and recordkeeping requirements, respectively. Section 3003 is also amended, by adding a new subsection requiring transportation standards.

Standards

Under new subsection 3004(h), the Administrator is directed to promulgate regulations as may be necessary to protect human

health and the environment, setting forth standards governing hazardous waste-derived fuel production, burning, distribution and marketing. Such regulations shall be promulgated no later than two years after the date of enactment of this legislation. These regulations shall apply to anyone required to submit a section 3010 notification in accordance with the provisions added by this bill, the owners and operators of any facility that produces, blends or burns hazardous wastes as fuel or anyone who markets or distributes hazardous waste-derived fuels. (Used oil, whether or not a hazardous waste, mixed with other hazardous wastes, can be regulated under these provisions, although the Agency has some discretion as to how to regulate difficult-to-classify contaminated used oil mixtures.) These regulations shall apply whether or not such persons are subsequently relieved by regulation of the requirement to file a section 3010 notification.

Standards established by these regulations may include the requirements listed in paragraphs (1) through (7) of subsection (a) of section 3004, as appropriate. The Agency may make different standards effective at different times within the two-year deadline. The technical standards applicable to facilities, or classes of facilities, burning hazardous wastes as fuel may vary based upon various factors, including but not limited to destruction efficiency of the burning unit and waste content of the fuel to be burned. The Administrator may find it necessary to regulate the burning of certain wastes to protect human health and the environment, while not regulating others. However, the Administrator, in controlling the burning of hazardous wastes and the emissions from facilities that burn such wastes, may not make distinctions solely on the basis of whether the facility is on the site of the generator or is an off-site facility.

The Administrator must make regulatory determinations for each type of combustion unit burning hazardous waste-derived fuel for energy recovery (e.g., boilers, cement kilns and other industrial furnaces) under the same ultimate standard that applies to other hazardous waste management facilities--regulations as may be necessary to protect human health and the environment. Some or all of these units may be therefore regulated under the same substantive requirements that apply to presently regulated treatment facilities. When a combustion unit, such as a cement kiln, operates like an incinerator (especially in terms of the type and volume of hazardous waste being burned), the Agency must apply the same substantive requirements that are applied to regulated incinerators.

The standards to be established under the authority of new subsection 3004(h) do not apply to the special classes of waste material for which subtitle C regulation is suspended under section 3001(b)(3)(A).

New subsection (h) of section 3004 provides for two exceptions to the technical standards, labeling and recordkeeping requirements--one involving petroleum refining wastes containing oil which are converted to petroleum coke and the other involving de minimis quantities of hazardous wastes burned as fuel.

New section 3004(h)(2)(A) exempts petroleum refinery wastes containing oil which are converted into petroleum coke at the same facility where they are generated, unless the resulting coke product itself would be identifiable as a hazardous waste on the basis of one or more of the characteristics promulgated under section 3001.

This provision exempts petroleum coke, a commercial industrial fuel product, from regulation as a hazardous waste fuel even where hazardous wastes from petroleum refining are used in the production of the coke. It is normal practice in a refinery to recycle oily waste, such as wastewater treatment sludge, by introducing the material into the coking process. In this way, the carbon value of these wastes is utilized, and the waste need not be disposed of. This exemption applies only to oily refining wastes; the exemption does not apply, for example, to a waste generated by the production of petrochemicals such as pesticides or solvents, regardless of whether these wastes might happen to be generated at a facility which is also a petroleum refinery. Also, wastes such as out-dated pesticides or spent solvents generated at a refinery site are not covered by the exemption. These wastes are not unique to refineries and should be regulated if necessary under this Act when used as fuel, regardless of their point of generation.

This provision exempts the actual petroleum coke product from regulation as hazardous waste fuel. Hazardous wastes used in making coke are exempted only when they are actually converted into coke, not when managed in other ways (such as by disposal, or recycling by being placed on the land). In addition, the exemption for hazardous waste to be converted to coke begins with actual introduction to the conversion process. For example, hazardous sludges being stored in a surface impoundment pose the same risk whether they are to be recycled or disposed of, and thus should be regulated accordingly. The exemption applies only to the full coke product, not any waste that may sometime be used in coke production, and only to petroleum coke that is actually used as a final product. Certain commercial specifications are routinely used by producing industries to control the quality of coke products. If a refinery produces coke that does not meet these standards, and therefore must be disposed of on the land or by burning in an incinerator, this disposal remains subject to all subtitle C rules.

Under the second exemption in new subsection 3004(h), the Administrator may exempt from regulation facilities burning de minimis quantities of hazardous wastes as fuel provided the waste is generated and burned on-site (i.e., at the same facility or at a facility in close geographic proximity and under common ownership and control), the waste is burned to recover useful energy, and the waste is burned in a manner sufficient to protect human health and the environment, based on the type of waste being burned and the combustion unit used for burning. This provision applies to hazardous wastes being burned directly, or burned after mixing with other materials (such as used oil). Subject to these generation conditions, if the Administrator decides to exempt from regulation facilities burning de minimis quantities of hazardous wastes, the Agency must establish administratively what de minimis levels are, and the circumstances under which safe burning of de minimis quantities of hazardous wastes can occur.

The de minimis provision, however, is not intended to allow large boilers to burn hazardous wastes in small amounts, subject only to trivial

wastes burned, if the burning of hazardous wastes in such facilities is not protective of human health and the environment.

Labeling

Under new subsection 3004(i), any person who owns or operates a facility that produces a hazardous waste-derived fuel or any person who distributes or markets a fuel produced from a hazardous waste must include on the invoice or bill of sale accompanying such fuels a warning label indicating that the fuel contains hazardous wastes and listing the wastes contained in the fuel. The labeling requirement goes into effect ninety days after the enactment of this legislation and remains in effect until such time as the Administrator promulgates standards under section 3004(h) that specifically supercede this subsection.

The labeling requirement addresses the concern that people are unknowingly burning fuels blended with hazardous wastes in uncontrolled circumstances, resulting in health and environmental risks. Transporters also may be unaware that they are carrying hazardous waste-derived fuel. The interim labeling requirement would have the effect of warning the user (and transporter or other intermediary) that the fuel contains hazardous wastes and identifying those wastes.

The requirement to list the wastes in the fuel can be satisfied by identifying wastes by generic classes (for instance, "chlorinated solvents") rather than by the precise chemical name ("spent trichloroethylene"). This provision need no longer apply, at the Administrator's discretion, once the Agency promulgates substantive standards for hazardous waste fuels.

Although this provision is self-implementing (regulations are not needed to effectuate the requirement), the requirement is tied to the notification provisions of this bill. Thus, if the Agency acts to limit the class of blenders and distributors required to notify, these persons may not have to prepare warning labels if the Agency determines such labels would not be needed to protect human health and the environment and to carry out the intent of this provision in requiring a label.

The provision applies not only in those States where EPA is operating a hazardous waste program, but in States with authorized programs as well. This will assure that users and transporters of hazardous waste-derived fuels in authorized States will not have to wait until their States adopt labeling legislation or regulations—a process that could take several years—before they receive the warnings required by this section.

The labeling requirement provision contains a limited and conditional exemption for certain fuels produced from petroleum refining waste containing oil or from used oil resulting from normal petroleum refining production and transportation practices. Refineries often take oily refining wastes and refining transportation wastes and reintroduce these wastes into the refining process where the oil component is incorporated into a product and contaminants are removed. Refineries should not automatically have to place a warning label on these fuels.

The exemption from the labeling requirement is narrow. The Agency may still explicitly require a warning label for these fuels

as may be necessary to protect human health and the environment. The exemption does not apply to other wastes generated at a refinery such as spent solvents or discarded pesticides. Finally, these wastes must be introduced into the refining process at a point prior to where contaminants are removed. (This standard is drawn from the definition of "re-refined oil" contained in section 1004 (39) of the Act.

Recordkeeping

This provision directs the Administrator to promulgate regulations, within twelve months after this legislation is enacted, requiring those who produce, burn, distribute or market hazardous waste-derived fuel to keep appropriate records of their activities, as may be necessary to protect human health and the environment. Such records will be needed if the other provision of these amendments are to be enforceable.

Standards for transporters

The bill amends section 3003 by adding a new subsection (c) that requires the Administrator, no later than two years after enactment of this legislation, to promulgate regulations, as may be necessary to protect human health and the environment, to regulate transporters of hazardous waste-derived fuels. In developing these standards, the Agency may require transporters to meet the requirements contained in paragraphs (1) through (4) of subsection (a) of section 3003, but may vary these requirements, or adopt different ones, as may be necessary to protect human health and the environment.

MANDATORY INSPECTIONS

Regulatory inspections of treatment, storage and disposal facilities are a necessary element of an effective hazardous waste control program. Officers, employees and representatives of the States and EPA are authorized by section 3007(a) of the Act to enter and inspect any facility where hazardous waste is being handled. However, too few inspections are being conducted to effectively monitor compliance with the Act and applicable regulations at treatment, storage and disposal facilities, and the Act does not currently require regular inspections. In addition, the nature of the qualifications of inspectors and the scope of the inspections vary widely, depending to an extent on the State where they are conducted.

The reported bill adds a new subsection (b) to section 3007, requiring inspections at least every two years at all treatment, storage, and disposal facilities. The purpose of this amendment is to increase the numbers of inspections and improve the quality of the inspections. A mandatory program assuring frequent, periodic and uniformly high quality inspection is necessary to assure the public that hazardous waste facilities are operating safely and that health and the environment are being protected. The amendment requires that every facility that treats, stores or disposes of hazardous waste (whether or not a permit has already been issued by EPA or an authorized State) be thoroughly inspected on a regular basis and no less frequently than once every two years. The Administrator must

promulgate regulations governing the frequency and manner of inspections and may distinguish among classes and categories of facilities, commensurate with the risk posed by each class or category.

This provision authorizes the Administrator to require that all inspections be conducted by an inspector certified as competent and qualified by the Administrator. Unless the Administrator determines that the problems of unqualified inspectors and inspections of uneven quality being conducted throughout the United States can be remedied more effectively by other means at his disposal he should establish such a certification program.

EPA's current goal of inspecting land disposal facilities and incinerators once a year, storage facilities once every four years, and remaining generators and transporters once every ten years is inadequate. The proper minimum frequency is to be decided after a rulemaking process which should begin as soon as possible. If additional resources are required to perform the requisite number of inspections, EPA should inform the Committee about such resource needs. EPA is not to assume that existing resources cannot be increased for the purposes of conducting this rulemaking, but rather should determine what is necessary to protect human health and the environment.

The Administrator must also prepare a report on the potential for using non-government inspectors to supplement the inspections being conducted by officers, employees or representatives of EPA and authorized States, and submit this report to Congress within 6 months after enactment of this amendment. The report is to be prepared in cooperation with States, insurance companies offering environmental impairment liability insurance, independent companies providing inspection services, and other groups that the Administrator determines are appropriate.

The report is to examine the validity of an idea presented during hearings: utilizing non-government inspectors to supplement the enforcement work of EPA and the States. EPA should examine the pros and cons of this idea, including, but not limited to, the role of such inspectors in enforcement procedures, whether the government or the owner/operator should choose who will inspect a particular facility, whether the use of non-governmental inspectors will present potential conflict-of-interest problems, and whether other mechanisms can better provide additional inspection capability, such as a fee system to fund EPA and State enforcement activities. Other areas of interest involve questions of confidentiality and the latitude which non-governmental inspectors would have to withhold the results of their inspections from the public and the Agency.

The report is to contain such background information as well as recommendations on provisions and requirements for a program of private inspections, including safeguards necessary to protect against conflicts of interest or the appearance of such conflicts and appropriate provisions for the establishment of an inspector certification program such as necessary training and examinations. The report should also discuss the establishment of a schedule of fees which would be charged for examination and certification of inspectors that would make the program self sufficient.

The study the Administrator performs should be focused on the issue at hand: how to procure uniform, high quality inspections of treatment, storage and disposal facilities at little or no cost to State and Federal governments. The product of the Administrator's study should be a complete report, evaluating alternative solutions to the problem and containing recommendations as to the most appropriate solution. It should contain detailed recommendations for legislation or regulations necessary to implement the recommended alternative.

FEDERAL FACILITIES

This section of the bill contains provisions dealing with Federal facilities and Federal inspection of State and local facilities. Existing information on facilities owned or operated by agencies or departments of the Federal government and by State and local governments indicates that there are large numbers of such facilities at which hazardous waste are treated, stored or disposed.

The bill requires the Administrator of the Environmental Protection Agency to inspect every facility at which hazardous wastes are treated, stored or disposed and which are owned or operated by an agency or department of the Federal government. The Administrator is required to conduct this inspection at least once every two years. While State officials in States with authorized hazardous waste programs are authorized by the bill to conduct such inspections, the Administrator's duty to conduct the inspection is mandatory. The Administrator may not delegate his responsibility outside the Environmental Protection Agency. The Administrator must inspect the Federal facilities and determine their compliance with the requirements of this subtitle and regulations promulgated thereunder.

The bill also requires the Administrator to inspect every treatment, storage and disposal facility which is operated by a State or local government and which is required by section 3005 of the Act to have a permit.

It is extremely important that the Administrator, as the Federal official designated to implement the hazardous waste laws of this Nation, assure that the facilities owned and operated by agencies and departments of the Federal government are in compliance with those laws. Section 6001 of the Solid Waste Disposal Act specifically provides that all branches of the Federal government owning or operating a solid waste management facility are subject to and must comply with Federal, State, and local hazardous waste laws including permitting and inspection requirements. This new inspection requirement will assure that the Administrator compiles compliance data on all Federal facilities, thereby enabling the Agency, States and private citizens to assess the performance of the Federal government in meeting its obligation under the hazardous waste laws.

It is also important that there be a thorough and objective evaluation of conditions at State and locally operated hazardous waste sites. The bill requires EPA, as the Federal agency with responsibility for overseeing hazardous waste disposal, to conduct such an

inspection and evaluation, and to make the results of its inspections available to the public.

This section of the bill also amends the Solid Waste Disposal Act by adding a new section 3015. This new section provides that all agencies of the Federal government undertake a continuing program to compile, publish and submit to the Administrator of the Environmental Protection Agency, and to authorized States, an inventory describing all sites owned or operated by such agencies where hazardous wastes have at any time been treated, stored or disposed. The inventory is to include sites where hazardous wastes were treated, stored or disposed at time other than when said agencies owned or operated the sites. It would be helpful if the inventory could include information on sites previously but no longer owned or operated by a Federal agency, such as reported under section 103(c) of CERCLA.

Some of the information required by the inventory may currently be available to the Administrator pursuant to the notification requirements in section 3010 of the Act or section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). While these notification requirements applied to active (section 3010) as well as inactive (section 103(c)) sites, these notifications have been considered to be one-time requirements. The section 3015 inventory establishes an ongoing requirement to compile and continuously update the inventory.

Since the time the original notifications under section 103(c) were prepared, several agencies have established programs to determine further the existence and nature of hazardous waste sites on Federal lands. The Environmental Protection Agency also has begun an initiative to inspect facilities to evaluate identified sites and determine if additional unreported sites may exist. The section 3015 inventory will provide a statutory framework for these efforts assuring that as more detailed investigations reveal additional sites or information on previously identified sites, this information is routinely added to agency inventories which are forwarded to the Administrator.

The duty to compile and submit the inventory to the Administrator is a mandatory, nondiscretionary duty. Should an agency fail to carry out the inventory requirements, section 3015 requires the Administrator to compile the inventory. The Administrator's duty is also nondiscretionary. Either a noncomplying agency of the Administrator, if he fails to act, are subject to the citizen suit and penalty provisions of section 7002. To assure that there is no confusion as to this, the amendments to section 7002 continue to use the current statutory language to specifically authorize a suite against "any person, including the United States . . .".

These new inspection and inventory requirements also will provide documentation as to the condition or existence of hazardous waste sites on Federal lands. Such documentation, which there is reason to believe has not been adequately developed in the past, will be extremely useful in determining the need for response action under CERCLA

The Comprehensive Emergency Response, Compensation and Liability Act established a program for responding to releases of hazardous substances on Federal or non-Federal lands. Section 107(g)

of CERCLA makes clear that the provisions of the law apply to all branches of the Federal government. However, the President, in Executive Order 12316, delegatd to various Federal agencies the authority to assess whether a release has occurred on their lands and what actions, if any, are necessary to respond to such releases. This delegation of authority has resulted in the disturbing situation in which the potentially liable agency is also the agency juding the existence and extent of its liability. The inspection and inventory requirements of this bill will serve the function of "shining a light" on these sites and providing the Administrator and the public with essential information to assess the need for CERCLA response at Federal facilities and the extent of Federal agency liability at such sites.

Except where the government is expressly singled out for preferential treatment, it is to abide by the requirements of this law as would any private citizen.

FEDERAL ENFORCEMENT

The reported bill amends section 3008 in several ways to improve hazardous waste enforcement. The amendment to section 3008(d)(1) clarifies the criminal liability of persons, including generators of hazardous waste, who knowingly cause hazardous waste to be transported to an unpermitted facility. Because the generator is in the best position to know the nature of his waste material, the regulatory scheme established by subtitle C places a duty on the generator in the first instance to make appropriate arrangements to transport and dispose of his waste properly. The Federal government's ability to obtain criminal penalties against generators and other persons who knowingly cause the transportation of hazardous waste to an unpermitted facility is essential to the regulatory scheme.

The amendments to section 3008(d)(2) add violations of interim status standards to those violations of subtitle C for which criminal penalties are available. A large number of hazardous waste management facilities currently are operating under interim status standards, rather than final permits. Knowing violations of interim status standards can present significant human health and environmental problems. In the most serious situations, the government's ability to obtain criminal penalties for such violations will be a necessary enforcement tool.

Although States are not required to have analogues to the Federal interim status standards (i.e., they may require that all facilities obtain permits before construction or operation), where States do have such standards, violation of those standards will also be subject to this section.

Section 3008(d)(3) provides criminal penalties for the submittal of false information in documents required to be filed under the Act. However, the statute presently does not specifically address material omissions or the failure to file required reports. These actions may have significant impact on the regulatory process. The conduct can be as serious in nature as falsification of information submitted. These amendments are proposed to clarify that criminal penalties are provided for this conduct.

Only "material" omissions, i.e., omissions which will have a tendency to influence Agency action, are included, assuring against the application of this section to incidental or insignificant violations. Similarly, the amendments provide criminal penalties only for a knowing failure to file required material. Failure to file or incomplete filing due to accident or mistake is not covered by this provision.

The amendments also clarify the fact that section 3008(d)(4) applies to records or other documents required by State regulation in a State with an authorized subtitle C program. Finally, the amendments affirm that this provision apply to exporters of hazardous waste, as well as generators, storers, treaters, transporters, disposers and other handlers of hazardous waste

A new paragraph (5) is added to section 3008(d) by these amendments to provide criminal penalties where hazardous waste is knowingly transported or caused to be transported without a manifest. Without this provision, criminal liability would not attach to conduct resulting in the unmanifested transportation of hazardous waste unless the waste is subsequently delivered to an unpermitted facility, a violation of section 3008(d)(1).

These amendments are intended to simplify the current language of section 3008(e) and to extend its coverage to all criminal violations specified in section 3008(d).

Section 3008(e)(1)(B)(ii) is deleted from the "Knowing Endangerment" provision in the statute because that paragraph is redundant once violations of interim status standards are included in subsection (d)(2). Rather than reiterate those actions which constitute the predicate for the crime of knowing endangerment, section 3008(e) is amended to reference paragraphs (d)(1)-(5). The further effect of this change is that the making of false material statements or representations; the destruction, alteration or concealment of, or failure to file, records, applications, manifests, reports and other documents; and the transportation of hazardous waste without a manifest, have been added to those actions subject to the knowing endangerment provisions of section 3008(e).

In addition, this amendment eliminates the language of subsection (e)(2) (A) and (B) from section 3008. In the past, there has been confusion over the meaning of and the distinction between (e)(2)(A and (e)(2)(B). This element of proof renders section 3008(e) unduly restrictive and may well have contributed to the fact that since its enactment in 1980, there has not been a single indictment under this provision. With the deletion of this language the provision retains numerous safeguards and there still remains a sufficiently strenuous burden to prove knowing endangerment to prevent unwarranted prosecutions.

Finally, the increased maximum prison sentences for violations of section 3008(e) and section 3008(d) (1) and (2) reflect the Congress' explicit intention that criminal violations of this Act should not be treated lightly. As the implementation of other provisions of this bill restrict land disposal of hazardous wastes and require safer methods of handling and treatment, there will be a significantly greater incentive to dispose of toxic waste illegally. These improved criminal provisions and enhanced penalties are intended to provide EPA and the Department of Justice with the necessary

enforcement tools to combat increased criminal activity in this area.

EXPORT OF HAZARDOUS WASTES

This section of the reported bill adds a new section 3016 to subtitle C, to address problems which have arisen and are expected to arise involving the export of hazardous wastes generated in the United States.

Under current EPA export regulations, persons who wish to export hazardous wastes are required each year to notify EPA four weeks prior to the initial shipment of a given hazardous waste. This notification includes EPA and Department of Transportation classification numbers as well as the names and addresses of the generator and the consignee. The notification does not include any reference to the amounts to be exported; the frequency of exports; the points at which the waste will enter the receiving country; the methods of storage, treatment or disposal in the receiving country; or the ultimate destination of the waste.

The existing notification system is inadequate to address the present and potential environmental, health, and foreign policy problems which occur when wastes are exported to nations which do not wish to receive them, or lack sufficient information to manage them properly. Accordingly, the Administrator is directed to exercise increased authority over hazardous waste exports. In the absence of a bilateral agreement between the U.S. and the government of the receiving country setting forth specific notice, export, and enforcement procedures for the transportation, treatment, storage and disposal of wastes, no person shall export hazardous wastes unless (1) such person has notified the Administrator of the plan to export; (2) the government of the receiving country has agreed, in writing, to this plan; (3) a copy of the receiving country's written consent is attached to the manifest accompanying each waste shipment; and (4) the shipment conforms with the terms of such receiving country's consent.

The notification provided to EPA by the person who intends to export a hazardous waste, and forwarded by the government of the U.S. to the government of the receiving country, will enable that government to make an informed decision as to whether it will accept the waste and, if so, how it will deal with that waste.

The notification shall include (1) the name and address of the exporter; (2) the types and estimated quantities of hazardous waste to be exported; (3) the estimated frequency or rate at which such waste is to be exported and the period of time over which such waste is to be exported; (4) the ports of entry; (5) a description of the way in which the waste will be transported to and treated in the receiving country; and (6) the name and address of the ultimate treatment, storage or disposal facility.

A receiving country's written consent must be obtained prior to shipment and attached to the manifest accompanying each waste shipment. This will provide the foreign country with the option of rejecting, accepting or accepting with conditions the waste, and will facilitate enforcement of that decision. Without the receiving country's written consent, the shipment cannot take place.

In order for the notice to be managed properly and effectively, the Administrator, working with the Secretary of State, should establish a procedure for forwarding information to the foreign country regarding the shipment and pertinent U.S. law. Also, the procedure should include a request for the receiving country to provide the Secretary with a written copy of the consent or rejection.

Where there exists an international agreement between the United States and the government of each receiving country that establishes notice, export, and enforcement procedures for the transportation, treatment, storage and disposal of hazardous wastes, such an agreement shall govern direct shipments of hazardous waste from the United States to the receiving country. Such agreement may or may not require the receiving country's prior written consent on a shipment-by-shipment basis.

Effective monitoring and enforcement programs must be part of any agreement between the United States and a receiving country. Such a bilateral agreement should describe joint efforts to monitor and spotcheck shipments of hazardous waste to assure that they conform with the terms of the agreement. Shipments must conform with the terms of the agreement to satisfy the requirements of this section. A bilateral agreement should also describe responsibilities for enforcement and prosecution of the terms of the agreement.

Any person who exports any hazardous waste after enactment of this section must report on an annual basis on all exports of such waste to any country. These reports will be useful in more accurately assessing the volume, frequency and destination of hazardous waste exports from the United States.

Although the Agency has up to two years to fully implement the new hazardous waste export policy, such implementation can probably be accomplished in a shorter period of time and the Administrator should promptly begin the implementation task. Until this section is fully implemented, any person who intends to export a hazardous waste should follow existing hazardous waste export notification procedures as required under the present subtitle C regulations. However, twelve months from the date of enactment of this bill any person who wishes to export will be required to comply with the provisions of this section.

As in the other provisions of subtitle C, public oversight is necessary to assure proper implementation. Accordingly, the public should be given full access to information and documents produced under this section. Citizens, upon request, should be given access to all notices filed under subsection (c), comments on such notices returned by the receiving country, a copy of the receiving country's final consent returned under subsection (e), and all annual reports filed under subsection (g).

The requirements of this section should be vigorously enforced using all the tools of section 3008. To accomplish this, the Agency should work with the U.S. Customs Service to establish an effective program to monitor and spotcheck international shipments of hazardous waste to assure compliance with the requirements of the section. Violations should then be vigorously pursued.

SUBTITLE D IMPROVEMENTS

The reported bill adds a new paragraph to section 4004(a), a part of subtitle D of the Solid Waste Disposal Act. New section 4004(a)(2) requires the Administrator within twenty-four months after enactment of these amendments to promulgate revisions of the criteria for distinguishing sanitary landfills and open dumps under sections 1008(a)(3) and 4004(a)(1). These revisions are to reflect the need to protect human health and the environment, and improvements in the state of control and measurement technology.

Substantial quantities of material of a hazardous nature finds its way into subtitle D disposal facilities (i.e., all those not required to have a permit under subtitle C). This includes hazardous wastes not required to go to a subtitle C permitted facility because they come from "small quantity generators." While the exact quantity of such wastes is not yet known, it clearly totals millions of tons each year, and can exceed tens of thousands of gallons per year at a single facility. Also, the household waste exclusion allows hazardous materials to enter subtitle D facilities. Because of the currently inadequate procedures for identifying, listing, and delisting hazardous wastes, many troublesome materials currently unregulated under subtitle C will go to subtitle D facilities. These include infectious wastes and wastes delisted through marginal neutralization of their corrosivity characteristic. Illegal dumping of hazardous wastes is regulated under subtitle C, but the likelihood of such dumping at subtitle D facilities must be considered.

Many sites addressed by the cleanup program under the Comprehensive Environmental Response, Compensation and Liability Act (Superfund) were originally municipal landfills. To avoid creating another round of Superfund candidates through our current subtitle D disposal practices, the subtitle D facility criteria must be revised. New section 4004(a)(2) requires such revisions to take into account the potential receipt by subtitle D facilities of hazardous waste in household waste and from small quantity generators and the possibility of illegal dumping. As directed by section 1008(a), such revised criteria should include information for deciding the adequate location, design, and construction of subtitle D facilities, including the consideration of regional, geographic, demographic, and climatic factors.

A principal purpose of these revised criteria is the protection of ground and surface water and drinking water supplies. Appropriate closure requirements should be part of the revised criteria. The Agency is expected to examine improvements in waste disposal control and measurement technology. EPA must also consider the appropriate standards to protect human health and the environment, taking into account the size of the facility, its location relative to populated areas and the degree of industrialization, the proximity of ground and surface water, the disposal method, and the amounts and characteristics of the waste received.

The Agency is granted some discretion in determining the appropriate design and operating standards for various subtitle D facilities. For example, smaller and more remote facilities, especially those not close to drinking water sources, may be less likely to pose public health problems than large facilities [illegible]

areas or receiving wastes from industrialized areas. The multiple liner-leachate collection system requirements of new section 3004(f) applicable to subtitle C facilities are not to be automatically incorporated in revised criteria for landfills or surface impoundments which are subtitle D facilities.

The impetus for requiring these revisions is primarily the concern for potential disposal of hazardous materials with nonhazardous wastes. Therefore, in revising the criteria the Agency should focus initially on municipal landfills and subtitle D surface impoundments where this is most likely to occur. For facilities potentially receiving hazardous waste in household waste or from small quantity generators the revised criteria at a minimum must require groundwater monitoring, and provide for corrective action where necessary to protect ground or surface water or otherwise prevent release of hazardous materials into the environment. Groundwater monitoring requirements can maintain the flexibility currently provided in the subtitle C regulations. This requirement does not apply to facilities which only receive wastes the regulation of which is suspended under section 3001(b) (2) or (3).

To make it clear that the prohibition of facilities not in compliance with the subtitle D criteria is a direct Federal requirement, not dependent on the approval of a State plan containing that requirement, section 4004(c) is amended by striking any reference to State plan approval.

As originally conceived in the 1976 amendments to the Solid Waste Disposal Act, subtitle D was intended to provide a comprehensive program for the management and disposal of solid waste. The development and implementation of State plans are to address both hazardous and nonhazardous wastes. The ban on open dumping of section 4005 applies to solid waste and hazardous waste. Subtitle D, however, provides the Act's only regulatory framework for the environmentally sound disposal of solid waste at landfills and impoundments not subject to subtitle C permits. The purpose of these amendments is to strengthen State and Federal oversight of subtitle D facilities, particularly those which might receive hazardous wastes from small quantity generators or in household wastes. These subtitle D improvements require action at both the Federal and the State level.

The reported bill adds a new subsection to section 4005 of the Act, requiring each State to adopt an enforceable system of prior approval and conditions (e.g., a facility permit program) to assure compliance with the revised criteria by each solid waste management facility which may receive hazardous waste in household solid waste or from small quantity generators. Each State must begin to enforce such a system no later than forty-two months after enactment of these amendments. Most States already have in place permit systems for solid waste disposal facilities. Since these systems are likely to require modifications to incorporate the revised criteria, the bill provides time after the deadline for revising the criteria for States to make such modifications.

The Agency is expected to work with the individual States to assist them in adopting appropriate and enforceable permit or other systems for assuring compliance with the revised criteria. States should make use of the open dump inventory, and permits

issued under such systems should reflect or constitute the compliance schedule required by section 4005(a). The Agency is expected to make funds available to the States, through performance-based grants under section 4008(a)(1) or an augmented section 3011 program, to assist State progress in revising their regulations and solid waste management plans and their permit and enforcement programs. Such funding should be stable over a period of years, for the States to reliably make use of it.

Experience with the original subtitle D program indicates that some States may be unable or unwilling to adopt an enforceable program to assure compliance with the criteria at all facilities. To provide for this contingency, under new section 4005(c) the Environmental Protection Agency is authorized to enforce the prohibition of section 4005(a) with respect to facilities receiving hazardous wastes in household or from small quantity generators, in any State which fails to adopt and enforce the required compliance assurance program within forty-two months after enactment of these amendments. The Agency will determine a State's compliance with the requirements of section 4005(c) through the review and approval of State solid waste management plans under section 4003.

The Agency may use the enforcement authorities of sections 3007 and 3008 to enforce the prohbition on open dumping and the revised criteria. Under section 3007 EPA employees or representatives can enter, inspect, and obtain samples at any facility to the same extent that the authority exists for hazardous waste facilities regulated under subtitle C. This authority will allow EPA to evaluate against the revised Federal criteria any disposal facility which may receive hazardous waste in household waste or from small quantity generators. Under section 3008 the Administrator has the authority to issue compliance orders and to assess civil and criminal penalties for violations of the criteria. Citizens may continue to use the enforcement authority of section 7002 to enforce the prohibition on open dumping and the revised criteria.

BIENNIAL REPORT

This provision amends section 3004(a) to require the Agency to periodically prepare and submit to Congress and the President a report characterizing hazardous waste generation, storage, treatment, and disposal nationwide. The report must be submitted no less frequently than every two years and describe the quantities of specific types of wastes regulated under subtitle C that are being generated as well as the disposition of those wastes and the number of firms engaged in such hazardous waste generation, storage, treatment, and disposal activities. The first such report shall be submitted to Congress no later than March 31, 1985, and shall cover the 1983 reporting year.

This information is necessary to identify trends in hazardous waste management, establish resource needs and priorities, and to aid in evaluating the impact of the hazardous waste regulations. The report shall summarize the information obtained by the Agency under reporting requirements promulgated pursuant to section 3002(a)(6) and 3001(a) (1) and (2) which require hazardous waste handlers to submit biennial reports to EPA for all wastes

bered calendar years. The Agency will not obtain these reports directly from hazardous waste handlers located in States that have received interim or final authorization. States with interim or final authorization are therefore directed to assist the Administrator in obtaining such report for Congress in a form and manner to be prescribed by the Administrator. The Administrator may request copies of those reports received by the States or may specify a format for submission of aggregated data from the individual States. The Administrator may also rely on his existing authority under section 3007 of the Act to obtain the necessary information.

AWARD OF FEES

This section provides for the awarding of costs of litigation in citizen suits under section 7002(e) of the Act to prevailing or substantially prevailing parties.

The purpose of this section is to clarify the circumstances under which costs may be awarded to parties to citizen suits. In *Sierra Club* v. *Gorsuch*, 672 F. 2d 33 (D.C. Cir. 1982), the Court of Appeals held that it was "appropriate" under the Clean Air Act to award attorney's fees to the petitioner even though the government prevailed on all issues. This decision was later reversed by the Supreme Court in *Ruckelshaus* v. *Sierra Club*, 103 S. Ct. 3274 (1983).

It is not reasonable or appropriate to compel either the government or a private party to pay the costs of an opposing party to a lawsuit when the opposing party has not prevailed on any of the issues. Accordingly, this amendment is intended to endorse the Supreme Court's decision in *Ruckelshaus* v. *Sierra Club*, confirm its applicability to the Solid Waste Disposal Act, and provide further guidance to the courts in determining the circumstances under which it is appropriate to consider awarding costs of litigation.

This amendment is not intended to preclude an award of costs to a partially prevailing party with respect to the issues on which that party has prevailed, if such an award is deemed appropriate by the court. Conversely, although the amendment does authorize an award of costs to a party who intervenes in a case and is technically on the prevailing side, such an award would not be appropriate if the intervenor failed to make a substantial contribution to the successful outcome of the case. A party may "prevail" by achieving a successful settlement.

JUDICIAL REVIEW

This section of the reported bill revises section 7006, the provision of the Solid Waste Disposal Act governing judicial review of certain actions of the Administrator.

Section 7006(a) of the Act is amended to provide that a petition for review of the promulgation of final regulations under the Solid Waste Disposal Act or the denial of a petition for the promulgation, amendment, or repeal of a regulation under the Act may be filed either in the U.S. Court of Appeals for the District of Columbia or in any U.S. Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such action. The petition must be filed within 120 days from the date of the action complained of unless it is based solely on

grounds arising after 120 days. An Agency action which could have been reviewed under this subsection shall not be subject to judicial review in enforcement proceedings.

The principal purpose of this amendment is to allow the filing of petitions for review of nationally applicable actions of the Administrator under the Solid Waste Disposal Act in U.S. Courts of Appeals other than the U.S. Court of Appeals for the District of Columbia, which currently has exclusive jurisdiction over such petitions.

The justification for the current centralized judicial review of environmental laws is that it eliminates the possibility of conflicting interpretations of the law in different circuits and allows a single court to develop expertise in this area of the law. However, these advantages are insufficient to offset the disadvantages of centralized judicial review, which include inconvenience to litigants who do not reside in Washington, D.C., and a concentration of power in a single intermediate appellate tribunal, which may in turn generate narrow political pressures on the appointment of judges. Centralizing review in a single court also deprives the law of diverse views on complex legal issues, and as a result may make the task of the Supreme Court more difficult. Although other circuit courts of appeals may not possess the technical expertise of the D.C. Circuit, the reponsibility of the courts is to review actions of EPA for conformity with the law, not to undertake technical review of the details of regulations, and there is no reason to believe that other courts of appeals lack competence to review regulations and other actions for conformity with the Solid Waste Disposal Act and other applicable laws.

The purpose of changing the period within which a petition must be filed form 90 to 120 days is to assure that persons who will be significantly affected by an action of the Administrator have an ample opportunity to assess the consequences of such action and, if necessary, file a petition for review prior to the expiration of the time period. This issue was previously reviewed by the Committee in a similar context (Senate Report No. 97-666 at pp. 91-5) and it was determined that 120 days is a reasonable period within which to require the filing of a petition for review.

Section 7006(b) is amended to provide that a petition for review of the issuance, denial, modification, or revocation of a permit under section 3005, or the grant, denial, or withdrawal of authorization or interim authorization under 3006, may be filed by any interested person in the U.S. Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such action. As under section 7006(a), the period within which a petition must be filed is changed from 90 to 120 days.

Currently, section 7006(b) provides for venue in the Circuit Court of Appeals of the United States for the Federal judicial district in which the petitioner "resides or transacts such business", a phrase which is drawn from section 509(b)(1) of the Federal Water Pollution Control Act. This phrase is inherently ambiguous because the word "such" has no antecedent. The legislative history of this phrase is also ambiguous and is not consistent with the plausible interpretation, urged by the Department of Justice, that the words "such business" refer to business which is directly affected by the

action which is the subject of the application for review. The two courts of appeals which have sought to construe this phrase, the Fifth Circuit in *Tenneco Oil Co.* v. *EPA*, 592 F. 2d 897 (1979), and the Eighth Circuit in *Peabody Coal Co.* v. *EPA*, 522 F. 2d 1152 (1975), ultimately avoided ruling on its meaning and, therefore, proper venue for section 509(b) cases and section 7006(b) cases remains unsettled. In order to eliminate, or at least reduce, the potential for threshold litigation over proper venue, the amendment changes the venue provisions so that the language conforms to the reading of current law which has been suggested by the Department of Justice. The filing of an application for review shall be proper in the circuit in which the applicant resides, i.e., has his principal place of business, or where he transacts business which is directly affected by the action of which he complains. For example, in a case in which the action complained of is a denial of a permit for a proposed facility, the direct effect of the action would be felt only at the location of the proposed facility, even though indirect effects of the action might be felt at other facilities of the company. In a case involving review of a regulatory action under section 7006(a) the direct effect of the action would be felt at the location of the facility or activity subject to the requirements of the regulation.

The new subsection (c) of section 7006 simply relocates the current provision governing the adducing of additional evidence in the course of judicial review of an agency action, previously section 7006(a)(2), and does not change its meaning or applicability.

New subsection (d) of section 7006 establishes a random selection procedure, to be administered by the Administrative Office of the United States Courts, to determine the court of appeals in which an agency action is to be reviewed when petitions for review have been filed in two or more courts of appeals within a 30 day period. Following the selection of a court of appeals, other courts in which petitions have been filed are directed to promptly transfer such petitions to the court in which the agency record has been filed. Notwithstanding the outcome of the random selection procedure, any court in which a petition has been filed would retain the power to transfer the petition to any other court of appeals for the convenience of the parties or otherwise in the interest of justice.

The purpose of the random selection procedure is to eliminate the "race to the court house" phenomenon and provide for an orderly means of consolidating petitions for review of the same agency action. This process is in no way intended to preclude or discourage any court of appeals from exercising its inherent power to transfer a petition for review to any other court of appeals for the convenience of the parties or otherwise in the interest of justice.

New subsection (d)(2) provides new authority for any court of appeals to grant a temporary stay of the effective date of a final agency action pending selection of the court of appeals in which the action will be reviewed. However, stays should not be granted unless the same requirements that ordinarily apply to a petition for a stay of an agency action are fully satisfied.

New subsection (e) would authorize the awarding of costs of litigation under section 7006 on the same basis and subject to the same limitations which apply in the case of citizen suits (section 7002(e) as amended by this bill).

CITIZEN SUITS

The reported bill amends section 7002 to authorize the Federal courts, in actions initiated by citizens under section 7002, to apply civil penalties under section 3008 and to authorize citizens to seek relief, including abatement, where the past or present handling, storage, treatment, transportation or disposal of any solid or hazardous waste may present an imminent and substantial endangerment to health or the environment.

The conditions placed on such suits are intended to assure that they will complement, and not interfere with, Federal regulatory and enforcement programs. Citizen suits under these amendments may only be initiated one hundred twenty days after the citizen has notified the Administrater, the State in which the alleged endangerment may occur, and the persons alleged to have contributed or to be contributing to the activities which may present the endangerment, that there may be an endangerment. As with other citizen suits under the Act, suits respecting a violation of subtitle C may be brought immediately after such notification. If the United States has commenced and is diligently prosecuting an action under section 7003, or has settled an action to restrain or abate acts or conditions which may have contributed or are contributing to the activities which may present the alleged endangerment, an action under the new provision cannot be filed. If a State has commenced and is diligently prosecuting an action under the new provision, a citizen cannot file such an action. It is recognized that one hundred twenty days is not sufficient time for the Agency to conduct all studies necessary to initiate an enforcement action. Nevertheless, based on current experience, one hundred twenty days should provide enough time for the Agency to conduct an investigation satisfactory to the private parties, so that EPA and the private parties should be able to work out a mutually acceptable way to proceed.

A determination as to whether the Administrator or a State "has commenced and is diligently prosecuting" an action is, by necessity, a case-by-case determination. With respect to the new cause of action for citizens, "commencement" of an action, as used in these amendments, means having actually filed suit or having issued an administrative order. An action has not been "commenced" in a case that is merely under investigation or a case where only notice or warning letters have been sent. The scope of the relief being sought by the Administrator and the opportunity for citizens to intervene are factors to be considered when determining if a case is being "diligently prosecuted." A suit filed in court to obtain partial abatement of a situation presenting an endangerment may be deemed to be a bar to an independent citizens' suit under these amendments. An example is a suit to obtain surface cleanup of a site without addressing cleanup of contaminated groundwater. By exercising the statutory right to intervene, the citizen could adequately protect his interest and seek a judicial order for complete abatement. An administrative order or consent decree addressing only a portion

of a site, on the other hand, may be deemed to not be a bar to an independent citizens' suit. An example of an administrative order encompassing only a portion of a site is an order addressing the cleanup of surface contamination without addressing the cleanup of surface contamination. Even with the new requirements for public participation in settlements, participation short of intervention does not provide citizens with the same opportunities to protect their interests or to seek a judicial order for complete abatement. A decision to bar such an opportunity should not be taken lightly.

An additional limitation is contained in the provision that no person, other than a State or local government, may bring such an action with respect to the siting of a hazardous waste treatment, storage or disposal facility. Other legal authority is appropriate for addressing questions arising from the permitting process. This section is not intended to be used to reopen or frustrate the permit process. Finally, this amendment does not affect recognized requirements regarding legal standing.

The amendments are not intended to limit in any way the clear right of intervention provided to the Administrator. For example, if the Administrator believes a citizen suit under the provision is not being prosecuted in the public interest, he may exercise the right to intervene in such action and seek from the court restrictions or conditions upon the citizen suit, in order to assure that the means of prosecution and the relief sought are in the public interest. EPA and the Department of Justice are responsible for taking necessary steps to assure orderly and consistent development of case law and legal interpretations, and technical consistency for hazardous waste enforcement. In view of the Agency's expertise in this area, courts will accord some deference to the Agency's technical findings concerning the nature and extent of endangerment. The Administrator and the Department of Justice are encouraged to file amicus curiae briefs with the court, where appropriate.

These amendments provide any person with a statutory right to intervene as a party to section 7003 suits filed by the Administrator, or new section 7002(a)(1)(B) suits filed by a State, "unless the Administrator or the State shows that the applicant's interest is adequately represented by existing parties." The rules on intervention are intended to assure that persons living in close proximity to a site (persons potentially at risk) which is the subject of a government-initiated imminent hazard action will be able to intervene as a matter of right unless the Administrator or the State can demonstrate that they are adequately representing those persons' interests. The purpose of the amendments is to make it easier for individuals who may be assuming an imminent and substantial risk as a result of the defendant's activities to participate in these suits, particularly in fashioning the appropriate remedy for eliminating the risk. By requiring the government to demonstrate that the applicant's interests are already represented, this amendment reverses the normal presumption of Rule 24 of the Federal Rules of Civil Procedure.

These amendments are intended to allow citizens exactly the same broad substantive and procedural claim for relief which is already available to the United State under section 7003. *United States* v. *Diamond Shamrock Corporation*, Civ. No. C80-1857 (N.D. Ohio, E.D. May 29, 1981). Any differences in language between these amendments and section 7003 are not intended to reflect a difference in such claims, but to merely clarify that citizens will have the same claim presently available to the United States. Nor do these amendments limit existing rights. Providing citizens with the same claim presently available to the United States is not meant to imply that citizens be accorded the same deference on technical issues that the courts might accord the EPA or the Department of Justice.

Some liable parties have erroneously asserted that the United States must exhaust all viable alternatives to injunctive relief before it may seek such relief under section 7003. Just as the United States need not utilize resources available to it under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510) or prove that such resources are unavailable before it may seek injunctive remedial relief under section 7003 or similar authorities, citizens need not exhaust or rely upon other resources or remedies, before seeking relief under these amendments. As with section 7003, these amendments are to be an alternative and supplement to other remedies. Nevertheless, injunctive relief is an equitable remedy and, although there is no requirement to exhaust other remedies, courts should be cognizant of and consider the availability of such alternatives when awarding equitable relief.

Although these amendments do not prohibit a court from allowing a citizen to litigate pendent claims under State law in a section 7002 action, it is intended that citizens and courts will exercise discretion concerning such claims so that they will not unduly delay or complicate Federal court proceedings or in any other way frustrate or delay the primary purpose of these amendments and section 7003—which is the protection of health and the environment from solid and hazardous waste endangerments. Pendent jurisdiction is a doctrine of discretion, not of plaintiff's right. Its justification lies in considerations of judicial economy, convenience and fairness to litigants; if these are not present a Federal court should hesitate to exercise jurisdiction over State claims, even though bound to apply State law to them. If it appears that the State issues substantially predominate, whether in terms of proof, of the scope of the issues raised, or of the comprehensiveness of the remedy sought, the State claims may be dismissed without prejudice and left for resolution to State tribunals. Pendent jurisdiction, in the sense of judicial power, need not be exercised in every case in which it is found to exist.

All penalties awarded pursant to these amendments, which allow courts in which citizen suits are brought ". . . to apply any appropriate civil penalties under section 3008 (a) and (g)," are to be paid into the United States Treasury. Litigation of any such request or the granting of any such award will not, in any way, limit or preclude the right of the United States to seek or obtain the payment of penalties arising out of the same or related violations, except that the maximum penalty to be paid for each violation shall not exceed that provided for in section 3008.

IMMINENT HAZARD

The reported bill amends section 7003(a) to clarify the breadth of section 7003 as to the persons, conditions and acts it covers The amendments clearly provide that anyone who has contributed or is contributing to the creation, existence, or maintenance of an imminent and substantial endangerment is subject to the equitable authority of section 7003, without regard to fault or negligence. Such persons include, but are not limited to, past and present generators (both off-site and on-site) of hazardous wastes, past and present owners and operators of waste treatment, storage, or disposal facilities, and past and present transporters of solid or hazardous wastes. In addition, section 7003 is clarified to establish that it applies to any act, whether past or present, which has resulted in or may result in an imminent and substantial endangerment to health or the environment. The Environmental Protection Agency and the Department of Justice have used the equitable authority and orginally granted in section 7003 to seek court orders directing those persons whose past or present acts have contributed to or are contributing to the existence of an imminent and substantial endangerment to abate such conditions. This has been an intended use of section 7003 since 1976. These amendments ratify this practice and confirm that the abatement authority vested in EPA and the courts extends to both past and present acts contributing to an imminent and substantial endangerment.

As evidenced by the definition of "disposal" in section 1004(3), which includes the "leaking" of hazardous wastes, section 7003 has always provided the authority to require the abatement of present conditions of endangerment resulting from past disposal practices, whether intentional or unintentional. These endangerments may be immediate or long-term problems. The section may be used to address any solid or hazardous wastes that fall within the definitions of section 1004 of the Act or have been identified in published regulations.

Moreover, because section 7003 focuses on the abatement of conditions threatening health and the environment and not a particular human activity, it has always reached those persons who have contributed in the past or are presently contributing to the endangerment, including but not limited to generators, regardless of fault or negligence. The amendment, by adding the words "have contributed" is merely intended to clarify the existing authority. Thus, for example, non-negligent generators whose wastes are no longer being deposited or dumped at a particular site may be ordered to abate the hazard to health or the environment posed by the leaking of the wastes they once generated and which have been deposited on the site The amendment reflects the long-standing view that generators and other persons involved in the handling, storage, treatment, transportation, or disposal of hazardous wastes must share in the responsibility for the abatement of the hazards arising from their activities. The section was intended and is intended to abate conditions resulting from past activities. Hence, the district court decisions in *United States* v. *Wade*, 546 F. Supp. 785 (E.D. Pa. 1982) and *United States* v. *Waste Industries*, Inc., 80-1-Civ-7 (E.D. N.C. Jan. 3, 1980), which restricted the application of

section 7003, are inconsistent with the authority conferred by the section as initially enacted and with these clarifying amendments.

In addition, due to the nature of the hazards presented by disposal sites, section 7003 is "intended to confer upon the courts the authority to grant affirmative equitable relief to the extent necessary to eliminate any risks posed by toxic wastes." *United States* v. *Price*, 688 F. 2d 204, 213-214 (3d Cir. 1982). An endangerment means a risk of harm, not necessarily actual harm, and proof that the past or present handling, storage, treatment, transportation or disposal of any solid or hazardous waste may present an imminent and substantial endangerment is grounds for an action seeking equitable injunctive relief. *United States* v. *Price, supra*, and *United States* v. *Vertac Chemical Corp.*, 489 F. Supp. 870, 885 (E.D. Ark., W.D. 1980). The primary intent of the provision is to protect human health and the environment; hence, the courts should consider both the nature of the endangerment which may be presented and its likelihood, recognizing that risk may be "assessed from suspected, but not completely substantiated, relationships between facts, from trends among facts, from theoretical projections, from imperfect data, or from probative preliminary data not yet certifiable as 'fact.'" *United States* v. *Vertac Chemical Corp., supra* at 885, citing *Ethyl Corporation* v. *Environmental Protection Agency* No. 73-2205 (D.C. Cir. Jan. 28, 1975) (dissenting op. at 11, 31-33), reversed en banc at 541 F. 2d 1 (D.C. Cir. 1976), cert. den. 426 U.S. 941, (1976). An endangerment is "imminent" and actionable when it is shown that it presents a threat to human health or the environment, even if it may not eventuate or be fully manifest for a period of many years—as may be the case with drinking water contamination, cancer, and many other effects. *United States* v. *Price*, supra, and *United States* v. *Reilly Tar & Chemical Corp.*, Civ. No. 4-80-469 (D. Minn. Aug. 23, 1982) at 10-13.

Some liable parties have erroneously asserted that the United States must exhaust all viable alternatives to injunctive relief, before it may seek such relief under section 7003. The United States need not utilize resources available to it under section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510) or prove that such resources are unavailable, before it may seek injunctive remedial relief under section 7003 or similar authorities. Section 7003 is an alternative and supplement to other remedies. Nevertheless, section 7003 provides for the awarding of equitable relief and, as with any equitable remedy, requires the court to consider all circumstances of the case and to carefully balance all relevant factors. Cf. *United States* v. *Price*, supra, at 211

PUBLIC PARTICIPATION IN SETTLEMENTS

This amendment, adding a new subsection to section 7003, builds upon existing practice in judicial settlements and extends the requirement for public participation in settlements to administrative settlements such as those issued in the form of administrative orders. The Department of Justice and the EPA are required to publish notice of the government's intention to settle any claim it may have under section 7003, provide an opportunity for public

meeting in the affected area, provide a reasonable opportunity for public comment and withhold final consent to any such agreement or settlement until such time as the requirements of this section have been met.

Currently, the regulations of the Department of Justice require the Attorney General or his designee to publish notice of the government's intention to enter into a consent decree in any suit to enjoin the discharge of pollutants. This procedure has been implemented by lodging consent decree with district courts for thirty (30) days while notification of their lodging is given to the public by publication in the Federal Register. The consent decree is available to the public upon request and the Department of Justice withholds its final consent to the decree until such time as comments are received from any interested person. In the event comments are received, the Department of Justice files such comments with the court. The Department reserves the right to withdraw or withhold its consent to the proposed judgment if the comments, views and allegations concerning the judgment disclose facts for consideration which indicate that the proposed judgment is inappropriate, improper or inadequate.

These procedures have been a useful vehicle for receiving public comment in the past. By filing such comments with the court, together with its written responses to the comments, the Department has supplied the basis for subsequent judicial hearings on the propriety of the entry of specific consent decrees.

The process established pursuant to these amendments is meant to be flexible. For example, less than thrity (30) days for review and comment may be appropriate in, for example, emergency situations where clean up should proceed earlier. Informal public meetings, as opposed to formal public hearings, are required.

In providing public notice under this section, EPA and the Department should use public notice measures such as local newspapers and radio that will effectively reach the affected community. Such notice should supplement publication of notice in the Federal Register.

These amendments do not establish new substantive rights to obtain review or to make the government's exercise of its prosecutorial discretion in deciding whether to enter into a consent decree, covenant not to sue or other agreement subject to judicial review under the Administrative Procedure Act or under the Solid Waste Disposal Act. However, the terms of the agreement are reviewable to assure that they are fair and adequate and are not unlawful, unreasonable, or against public policy.

In some cases, actions under section 7003 of the Solid Waste Disposal Act can also be undertaken pursuant to section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Public Law 96-510(CERCLA). The government should not bypass this provision by taking all future actions pursuant to section 106 of CERCLA. To the extent that section 106 actions could have been pursued under section 7003 it is intended that such actions should be subject to the requirements of this provision.

COMPATIBILITY OF RECYCLING AND ENERGY RECOVERY

The reported bill amends sections 4001 and 4003, dealing with State or regional solid waste management planning, to require the potential for recycling and materials recovery in an area to be taken into consideration in planning a waste-to-energy facility. Dependence on a certain waste stream as fuel for an energy recovery facility should not be allowed to interfere with the Act's goal of encouraging materials recovery and resource conservation.

CLARIFICATION OF HOUSEHOLD SASTE EXCLUSION

The reported bill adds a subsection (d) to section 3001 to clarify the coverage of the household waste exclusion with respect to resource recovery facilities recovering energy through the mass burning of municipal solid waste. This exclusion was promulgated by the Agency in its hazardous waste management regulations established to exclude waste streams generated by consumers at the household level and by sources whose wastes are sufficiently similar in both quantity and quality to those of households.

Resource recovery facilities often take in such "household wastes" mixed with other, non-hazardous waste streams from a variety of sources other than "households," including small commercial and industrial sources, schools, hotels, municipal buildings, churches, etc. It is important to encourage commercially viable resource recovery facilities and to remove impediments that may hinder their development and operation. New section 3001(d) clarifies the original intent to include within the household waste exclusion activities of a resource recovery facility which recovers energy from the mass burning of household waste and non-hazardous waste from other sources.

All waste management activities of such a facility, including the generation, transportation, treatment, storage and disposal of waste shall be covered by the exclusion, if the limitations in paragraphs (1) and (2) of subsection (d) are met. First, such facilities must receive and burn only household waste and solid waste from other sources which does not contain hazardous waste identified or listed under section 3001.

Second, such facilities cannot accept hazardous wastes identified or listed under section 3001 from commercial or industrial sources, and must establish contractual requirements or other notification or inspection procedures to assure that such wastes are not received or burned. This provision requires precautionary measures or procedures which can be shown to be effective safeguards against the unintended acceptance of hazardous waste. If such measures are in place, a resource recovery facility whose activities would normally be covered by the household waste exclusion should not be penalized for the occasional, inadvertent receipt and burning of hazardous material from such commercial or industrial sources. Facilities must monitor the waste they receive and, if necessary, revise the precautionary measures they establish to assure against the receipt of such hazardous waste.

REQUIREMENTS IN AUTHORIZED STATES

Several new requirements in the bill are scheduled to take effect upon enactment or by specific dates following enactment. The bill adds a new section 3009(f) to the Act to assure that, for the listed provisions, the requirements apply simultaneously in every State whether or not a State has been authorized to administer and enforce a program under section 3006.

The States that are currently authorized to administer their own programs under section 3006(b) retain that authority with respect to existing program elements. The Environmental Protection Agency will implement the new statutory requirements in each and every State until such State is authorized, in accordance with section 3006, to operate its own equivalent program with respect to those new requirements.

Section 3005 should be administered so as to encourage each State to assume or continue primery responsibility for program administration and to recognize and accommodate the various means by which States may choose to conduct their programs. In this regard, the term "equivalent" as used in section 3006 should not be interpreted to mean "identical", thus requiring an absolute likeness between the State and Federal program requirements. State program requirements and procedures which achieve the same result intended by the requirements of subtitle C should be deemed "equivalent". State provisions can differ as long as they address the Federal program requirements and include State requirements at least as stringent as those of the Federal program. Where the results of different State requirements and procedures cannot be readily measured reasonable judgment should be used to avoid impeding the authorization of State programs by requiring that those programs bear an absolute likeness to the Federal program. Section 3006(a) requires the Administrator to make findings regarding the standards for program approval. Therefore, an analysis more sophisticated than merely requiring verbatim reproduction of Federal provisions is required.

Prior to States' being authorized to administer these new provisions as part of their own programs, the administrator is to work with those States that already have authorized programs to develop, as expeditiously as possible, cooperative agreements to delegate enforcement of these new Federal program elements. As provided in section 3009, nothing in these amendments shall be construed to prohibit any State from imposing any requirements which are more stringent than those imposed by Federal regulation. Therefore, in working with States to develop cooperative enforcement agreements the Administrator is to delegate and accept adequate enforcement of compliance with equivalent State requirements that are more stringent than the new Federal requirements as adequate enforcement of compliance with such new requirements.

The new requirements to be directly applied in every State are those contained in the following sections as amended by this bill: section 3002(b)(1) (notification by small quantity generators of shipments containing hazardous wastes); section 3002(b)(7)(C) (requirement for disposal after March 31, 1986, of hazardous wastes from small quantity generators only to facilities permitted under section 3005); section 3004(b) (deadlines for limiting or prohibiting land disposal of certain wastes); section 3004(d) (ban on dust suppression); section 3004(e) (ban on injection of wastes into certain underground formations); section 3004(f) (minimum technological standards for landfills, surface impoundments and incinerators); section 3004(g) (requirement for correction of continuing releases of hazardous wastes at permitted facilities); section 3004(i) (labeling requirements for fuels produced from hazardous wastes or used oil); section 3005(c) (permit review and renewal requirements for hazardous waste treatment, storage or disposal facilities); section 3005(e) (requirements for owners or operators of land disposal facilities under interim status authorizations); and section 3007(b)(1) (mandatory inspections of treatment, storage or disposal facilities).

AIR EMISSIONS FROM LAND DISPOSAL FACILITIES

This amendment amends section 3004 of the Act to require the Administrator within 30 months after enactment to promulgate regulations for monitoring and control of air emissions from hazardous waste facilities as may be necessary to protect human health and the environment.

There is a considerable body of information indicating that emissions into the air from hazardous waste facilities pose a significant threat to health and the environment. Emissions of volatile chemicals from treatment, storage and disposal of wastes have been estimated to be of a similar magnitude as emissions of the same compounds from industrial processes. Studies of hazardous waste surface impoundments and landfills report that significant quantities of hazardous constituents in the wastes may be emitted into the air. In fact, one quarter of the remedial action sites on the National Priority List under the Comprehensive Emergency Response, Compensation and Liability Act (CERCLA) are included at least in part because of potential threats to health and the environment from emissions of hazardous pollutants into the air.

Proposals to regulate emissions from hazardous waste facilities have been published on several occasions since passage of the Resource Conservation and Recovery Act in 1976. Final regulations have never been issued. The Agency also has authority to regulate emissions of hazardous air pollutants under the Clean Air Act, but its performance under that Act has been appallingly slow.

The bill, therefore, requires regulatory action within 30 months under the Solid Waste Disposal Act, providing substantial flexibility to the Agency in establishing needed controls, so long as they meet the basic requirements of the Act, to protect human health and the environment. Levels of control may be based on such factors as volatility and toxicity of wastes and the type of process being regulated.

Monitoring should be required at hazardous waste facilities where necessary to protect human health and the environment. The Agency is currently monitoring air emissions at a significant number of CERCLA sites. It would be entirely appropriate for the Agency to issue monitoring regulations on an expedited basis, while preparing a control strategy. Such an approach might facili-

tate the gathering of data on the nature and extent of the problem posed by air emissions.

GROUND WATER MONITORING

The reported bill adds to section 3004 of the Act a new subsection (1), which ends certain exceptions from the requirements that hazardous waste treatment, storage, and disposal facilities must monitor ground water near the facility to detect any releases of hazardous constituents from the facilities. New subsection 3004(1) requires that the ground water monitoring requirements must be complied with whether or not: a facility is located entirely above the seasonal high water table; the facility has two liners and a leachate collection system; or the facility's liner (or liners) are periodically inspected.

This section has the effect of nullifying several portions of the regulations adopted by the Agency under section 3004. Current regulations (40 C.F.R. 264.222) exempt a surface impoundment from the ground water monitoring requirement if certain conditions are met, principally that the impoundment is located entirely above the seasonal high water table and has two liners. A similar exemption is provided for waste piles (40 C.F.R. 264.252), and for landfills (40 C.F.R. 264.302). These exemptions, on their face, do not meet subtitle C's basic requirement of protecting human health and the environment. There is evidence that a leak could occur even from a double-lined disposal facility, and that hazardous constituents can migrate into ground water even if the facility is located entirely above the seasonal high water table. Similarly, current regulations (40 C.F.R. 264.253) exempt a waste pile from the ground water monitoring requirements if it meets certain conditions, principally that the waste pile is located above the seasonal high water table, has a liner, and the wastes are periodically removed and the liner is inspected for cracks. Again, this exemption allows situations to exist that would not be protective of human health and the environment. For example, if an inspection shows a liner is cracked, the owner or operator is required only to repair the crack, not to detect and clean up any releases that may have occurred before the crack was discovered.

The amendment made by this section of the bill does not make any changes to the Agency's regulations concerning ground water monitoring standards other then deleting the indicated exemptions. The provision does not affect other exemptions from the standards. For example, the regulations provide that the owner or operator need not monitor ground water if the Regional Administrator finds "there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the unregulated unit (including the closure period) and the post-closure care period". This exemption is not affected by the bill.

The amendment also does not limit the Agency's authority to revise the ground water monitoring regulations now in effect; it merely provides that whatever regulations are or will be in effect shall apply to facilities that, because of the conditions described in the bill, are now exempted from ground water monitoring requirements.

WASTE MINIMIZATION

A statement of national policy is added to section 1003 of the Act, and a requirement that hazardous waste generators certify that they have programs to reduce the amount and toxicity of their waste and that they are using methods to minimize the threat of their wastes to human health and the environment is added to sections 3002 and 3005 of the Act.

The national policy statement emphasizes two concepts. First, Congress declares that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Second, waste that is nevertheless generated should be treated, stored or disposed of so as to minimize the present and future threat to human health and the environment.

Current laws emphasize the need to properly treat, store, and dispose of hazardous wastes. While this continues to be a primary element of the Solid Waste Disposal Act and other pollution control laws, additional emphasis must be directed toward (1) minimizing the generation of hazardous wastes and (2) utilizing the best treatment, storage and disposal techniques for each waste.

According to preliminary estimates from recent studies, 150 million metric tons of hazardous waste is generated each year in the United States, and currently subject to subtitle C regulations. This is an enormous volume of pollution requiring the continuing development of environmentally sound treatment, storage, and disposal facilities.

Regardless of the care with which such facilities are managed and the regulatory or legal responsibilities imposed on these facilities, assuring protection of public health and the environment long after the active phase of a facility's existence has ended is a difficult task. The need to minimize the volume and toxicity of all hazardous waste is clear and is made an explicit national policy in this bill. Recycling pollutants contained in effluents, emissions, wastes or other pollution streams is one, but by no means the only, way of implementing this national policy.

For wastes that are generated, the need to employ technologies that minimize present and future threats of harm is reflected in other provisions of this bill (e.g., those that regulate small quantity generators, place limitations on land disposal, establish minimum technological requirements, and regulate the burning and blending of hazardous waste). The statement of national policy broadens and makes explicit the intent of Congress that is implicit in this bill and in existing law.

In addition to the statement of national policy, the Committee adopted several provisions regarding waste minimization. (1) A provision requiring on the manifest required by section 3002 of the Act a certification by the generator that he has a program in place to reduce the volume or quantity and toxicity of hazardous waste to the degree determined by the generator to be economically practicable and that the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment; (2) modifications to the reporting requirement of section 3002, and (3) a requirement for similar self-

certification regarding waste minimization as a condition for on-site storage, treatment, or disposal facility permits after September 1, 1984.

These sections are designed to encourage generators to voluntarily reduce the quantity and toxicity of all waste. While these provisions encourage the reduction of hazardous waste generated, they are directed at the generators of such waste and do not authorize the Environmental Protection Agency or any other person or organization to interfere with or intrude into the production process or production decisions of individual generators. To assure this, it is important to explain in detail the meaning of key elements of the new provisions.

First, both of the certification requirements refer to a certification by a generator that it has a program to minimize waste and as to its treatment, storage or disposal practices. While the requirement to make this certification is mandatory, the nature of the criteria for the certification and the determination of compliance with those criteria are to be made solely by the generator.

Second, the provisions include the term "economically practicable." This is a concept that has been used or alluded to in several laws. However, in this instance, other than defining the phrase, in the statute, the determination of "economically practicable" will be made by the generator and is not subject to subsequent re-evaluation. The generator has the flexibility to determine what is "economically practicable" for the generator's circumstances. Whether this determination is made for all of its operation or on a site-specific basis is for the generator to decide.

Third, explanation of the phrase "the proposed method of treatment, storage or disposal is that practicable method currently available to the generator . . ." is essential. This language is not intended to require the retrofitting of existing facilities, nor is it intended to require the installation or use, either on-site or off site, of new technologies as they become available. A generator may, of course, choose to retrofit or otherwise utilize new technologies. Use of the term "practicable" in conjunction with the term "currently available" should result in generators choosing alternative treatment, storage, or disposal methods (beyond those generally required to comply with subtitle C), when they are economically practicable. Again, these judgments are to be made solely by the generator.

Fourth, the two determinations that must be certified can be balanced in different ways by a generator. For example, some generators may develop programs that first minimize waste that is generated and then identify and utilize a disposal technology that satisfies the second test. Others may find that the reduction of waste volume would result in increased toxicity. They may find that the present and future threat to human health and the environment is better addressed in the use of treatment, storage, and disposal methods than in the employment of certain waste reduction methods. Moreover, these provisions are not intended to discourage the recycling of materials. A fundamental premise of the Act is and continues to be to encourage reuse of materials.

There are substantial differences among hazardous waste generators that must be considered. For example, there are important

differences between a manufacturer whose process creates hazardous wastes that are capable of being recycled in the process and a generator who performs a service using products manufactured elsewhere, the residue from which is a hazardous waste. Clearly, the opportunities to minimize waste can be vastly different between these types of generators. The bill does not require waste minimization programs where such programs are not practicable, such as for those generators that are merely utilizing material where there is no practicable method for recycling the residue.

The difficulties in developing waste minimization programs also can be greatly exacerbated with regard to small quantity generators. The waste minimization requirements are not intended to result in a significant paperwork burden for small quantity generaters. Prior to the promulgation of additional regulations for small quantity generators required by other provisions of the bill, the waste minimization requirements do not apply to generators of less than 1000 kilograms per month. The special manifest requirement for small quantity generators is imposed by section 3002(b), not by section 3002(a)(5). In developing regulations under the small quantity generator regulation and study provisons of this bill, the Administrator is directed to give special consideration to minimizing any unduly burdensome aspects of these requirements. The Administrator may conclude that neither the reporting or certification requirements of the waste minimization section should be applied to small quantity generators, or specific classes or categories of small quantity generators.

With respect to the certification requirement, this section does not create civil or criminal consequences. Thus, for example, such certifications are not to be treated as a "material statement" under new section 3008(d)(3) of the Act. Nor is the content of these certifications to be cause for challenge regarding the issuance of permits. In keeping with the concept of these provisions, judgments made by the generators are not subject to external regulatory action.

In implementing the biennial reporting requirement, the Agency should not require reports that duplicate the Agency's existing biennial reports. In particular, to the extent that the existing report will provide all or some information required by this subsection, submission of that report should be deemed sufficient to comply with some or all reporting requirements of this subsection. Additionally, it is recognized that the volume and quantity and toxicity of wastes can vary significantly with respect to the production levels of the products associated with the waste and that this can certainly distort the implications of information presented under new section 3002(a)(6)(D).

This section of the reported bill includes two provisions intended to assist Congress, during the next reauthorization of this Act and of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, in considering further measures to achieve the national policy established by this section.

The first provision would add a new subsection 8002(r) to the Act, requiring the Administrator to submit to Congress by October 1, 1986, a report on the feasibility and desirability of expanding the subtitle C program to include requirements for generators of hazardous waste to reduce the volume or quantity and toxicity of the

waste they generate. One such type of requirement which the Agency should evaluate in this report would be substantive standards of performance, similar to those under the Clean Air Act, which would require all generators in a certain category to reduce the volume or quantity and toxicity of their hazardous waste at least as much as could be achieved through the application of measures that are available to generators in that category. The Agency should also evaluate other methods of requiring generators to reduce the volume and toxicity of their hazardous waste, including possible changes to the requirements established by this section's amendments to section 3002 and 3005 of the Act.

The report to Congress also is to include an assessment of the feasibility and desirability of standards prescribing particular management practices that must be followed with respect to particular hazardous wastes. Such required management practices, or similar measures, would be a step beyond the prohibitions on certain methods of land disposal which will be established under section 3004(b) of the Act, as added by this bill; instead of just prohibiting certain management practices because they are not protective of human health and the environment, establishing preferred or required management practices might assure that hazardous wastes are managed only in those ways which the Agency determines are most protective of human health and the environment.

The report addressing these possible changes in the nature of the subtitle C program is to be submitted to Congress by October 1, 1986—one year before the expiration of the authorization for appropriations for the program.

For similar reasons, the second provision accelerates by six months the deadline for the President's comprehensive report to Congress on the initial implementation of the Superfund program and possible changes to it. That report, required by section 301(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), is currently required to be submitted within four years of the enactment of CERCLA, or by December 11, 1984. The bill would require the report to be filed within forty-two months of the enactment of CERCLA, or by June 11, 1984. This will assure that Congress has adequate time to review the report in advance of making decisions on revising or extending the Superfund program.

The Superfund report is to include an assessment of the feasibility and desirability of revising the taxes levied under CERCLA so they are based on the likelihood of a release of a hazardous substance and the degree of hazard and risk resulting from any such release, so that the taxes create incentives for proper handling, recycling, incineration, and neutralization of hazardous wastes and disincentives to improper or illegal handling or disposal of hazardous materials. The Agency should consider the potential for "waste-end" taxes to create such incentives and disincentives, as well as the revenue such taxes would produce, when studying the feasibility and desirability of revising the Superfund tax schedule.

TECHNICAL CORRECTIONS

This amendment makes two technical corrections to the Act as amended in 1980 and one correction to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

The first two corrections redesignate a section and a subsection that were improperly identified in the 1980 amendments to the Act. The third correction makes it clear that CERCLA's tax sunset provision was not intended to apply to taxes for the Post Closure Liability Trust Fund under that Act.

REPORT TO CONGRESS

This amendment requires that the Environmental Protection Agency conduct an inventory of hazardous waste injection wells and report to the Congress not later than March 15, 1984. This provision is necessary because even though preliminary estimates indicate that 57 percent of the hazardous waste generated in the United States is disposed of through deep well injection, virtually no reliable information exists as to these wells and the activities surrounding them. Elsewhere in this bill, the disposal of hazardous waste though injection into or above an aquifer which serves as a drinking water supply is prohibited. An inventory was ordered in order to improve the information base relating to wells below drinking water aquifers.

In conducting the inventory, the Environmental Protection Agency may rely upon information which is already in existence. It is expected that much of the necessary information will be found in the files of State and local agencies. Some of the information, however, will not be found so easily and, for at least twenty wells, the Agency is required to conduct a comprehensive survey.

The inventory and comprehensive survey are to provide the following information:

1. The location and depth of each well;
2. Engineering and construction details of each, including the thickness and composition of its casting, the width and content of the annulus, and pump pressure and capacity;
3. The hydrogeological characteristics of the overlying and underlying strata, as well as that into which the waste is injected;
4. The location and size of all drinking water aquifers penetrated by the well, or within a one-mile radius of the well or within two hundred feet below the well injection point;
5. The location, capacity, and population served by each well providing drinking or irrigation water which is within a five-mile radius of the injection well;
6. The nature and volume of the waste injected during the one-year period immediately preceding the date of the report;
7. The dates and nature of the inspections of the injection well conducted by independent third parties or agents of State, Federal, or local government;
8. The name and address of all owners and operators of the well and any disposal facility associated with it; and

9. Such other information as the Administrator may, in his discretion, deem necessary to define the scope and nature of hazardous waste disposal in the United States through underground injection.

COMMUNITY RELOCATION

This amendment expands the statutory definition of "removal" in section 101(23) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA or Superfund) to provide the Agency with the discretion to fund as part of removal: permanent relocation of businesses, residences, and community facilities; payment of principal and interest on business debts during a temporary relocation (until temporary relocation ends or until permanent relocation is accomplished); and payment of unemployment compensation to individuals unemployed as a result of an evacuation or a relocation. The amendments authorize the Agency to provide permanent relocation as the most appropriate remedy at a site even when the site is not on the National Priorities List. The payment of principal and interest on business debts is limited to those businesses which are located in the area of an evacuation or relocation.

The language is added to clarify the Agency's authority and flexibility to deal with situations such as that presented by dioxin contamination in Missouri. Specifically, the amendment provides that the Agency can move immediately to permanently relocate the residents of a contaminated site if such a step is found to be cost-effective or may be necessary to protect health or welfare. For example, in some cases it may make more sense--economically and socially--to buy up and seal off a highly contaminated residential area immediately, rather than locate the residents indefinitely in temporary housing during a protracted, possibly impractical cleanup.

The amendment also gave the Agency the authority to pay the interest and principal on business debt during a period of temporary relocation. Temporary relocation is intended to protect the residents of a contaminated area, but when a community is evacuated, businesses are cut off from their customers. Their income abruptly ceases, while their obligations continue unabated. Thus, they are not protected, but are harmed. This amendment seeks to hold them harmless with respect to business debt only. There is no intent to make up for lost income.

The Agency also would have specific authority to provide special assistance to individuals unable to work as a result of such an evacuation. In effect, the same assistance would be available as is already available in natural disasters--unemployment and reemployment assistance, food stamps, and grants to meet necessary expenses or serious needs not covered by other aid programs. As under the Disaster Relief Act, this assistance would be provided by Federal agencies with appropriate programs and expertise, using money from the Superfund, and not directly by the Environmental Protection Agency.

This is a clarifying amendment, not substantially altering the scope or intent of the Superfund program.

COST OF LEGISLATION

Section 403 of the Congressional Budget and Impoundment Control Act requires that a statement of the cost of the reported bill, prepared by the Congressional Budget Office, be included in the report. A copy of that statement follows:

U.S. SENATE,
CONGRESSIONAL BUDGET OFFICE,
Washington, D.C., October 27, 1983.

Hon. ROBERT T. STAFFORD,
Chairman, Committee on Environment and Public Works, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Pursuant to Section 403 of the Congressional Budget Act of 1974, the Congressional Budget Office has prepared the attached cost estimate for S. 757, the Solid Waste Disposal Act Amendments of 1983. The analyses of the impact of this bill on state and local governments has not been completed, and will be provided separately.

Should the Committee so desire, we would be pleased to provide further details on this estimate.

Sincerely,

RUDOLPH G. PENNER,
Director.

CONGRESSIONAL BUDGET OFFICE--COST ESTIMATE

1. Bill number: S. 757.

2. Bill title: Solid Waste Disposal Act Amendments of 1983.

3. Bill status: As ordered reported by the Senate Committee on Environment and Public Works, July 28, 1983.

4. Bill purpose: This bill amends the Solid Waste Disposal Act, also known as the Resource Conservation and Recovery Act (Public Law 94-580), and authorizes appropriations for fiscal years 1984-1987 for the Environmental Protection Agency (EPA) to administer related programs.

The bill establishes new requirements for generators of small quantities of hazardous wastes, and directs the EPA Administrator to conduct a study and to promulgate additional regulations applicable to such generations. The bill also establishes new requirements regarding land disposal, air emissions from land deposit facilities, groundwater monitoring, and the export of hazardous waste. In addition, the bill directs the EPA Administrator to compile an inventory of all U.S. wells into which hazardous wastes are injected. S. 757 also amends the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 to allow use of superfund money to pay permanent and related costs to residents and businesses and to extend certain disaster relief provisions to individuals unemployed as a result of relocation.

5. Estimated cost to the Federal Government:

[By fiscal years, in millions of dollars]

	1984	1985	1986	1987	1988
Authorization level	92	97	100	100	.....
Less: Amounts appropriated to date	98	.....	.....	.....	.....
Net additional authorization	.....	97	100	100	.....
Estimated outlays	.....	52	80	89	43

The costs of this bill fall within budget function 300.

Basis of estimate: The authorization levels are stated in the bill. For purposes of this estimate, it is assumed that the entire amounts authorized for fiscal years 1985 through 1987 will be appropriated prior to the start of each fiscal year. Because 1984 appropriations for these programs have already been enacted, there is no additional budget impact as a result of the 1984 authorizations. Outlays were estimed based on historical spending patterns for these and similar programs administered by the EPA.

The authorization for use of superfund money for relocation and related costs could result in additional demand for superfund expenditures—but there is currently no basis for estimating the amounts of such additional expenditures.

6. Estimated cost to State and local governments: No yet available.

7. Estimate comparison: None.

8. Previous CBO estimate: None.

9. Estimate prepared by: Anne E. Hoffman.

10. Estimate approved by: C. G. Nuckols (for James L. Blum, Assistant Director for Budget Analysis).

Rollcall Votes

Section 7(b) of rule XXVI of the Standing Rules of the Senate and the rules of the Committee on Environment and Public Works require that any rollcall votes taken during consideration of the bill be announced in this report.

During the Committee's consideration of S. 757 on July 28, 1983, four rollcall votes were taken, including the Committee vote to report the bill which is announced as 14-1.

Voting in the affirmative to report S. 757 from the full Committee were Senators Stafford, Baker, Chafee, Simpson, Durenberger, Abdnor, Humphrey, Randolph, Bentsen, Burdick, Hart, Moynihan, Mitchell and Baucus. Voting in the negative was Senator Symms.

A motion to adopt an amendment offered by Senator Randolph as a substitute for an amendment offered by Senator Durenberger relating to regulation of small quantity generators was defeated by a vote of 6-9. Voting in the affirmative were Senators Stafford, Chafee, Randolph, Hart, Mitchell, and Moynihan. Voting in the negative were Senators Abdnor, Baker, Baucus, Bentsen, Burdick, Durenberger, Humphrey, Simpson and Symms.

A motion to adopt an amendment offered by Senator Durenberger relating to regulation of small quantity generators was adopted by a vote of 10-5. Voting in the affirmative were Senators Abdnor, Baker, Baucus, Bentsen, Burdick, Durenberger, Humphrey, Moynihan, Simpson and Symms. Voting in the negative were Senators Stafford, Chafee, Randolph, Hart and Mitchell.

A motion to adopt a package of amendments offered by Senator Stafford relating to waste minimization was adopted by a vote of 9-2. Voting in the affirmative were Senators Stafford, Chafee, Durenberger, Randolph, Bentsen, Hart, Mitchell, Moynihan, and Baucus. Voting in the negative were Senators Humphrey and Symms. Voting present were Senators Abdnor and Simpson.

Hearings

The Subcommittee on Environmental Pollution held hearings in both the 97th and 98th Congress on the Solid Waste Disposal Act. Over twelve hundred pages of testimony and exhibits have been included in the hearing record. All hearings have been conducted in Washington, D.C.

In the 98th Congress, the Subcommittee had two mark-up sessions, June 23 and July 20. The Committee conducted two mark-up sessions, July 26 and 28, and on July 28, 1983, voted to order the bill reported.

On May 16, 1983, the Committee reported S. 1283, a bill to amend the Solid Waste Disposal Act to authorize funds for fiscal year 1984. The issues raised by this piece of legislation are addressed in S. 757.

Evaluation of Regulatory Impact

In compliance with section 11(b) of Rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact of the reported bill.

Most of the provisions of the reported bill are more specific applications of regulatory authority already available to the Administrator under subtitle C of the Solid Waste Disposal Act. Generally no new regulatory burden is created by this bill. Some of these amendments, however, are intended to specifically overrule administrative exclusions or suspensions of regulations.

A principal example is new section 3002(b), closing out an administrative exemption and requiring standards for small quantity generators of hazardous waste. Thousands of individual businesses, including many small businesses, are likely to be affected by this provision. The exact number, and the likely range of costs imposed, is not known. The study required by section 3002(b)(7) will provide this information. The Committee has made an effort, however, to minimize the amount of additional paperwork and recordkeeping which would be imposed on individuals or businesses by these provisions, limiting such requirements to those necessary to protect human health and the environment.

The reported bill is not expected to have any impact on the personal privacy of individuals.

ADDITIONAL VIEWS OF SENATOR HUMPHREY

I was very pleased to be able to vote for Committee passage of the Solid Waste Disposal Act Amendments of 1983, and I commend the bill to the full Senate for prompt consideration and passage. This bill represents a substantial and important piece of work by the Committee, which should close many of the loopholes extant in current law and provide greater protection of human health and the environment.

The Committee has properly recognized that while much remains to be done to ensure proper treatment, storage and disposal of hazardous wastes, the future challenge lies in reducing the total amount of waste generated. Indeed, two amendments to the bill attempt to address this very point. While I fully intend to support these measures on the floor, I am concerned that the Committee received no testimony directly on the issue of waste minimization. I fear, therefore, that we may be legislating in something of a vacuum. It worries me that we may be imposing a substantial paperwork burden on American industry, but perhaps will have nothing to show for it.

By moving from the questions of properly storing, treating and disposing of hazardous wastes to the challenge of reducing their actual generation, we have taken a bold and important step. But I wonder whether our efforts are properly directed. Shortly after the Committee reported this bill, the EPA released the preliminary findings of a study entitled, "National Survey of Hazardous Waste Generators and Treatment, Storage, and Disposal Facilities Regulated under RCRA in 1981." This survey indicates that American industry is generating about 150 million metric tons of hazardous waste per year—nearly four times more than earlier estimates. Perhaps more significant is the fact that only one percent of the generators produce nearly 90 percent of the total amount of hazardous waste. Just as important, only 4 percent of the 40 billion gallons of hazardous wastes generated in 1981 were recycled, according to the study.

These figures suggest that the problem is a very large and important one, and lead me to question whether the best initial approach is indeed a mandatory reporting scheme that applies to all generators, but that provides precious little guidance for them as to what should be reported or what is expected. We run the risk here of creating a false public impression that we have dealt with the problem, when in fact we have not. There is also a danger of a backlash from some segments of industry (small companies in particular) that may perceive this as another senseless bureaucratic and regulatory headache and expense. Needless to say, the effect of such a reaction could be counterproductive to the result the Committee is trying to achieve.

At the very least, I hope the Committee will recognize that we have only just begun our work on the issue of waste minimization. An important step will be to find a suitable means by which to ensure that EPA will use the returned reports to develop a good statistical base on which to consider future changes. It is also my hope that the Committee will hear some testimony from expert witnesses on the specific issue of waste minimization.

My support for the Solid Waste Disposal Act Amendments of 1983 is in no way lessened by my concerns about the issue of waste minimization. Indeed, I am fully prepared to speak on behalf of waste minimization provisions on the floor of Senate. However, I do think it is important that the members of the Committee spend substantially more time on this issue in future years. Protection of human health and the environment is a weighty charge, but in the area of waste minimization we have only just begun to fulfill our mandate.

GORDON J. HUMPHREY.

CHANGES IN EXISTING LAW

In compliance with section 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows: Existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman:

THE SOLID WASTE DISPOSAL ACT

(Public Law 94-580)

AN ACT To provide technical and financial assistance for the development of management plans and facilities for the recovery of energy and other resources from discarded materials and for the safe disposal of discarded materials, and to regulate the management of hazardous waste

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

* * * * * * *

TITLE II—SOLID WASTE DISPOSAL

SUBTITLE A—GENERAL PROVISIONS

* * * * * * *

OBJECTIVES AND NATIONAL POLICY

SEC. 1003. *(a)* OBJECTIVES. The objectives of this Act are to promote the protection of health, and then environment and to conserve valuable material and energy resources by—

(1) providing technical and financial assistance to State and local governments and interstate agencies for the development of solid waste management plans (including resource recovery and resource conservation systems) which will promote improved solid waste management techniques (including more effective organizational arrangements), new and improved meth-

ods of collection, separation, and recovery of solid waste, and the environmentally safe disposal of nonrecoverable residues;

(2) providing training grants in occupations involving the design, operation, and maintenance of solid waste disposal systems;

(3) prohibiting future open dumping on the land and requiring the conversion of existing open dumps to facilities which do not pose a danger to the environment or to health;

(4) regulating the treatment, storage, transportation, and disposal of hazardous wastes which have adverse effects on health and the environment;

(5) providing for the promulgation of guidelines for solid waste collection, transport, separation, recovery, and disposal practices and systems;

(6) promoting a national research and development program for improved solid waste management and resource conservation techniques, more effective organizaitonal arrangements, and new and improved methods of collection, separation, and recovery and recycling of solid wastes and environmentally safe disposal of nonrecoverable residues;

(7) promoting the demonstration, construction, and application of solid waste management, resource recovery, and resource conservation systems which preserve and enhance the quality of air, water, and land resources; and

(8) establishing a cooperative effort among the Federal, State, and local governments and private enterprise in order to recover valuable materials and energy from solid waste.

(b) NATIONAL POLICY.—The Congress hereby declares it to be the national policy of the United States that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Waste that is nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.

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SUBTITLE B—OFFICE OF SOLID WASTE; AUTHORITIES OF THE ADMINISTRATOR

* * * * * * *

ANNUAL REPORT

SEC. 2006. *(a) ACTIVITIES OF THE OFFICE.—* * *

(b) HAZARDOUS WASTE.—(1) The Administrator shall transmit to the Congress and the President, periodically but no less often than every two years a report describing quantities and types of hazardous waste generated, stored, treated, and disposed of. The Administrater shall compile and update such information comparable to that required under section 3002(a)(6) and section 3004(a) (1) and (2).

(2) States with authorized programs under section 3006 shall make available those reports they have received or compiled to assist the Administrator in preparing such report for Congress. The first such report shall cover calender year 1983 and shall be transmitted to the Congress no later than March 31, 1985.

(3) The authority of section 3007 of this Act shall be available in the implementation of this subsection.

GENERAL AUTHORIZATION

SEC. 2007. (a) GENERAL ADMINISTRATION.—There are authorized to be appropriated to the Administrator for the purpose of carrying out the provisions of this Act, $35,000,000 for the fiscal year ending September 30, 1977, $38,000,000 for the fiscal year ending September 30, 1978, $42,000,000 for the fiscal year ending September 30, 1979, $70,000,000 for the fiscal year ending September 30, 1980, $80,000,000 for the fiscal year ending September 30, 1981, [and] $80,000,000 for the fiscal year ending September 30, 1982, *$43,628,000 for the fiscal year ending September 30, 1983, $45,000,000 for the fiscal year ending September 30, 1984, $47,000,000 per fiscal year for the fiscal years ending September 30, 1985, September 30, 1986, and September 30, 1987.*

* * * * * * *

SUBTITLE C—HAZARDOUS WASTE MANAGEMENT

IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SEC. 3001. (a) CRITERIA FOR IDENTIFICATION OR LISTING.—Not later than eighteen months after the date of the enactment of this Act, the Administrator shall, after notice and opportunity for public hearing, and after consultation with appropriate Federal and State agencies, develop and promulgate criteria for identifying the characteristics of hazardous waste, and for listing hazardous waste, which should be subject to the provisions of this subtitle, taking into account toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics. Such criteria shall be revised from time to time as may be appropriate.

(b)(1) IDENTIFICATION AND LISTING.—Not later than eighteen months after the date of enactment of this section, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations identifying the characteristics of hazardous waste, and listing particular hazardous wastes (within the meaning of section 1004(5)), which shall be subject to the provisions of this subtitle. Such regulations shall be based on the criteria promulgated under subsection (a) and shall be revised from time to time thereafter as may be appropriate.

* * * * * * *

(4)(A) The regulations promulgated under paragraph (1) shall provide that, when evaluating a petition to exclude a waste generated at a particular facility from being regulated as a hazardous waste, the Administrator shall consider criteria, constituents, or other related factors, other than those for which the waste was listed, if the Administrator has a reasonable basis to believe that such additional criteria, constituents, or other related factors could cause such waste to be listed as a hazardous waste. The Administrator shall grant or deny such petitions only after notice and opportunity for

public hearing. If the basis for denial of such petition is the presence of additional constituents which could cause such waste to be hazardous, the Administrator shall amend the basis for the listing of such waste to indicate the additional constituents.

(B) The temporary granting of such a petition prior to the enactment of the Solid Waste Disposal Act Amendments of 1983 without the opportunity for public comment and the full consideration of such comment shall not continue for more than twelve months after the date such petition is granted or six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, whichever is later. If a final decision to grant or deny such a petition has not been promulgated after notice and opportunity for public comment within the time limit prescribed by the preceding sentence, any such temporary granting of such petition shall cease to be in effect.

(C) Any petition to exclude from regulation a waste generated at a particular facility shall be accompanied by adequate information to evaluate such petition, including information on samples of such waste determined to be representative on the basis of guidelines for the development and submission of such information published by the Administrator. Such information shall be certified by a responsible official of such facility (as determined under regulations promulgated under section 3005) to be accurate, complete, and representative, within the knowledge of employees or contractors of such facility.

(5) For the purpose of assuring the timely completion of regulations identifying the characteristics of hazardous waste and the listing of additional particular hazardous wastes, as required by paragraph (1) of this subsection, the Administrator shall—

(A) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, identify those particular wastes for which the Agency intends to decide whether to list as hazardous waste within two years after such date of enactment, and those particular wastes for which the Agency intends to decide within five years after such date of enactment;

(B) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, promulgate regulations listing chlorinated dioxin- and dibenzofuran-containing wastes as hazardous wastes in accordance with paragraph (1) of this subsection; and

(C) not later than two years after the date of enactment of the Solid Waste Disposal Act Amendments of 1933, (i) promulgate regulations identifying additional characteristics of hazardous waste, including measures or indicators of toxicity; and (ii) reach decisions on all wastes identified in accordance with subparagraph (A) for decision within two years and for each such waste either promulgate regulations listing such particular hazardous waste or publish a statement as to why such waste should not be listed as hazardous waste; and

(D) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, determine the appropriateness of using the extraction procedure toxicity characteristic for evaluating petitions to exclude a waste generated at a particular facility from being regulated as a hazardous waste, and, not later than two years after such date of enactment, make such changes as are necessary in the extraction procedure toxicity characteristic to predict the leaching potential of wastes upon exposure to leaching media more aggressive than the media utilized in the regulation in effect as of such date of enactment.

(6) The Administrator, in cooperation with the Agency for Toxic Substances and Disease Registry and the National Toxicology Program, shall also identify or list those hazardous wastes which shall be subject to the provisions of this subtitle solely because of the presence in such wastes of certain constituents (such as identified carcinogens, mutagens, or teratogens) at levels in excess of levels which endanger human health.

(c) PETITION BY STATE GOVERNOR.—At any time after the date eighteen months after the enactment of this title, the Governor of any state may petition the Administrator to identify or list a material as a hazardous waste. The Administrator shall act upon such petition within ninety days following his receipt thereof and shall notify the Governor of such action. If the Administrator denies such petition because of financial considerations, in providing such notice to the Governor he shall include a statement concerning such considerations.

(d) CLARIFICATION OF HOUSEHOLD WASTE EXCLUSION.—A resource recovery facility recovering energy from the mass burning of municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if such facility—

(1) receives and burns only (A) household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and (B) solid waste from commercial or industrial sources that does not contain hazardous waste identified or listed under this section, and

(2) such facility does not accept hazardous wastes identified or listed under this section and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

SEC. 3002. *(a) STANDARDS.*— Not later than eighteen months after the date of the enactment of this section, and after notice and opportunity for public hearings and after consultation with appropriate Federal and State agencies, the Administrator shall promulgate regulations establishing such standards, applicable to generators of hazardous waste identified or listed under this subtitle, as may be necessary to protect human health and the environment. Such standards shall establish requirements respecting—

(1) * * *

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[(6) submission of reports to the Administrator (or the State agency in any case in which such agency carries out an authorized permit program pursuant to this subtitle) at such times as

the Administrator (or the State agency if appropriate) deems necessary, setting out—

[(A) the quantities of hazardous waste identified or listed under this subtitle that he has generated during a particular time period; and

[(B) the disposition of all hazardous waste reported under subparagraph (A).]

(6) submission of reports to the Administrator (or the State agency in any case in which such agency carries a permit program pursuant to this subtitle) at least once every two years, setting out—

(A) the quantities and nature of hazardous waste identified or listed under this subtitle that he has generated during the year;

(B) the disposition of all hazardous waste reported under subparagraph (A);

(C) the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and

(D) the changes in volume and toxicity of waste actually achieved during the year in question in comparision with previous years, to the extent such information is available for years prior to enactment of this subparagraph.

(b) HAZARDOUS WASTE FROM SMALL QUANTITY GENERATORS.—(1) Beginning two hundred and seventy days after the enactment of the Solid Waste Disposal Act Amendments of 1983, any hazardous waste listed or identified under section 3001 which is part of a total quantity generated by a generator generating greater than one hundred kilograms but less than one thousand kilograms during one calendar month and which is shipped off the premises on which waste is generated shall be accompanied by a copy of the Environmental Protection Agency uniform hazardous waste manifest form signed by the generator. This form shall contain the following information:

(A) the name and address of the generator of the waste;

(B) the United States Department of Transportation description of the waste, including the proper shipping name, hazard class, and identification number (UN/NA), if applicable;

(C) the number and type of containers;

(D) the quantity of waste being transported; and

(E) the name and address of the facility designated to receive the waste.

If subparagraph (B) is not applicable, in lieu of the description referred to in such subparagraph (B), the form shall contain the Environmental Protection Agency identification number, or a generic description of the waste, or a description of the waste by hazardous waste characteristic. Additional requirements related to the manifest shall apply only if determined necessary by the Administrator to protect human health and the environment. The Administrator is authorized to apply the requirements of this paragraph to hazardous waste which is part of a total quantity generated by a generator generating less than one hundred kilograms during one calendar month.

(2)(A) Any hazardous waste identified in accordance with section 3001 on the basis of the characteristic of ignitability, reactivity, or

corrosivity or listed under section 3001, which is part of a total quantity generated by a generator generating greater than one hundred kilograms but less than one thousand kilograms during one calendar month when such waste is transported off the premises on which such waste is generated, shall be placed in suitable, sound, nonleaking containers as follows:

(i) off-specification materials, residual materials, and materials from spill cleanup may be placed in the original containers of such materials, or in equivalent containers labeled with the same information as the original containers and suitably constructed to contain such materials;

(ii) a waste may be placed in a Department of Transportation specification hazardous material container with prescribed labeling in compliance with the Hazardous Materials Transportation Act; and

(iii) other wastes may be placed in a container or otherwise handled by a method (including a method of identification or labeling consistent with this subparagraph) mutually agreed by the generator and the transporter of such wastes.

Wastes that are not incompatible may be aggregated in such suitable containers. For the purpose of this subparagraph, aggregation means the mixing of two or more types of wastes within the innermost container.

(B) Except as provided in paragraph (7) or under State law, a generator generating waste subject to this paragraph shall not be subject to additional requirements for manifesting, recordkeeping, or reporting beyond those in regulations promulgated prior to January 1, 1983.

(3) Until the effective date of regulations promulgated under paragraph (7), or as specified in paragraph (7)(C), any hazardous waste identified or listed under section 3001 generated by any generator during any calendar month in a total quantity less than one thousand kilograms, which is not treated, stored, or disposed of at a hazardous waste treatment, storage, or disposal facility with a permit under section 3005, shall be disposed of only at a facility which is permitted, licensed, or registered by a State to manage municipal or industrial solid waste.

(4) The provisions of paragraphs (2) and (3) shall take effect on the date two hundred and seventy days after the enactment of the Solid Waste Disposal Act Amendments of 1983.

(5) Requirements under section 3004 for storage of hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms shall provide for onsite storage in tanks and containers of such hazardous waste for up to one hundred and eighty days, unless the generator must ship or haul such waste over two hundred miles in which case such requirements shall provide for onsite storage for up to two hundred and seventy days of up to six thousand kilograms of such hazardous waste.

(6) Nothing in this subsection shall be construed to affect, modify, or render invalid any requirements applicable to any acutely hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms, including [illegible]

prior to January 1, 1983. Any additional acutely hazardous waste listed under section 3001 after January 1, 1983, shall be subject to all regulations applicable to acutely hazardous wastes.

(6)(A) The Administrator in cooperation with the States shall conduct a study of hazardous waste identified or listed under section 3001 of this Act which is generated by individual generators in total quantities for each generator during any calendar month of less than one thousand kilograms. The Administrator may require from such generators information as may be necessary to conduct the study. Such study shall include a characterization of the number and type of such generators, the quantity and characteristics of hazardous waste generated by such generators, State requirements applicable to such generators, the individual and industry waste management practices of such generators, the potential costs of modifying those practices and the impact of such modifications on national treatment and disposal facility capacity, and the threat to the protection of human health and the environment and the employees of transporters or others involved in solid waste management posed by such hazardous wastes or such management practices. Such study shall specifically address whether the requirements of paragraph (2) should apply to hazardous wastes identified on the basis of the characteristic of extraction procedure toxicity or additional characteristics promulgated under section 3001(b)(5). Such study shall be submitted to the Congress not later than March 31, 1985.

(B) Based upon the study required by subparagraph (A) and other information available to the Administrator and after consultation with the States, the Administrator shall promulgate not later than March 31, 1986, additional regulations establishing such requirements under this section and sections 3003, 3004, and 3005 of this Act for hazardous waste identified or listed under section 3001 which is generated by a generator during any calendar month in a total quantity less than one thousand kilograms, as may be necessary to protect human health and the environment. Such requirements may supplement the requirements of paragraphs (1) through (5) of this subsection and may distinguish among classes and categories of generators or waste, and may vary from the requirements applicable to hazardous waste generated in quantities greater than one thousand kilograms during any calendar month, to the extent the Administrator determines such standards are adequate to protect human health and the environment. The Administrator shall consider State requirements applicable to generators of hazardous wastes which generate such wastes in a total quantity less than one thousand kilograms per month in promulgating such regulations and shall explain differences between State requirements and regulations promulgated under this subparagraph. Except as provided in paragraph (5), regulations promulgated under this paragraph shall provide that treatment, storage, or disposal of a hazardous waste identified or listed under section 3001 generated by a generator during any calendar month in a total quantity less than one thousand kilograms occur only at a treatment, storage, or disposal facility with a permit under section 3005. The Administrator may establish in such regulations a total quantity of wastes generated by a generator during any calendar month, not to exceed one hundred kilograms, for which disposal may occur in compliance with para-

graph (3) rather than the preceding sentence, if the Administrator determines that such compliance will be adequate to protect human health and the environment. Such quantity may vary for different wastes or classes of wastes.

(C) In the case no regulations in accordance with subparagraph (B) of this paragraph have been promulgated prior to March 31, 1986, after such date—

(i) all treatment, storage, or disposal of any hazardous waste identified or listed under section 3001 generated by a generator during any calendar month in a total quantity greater than one hundred kilograms but less than one thousand kilograms shall occur only at a treatment, storage, or disposal facility with a permit under section 3005;

(ii) generators of such waste shall file manifest exception reports as required by generators producing quantities greater than one thousand kilograms per month except that such reports shall be filed by January 31, for any waste shipment occurring in the last half of the preceeding calendar year, and by July 31, for any waste shipment occurring in the first half of the calendar year; and

(iii) generators of such waste shall retain for three years a copy of the manifest signed by the designated facility that has received the waste.

(D) The Administrator shall undertake activities to inform and educate waste generators of their responsibilities under this section during the period after enactment to help assure compliance.

(c) WASTE MINIMIZATION.—Effective September 1, 1984, the manifest required by subsection (a)(5) shall contain a certification by the generator that—

(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator economically practicable; and

(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment

STANDARDS APPLICABLE TO TRANSPORTERS OF HAZARDOUS WASTE

SEC. 3003. (a) * * *

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(e) FUEL FROM HAZARDOUS WASTE.—Not later than two years after the date of enactment of the Solid Waste Disposal Act Amendments of 1983 and after opportunity for public hearing, the Administrator shall promulgate regulations establishing standards, applicable to transporters of fuel produced (1) from any hazardous waste identified or listed under section 3001, or (2) from any hazardous waste identified or listed under section 3001 and any other material, as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in [illegible] through (7) of subsection (a) as may be appropriate.

STANDARDS APPLICABLE TO OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

SEC. 3004. *(a) STANDARDS.*—* * *

(b) LAND DISPOSAL LIMITATIONS.—(1) The Congress finds that certain classes of land disposal facilities are not capable of assuring long-term containment of certain hazardous wastes, and that to avoid substantial risk to human health and the environment, reliance on land disposal should be minimized and land disposal, particularly landfill and surface impoundment, should be the least favored method for managing hazardous wastes. Therefore, the Administrator shall, after notice and opportunity for hearings and after consultation with appropriate Federal and State agencies, promulgate regulations prohibiting the land disposal of hazardous wastes, except for methods of land disposal of one or more such wastes which the Administrator determines will be protective of human health and the environment. If the Administrator determines that a method of land disposal of a hazardous waste will be protective of human health and the environment, he shall promptly publish in the Federal Register notice of such determination together with an explanation of the basis for such determination. The Administrator shall take into account the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous waste, and the potential effect of such waste on the integrity of containment mechanisms.

(2) For the purposes of this subsection, if a specified waste contains significant concentrations of one or more hazardous constituents that is highly toxic, highly mobile, or has a strong propensity to bioaccumulate, a method of land disposal may not be determined to be protective of human health and the environment for such specified hazardous waste, unless upon application by an interested person it has been demonstrated to the Administrator, to a reasonable degree of certainty, that there will be no migration of such constituents from the disposal unit or injection zone for as long as the wastes remain hazardous.

(3) A prohibition in regulations under this subsection shall be effective immediately upon promulgation, unless the Administrator establishes another effective date with respect to a specific hazardous waste on the basis of the earliest date on which adequate alternative treatment, recovery, or disposal capacity which protects human health and the environment will be available, which shall in no event be later than two years after the date of promulgation. The Administrator, after notice and opportunity for comment and after consultation with appropriate State agencies in all affected States, may grant an extension of such effective date on a case-by-case basis for up to one year, renewable for no more than one additional year, where the applicant demonstrates that there is a binding contractual commitment to construct or otherwise provide such alternative capacity but due to circumstances beyond the control of such applicant such alternative capacity cannot reasonably be made available by such effective date.

(4) Not later than July 1, 1985, the Administrator shall promulgate regulations in accordance with paragraph (1) for dioxin-containing hazardous wastes and those hazardous wastes numbered F001, F002, F003, F004, and F005 in regulations promulgated by the Administrator under section 3001 (40 C.F.R. 261.31), as those regulations are in effect on July 1, 1983;

(5) Not later than thirty-two months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations in accordance with paragraph (1) for the following hazardous wastes:

(A) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l.

(B) Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following dissolved metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those specified below:

(i) arsenic and/or compounds (as As) 500 mg/l;

(ii) cadmium and/or compounds (as Cd) 100 mg/l;

(iii) chromium (VI and/or compounds (as CR VI)) 500 mg/l;

(iv) lead and/or compounds (as Pb) 500 mg/l;

(v) mercury and/or compounds (as Hg) 20 mg/l;

(vi) nickel and/or compounds (as Ni) 134 mg/l;

(vii) selenium and/or compounds (as Se) 100 mg/l; and

(viii) thallium and/or compounds (as Th) 130 mg/l.

(C) Liquid hazardous waste having a pH less than or equal to two (2.0).

(D) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 50 ppm.

(E) Hazardous wastes containing halogenated organic compounds in total concentration greater than or equal to 1,000 mg/kg.

When necessary to protect human health and the environment, the Administrator shall substitute more stringent concentration levels than the levels specified in subparagraphs (A) through (E).

(6)(A) Not later than twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall publish a schedule for deciding whether or not to prohibit in accordance with paragraph (1) the land disposal of each hazardous waste listed under section 3001. Such schedule shall require that the Administrator must make such decisions for at least one-third of all such listed wastes by the date thirty-two months after the date of such enactment, for at least two-thirds of all such listed wastes by the date forty-two months after the date of such enactment, and for all such listed wastes by the date fifty-two months after the date of such enactment.

(B) Not later than the date specified in subparagraph (A) for each waste on the schedule published under such subparagraph, the Administrator shall promulgate regulations in accordance with paragraph (1) for each such waste.

(C) Not later than fifty-two months after the enactment of the Solid Waste Disposal Act Amendments of 1984, the Administrator shall promulgate regulations in accordance with paragraph (1) for each hazardous waste identified on the basis of any toxicity characteristics.

(1)) Not later than thirty-two months after the listing of a hazardous waste listed after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations in accordance with paragraph (1) for such waste.

(7) Simultaneously with the promulgation of regulations under paragraph (1) prohibiting one or more methods of land disposal of a particular hazardous waste, and as appropriate thereafter, the Administrator shall, after notice and an opportunity for hearings and after consultation with appropriate Federal and State agencies, promulgate regulations specifying those methods of treatment, if any, which are necessary before such method or methods of disposal of such hazardous waste would be protective of human health and the environment. Notwithstanding the provisions of subsection 3010(b), immediately upon the promulgation of regulations under this paragraph, the disposal of such hazardous waste by such method or methods is allowed if such hazardous waste has first been treated by a method specified in regulations promulgated under this paragraph.

(8)(A) Any hazardous waste prohibited under this subsection from disposal in a surface impoundment may be treated or stored in a surface impoundment only if that impoundment is equipped with at least one liner.

(B) For the purposes of this section, "disposal" shall include the placement of hazardous waste in a surface impoundment or a waste pile for a period of more than six months, regardless of whether it is intended that the hazardous waste will be removed before closure of the facility.

(9) If the Administrator fails to promulgate regulations under paragraph (1) with respect to a waste referred to in paragraph (4) or in paragraph (5) by the deadline specified in such paragraph, effective six months after such deadline, and until the Administrator promulgates regulations under paragraph (1), such waste may be disposed of in a landfill or a surface impoundment only if such facility is in compliance with the requirements of section 3004(f)(1) of this Act. This paragraph shall not apply to contaminated soil and debris from the cleanup or removal of any release of a hazardous substance.

(c) LIQUIDS IN LANDFILLS.--Not later than one year after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate final regulations which minimize the disposal of liquid containerized hazardous waste in landfills (including the minimization of free liquids by other means than the addition of absorbent material, where technologically feasible), and which prohibit the disposal of bulk or noncontainerized liquid hazardous wastes in landfills. Prior to the promulgation of such final regulations, the requirements in regulations under this section respecting the disposal of landfills of liquid hazardous waste and free liquids contained in hazardous waste in effect as of October 1, 1982, shall remain in effect.

(d) BAN ON DUST SUPPRESSION.--The use of waste or used oil or other material, which is contaminated or mixed with dioxin or any other hazardous waste identified or listed under section 3001 (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

(e) BAN ON CERTAIN WELLS.—Effective one hundred and eighty days after the enactment of the Solid Waste Disposal Act Amendments of 1983, no hazardous waste may be disposed of by underground injection into or above any formation which contains, within one-half mile of the well used for such underground injection, and underground source of drinking water.

(f) MINIMUM TECHNOLOGICAL REQUIREMENTS.--The regulations under subsection (a) of this section shall be revised from time to time to take into account improvements in the technology of control and measurement. At a minimum, such regulations shall require, and a permit issued after the date of enactment of the Solid Waste Disposal Act Amendments of 1983 by the Administrator or a State shall require—

(1) for each new landfill or surface impoundment, each new landfill or surface impoundment unit at an existing facility, each replacement of an existing landfill or surface impoundment unit, and each lateral expansion of an existing landfill or surface impoundment unit, for which a completed application for a permit under section 3005(c) is received after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, with respect to all waste received after the issuance of such permit, the installation of two or more liners and a leachate collection system above (in the case of a landfill) and between such liners (unless the owner or operator demonstrates to the Administrator, and the Administrator finds for such landfill or surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the groundwater or surface water at least as effectively as such liners and leachate collection systems), together with ground water monitoring; and

(2) for each incinerator which receives a permit under section 3005(c) after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, the attainment of the minimum destruction and removal efficiency required by regulations in effect on June 24, 1982.

In addition, such regulations shall specify criteria for the acceptable location of new and existing treatment, storage, or disposal facilities as necessary to protect human health and the environment. The Administrator shall determine whether to modify the requirements of paragraph (1) for liners and leachate collection systems in the case of landfills or surface impoundments receiving solid waste from the extraction, beneficiation or processing of ores and minerals, including phosphate rock and overburden from the mining of uranium ore, if such solid waste is subject to regulation under this subtitle, and shall, if he so determines, so modify such requirements to the extent such modified requirements assure protection of human health and the environment.

(g) CONTINUING RELEASES AT PERMITTED FACILITIES.—Standards promulgated under this section shall require, and a permit issued after the date of enactment of the Solid Waste Disposal Act Amendments of 1983 by the Administrator or a State shall require, corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage, or disposal

al facility seeking a permit under this subtitle, regardless of the time at which waste was placed in such unit. Permits issued under section 3005 shall contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

(h) HAZARDOUS WASTE USED AS FUEL.—(1) Not later than two years after the date of the enactment of the Solid Waste Disposal Act Amendments of 1983, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations establishing such—

(1) standards applicable to the owners and operators of facilities which produce a fuel, (A) from any hazardous waste identified or listed under section 3001, or (B) from any hazardous waste identified or listed under section 3001 and any other material;

(2) standards applicable to the owners and operators of facilities which burn, for purposes of energy recovery, any fuel produced as provided in paragraph (1) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001; and

(3) standards applicable to any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001.

as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (7) of subsection (a) as may be appropriate. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). For purposes of this subsection, the term "hazardous waste listed under section 3001" includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (A) produced for use as (or as a component of) a fuel, (B) distributed for use as a fuel, or (C) burned as a fuel.

(2)(A) This subsection, subsection (i), and subsection (j) shall not apply to petroleum refinery wastes containing oil which are converted into petroleum coke at the same facility at which such wastes were generated, unless the resulting coke product would exceed one or more characteristics by which a substance would be identified as a hazardous waste under section 3001.

(B) The Administrator may exempt from the requirements of this subsection, subsection (i), or subsection (j) facilities which burn de minimis quantities of hazardous waste as fuel, as defined by the Administrator, if the wastes are burned at the same facility at which such wastes are generated; the waste is burned to recover useful energy, as determined by the Administrator on the basis of the design and operating characteristics of the facility and the heating value and other characteristics of the waste; and the waste is burned in a type of device determined by the Administrator to be designed and operated at a destruction and removal efficiency sufficient such that protection of human health and environment is assured.

(i) LABELING.—(1) Notwithstanding any other provision of law, until such time as the Administrator promulgates standards under subsection (h) specifically superceding this requirement, it shall be unlawful for any person who is required to file a notification in accordance with paragaraph (1) or (3) of section 3010 to distribute or market any fuel which is produced from any hazardous waste identified or listed under section 3001, or any fuel which otherwise contains any hazardous waste identified or listed under section 3001 if the invoice or the bill of sale fails—

(A) to bear the following statement: "WARNING: THIS FUEL CONTAINS HAZARDOUS WASTES", and

(B) to list the hazardous wastes contained therein.

Beginning ninety days after the enactment of the Solid Waste Disposal Act Amendments of 1983, such statement shall be located in a conspicuous place on every such invoice or bill of sale and shall appear in conspicuous and legible type in contrast by typography, layouts, or color with other printed matter on the invoice or bill of sale.

(2) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from petroleum refining waste containing oil if (A) such materials are generated and reinserted onsite into the refining process; (B) contaminants are removed; and (C) such refining waste containing oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Industrial Classification Manual.

(3) Unless the Administrator determines otherwise as may be necessary to protect human health and the environment, this subsection shall not apply to fuels produced from used oil, resulting from normal petroleum refining production and transportation practices, if (A) contaminants are removed; and (B) such used oil is converted along with normal process streams into petroleum-derived fuel products at a facility at which crude oil is refined into petroleum products and which is classified as a number SIC 2911 facility under the Office of Management and Budget Standard Classification manual.

(j) RECORDKEEPING.—Not later than twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations requiring that any person who is required to file a notification in accordance with subparagraph (1), (2), or (3), of paragraph 3010(a) must maintain such records regarding fuel blending, distribution, or use as may be necessary to protect human health and the environment.

(k) AIR EMISSIONS.—Not later than thirty months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate such regulations for the monitoring and control of air emissions at hazardous waste treatment, storage, and disposal facilities, including but not limited to open tanks, surface impoundments, and landfills, as may be necessary to protect human health and the environment.

(l) GROUND WATER MONITORING.—The standards under this section concerning ground water monitoring which are applicable to

surface impoundments, waste piles, land treatment units, and landfills shall apply to such a facility whether or not—

(1) the facility is located above the seasonal high water table;

(2) two liners and a leachate collection system have been installed at the facility; or

(3) the owner or operator inspects the liner (or liners) which has been installed at the facility.

PERMITS FOR TREATMENT, STORAGE, OR DISPOSAL OF HAZARDOUS WASTE

SEC. 3005. (a) * * *

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(c) PERMIT ISSUANCE.—Upon a determination by the Administrator (or a State, if applicable), of compliance by a facility for which a permit is applied for under this section with the requirements of this section and section 3004, the Administrator (or the State) shall issue a permit for such facilities. In the event permit applicants propose modification of their facilities, or in the event the Administrator (or the State) determines that modifications are necessary to conform to the requirements under this section and section 3004, the permit shall specify the time allowed to complete the modifications. *Any permit under this section shall be for a fixed term, not to exceed ten years in the case of any land disposal facility, incinerator or other treatment facility. Each permit for a land disposal facility shall be reviewed five years after date of issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with the currently applicable requirements of this section and section 3004. Nothing in this subsection shall preclude the Administrator from reviewing and modifying a permit at any time during its term. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology as well as changes in applicable regulations. Each permit issued under this section shall contain such terms and conditions as the Administrator (or the State) determines necessary to protect human health and the environment.*

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(e) INTERIM STATUS.—Any person who—

(1) owns or operates a facility required to have a permit under this section which facility is in existence on November 19, 1980,

(2) has complied with the requirements of section 3010(a), and

(3) has made an application for a permit under this section

shall be treated as having been issued such permit until such time as final administrative disposition of such application is made, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. *The owner or operator of a waste pile qualifying for the authorization to operator under this subsection shall be subject to the same requirements for liners and leachate collection systems or equivalent protection provided in regulations*

promulgated by the Administrator under section 3004 before October 1, 1982, or revised under section 2004(f), for new facilities receiving individual permits under subsection (c) of this section, with the respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under this section, and with respect to waste received beginning six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983. The owner or operator of a landfill or surface impoundment qualifying for the authorization to operate under this subsection shall be subject to the requirements of section 3004(f), with respect to each new unit, replacement of an existing unit, or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under this section, and with respect to waste received beginning six months after such date of enactment. The owner or operator of each such unit shall notify the Administrator (or the State, if appropriate) at least sixty days prior to receiving waste. The Administrator (or the State) shall require the filing of a completed permit application within six months of receipt of such notice, for each facility submitting such notice. In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of this subsection and in good faith compliance with the Administrator's regulations and guidance documents governing liners and leachate collection systems, no liner or leachate collection system which is different from that which was so installed pursuant to this subsection shall be required for such unit by the Administrator when issuing the first permit under this section to such facility. The Administrator may, under section 3004, amend the requirements for liners and leachate collection systems required under this subsection as may be necessary to provide additional protection for human health and the environment.

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(g) The standards concerning ground water monitoring, unsaturated zone monitoring, and corrective action, which are applicable under section 3004 to new landfills, surface impoundments, land treatment units, and waste-pile units required to be permitted under subsection (e) shall also apply to any landfill, surface impoundment, land treatment unit, or waste-pile unit qualifying for the authorization to operate under subsection (e) which receives hazardous waste after July 26, 1982.

(h) Waste Minimization.—Effective September 1, 1984, it shall be a condition of any permit issued under this section for the treatment, storage, or disposal of hazardous waste on the premises where such waste was generated that the permittee certify, no less often than annually that—

(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

AUTHORIZED STATE HAZARDOUS WASTE PROGRAMS

SEC. 3006. (a) * * *

* * * * * * * *

(f) IMMEDIATE IMPLEMENTATION.—The requirements of sections 3002(b)(1), 3002(b)(7)(C), 3004 (b), (d), (e), (f), (g), and (i), 3005 (c) and (e), and 3007(b)(1) shall apply directly in all States, including each State with a program authorized under this section, until the program of such State is authorized to operate in lieu of the Federal program with respect to such requirement.

INSPECTIONS

SEC. 3007. (a) * * *

(b) MANDATORY INSPECTIONS.—(1) Beginning twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, every facility for the treatment, storage, or disposal of hazardous waste for which a permit is required under section 3005 of this title shall be thoroughly and regularly inspected no less often than every two years as to its compliance with this subtitle and the regulations promulgated thereunder. The Administrator shall, after notice and opportunity for public comment, promulgate regulations governing the minimum frequency and manner of such inspections, including the manner in which records of such inspections shall be maintained. The Administrator may distinguish between classes and categories of facilities commensurate with the risks posed by each class or category.

(2) Not later than six months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall submit to the Congress a report on the potential for inspections of hazardous waste treatment, storage, or disposal facilities by nongovernmental inspectors as a supplement to inspections conducted by officers, employees, or representatives of the Environmental Protection Agency or States having authorized hazardous waste programs or operating under a cooperative agreement with the Administrator. Such report shall be prepared in cooperation with the States, insurance companies offering environmental impairment insurance, and independent companies providing inspection services, and other such groups as appropriate. Such report shall contain recommendations on provisions and requirements for a program of private inspections to supplement governmental inspections.

[(b)**]**(c) * * *

(d) FACILITIES OPERATED BY A FEDERAL AGENCY.—Beginning twelve months after enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall, and the State, in the case of a State with an authorized hazardous waste program, may undertake no less often than every two years a thorough inspection of each facility for the treatment, storage, or disposal of hazardous waste which is operated by a Federal agency as to its compliance with this subtitle and the regulations promulgated thereunder. The records of such inspections shall be available to the public as provided in subsection (c).

(e) STATE-OPERATED FACILITIES.—The Administrator shall undertake a thorough inspection of every facility for the treatment, storage, or disposal of hazardous waste which is operated by a State or local government for which a permit is required under section 3005 of this title. The records of such inspection shall be available to the public as provided in subsection (c).

FEDERAL ENFORCEMENT

SEC. 3008. (a) * * *

* * * * * * * *

(d) CRIMINAL PENALTIES.—Any person who—

(1) knowingly transports *or causes to be transported* any hazardous waste identified or listed under this subtitle to a facility which does not have a permit under **[**section 3005 (or 3006 in case of a State program)**]** *this subtitle*, or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052),

(2) knowingly treats, stores, or disposes of any hazardous waste identified or listed under this subtitle **[**either**]**—

(A) without having obtained a permit under **[**section 3005 (or 3006 in the case of a State program)**]** *this subtitle* or pursuant to title I of the Marine Protection, Research, and Sanctuaries Act (86 Stat. 1052); or

[(B) in knowing violation of any material condition or requirement of such permit;**]**

(B) in knowing violation of any material condition or requirement of such permit; or

(C) in knowing violation of any material condition or requirement of any applicable interim status regulations or standards;

[(3) knowingly makes any false material statement or representation in any application, label, manifest, record, report, permit or other document filed, maintained, or used for purposes of compliance with this subtitle; or

[(4) knowingly generates, stores, treats, transports, disposes of, or otherwise handles any hazardous waste (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, or conceals any record required to be maintained under regulations promulgated by the Administrator under this subtitle shall, upon conviction, be subject to a fine of not more than $25,000 ($50,000 in the case of a violation of paragraph (1) or (2)) for each day of violation, or to imprisonment not to exceed one year (two years in the case of a violation of paragraph (1) or (2)), or both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or by both.**]**

(3) knowingly omits material information or makes any false material statement or representation in any application, label, manifest, record, report, permit, or other document filed, maintained, or used for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

(4) knowingly generates, stores, treats, transports, disposes of, exports, or otherwise handles any hazardous waste (whether such activity took place before or takes place after the date of the enactment of this paragraph) and who knowingly destroys, alters, conceals, or fails to file any record, application, manifest, report, or other document required to be maintained or filed for purposes of compliance with regulations promulgated by the Administrator (or by a State in the case of an authorized State program) under this subtitle;

(5) knowingly transports without a manifest, or causes to be transported without a manifest, any hazardous waste required by regulations promulgated under this subtitle (or by a State in the case of a State program authorized under this subtitle) to be accompanied by a manifest; or

(6) knowingly exports a hazardous waste identified or listed under this subtitle without the consent of the receiving country

shall upon conviction, be subject to a fine of not more than $50,000 for each day of violation, or imprisonment not to exceed two years (five years in the case of a violation of paragraph (1) or (2)), or both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment under the respective paragraph shall be doubled with respect to both fine and imprisonment.

[(e) KNOWING ENDANGERMENT.—Any person who knowingly transports, treats, stores, or disposes of any hazardous waste identified or listed under this subtitle—

[(1)(A) in violation of paragraphs (1) or (2) of subsection (d) of this section, or

[(B) having applied for a permit under section 3005 or 3006, and knowingly either—

[(i) has failed to include in his application material information required under regulations promulgated by the Administrator, or

[(ii) fails to comply with the applicable interim status regulations and standards promulgated pursuant to this subtitle,

who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, and

[(2)(A) if his conduct in the circumstances manifests an unjustified and inexcusable disregard for human life, or

[(B) if his conduct in the circumstances manifests an extreme indifference for human life.

shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment for not more than 2 years, or both, except that any person who violates subsection (e)(2)(B) shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment for not more than 5 years, or both. A defendant that is an organization shall, upon conviction of violating this subsection, be subject to a fine of not more than $1,000,000.]

(e) KNOWING ENDANGERMENT.—Any person who knowingly transports, treats, stores, disposes of, or exports any hazardous waste identified or listed under this subtitle in violation of paragraph (1), (2), (3), (4), or (5) of subsection (d) of this section who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment for not more than fifteen years, or both. A defendant that is an organization shall, upon conviction of violating this subsection, be subject to a fine of not more than $1,000,000.

* * * * * * *

RETENTION OF STATE AUTHORITY

SEC. 3009. * * *

EFFECTIVE DATE

SEC. 3010. (a) PRELIMINARY NOTIFICATION.—Not later than ninety days after promulgation of regulations under section 3001 identifying by its characteristics or listing any substance as hazardous waste subject to this subtitle, any person generating or transporting such substance or owning or operating a facility for treatment, storage, or disposal of such substance shall file with the Administrator (or with States having authorized hazardous waste permit programs under section 3006) a notification stating the location and general description of such activity and the identified or listed hazardous wastes handled by such person. *Not later than twelve months after the date of the enactment of the Solid Waste Disposal Act Amendments of 1983—*

(1) the owner or operator of any facility which produces a fuel (A) from any hazardous waste identified or listed under section 3001, (B) from such hazardous waste identified or listed under section 3001 and any other material, (C) from used oil, or (D) from used oil and any other material;

(2) the owner or operator of any facility (other than a single- or two-family residence) which burns for purposes of energy recovery any fuel produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001; and

(3) any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001

shall file with the Administrator (and with the State in the case of a State with an authorized hazardous waste program) a notification stating the location and general description of the facility, together with a description of the identified or listed hazardous waste involved and, in the case of a facility referred to in paragraph (1) or (2), a description of the production or energy recovery activity carried out at the facility and such other information as the Administrator deems necessary. For purposes of the preceding sentence, the

term 'hazardous waste listed under section 3001' also includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed for use as a fuel, or (iii) burned as a fuel. Notification shall not be required under the second sentence of this subsection in the case of facilities (such as residential boilers) where the Administrator determines that such notification is not necessary in order for the Administrator to obtain sufficient information respecting current practices of facilities using hazardous waste for energy recovery. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). Nothing in this subsection shall affect regulatory determinations under section 3014 (as amended by the Used Oil Recycling Act of 1980). In revising any regulation under section 3001 identifying additional characteristics of hazardous waste or listing an additional substance as hazardous waste subject to this subtitle, the Administrator may require any person referred to in the preceding [sentence] *provisions* to file with the administrator (or with States having authorized hazardous waste permit programs under section 3006) the notification described in the preceding [sentence.] *provisions.* Not more than one such notification shall be required to be filed with respect to the same substance. No identified or listed hazardous waste subject to this subtitle may be transported, treated, stored, or disposed of unless notification has been given as required under this subsection.

(b) * * *

AUTHORIZATION OF ASSISTANCE TO STATES

SEC. 3011. (a) AUTHORIZATION.—There is authorized to be appropriated $25,000,000 for each of the fiscal years 1978 and 1979, $20,000,000 for fiscal year 1980, $35,000,000 for fiscal year 1981, [and] $40,000,000 for fiscal year 1982 *,$45,000,000 for the fiscal year 1983, $47,000,000 for the fiscal year 1984, $50,000,000 for fiscal year 1985, and $52,500,000 per fiscal year for fiscal years 1986 and 1987* to be used to make grants to States for purposes of assisting the States in the development and implementation of authorized State hazardous waste programs.

(b) * * *

* * * * * * *

HAZARDOUS WASTE SITE INVENTORY

SEC. 3012. * * *

MONITORING, ANALYSIS, AND TESTING

SEC. 3013. * * *

RESTRICTIONS ON RECYCLED OIL

SEC. [3012.] *3014.* Not later than one year after the date of the enactment of this section, the Administrator shall promulgate regulations establishing such performance standards and other requirements as may be necessary to protect the public health and

the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil.

INVENTORY OF FEDERAL AGENCY HAZARDOUS WASTE FACILITIES

SEC. 3015. (a) FEDERAL AGENCY INVENTORY.—Each Federal agency shall, within one year after the enactment of the Solid Waste Disposal Act Amendments of 1983, undertake a continuing program to compile, publish, and submit to the Administrator and the State (in the case of States having an authorized hazardous waste program) an inventory describing the location of each site which the Federal agency owns or operates where hazardous waste has at any time been treated, stored or disposed of. Such inventory shall contain—

(1) a description of the location of the sites at which any such treatment, storage, or disposal has taken place before the date on which permits are required under section 3005 for such storage or disposal;

(2) such information relating to the amount, nature, and toxicity of the hazardous waste at each such site as may be practicable to obtain and as may be necessary to determine the extent of any health hazard which may be associated with such site;

(3) the name and address and responsible agency for each such site, determined as of the date of preparation of the inventory;

(4) an identification of the types of techniques of waste treatment, storage, or disposal which have been used at each site; and

(5) information concerning the current status of the site, including information respecting whether or not hazardous waste is currently being treated, stored, or disposed of at such site (and if not, the date on which such activity ceased) and information respecting the nature of any other activity currently carried out at such site.

(b) ENVIRONMENTAL PROTECTION AGENCY PROGRAM.—If the Administrator determines that any Federal agency under subsection (a) is not adequately providing information respecting the sites referred to in subsection (a), the Administrator shall notify the chief official of such Agency. If within ninety days following such notification, the Federal agency has not undertaken a program to adequately provide such information, the Administrator shall carry out the inventory program for such agency.

EXPORT OF HAZARDOUS WASTE

SEC. 3016. (a) GENERAL.—Beginning twenty-four months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, no person shall export any hazardous waste identified or listed under this subtitle unless (1) such person has provided the notification required in subsection (c) of this section, (2) the Government of the receiving country has consented to accept such hazardous waste, (3) a copy of the receiving country's written consent is at-

ing in the affected area, and a reasonable opportunity to comment on the proposed settlement prior to its final entry shall be afforded to the public. The decision of the United States or the Administrator to enter into or not to enter into such Consent Decree, covenant or agreement shall not constitute a final agency action subject to judicial review under this Act or the Administrative Procedure Act.

PETITION FOR REGULATIONS; PUBLIC PARTICIPATION

SEC. 7004. * * *

SEPARABILITY

SEC. 7005. * * *

JUDICIAL REVIEW

[SEC. 7006. (a) REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS—Any judicial review of final regulations promulgated pursuant to this Act and the Administrator's denial of any petition for the promulgation, amendment, or repeal of any regulation under this Act shall be in accordance with sections 701 through 706 of title 5 of the United States Code, except that —

[(1) a petition for review of action of the Administrator in promulgating any regulation, or requirement under this Act or denying any petition for the promulgation, amendment or repeal of any regulation under this Act may be filed only in the United States Court of Appeals for the District of Columbia, and such petition shall be filed within ninety days for the date of such promulgation or denial or after such date if such petition for review is based solely on grounds arising after such ninetieth day; action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement; and

[(2) in any judicial proceeding brought under this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if a party is seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file with the court such modified or new findings and his recommendation, if any for the modification or setting aside of his original order, with the return of such additional evidence.

[(b) REVIEW OF CERTAIN ACTIONS UNDER SECTIONS 3005 AND 3006.—Review of the Administrator's action (1) in issuing, denying, modifying or revoking any permit under section 3005, or (2) in granting, denying, or withdrawing authorization or interim authorization under section 3006, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such issuance, denial, modification revocation, grant, or withdrawal, or after such date only if such application is based solely on grounds which arose after such ninetieth day. Such reivew shall be in accordance with sections 701 through 706 of title 5 of the United States Code.]

SEC. 7006. (a) REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS.—A petition for review of the promulgation of final regulations under this Act and the Administrator's denial of any petition for the promulgation, amendment, or repeal of any regulation under this Act may be filed in the United States Court of Appeals for the District of Columbia or in any United States Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such promulgation or denial, and such petition shall be filed within one hundred and twenty days from the date of such promulgation or denial, unless such petition is based solely on grounds arising after such one hundred and twentieth day. Any action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement.

(b) REVIEW OF CERTAIN ACTIONS UNDER SECTIONS 3005 AND 3006.—A petition for review of the Administrator's action (1) in issuing, denying, modifying, or revoking any permit under section 3005, or (2) in granting, denying, or withdrawing authorization or interim authorization under section 3006, may be filed by any interested person in the United States Court of Appeals for a circuit in which the petitioner resides or transacts business which is directly affected by such action, and such petition shall be filed within one hundred and twenty days from the date of such issuance, denial, modification, revocation, grant, or withdrawal, or after such date only if such petition is based solely on grounds which arose after such one hundred and twentieth day. Any action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement.

(c) In any judicial proceeding brought under this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if a party seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file with the court such modified or new findings and his rec-

relocation of residents where it is determined that such permanent relocation is cost effective or may be necessary to protect health or welfare, action taken under section 104(b) of this Act, and any emergency assistance which may be provided under the Disaster Relief Act of 1974 [;]. *In the case of a business located in an area of evacuation or relocation, the term may also include the payment of those installments of principal and interest on business debt which accrue between the date of evacuation or temporary relocation and thirty days following the date that permanent relocation is actually accomplished or, if permanent relocation is formally rejected as the appropriate response, the date on which evacuation or temporary relocation ceases. In the case of an individual unemployed as a result of such evacuation or relocation, it may also include the provisions of the assistance authorized by sections 407, 408, and 409 of the Disaster Relief Act of 1974;*

* * * * * * *

RESPONSE AUTHORITIES

SEC. 104. (a) * * *

* * * * * * *

(c)(1) Unless (A) the President finds that (i) continued response actions are immediately required to prevent, limit, or mitigate an emergency, (ii) there is an immediate risk to public health or welfare or the environment, and (iii) such assistance will not otherwise be provided on a timely basis, or (B) the President has determined the appropriate remedial actions pursuant to paragraph (2) of this subsection and the State or States in which the source of the release is located have complied with the requirements of paragraph (3) of this subsection, obligations from the Fund, other than those *for permanent relocation or* authorized by subsection (b) of this section, shall not continue after $1,000,000 has been obligated for response actions or six months has elapsed from the date of initial response to a release or threatened release of hazardous substances.

* * * * * * *

TITLE II—HAZARDOUS SUBSTANCE RESPONSE REVENUE ACT OF 1980

* * * * * * *

SEC. 232. POST-CLOSURE LIABILITY TRUST FUND

(a) CREATION OF TRUST FUND.—There is established in the Treasury of the United States a trust fund to be known as the "Post-closure Liability Trust Fund", consisting of such amounts as may be appropriated, credited, or transferred to such Trust Fund.

(b) EXPENDITURES FROM POST-CLOSURE LIABILITY TRUST FUND.—Amounts in the Post-Closure Liability Trust Fund shall be available only for the purposes described in sections 107(k) and 111(j) of this Act (as in effect on the date of the enactment of this Act).

(c) ADMINISTRATIVE PROVISIONS.—The provisions of sections 222 and 223 *(other than section 223(c)(2)(D))* of this Act shall apply with

respect to the Trust Fund established under this section, except that the amount of any repayable advances outstanding at any one time shall not exceed $200,000,000.

TITLE III—MISCELLANEOUS PROVISIONS

REPORTS AND STUDIES

SEC. 301. (a)(1) The President shall submit to the Congress, within [four years] *forty-two months* after enactment of this Act, a comprehensive report on experience with the implementation of this Act, including, but not limited to—

* * * * * * *

EXPIRATION, SUNSET PROVISION

SEC. 303. Unless reauthorized by the Congress, the authority to collect taxes conferred by this Act *(other than under section 4681 of the Internal Revenue Code)* shall terminate on September 30, 1985, or when the sum of the amounts received in the Treasury under section 4611 and under 4661 of the Internal Revenue Code of 1954 total $1,380,000,000, whichever occurs first. The Secretary of the Treasury shall estimate when this level of $1,380,000,000 will be reached and shall by regulation, provide procedures for the termination of the tax authorized by this Act and imposed under sections 4611 and 4661 of the Internal Revenue Code of 1954.

* * * * * * *

THE SAFE DRINKING WATER ACT

* * * * * * *

PUBLIC WATER SYSTEMS

SEC. 2. (a) The Public Health Service Act is amended by inserting after title XIII the following new title:

TITLE XIV—SAFETY OF PUBLIC WATER SYSTEMS

* * * * * * *

PART C—PROTECTION OF UNDERGROUND SOURCES OF DRINKING WATER

* * * * * * *

UNDERGROUND INJECTION OF HAZARDOUS WASTE

SEC. 1426. (a) The Administrator, in cooperation with the States, shall compile and, not later than March 15, 1984, submit to the Committee on Environment and Public Works of the United States Senate and the Committee on Energy and Commerce of the United States House of Representatives, an inventory of all wells in the United States which inject hazardous wastes. The inventory shall include the following information:

(2) engineering and construction details of each, including the thickness and composition of its casing, the width and content of the annulus, and pump pressure and capacity;

(3) the hydrogeological characteristics of the overlying and underlying strata, as well as that into which the waste is injected;

(4) the location and size of all drinking water aquifers penetrated by the well, or within a one-mile radius of the well or within two hundred feet below the well injection point;

(5) the location, capacity, and population served by each well providing drinking or irrigation water which is within a five-mile radius of the injection well;

(6) the nature and volume of the waste injected during the one-year period immediately preceding the date of the report;

(7) the dates and nature of the inspections of the injection well conducted by independent third parties or agents of State, Federal, or local government;

(8) the name and address of all owners and operators of the well and any disposal facility associated with it; and

(9) such other information as the Administrator may, in his discretion, deem necessary to define the scope and nature of hazardous waste disposal in the United States through underground injection.

(b) In fulfilling the requirements of subsections (a)(3)-(5), the Administrator need only submit such information as can be obtained from currently existing State records and from site visits to at least twenty facilities containing wells which inject hazardous waste.

(c) The States shall make available to the Administrator such information as he deems necessary to accomplish the objectives of this section.

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MINNESOTA STATUTES

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CHAPTER 115A

WASTE MANAGEMENT

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CITATION, PURPOSE, AND DEFINITIONS

115A.01 CITATION.

Sections 115A.01 to 115A.72 shall be known as the waste management act of 1980.

History: *1980 c 564 art 1 s 1*

115A.02 LEGISLATIVE DECLARATION OF POLICY; PURPOSES.

It is the goal of sections 115A.01 to 115A.72 to improve waste management in the state to serve the following purposes:

(a) Reduction in waste generated;

(b) Separation and recovery of materials and energy from waste;

(c) Reduction in indiscriminate dependence on disposal of waste;

(d) Coordination of solid waste management among political subdivisions;

(e) Orderly and deliberate development and financial security of waste facilities including disposal facilities.

History: *1980 c 564 art 1 s 2*

115A.03 DEFINITIONS.

Subdivision 1. For the purposes of sections 115A.01 to 115A.72, the terms defined in this section have the meanings given them, unless the context requires otherwise.

Subd. 2. "Agency" means the pollution control agency.

Subd. 3. "Board" means the waste management board established in section 115A.04.

Subd. 4. "Cities" means statutory and home rule charter cities and towns authorized to plan under sections 462.351 to 462.364.

Subd. 5. "Collection" means the aggregation of waste from the place at which it is generated and includes all activities up to the time the waste is delivered to a waste facility.

Subd. 6. "Commercial waste facility" means a waste facility established and permitted to sell waste processing or disposal services to generators other than the owner and operator of the facility.

Subd. 7. "Construction debris" means waste building materials, packaging, and rubble resulting from construction, remodeling, repair, and demolition of buildings and roads.

Subd. 8. "Development region" means a region designated pursuant to sections 462.381 to 462.397.

Subd. 9. "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any waste into or on any land or water so that the waste or any constituent thereof may enter the environment or be emitted into the air, or discharged into any waters, including ground waters.

Subd. 10. "Disposal facility" means a waste facility permitted by the agency that is designed or operated for the purpose of disposing of waste on or in the land.

Subd. 11. "Generation" means the act or process of producing waste.

Subd. 12. "Generator" means any person who generates waste.

Subd. 13. "Hazardous waste" has the meaning given it in section 116.06, subdivision 13.

Subd. 14. "Intrinsic hazard" of a waste means the propensity of the waste to migrate in the environment, and thereby to become exposed to the public, and the significance of the harm or damage likely to result from exposure of natural resources or the public to the waste, as a result of such inherent or induced attributes of the waste as its chemical and physical stability, solubility, bioconcentratability, toxicity, flammability, and corrosivity.

Subd. 15. "Intrinsic suitability" of a land area or site means that, based on existing data on the inherent and natural attributes, physical features, and location of the land area or site, there is no known reason why the waste facility proposed to be located in the area or site cannot reasonably be expected to qualify for permits in accordance with agency rules. Agency certification of intrinsic suitability shall be based on data submitted to the agency by the proposing entity and data included by the hearing examiner in the record of any public hearing on recommended certification, and applied against criteria in agency rules and any additional criteria developed by the agency in effect at the time the proposing entity submits the site for certification.

Subd. 16. "Legislative commission on waste management" or "legislative commission" means the commission established in section 115A.14.

Subd. 17. "Local government unit" means cities, towns, and counties.

Subd. 18. "Metropolitan area" has the meaning given it in section 473.121.

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Subd. 19. "Metropolitan council" means the council established in chapter 473.

Subd. 20. "Metropolitan waste control commission" or "waste control commission" means the waste control commission established in chapter 473.

Subd. 21. "Mixed municipal solid waste" means garbage, refuse, and other solid waste from residential, commercial, industrial, and community activities which is generated and collected in aggregate, but does not include auto hulks, street sweepings, ash, construction debris, mining waste, sludges, tree and agricultural wastes, tires, and other materials collected, processed, and disposed of as separate waste streams.

Subd. 22. "Natural resources" has the meaning given it in chapter 116B.

Subd. 23. "Person" has the meaning given it in section 116.06, but does not include the board.

Subd. 24. "Political subdivision" means any municipal corporation, governmental subdivision of the state, local government unit, special district, or local or regional board, commission, or authority authorized by law to plan or provide for waste management.

Subd. 25. "Processing" means the treatment of waste after collection and before disposal. Processing includes but is not limited to reduction, storage, separation, exchange, resource recovery, physical, chemical, or biological modification, and transfer from one waste facility to another.

Subd. 26. "Regional development commission" means a commission established pursuant to sections 462.381 to 462.397.

Subd. 27. "Resource recovery" means the reclamation for sale or reuse of materials, substances, energy, or other products contained within or derived from waste.

Subd. 28. "Resource recovery facility" means a waste facility established and used primarily for resource recovery.

Subd. 29. "Sewage sludge" means the solids and associated liquids in municipal wastewater which are encountered and concentrated by a municipal wastewater treatment plant. Sewage sludge does not include incinerator residues and grit, scum, or screenings removed from other solids during treatment.

Subd. 30. "Sewage sludge disposal facility" means property owned or leased by a political subdivision and used for interim or final disposal or land spreading of sewage sludge.

Subd. 31. "Solid waste" has the meaning given it in section 116.06, subdivision 10.

Subd. 32. "Solid waste management district" or "waste district" means a geographic area extending into two or more counties in which the management of solid waste is vested in a special district established pursuant to sections 115A.62 to 115A.72.

Subd. 33. "Transfer station" means an intermediate waste facility in which waste collected from any source is temporarily deposited to await transportation to another waste facility.

Subd. 34. "Waste" means solid waste, sewage sludge, and hazardous waste.

Subd. 35. "Waste facility" means all property, real or personal, including negative and positive easements and water and air rights, which is or may be needed or useful for the processing or disposal of waste, except property for the collection of the waste and property used primarily for the manufacture of scrap metal or paper. Waste facility includes but is not limited to transfer stations, processing facilities, and disposal sites and facilities.

Subd. 36. "Waste management" means activities which are intended to affect or control the generation of waste and activities which provide for or control the collection, processing and disposal of waste.

History: *1980 c 564 art 1 s 3; 1981 c 352 s 1,2*

MANAGEMENT BOARD; LEGISLATIVE COMMISSION GOVERNMENT RESOURCE RECOVERY PROGRAM

115A.04 WASTE MANAGEMENT BOARD; CREATION.

There is created in the executive branch a waste management board.

History: *1980 c 564 art 2 s 1*

115A.05 BOARD MEMBERSHIP.

Subdivision 1. **General.** The board shall be composed of nine permanent members. Temporary members shall be added pursuant to subdivision 3.

Subd. 2. **Permanent members.** Eight of the permanent members of the board shall be appointed by the governor, with the advice and consent of the senate, to represent diverse areas and interests within the state. One member shall be appointed from each congressional district in accordance with boundaries existing on January 1, 1980. The term of office and compensation of the eight members thus appointed, and the manner of removal and filling of vacancies, shall be as provided in section 15.0575, except that the initial term of all members shall be four years and the rate of compensation shall be $50 per day spent on board activities. The ninth permanent member of the board shall be the chairperson who shall be appointed by the governor with the advice and consent of the senate. The chairperson shall serve at the pleasure of the governor for a term coterminous with that of the governor, except that the initial term of the chairperson shall be four years. The chairperson shall be the executive and operating officer of the board and shall determine the time and place of meetings, preside at meetings, appoint all board officers and hire and supervise all employees subject to the approval of the board, carry out the policy decisions of the board, and perform all other duties and functions assigned to him by the board or by law. No permanent member of the board shall hold other elected or appointed public office.

Subd. 3. **Temporary members.** For the purposes of each project review conducted by the board under sections 115A.18 to 115A.30 and 115A.32 to 115A.39 and for the purpose of preparing and adopting the hazardous waste management plan under section 115A.11 and making decisions on the elements of the certification of need for disposal required under sections 115A.18 to 115A.30, six local representatives shall be added to the board as temporary voting members, as provided in sections 115A.22, subdivision 4, and 115A.34. The provisions of section 15.0575, subdivisions 3 and 4 relating to compensation, removal, and vacancy shall apply to temporary members except that the rate of compensation shall be $50 per day spent on board activities and that appointments by the governor to fill vacancies shall take effect in the same manner as the original appointment.

History: *1980 c 564 art 2 s 2; 1981 c 352 s 3*

115A.06 POWERS OF THE BOARD.

Subdivision 1. **General.** The board shall have the powers and duties prescribed by sections 115A.01 to 115A.72 and all powers necessary or convenient to discharge its duties.

Subd. 2. **Rules.** Unless otherwise provided, the board shall promulgate rules in accordance with chapter 15 to govern its activities and implement sections 115A.01 to 115A.72.

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Subd. 3. **Actions.** The board may sue and be sued.

Subd. 4. **Acquisition of sites for hazardous waste facilities.** The board may direct the commissioner of administration to acquire by purchase, lease, condemnation, gift, or grant, any permanent or temporary right, title, and interest in and to real property, including positive and negative easements and water, air, and development rights, for sites and buffer areas surrounding sites for hazardous waste facilities approved by the board pursuant to sections 115A.18 to 115A.30 and 115A.32 to 115A.39. The board may also direct the commissioner of administration to acquire by purchase, lease, gift or grant, development rights for sites and buffer areas surrounding sites for all or part of the period that the development moratorium imposed by section 115A.21, subdivision 3, is in effect. Money for the acquisition of any real property and interest in real property pursuant to this subdivision shall come from the issuance of state waste management bonds in accordance with sections 115A.57 to 115A.59. The property shall be leased to the owner and operator of the hazardous waste facility located thereon at a rate sufficient to pay debt service on the bonds which provided funds used to acquire the property and to evaluate the eligibility of the property for inclusion in the inventory under section 115A.09 or candidacy under sections 115A.18 to 115A.30. Any local government unit and the commissioners of transportation, natural resources, and administration may convey or allow the use of any property for such sites and areas, subject to the rights of the holders of any bonds issued with respect thereto, with or without compensation and without an election or approval by any other government agency. Land owned by the state may be exchanged for land not owned by the state for the purpose of providing a site and buffer area for a commercial hazardous waste facility, in accordance with the provisions of section 94.341 to 94.347 and other law. The commissioner of administration may hold the property for the purposes for which it was acquired, and may lease, rent, or dispose of the property so far as not needed for such purposes, upon the terms and in the manner the commissioner deems advisable. The right to acquire lands and property rights by condemnation shall be exercised in accordance with chapter 117. The commissioner of administration may take possession of any property for which condemnation proceedings have been commenced at any time after the issuance of a court order appointing commissioners for its condemnation. Where the property is acquired through eminent domain proceedings, the land owner's compensation shall be the fair market value of the property. Where the property is acquired by means other than through eminent domain proceedings, as by direct purchase or gift, the land owner's compensation shall be determined by the agreement of the parties involved. An award of compensation in a condemnation proceeding shall not be increased or decreased by reason of any increase or decrease in the value of the property caused by its designation in the inventory of preferred areas under section 115A.09 or as a candidate site under sections 115A.18 to 115A.30 or its selection as a site or buffer area.

Subd. 5. **Right of access.** Whenever the board or the chairperson acting on behalf of the board deems it necessary to the accomplishment of its purposes, the board or any member, employee, or agent thereof, when authorized by it or the chairperson, may enter upon any property, public or private, for the purpose of obtaining information or conducting surveys or investigations, provided that the entrance and activity is undertaken after reasonable notice and during normal business hours and provided that compensation is made for any damages to the property caused by the entrance and activity. The board may pay a reasonable estimate of the damages it believes will be caused by the entrance and activity before entering any property.

Subd. 6. **Gifts and grants.** The board, or the chairperson or commissioner of administration on behalf of the board, may apply for and accept gifts, loans, or other property from the United States, the state, or any person for any of the purposes of the board, may enter into any agreement required in connection therewith, and may hold, use, and dispose of the money or property in accordance with the terms of the gift, grant, loan or agreement.

Subd. 7. **Property exempt from taxation.** Any real or personal property owned, used, or occupied by the board or the commissioner of administration for any purpose referred to in sections 115A.01 to 115A.72 is declared to be acquired, owned, used, and occupied for public and governmental purposes, and shall be exempt from taxation by the state or any political subdivision of or other governmental unit of or within the state, provided that those properties shall be subject to special assessments levied for a local improvement in amounts proportionate to and not exceeding the special benefit received by the properties from the improvement. No possible use of the properties in any manner different from their use for hazardous waste management at the time shall be considered in determining the special benefit received by the properties.

Subd. 8. **Contracts.** The board or the chairperson acting on behalf of the board may enter into any contract necessary or proper for the exercise of its powers or the accomplishment of its purposes.

Subd. 9. **Joint powers.** The board or the chairperson acting on behalf of the board may act under the provisions of section 471.59, or any other law providing for joint or cooperative action.

Subd. 10. **Research.** The board or the chairperson acting on behalf of the board may conduct research studies and programs, collect and analyze data, prepare reports, maps, charts, and tables, and order all necessary hearings and investigations in connection with its work and may advise and assist other government units on planning matters within the scope of its powers, duties, and objectives.

Subd. 11. **Employees; contracts for services.** The board through its chairperson may employ persons and contract for services to perform research, engineering, legal, or other services necessary to carry out its functions.

Subd. 12. **Insurance** The board through its chairperson may require any employee to obtain and file with it an individual bond or fidelity insurance policy. It may procure insurance in amounts it deems necessary to insure against liability of the board and employees or both, for personal injury or death and property damage or destruction, with the force and effect stated in chapter 466, and against risks of damage to or destruction of any of its property as it deems necessary.

Subd. 13. **Private and non-public data.** Any data held by the board which consists of trade secret information as defined by section 13.37, subdivision 1, clause (b), or sales information, shall be classified as private or non-public data as defined in section 13.02, subdivisions 9 and 12. When data is classified private or non-public pursuant to this subdivision the board may:

(a) Use the data to compile and publish analyses or summaries and to carry out its statutory responsibilities in a manner which does not identify the subject of the data; or

(b) Disclose the data when it is obligated to disclose it to comply with federal law or regulation but only to the extent required by the federal law or regulation.

The subject of data classified as private or non-public pursuant to this subdivision may authorize the disclosure of some or all of that data by the board.

History: *1980 c 564 art 2 s 3; 1981 c 311 s 39; 1981 c 352 s 4-6; 1982 c 545 s 24; 1982 c 569 s 1,2*

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115A.07 DUTIES OF THE BOARD; GENERAL.

Subdivision 1. **Interagency coordination.** The chairperson of the board shall inform the commissioner of energy, planning and development of the board's activities in accordance with section 116J.47. The chairperson shall keep the agency informed of the board's activities, solicit the advice and recommendations of the agency, and coordinate its work with the regulatory and enforcement activities of the agency.

Subd. 2. **Biennial report.** Before November 15 of each even-numbered year the board through its chairperson shall prepare and submit to the legislative commission a report of the board's operations and activities pursuant to sections 115A.01 to 115A.72 and any recommendations for legislative action. The report shall include a proposed work plan for the following biennium.

History: *1980 c 564 art 2 s 4; 1981 c 356 s 119,248*

115A.071 DUTIES OF THE BOARD; SOLID WASTE MANAGEMENT; DESIGNATIONS OF RESOURCE RECOVERY FACILITIES.

Subdivision 1. **Approval of designation proposals.** The board shall review and approve or disapprove proposals to designate resource recovery facilities under sections 115A.70 and 400.162. The board may attach conditions to its approval. In approving or disapproving a designation the board shall only determine whether the proposal conforms to the requirements of section 115A.70 or section 400.162, whether the designation will further the state policies and purposes expressed in section 115A.02, and whether the designation is based upon a plan approved pursuant to subdivision 2 and an adequate evaluation of the standards expressed in section 115A.46, subdivision 3.

Subd. 2. **Plan required.** Before reviewing a proposed designation, the board shall require the completion or, if necessary, revision of a comprehensive solid waste management plan which in the board's judgment conforms to the requirements of section 115A.46.

Subd. 3. **Board supervision.** The board shall require regular reports on any designation approved pursuant to this section and section 473.827, shall periodically evaluate whether the designation as implemented has accomplished its purposes and whether the designation is in the public interest and in furtherance of the state policies and purposes expressed in section 115A.02, and shall report periodically to the legislature on its conclusions and recommendations.

History: *1982 c 569 s 3*

115A.08 DUTIES OF THE BOARD; HAZARDOUS WASTE MANAGEMENT REPORTS.

Subdivision 1. **Report on liability and long-term care.** By January 1, 1981, the board through its chairperson shall report and make recommendations to the legislative commission on the management and financing of liability and post-closure monitoring and care for hazardous waste facilities in the state. The commissioner of energy, planning and development, in consultation with the chairperson of the board, shall conduct background research and shall report to the board by July 1, 1980, on the subject of the report required by this subdivision and on additional research needed to complete the report and recommendations.

Subd. 2. **Report on private investment in hazardous waste management.** By January 1, 1981, the board through its chairperson shall report and make recommendations to the legislative commission on alternative state strategies to promote and secure private investment in hazardous waste management services, technologies, and facilities. The report at least shall evaluate: (a) strategies to promote and secure investments by generators in waste reduction, separation, pretreatment,

and recovery; (b) strategies to secure generator assistance in the establishment and financing of hazardous waste facilities either directly through joint investment or indirectly through taxation; (c) strategies to protect the public against business failure by owners and operators of hazardous waste facilities; (d) strategies to promote and secure investment by the private waste management industry in hazardous waste facilities in the state. The report shall recommend priorities, objectives, and appropriate legislation for promoting and securing private investment in hazardous waste management. The commissioner of energy, planning and development, in consultation with the chairperson of the board, shall conduct background research and shall report to the board by July 1, 1980, on the subject of the report required by this subdivision and on additional research needed to complete the report and recommendations.

Subd. 3. **Report on interstate cooperation.** By January 1, 1981, the board through its chairperson shall report and make recommendations to the legislative commission on actions to develop interstate cooperation in hazardous waste planning and management. The report shall make recommendations on uniformity of state laws, regulations, and enforcement and on coordination of decisions on facility development and use. The commissioner of energy, planning and development, in consultation with the chairperson of the board, shall conduct background research and shall report to the board by July 1, 1980, on the report required by this subdivision and on additional research needed to complete the report and recommendations.

Subd. 4. **Report on hazardous waste management; draft management plan and certification of need.** By August 15, 1982, the board through its chairperson shall report to the legislative commission on hazardous waste management. The report shall include at least:

(a) an evaluation of alternative disposal facilities, disposal facility technologies, and disposal facility design and operating specifications and an explanation of the preliminary design and operating specifications for disposal facilities selected for consideration under section 115A.23;

(b) an evaluation of prospects, strategies, and methods for developing commercial hazardous waste disposal facilities of various types, sizes, and functions;

(c) an evaluation of all feasible and prudent alternatives to disposal, including waste reduction, separation, pretreatment, processing, and resource recovery, and the potential of the alternatives to reduce the need for and practice of disposal;

(d) an evaluation of feasible and prudent disposal abatement objectives, along with a description of hazardous waste management methods and technologies, private and government actions, facilities and services, development schedules, revenue-raising measures, and levels of public and private expenditure and effort necessary to the achievement of those objectives.

The report shall analyze the environmental, social, and economic effects of the alternatives and methods by which unavoidable adverse effects could be mitigated. The report shall include a draft hazardous waste management plan, based on the analysis in the report and proposed for adoption pursuant to section 115A.11, and a draft certificate or certificates of need proposed for issuance under section 115A.24.

Subd. 5. **Report on mitigation of local effects of hazardous waste facilities.** By August 15, 1982, the board through its chairperson shall report and make recommendations to the legislative commission on methods of mitigating and compensating for the local risks, costs, and other adverse effects of various types of hazardous waste facilities and on methods of financing mitigation and compensation measures. The methods of mitigating and compensating to be considered shall include but not be limited to the following: payment outside of levy limitations in lieu of taxes for all property taken off the tax rolls; preference in

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Subd. 5a. **Report on assurance of security of hazardous waste facilities.** With the report required by subdivision 5, the board through its chairperson shall report and make recommendations to the legislative commission on methods of assuring the security of commercial hazardous waste facilities. The report and recommendations shall be based on the need to assure: effective monitoring and enforcement during operation; effective containment, control, and corrective action in any emergency situation; financial responsibility of the owner and operator throughout the operating life of the facility, using performance bonds, insurance, escrow accounts, or other means; proper closure; financial responsibility after closure; and perpetual post-closure monitoring and maintenance. The report shall include recommendations on the source of funds, including operator contributions, fee surcharges, taxes, and other sources; the amount of funds; effective protection and guarantee of funds; administration; regulatory and permit requirements; the role of local authorities; and other similar matters.

Subd. 6. **Preparation of hazardous waste reports; procedures; public involvement.** By January 1, 1981, the board through its chairperson shall submit a proposed scope of work and work program for the hazardous waste reports required by subdivisions 4 and 5 to the legislative commission for review. During the preparation of the proposed scope of work and work plan and the reports, the board and the chairperson on behalf of the board shall encourage public debate and discussion of the issues relating to the reports. The board and the chairperson on behalf of the board shall meet with local officials and sponsor at least one public meeting in areas of the state affected by the inventory of preferred processing facility areas prepared pursuant to section 115A.09. The board and the chairperson on behalf of the board shall follow the procedures set out in section 115A.22, for consulting with citizens in areas affected by the selection of candidate sites for disposal facilities. To assist it in preparing the reports required by subdivisions 4 and 5, the board through its chairperson shall make grants to each local project review committee established for a candidate site for disposal identified under sections 115A.18 to 115A.30. The grants may be used by the committee to employ staff, pay administrative expenses, or contract with affected units of government or qualified consultants. The board and the chairperson on behalf of the board shall request recommendations from the private waste management industry, the board's advisory councils, affected regional development commissions, and the metropolitan council and shall consult with them on the board's intended disposition of the recommendations. The reports of the board shall summarize the comments received and the board's response to the comments.

History: *1980 c 564 art 2 s 5; 1981 c 352 s 7-9; 1981 c 356 s 248; 1982 c 569 s 4*

115A.09 DUTIES OF THE BOARD; INVENTORY OF PREFERRED AREAS FOR HAZARDOUS WASTE PROCESSING FACILITIES.

Subdivision 1. **Board responsibility.** By January 1, 1982, the board shall prepare an inventory of preferred areas of up to ten square miles in size for commercial hazardous waste processing facilities. No preferred area may extend into more than one statutory or home rule charter city or town, but the board may propose adjoining preferred areas in adjacent cities and towns. The inventory shall include at least three areas for each of the following categories of processing

facilities: (a) a commercial chemical processing facility for hazardous waste, (b) a commercial incineration facility for hazardous waste, and (c) a commercial transfer and storage facility for hazardous waste.

Subd. 2. **Evaluation of areas.** The board shall not be required to promulgate rules pursuant to chapter 15 to govern its evaluation and selection of areas under this section. The board and the chairperson on behalf of the board shall evaluate the areas in consultation with the board's advisory councils, the affected counties and regions, generators of hazardous waste, and prospective facility developers. The evaluation shall consider at least the consistency of areas with state and federal regulations, local land use and land use controls, the protection of agriculture and natural resources, existing and future development patterns, transportation and other services appropriate to the hazardous waste facilities, the quality of other potential areas, and the location of hazardous waste generators. The agency shall prepare a report on the suitability of each proposed area for the use intended.

Subd. 3. **Procedures.** The board shall propose the inventory of areas by August 1, 1981 by publication in the state register and newspapers of general circulation in the state and by mail to each regional development commission or metropolitan council, and local government unit containing a proposed area. The publications and mailing shall include notice of hearings on the board's proposal. The hearings shall be conducted by the state office of administrative hearings in a manner determined by the hearing examiner to be consistent with the completion of the proceedings and the examiner's report in the time allowed by this section. At the hearing, any local government unit in which an area is proposed for inclusion in the inventory may propose an alternative area or areas within its jurisdiction. The hearing shall afford all interested persons an opportunity to testify and present evidence on the subject of the hearing. The subject of the hearing shall be limited to information submitted by the board and additional information on the proposed area or alternative areas which is relevant to the board's decision on the areas to be included in the inventory. The rulemaking and contested case procedures of chapter 14 shall not apply to this hearing. The hearing examiner may consolidate hearings. The report of the hearing examiner shall contain findings of fact, conclusions, and recommendations on the subject of the hearing. When any area in the inventory becomes unavailable as a hazardous waste facility site, the inventory shall be amended, in the manner of its original adoption, provided, however, that during the period when the inventory is being amended any other area in the inventory may be reviewed and approved under sections 115A.32 to 115A.39. No action of the board shall be held invalid by reason of the board's failure to notify any of the entities listed in this subdivision.

Subd. 4. **Grants; technical assistance.** To assist counties participating in the inventory required by this section, the board through its chairperson may make grants to the counties to be used to employ staff, pay administrative expenses, or contract with qualified consultants. The board through its chairperson shall ensure the delivery to the counties of technical information and assistance by appropriate state agencies.

History: *1980 c 564 art 2 s 6; 1980 c 615 s 60; 1981 c 352 s 10; 1982 c 424 s 130*

115A.10 DUTIES OF THE BOARD; HAZARDOUS WASTE FACILITIES; ENCOURAGEMENT OF PRIVATE ENTERPRISE.

The board and the chairperson on behalf of the board shall encourage the development and operation of hazardous waste facilities by private enterprise to the extent practicable and consistent with the purposes of sections 115A.01 to 115A.72 and the board's hazardous waste management plan adopted pursuant to

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section 115A.11. In preparing the reports under section 115A.08 and the inventory of processing facility sites under section 115A.09, in adopting the management plan, and in its actions and decisions under sections 115A.18 to 115A.30 and 115A.32 to 115A.39, the board and the chairperson on behalf of the board shall solicit the active participation of private waste management firms and shall so conduct its activities as to encourage private permit applications for facilities needed in the state. The board shall promulgate rules for accepting, evaluating, and selecting applications for permits for the construction and operation of facilities at sites preferred or selected by the board pursuant to section 115A.09 or sections 115A.18 to 115A.30. The rules shall include standards and procedures for making determinations on the minimum qualifications, including technical competence and financial capability, of permit applicants. The rules shall include standards and procedures for soliciting and accepting bids or permit applications and for selecting developers and operators of hazardous waste disposal facilities at sites chosen by the board pursuant to sections 115A.18 to 115A.30, which shall include a preference for qualified permit applicants who control a site chosen by the board.

History: *1980 c 564 art 2 s 7*

115A.11 HAZARDOUS WASTE MANAGEMENT PLAN.

Subdivision 1. **Contents.** By December 15, 1982, the board shall adopt a hazardous waste management plan. In developing and implementing the plan, the highest priority of the board shall be placed upon alternatives to land disposal of hazardous wastes including: technologies to modify industrial processes or introduce new processes which will reduce or eliminate hazardous waste generation; recycling, re-use, and recovery methods to reduce or eliminate hazardous waste disposal; and conversion and treatment technologies to reduce the degree of environmental risk from hazardous waste. The board shall also consider technologies for retrievable storage of hazardous wastes for later recycling, re-use, recovery, conversion, or treatment.

The plan shall include at least the following elements:

(a) an estimate of the types and volumes of hazardous waste which will be generated in the state through the year 2000;

(b) specific and quantifiable objectives for reducing to the greatest feasible and prudent extent the need for and practice of disposal, through waste reduction, pretreatment, retrievable storage, processing, and resource recovery;

(c) a description of the minimum disposal capacity and capability needed to be developed within the state for use through the year 2000, based on the achievement of the objectives under clause (b).

The plan shall provide for the orderly development of hazardous waste management sites and facilities to protect the health and safety of rural and urban communities. In preparing the plan the board shall consider its impact upon agriculture and natural resources.

The plan shall require the establishment in the state of at least one commercial retrievable storage or disposal facility and encourage the establishment of at least one facility for the recycling, re-use, recovery, conversion, treatment, or storage of hazardous waste. The board may make the implementation of elements of the plan contingent on actions of the legislature which have been recommended in the reports submitted pursuant to section 115A.08.

Subd. 2. **Procedure.** The plan shall be based upon the reports prepared pursuant to section 115A.08. The plan shall not be subject to the rule-making or contested case provisions of chapter 14. Following the submission of the report on hazardous management required under section 115A.08, subdivision 4, the

board shall hold a public hearing on the draft plan and draft certificate or certificates of need contained in the report. Notices of the draft plan and the draft certificate or certificates and notice of the hearing shall be published in the state register and newspapers of general circulation in the state. The hearing shall be ordered by the chairperson of the board and shall be conducted by the state office of administrative hearings in a manner consistent with the completion of the proceedings in the time allowed by this section. A majority of the permanent members of the board shall attend the hearing. In connection with the hearing, the chairperson of the board shall provide copies of the studies and reports on which the draft plan and certification of need are based and shall make an affirmative presentation showing the need for and reasonableness of the draft plan and certification of need. Following the hearing, the board shall revise the plan and the certificate or certificates of need as it deems appropriate, shall make a written response to the testimony received at the hearing explaining its disposition of any recommendations made with respect to the plan and certification, and shall finally adopt a plan in accordance with this section and issue a certificate or certificates of need in accordance with section 115A.24.

History: *1980 c 564 art 2 s 8; 1980 c 615 s 60; 1981 c 352 s 11; 1982 c 424 s 130; 1982 c 569 s 5*

115A.12 ADVISORY COUNCILS.

Subdivision 1. **Solid and hazardous waste management.** The chairperson of the board shall establish a solid waste management advisory council and a hazardous waste management planning council broadly representative of the geographic areas and interests of the state. The councils shall have not less than nine nor more than 18 members each. The membership of the solid waste council shall consist of one-third citizen representatives, one-third representatives from local government units, and one-third representatives from private solid waste management firms. The solid waste council shall contain at least one member experienced in each of the following areas: state and municipal finance; solid waste collection, processing, and disposal; and solid waste reduction and resource recovery. The membership of the hazardous waste advisory council shall consist of one-third citizen representatives, one-third representatives from local government units, and one-third representatives of hazardous waste generators and private hazardous waste management firms. The chairpersons of the advisory councils shall be appointed by the chairperson of the board. The chairperson of the board shall provide administrative and staff services for the advisory councils. The advisory councils shall have such duties as are assigned by law or the chairperson of the board. The solid waste advisory council shall make recommendations to the board on its solid waste management activities. The hazardous waste advisory council shall make recommendations to the board on its activities under sections 115A.08, 115A.09, 115A.10, and 115A.11, and sections 115A.20, 115A.21 115A.23, and 115A.24. Members of the advisory councils shall serve without compensation but shall be reimbursed for their reasonable expenses as determined by the chairperson of the board.

Subd. 2. **Technical advisory council.** The chairperson of the board shall establish an interagency technical advisory council to advise the board and the chairperson on matters the board, through its chairperson, deems necessary. The members of the council shall be the commissioner of health; the commissioner of agriculture; the commissioner of natural resources; the director of the pollution control agency; the commissioner of energy, planning and development; other heads of agency the chairperson of the board deems necessary; or their designees. The council shall meet at the call of the chairperson of the board who shall serve as chairperson of the council. The members, collectively and individually shall

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History: *1980 c 564 art 2 s 9; 1981 c 356 s 120*

115A.13 BOARD; EXPIRATION.

The board shall cease to exist on June 30, 1987.

History: *1980 c 564 art 2 s 10*

115A.14 LEGISLATIVE COMMISSION ON WASTE MANAGEMENT.

Subdivision 1. **Creation, membership, vacancies.** There is created in the legislative branch a legislative commission on waste management. The commission shall consist of ten members appointed as follows:

(1) Five members of the senate to be appointed by the subcommittee on committees and to serve until their successors are appointed;

(2) Five members of the house to be appointed by the speaker and to serve until their successors are appointed;

(3) Vacancies occurring on the commission shall not affect the authority of the remaining members of the commission to carry out the functions thereof, and such vacancies shall be filled in the same manner as the original positions.

Subd. 2. **Staff.** The commission is authorized, without regard to the civil service laws and regulations, to appoint and fix the compensation of such additional legal and other personnel and consultants as may be necessary to enable it to carry out its functions, or to contract for services to supply necessary data, except that any state employees subject to the civil service laws and regulations who may be assigned to the commission shall retain civil service status without interruption or loss of status or privilege. The staff shall be hired and supervised for the commission by the executive director of the legislative commission on Minnesota resources.

Subd. 3. **Data from state agencies; availability.** The commission may request information from any state officer or agency in order to assist it in carrying out its duties and such officer or agency is authorized and directed to promptly furnish any data required, subject to applicable requirements or restrictions imposed by chapter 13 and section 15.17.

Subd. 4. **Powers and duties.** The commission shall review the biennial report of the board. The commission shall oversee the activities of the board under sections 115A.01 to 115A.72 and the activities of the agency under sections 115A.42 to 115A.46 and 115A.49 to 115A.54, and direct such changes or additions in the work plan of the board and agency as it deems fit. The commission may conduct public hearings and otherwise secure data and expressions of opinion. The commission shall make such recommendations as it deems proper to assist the legislature in formulating legislation. Any data or information compiled by the commission shall be made available to any standing or interim committee of the legislature upon request of the chairperson of the respective committee.

Subd. 5. **Study.** The commission shall study alternative methods of insuring that an adequate supply of solid waste will be available to resource recovery facilities and report to the appropriate policy committees of the house of representatives and senate before January 1, 1982. The commission shall, at a minimum, consider the relative merits of the required use provisions described in sections 115A.70, 400.162, and 473.827, and other mechanisms designed to facilitate resource recovery by raising costs of landfill alternatives or lowering costs of disposal at resource recovery facilities.

Subd. 6. **Expiration.** The provisions of this section shall expire on June 30, 1987.

History: *1980 c 564 art 2 s 11; 1981 c 311 s 39; 1982 c 545 s 24*

115A.15 STATE GOVERNMENT RESOURCE RECOVERY.

Subdivision 1. **Establishment of program.** There is established within state government a resource recovery program to promote the reduction of waste generated by state agencies, the separation and recovery of recyclable and reuseable commodities, the procurement of recyclable commodities and commodities containing recycled materials, and the uniform disposition of recovered materials and surplus property. The program shall be administered by the commissioner of administration.

Subd. 1a. **Definitions.** For the purposes of this section, the following terms have the meanings given them.

(a) "Recyclable commodities" means materials, pieces of equipment, and parts which are not reusable but which contain recoverable resources.

(b) "Reusable commodities" means materials, pieces of equipment, parts, and used supplies which can be reused for their original purpose in their existing condition.

Subd. 2. **Duties of commissioner.** The commissioner of administration shall develop policies to reduce the volume of waste generated by state agencies. The commissioner shall develop and institute procedures for the separation, collection, and storage of used commodities wherever feasible in state agencies and shall establish policies for the reuse, sale, or disposition of recovered materials and surplus property. The commissioner shall promote and publicize the waste reduction and waste separation and recovery procedures on an ongoing basis to all state employees. The commissioner shall issue guidelines for the procurement of recyclable commodities and commodities containing recycled materials that include definitions of recycled materials, the percentage of recycled materials to be contained in each commodity and performance specifications. To the extent practicable, the guidelines shall be written so as to give preference to recyclable commodities and commodities containing recycled materials. The commissioner shall inform state agencies whenever recycled commodities are available for purchase. The commissioner shall investigate opportunities for the inclusion of and may include local governments and regional agencies in administrative state programs to reduce waste, and to separate and recover recyclable and reusable commodities.

Subd. 3. **Powers of commissioner.** The commissioner of administration shall have such powers as are necessary to implement and operate the program. All state agencies shall comply with the policies, guidelines, and procedures established by the commissioner pursuant to this section. The commissioner shall have the power to issue orders to compel compliance.

Subd. 4. **Staff.** The commissioner of administration shall employ an administrator to manage the resource recovery program and other staff and consultants as are necessary to carry out the program.

Subd. 5. **Reports.** By January 1 of each odd-numbered year, the commissioner of administration shall submit a report to the governor and to the legislative commission summarizing past activities and proposed goals of the program for the following biennium. By July 1 of each even-numbered year director of the pollution control agency and the commissioner of energy, planning and development shall submit recommendations to the commissioner regarding the operation of the program.

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Subd. 6. **Resource recovery revolving account.** Upon the certification of the commissioner of administration, the commissioner of finance shall establish an account in the general services revolving fund, effective June 30, 1980, for the operation of the state government resource recovery program. The revolving account shall consist of all funds appropriated by the state for the program, all revenues resulting from the sale of recyclable and reusable commodities made available for sale as a result of the resource recovery program and all reimbursements to the commissioner of his expenses incurred in developing and administering resource recovery systems for state agencies, local governments, and regional agencies. The account may be used for all activities associated with the program including payment of administrative and operating costs.

History: *1980 c 564 art 2 s 12; 1981 c 356 s 121; 1982 c 569 s 6-8*

COMMERCIAL HAZARDOUS WASTE DISPOSAL FACILITIES

115A.18 LEGISLATIVE FINDINGS; PURPOSE.

The legislature finds that proper management of hazardous waste generated in the state is needed to conserve and protect the natural resources in the state and the health, safety, and welfare of its citizens, that the establishment of safe disposal facilities is necessary to properly manage the waste, that this cannot be accomplished solely by the activities of private persons and political subdivisions acting alone or jointly, and that therefore it is necessary to provide a procedure for making final determinations on the locations, sizes, types, and functions of such facilities.

History: *1980 c 564 art 3 s 1*

115A.19 PROCEDURE NOT EXCLUSIVE.

Except as provided in Minnesota Statutes 1980, Section 115A.21, Subdivision 1, the procedure established by sections 115A.18 to 115A.30 for the permitting of hazardous waste disposal facilities shall not preclude the issuance of permits by the agency pursuant to section 116.07 for disposal facilities at sites not reviewed under sections 115A.18 to 115A.30.

History: *1980 c 564 art 3 s 2; 1981 c 352 s 12*

115A.20 EVALUATION OF SITES.

The board shall not be required to promulgate rules pursuant to chapter 14 to govern its evaluation and selection of sites for commercial disposal facilities under sections 115A.18 to 115A.30, nor shall the agency be required to promulgate rules pursuant to chapter 14 on criteria and standards to govern its certification of intrinsic suitability of sites for commercial disposal facilities under sections 115A.18 to 115A.30. In evaluating and selecting sites for disposal facilities, the board shall consider at least the following factors:

(a) economic feasibility, including proximity to concentrations of generators of the types of hazardous wastes likely to be proposed and permitted for disposal;

(b) intrinsic suitability of the sites;

(c) federal and state pollution control and environmental protection rules;

(d) the risk and effect for local residents, units of government, and the local public health, safety, and welfare, including such dangers as an accidental release of wastes during transportation to a facility or at a facility, water, air, and land pollution, and fire or explosion;

(e) the consistency of a facility with, and its effect on, existing and planned local land use and development; local laws, ordinances, and permits; and local public facilities and services;

(f) the adverse effects of a facility at the site on agriculture and natural resources and opportunities to mitigate or eliminate such adverse effects by stipulations, conditions, and requirements respecting the design and operation of a disposal facility at the proposed site.

No land shall be excluded from consideration except land determined by the agency to be intrinsically unsuitable for the use intended.

History: *1980 c 564 art 3 s 3; 1981 c 352 s 13; 1982 c 424 s 130*

115A.21 CANDIDATE SITES.

Subdivision 1. **Selection.** By March 15, 1982, the board shall select six locations in the state, no more than one site per county, as candidate sites for commercial disposal facilities for hazardous waste. No location shall be selected as a candidate site unless the agency certifies its intrinsic suitability for the use intended. The board shall consult with the agency and the private waste management industry in selecting candidate sites. Any sites proposed in applications for permits for disposal facilities being reviewed by the agency may be included by the board as candidate sites, provided the agency certifies the intrinsic suitability of the sites. The agency shall suspend its review of any permit application being reviewed by the board for inclusion as a candidate site until the site is eliminated from consideration as a candidate site.

Subd. 2. **Procedure.** As soon as practicable, the board through its chairperson shall publish a request soliciting proposals and permit applications for hazardous waste disposal facilities from potential developers and operators of such facilities. Notice of the request shall be published in the state register and newspapers of general circulation in the state and shall be transmitted to all regional development commissions the metropolitan council, and all counties in the state. The board may select conceptual design and operating specifications for a variety of hazardous waste disposal facilities in sufficient detail and extent in the judgment of the board to assist the evaluation of sites and the selection of candidate sites. By November 1, 1980, the board through its chairperson shall notify each regional development commission, or the metropolitan council, and each local government unit within whose jurisdiction the board intends to search for candidate sites. The notification shall explain the selection of the jurisdiction as a search area; shall summarize any conceptual specifications and the evaluation factors, criteria, standards, and procedures the board intends to use in selecting candidate sites; and shall describe the relationship of the candidate site selection process to the other review procedures under sections 115A.18 to 115A.30 and the hazardous waste reports and plans required under sections 115A.04 to 115A.15. The notification shall request recommendations and suggestions from each such commission, the metropolitan council, and local government unit on the criteria, standards, and procedures the board should use in selecting candidate sites within the time allowed. The board through its chairperson shall make a written response to any recommendations, explaining its disposition of the recommendations. The board shall provide to the agency data relating to the intrinsic suitability of the sites to be proposed as candidate sites as soon as available but no later than November 1, 1981. By November 15, 1981, the board shall propose at least six locations as candidate sites, and the director of the agency shall issue a notice indicating which of those sites the director recommends be certified as intrinsically suitable. The board through its chairperson and the director shall publish notice of hearings on the board's proposal and the director's recommendations. Notice shall be published in the state register and newspapers of general

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Subd. 3. **Moratorium.** In order to permit the comparative evaluation of sites and the participation of affected localities in decisions about the use of sites, a moratorium is hereby imposed as provided in this subdivision on all development within each proposed or candidate site identified pursuant to this section and on a buffer area identified by the board surrounding and at least equal in area to the site. The moratorium on candidate sites and buffer areas shall extend until the board chooses a final candidate site or final candidate sites pursuant to this article. The moratorium on the final sites and buffer areas shall extend until six months following final action of the board pursuant to sections 115A.18 to 115A.30. No development shall be allowed to occur within a proposed site or buffer area during the period of the moratorium without the approval of the board. No land use control of any political subdivision shall permit development which has not been approved by the board, nor shall any political subdivision sanction or approve any subdivision, permit, license, or other authorization which would allow development to occur which has not been approved by the board. The board shall not approve actions which would jeopardize the availability of a candidate site for use as a hazardous waste facility. The board may establish guidelines for reviewing requests for approval under this subdivision. The guidelines shall not be subject to the rule-making provisions of chapter 14. Requests for approval shall be submitted in writing to the chairperson of the board and shall be deemed to be approved by the board unless the chairperson otherwise notifies the submitter in writing within 15 days.

History: *1980 c 564 art 3 s 4; 1981 c 352 s 14-16; 1982 c 424 s 130; 1982 c 569 s 9*

115A.22 PARTICIPATION BY AFFECTED LOCALITIES.

Subdivision 1. **General.** In order systematically to involve those who would be affected most directly by disposal facilities in all decisions leading to their establishment, the board's decisions on reports referred to in subdivision 7, the preliminary specifications under section 115A.23, and the certification of need required under section 115A.24 shall not be made until after the establishment of local project review committees for each candidate site, with representation on the board, pursuant to this section.

Subd. 2. **Establishment of local project review committees.** A local project review committee shall be established for each location selected as a candidate site. The local committee shall exist, and its members shall serve, so long as the

location for which the committee was formed is a candidate site or, for the site or sites finally chosen, until the commencement of the operation of the facility at that site.

Subd. 3. **Membership on local committees.** By April 15, 1982, the governor shall appoint the chairperson and members of each local project review committee, ensuring a balanced representation of all parties with a legitimate and direct interest in the outcome of the project review. The governor shall consult particularly with affected local units of government before selecting members. Members may be added to the local committee from time to time by the governor.

Subd. 4. **Appointment of temporary board members.** By May 15, 1982, each local committee shall select a temporary board member to be added to the board for the purposes of the reports, certifications, and review conducted under sections 115A.18 to 115A.30. If a local committee fails to appoint a temporary board member within 45 days after the appointment of the committee the governor shall appoint a temporary board member to represent the committee on the board. Temporary board members may be members of the local project review committee, and they shall be residents of the county where the candidate site is located. Temporary board members shall serve for terms lasting until the board has taken final action pursuant to section 115A.28 and, in the case of members representing the site or sites finally chosen for the facility, until the commencement of the operation of the facility at that site.

Subd. 5. **Duties of local committees.** During the review, the local project review committee shall: inform affected local communities, government units, and residents of the proposed land containment and disposal facilities and of the planning and environmental review process relating to the proposed facilities; solicit and record local attitudes and concerns respecting the proposed facilities and represent and communicate such attitudes and concerns to the board, the legislative commission, the environmental quality board, the agency, and other units and agencies of government; and act as a forum for the exchange of local attitudes and concerns and the development, where possible, of local consensus.

Subd. 6. **Technical assistance; grants.** To assist local project review committees to participate in the certification of need and the review process, the board through its chairperson shall make grants to the committees to be used to employ staff, pay administrative expenses, or contract with qualified consultants. The board through its chairperson shall ensure the delivery to the committees of technical information and assistance by appropriate state agencies.

Subd. 7. **Hazardous waste management reports.** The chairperson and the board shall prepare and submit the hazardous waste management reports required by section 115A.08, subdivisions 4 and 5, in consultation with the local project review committees. The chairperson and the board shall request recommendations from the local committees and shall consult with the committees on the board's intended disposition of the recommendations. The reports of the board shall summarize the recommendations of the committees and the board's response to the recommendations. Before submitting the reports, the board shall hold at least one public meeting in each county in which a candidate site is located. A majority of the permanent members shall be present at each meeting. Notice of the meeting shall be published in a newspaper or newspapers of general circulation in the area for two successive weeks ending at least 15 days before the date of the meeting. The notice shall describe the proposed facilities, the proposed location, the purpose of the board's report to the legislature, and the subsequent and related activities of the board.

History: *1980 c 564 art 3 s 5; 1981 c 352 s 17,18*

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115A.23 DISPOSAL FACILITIES; PRELIMINARY DESIGN AND OPERATING SPECIFICATIONS.

By August 15, 1982, the board shall select, for further study and consideration, design and operating specifications for a variety of disposal facilities for hazardous waste in sufficient detail and extent in the judgment of the agency to allow the agency to begin preparing an environmental impact statement on the alternative facilities at each of the candidate sites pursuant to section 115A.25. The preliminary design and operating specifications shall not be final and shall not preclude the consideration of other specifications nor foreclose the subsequent addition by the board of other disposal facility alternatives.

History: *1980 c 564 art 3 s 6; 1981 c 352 s 19*

115A.24 CERTIFICATION OF NEED.

Subdivision 1. **Certificate.** Except as provided in subdivision 2, by December 15, 1982, on the basis of and consistent with its hazardous waste management plan adopted under section 115A.11, the board shall issue a certificate or certificates of need for disposal facilities for hazardous wastes in the state. The certificate or certificates shall indicate the types and volumes of waste for which disposal facilities are and will be needed through the year 2000 and the number, types, sizes, general design and operating specifications, and function or use of the disposal facilities needed in the state. The board shall certify need only to the extent that the board has determined that there are no feasible and prudent alternatives including waste reduction, separation, pretreatment, processing, and resource recovery which would minimize adverse impact upon natural resources, provided that the board shall require the establishment of at least one commercial disposal facility in the state. Economic considerations alone shall not justify certification nor the rejection of alternatives. Alternatives that are speculative and conjectural shall not be deemed to be feasible and prudent. The board shall consider all technologies being developed in other countries as well as in the United States when it considers the alternatives to hazardous waste disposal. The certificate or certificates shall not be subject to the provisions of chapter 14 but shall be the final determination required on the matters decided by the certificate or certificates and shall have the force and effect of law. The certificate or certificates shall not be amended for five years. The board and the permitting agencies, in reviewing and selecting sites, completing environmental impact statements, and issuing approvals and permits for waste disposal facilities described in the certificate or certificates of need, shall not reconsider matters determined in the certification. The board and the permitting agencies shall be required to make a final decision approving the establishment of facilities consistent with the certification. The board and the permitting agencies shall be required to make a final decision approving the establishment of at least one commercial disposal facility for hazardous waste in the state.

Subd. 2. **Condition.** No certificate or certificates of need for disposal facilities for hazardous waste shall be issued by the board pursuant to subdivision 1 unless legislation is enacted to:

(a) Define the liability of owners and operators of disposal facilities and generators and other persons responsible for the disposal of hazardous waste;

(b) Provide the appropriate units of state or local government with the capability to clean up disposal sites or take other action to mitigate an imminent or substantial danger to public health or welfare or the environment from the disposal of hazardous waste; and

(c) Provide for the payment of the state's share of costs incurred pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of

1980. Public Law 96-510, as amended, as required by that act as a match to federal moneys.

Subd. 3. **Radioactive waste.** The board's certificate of need shall not allow the use of a facility for disposal of radioactive waste, as defined by section 116C.71, subdivision 6.

History: *1980 c 564 art 3 s 7; 1981 c 352 s 20; 1982 c 424 s 130; 1982 c 569 s 10,11*

115A.25 AGENCY; ENVIRONMENTAL REVIEW PROCEDURES.

Subdivision 1. **Environmental impact statement.** An environmental impact statement meeting the requirements of chapter 116D shall be completed by the agency on disposal facilities at each candidate site. The statement shall be finally accepted or rejected within 120 days following the issuance of a certificate or certificates of need under section 115A.24.

Subd. 2. **Public disclosure.** Before commencing preparation of the environmental impact statement, the agency shall issue a document summarizing and making full disclosure of the intended objectives and contents of the environmental impact statement and the environmental review. Announcement of the disclosure shall be published in the state register. The disclosure shall:

(a) identify the candidate sites;

(b) summarize preliminary design and operating specifications and indicate where and when the specifications are available for inspection;

(c) describe as fully as possible the object of the review, including the significant actions, issues, alternatives, types of impacts, and compensation and mitigation measures expected to be addressed in the statement; the depth of the analysis expected; and subjects which the statement will not address in depth because they have been disposed of previously or because they are believed to be insignificant or remote and speculative;

(d) identify, by reference and brief summary, any related planning activities and environmental reviews which have been, are being, or will be conducted, and the substantive, chronological, and procedural relationship between the proposed review and the other activities and reviews;

(e) identify the membership and address of the local project review committees and the names of the local representatives on the board;

(f) summarize the comments and suggestions received from the public pursuant to subdivision 3 and the agency's response.

Subd. 3. **Public participation procedures.** The public disclosure document shall be issued following diligent effort to involve the public in determining the objective and contents of the environmental impact statement. At least one public meeting shall be held in each county with a candidate site. The advice of the board, facility developers, state agencies, the local project review committees, and local units of government shall be actively solicited. The agency may engage the state hearing examiner to conduct meetings and make recommendations concerning the review. Each local project review committee shall present to the agency a written report summarizing local concerns and attitudes about the proposed action and the specific issues which the local communities and residents wish to see addressed in the environmental review.

History: *1980 c 564 art 3 s 8*

115A.26 AGENCIES; PERMIT CONDITIONS.

Within 60 days following determination of adequacy of the final environmental impact statement, and after consulting with the board, facility developers,

affected local government units, and the local project review committees, each permitting state agency shall issue a notice of intent to issue permits, indicating the terms, conditions, and requirements of agency approval for all permits needed at each candidate site for the establishment of the facilities described in the board's certification of need. The agency decisions shall be consistent with the establishment of facilities in accordance with the certification of need.

History: *1980 c 564 art 3 s 9; 1981 c 352 s 21*

115A.27 HEARINGS.

Subdivision 1. **Agency hearings.** Any person objecting to a notice of intent to issue permits shall have 30 days in which to request a hearing. The hearing shall be ordered by the commissioner or director of the agency involved and shall be conducted by the state office of administrative hearings in the manner provided for contested cases in chapter 14. The hearing examiner may consolidate hearings on agency notices as he deems appropriate. The hearing shall be held in the county where the candidate site is located. A majority of the permanent members of the board shall be present at the agency hearing. The proceeding shall be completed and the examiner's report submitted to the permitting agency within 90 days following the issuance of the agency's notice of intent. Within 60 days following the hearing examiner's report and after consulting with the board, facility developers, affected local government units, and the local project review committee, the permitting agency shall revise its notice of intent as it deems appropriate and shall reissue the notice.

Subd. 2. **Board hearings.** Within 90 days following the issuance of agency notice of intent under section 115A.26, the board shall conduct a hearing in each county containing a candidate site, for the purpose of receiving testimony on the sites and facilities to be established. The hearings shall be ordered by the chairperson of the board and shall be conducted concurrently with any agency hearing regarding the site held pursuant to subdivision 1. The subject of the board hearing shall not extend to matters previously decided in the board's certificate of need. The hearing shall be conducted for the board by the state office of administrative hearings in a manner determined by the hearing examiner to be consistent with the completion of the proceedings in the time allowed. The proceedings shall not be deemed a contested case under chapter 14. A majority of the permanent members of the board shall be present at the hearing.

History: *1980 c 564 art 3 s 10; 1980 c 615 s 60; 1982 c 424 s 130*

115A.28 FINAL ACTION.

Subdivision 1. **Decision of board.** Within 60 days following final agency decisions on permits pursuant to sections 115A.26 and 115A.27, subdivision 1, and after consulting with private facility developers, the agency, affected local government units, and the local project review committees, the board shall finally select the site or sites for the facilities and shall submit or cause to be submitted final permit applications. If the chairperson of the board determines that an agency notice of intent has been substantially revised following hearings held pursuant to section 115A.27, subdivision 1, the chairperson shall order a public hearing to receive further testimony on the sites and facilities to be established. The proceeding shall be conducted as provided in section 115A.27, subdivision 2, except that hearings shall not be separately held in the affected counties and the issues relating to all agency notices shall be considered at one hearing. The board's decision and final permit applications shall embody all terms, conditions, and requirements of the permitting agencies, provided that the board may: (a) finally resolve any conflicts between state agencies regarding permit terms, conditions, and requirements, and (b) require more stringent terms, conditions, and

requirements respecting the facility as may be consistent with the certification of need and the agency rules and permit conditions. The board's resolution of conflicts under clause (a) shall be in favor of the more stringent terms, conditions, and requirements. The board's decision and the permit applications shall provide for the establishment of facilities consistent with the board's certification of need.

Subd. 2. **Board's decision paramount.** The board's decision under subdivision 1 shall be final and shall supersede and preempt requirements of state agencies and political subdivisions and the requirements of sections 473H.02 to 473H.17; except that a facility established pursuant to the decision shall be subject to those terms, conditions, and requirements of permitting agencies embodied in the board's decision and any requirements imposed pursuant to subdivision 3. The permitting agencies shall issue permits within 60 days following and in accordance with the board's final decision, and all permits shall conform to the terms, conditions, and requirements of the board's decision. No charter provision, ordinance, regulation, permit, or other requirement of any state agency or political subdivision shall prevent or restrict the establishment, operation, expansion, continuance, or closure of a facility in accordance with the final decision of the board and permits issued pursuant thereto.

Subd. 3. **Local requirements.** A political subdivision may impose reasonable requirements respecting the construction, inspection, operation, monitoring, and maintenance of a facility. Any such requirements shall be subject to review by the agency to determine their reasonableness and consistency with the establishment and use of a facility in accordance with the final decision of the board and permits issued pursuant thereto. The agency may approve, disapprove, suspend, modify, or reverse any such requirements. The decision of the agency shall be final.

History: *1980 c 564 art 3 s 11; 1981 c 352 s 22*

115A.29 RECONCILIATION AND INTERVENTION PROCEDURES.

Subdivision 1. **Reports to legislative commission.** At least 30 days before making final decisions on final site selection and permit application under section 115A.28, the board through its chairperson may report to the legislative commission describing permit conditions or requirements being considered which are not within the existing authority of the agency or the board or which would require legislation or public financial assistance. The report shall not raise issues previously decided by the board's certification of need. In any such report the chairperson of the board may request intervention in the review pursuant to subdivisions 2 and 3.

Subd. 2. **Pre-intervention assessment.** If the legislative commission determines that intervention might be warranted under the terms of subdivision 1, the commission may suspend the review process for up to 60 days to allow a pre-intervention assessment. The pre-intervention assessment shall be conducted by an independent, impartial, and qualified public intervenor appointed by the commission with the advice and consent of the parties to the dispute. The intervenor shall report to the commission. The report shall include:

(a) an assessment of whether the dispute is ripe for mediation and whether the parties are willing to mediate;

(b) an assessment of whether, within the terms of subdivision 1, substantive issues exist which were not decided by the certification of need and which cannot be resolved effectively through normal administrative and judicial procedures;

(c) a preliminary definition of the facts and issues in dispute and actions and decisions being considered;

(d) a description of the diverse parties having a legitimate and direct interest in the outcome of the dispute.

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Subd. 3. **Suspension of review process; intervention proceeding.** Following the report of the intervenor, the legislative commission may suspend the review process for an additional period not to exceed 90 days for an intervention proceeding. The intervention proceeding shall not consider issues previously decided by the board's certification of need. The intervenor shall be in charge of the intervention proceeding and may call for such participation and establish such procedures as he deems necessary and appropriate to facilitate agreement. The intervenor shall keep the chairperson of the legislative commission informed on the progress of the intervention proceeding, particularly with respect to agreements or proposed agreements which may require action or decisions not within the authority of the agency or board, legislative action, or public financial assistance. The intervenor shall make recommendations to the commission respecting any such agreements or proposed agreements. The commission may make recommendations to the intervenor respecting any such agreement or proposed agreement. If the commission approves of an agreement, or a decision based upon an agreement, which requires action or decisions not within the authority of the agency or board, legislative action, or public financial assistance, the commission shall cause the matter and recommendations to be submitted to the legislature for consideration.

History: *1980 c 564 art 3 s 12*

115A.30 JUDICIAL REVIEW.

Any civil action maintained by or against the agency or board under sections 115A.18 to 115A.30 shall be brought in the county where the board is located and shall take precedence over all other matters of a civil nature and be expedited to the maximum extent possible. Any person aggrieved by a final decision of the board authorizing facilities under sections 115A.18 to 115A.30 may appeal therefrom within 30 days as provided in chapter 14. No civil action shall be maintained pursuant to section 116B.03 with respect to conduct taken by a person pursuant to any environmental quality standard, limitation, regulation, rule, order, license, stipulation agreement or permit issued by the board under sections 115A.18 to 115A.30. Notwithstanding any provision of chapter 116B to the contrary, in any action brought under that chapter with respect to any decision or conduct undertaken by any person or the board or agency pursuant to sections 115A.18 to 115A.30 after the period for appeal under this section has lapsed, the plaintiff shall have the burden of proving that the evidence required under section 116B.10 was not reasonably available within the time provided for appeal. The trial court shall, upon motion of any prevailing non-governmental party, award costs, disbursements, reasonable attorney's fees, and reasonable expert witness fees, if the court finds the action hereunder was commenced or defended in bad faith or was frivolous.

History: *1980 c 564 art 3 s 13; 1982 c 424 s 130*

ADMINISTRATIVE PROVISIONS

115A.32 RULES.

The board shall promulgate rules pursuant to chapter 14 to govern its activities under sections 115A.32 to 115A.39.

History: *1980 c 564 art 4 s 1; 1982 c 424 s 130*

115A.33 ELIGIBILITY; REQUEST FOR REVIEW.

The following persons shall be eligible to request supplementary review by the board pursuant to sections 115A.32 to 115A.39: (a) a generator of sewage sludge within the state who has been issued permits by the agency for a facility to dispose

of sewage sludge or solid waste resulting from sewage treatment; (b) a political subdivision which has been issued permits by the agency, or a political subdivision acting on behalf of a person who has been issued permits by the agency, for a solid waste facility which is no larger than 250 acres, not including any proposed buffer area, and located outside the metropolitan area; (c) a generator of hazardous waste within the state who has been issued permits by the agency for a hazardous waste facility to be owned and operated by the generator, on property owned by the generator, and to be used by the generator for managing the hazardous wastes produced by the generator only; (d) a person who has been issued permits by the agency for a commercial hazardous waste processing facility at a site included in the board's inventory of preferred sites for such facilities adopted pursuant to section 115A.09; (e) a person who has been issued permits by the agency for a disposal facility for the nonhazardous sludge, ash, or other solid waste generated by a permitted hazardous waste processing facility operated by the person. The metropolitan waste control commission shall not be eligible to request review under clause (a) for a sewage sludge disposal facility. The metropolitan waste control commission shall not be eligible to request review under clause (a) for a solid waste facility with a proposed permitted life of longer than four years. The board may require completion of a plan conforming to the requirements of section 115A.46, before granting review under clause (b). A request for supplementary review shall show that the required permits for the facility have been issued by the agency and that a political subdivision has refused to approve the establishment or operation of the facility.

History: *1980 c 564 art 4 s 2; 1981 c 352 s 23*

115A.34 APPOINTMENT OF TEMPORARY BOARD MEMBERS.

Within 45 days of the submission of a request determined by the board to satisfy the requirements for review under sections 115A.32 to 115A.39, temporary board members shall be added to the board for the purpose of the supplementary review. Three members shall be selected by the governing body of the city or town in which the chairperson of the waste management board determines the facility would be principally located, and three members shall be selected by the governing body of the county in which the chairperson of the waste management board determines the proposed facility would be principally located. If the proposed facility is located in unorganized territory, all six members shall be selected by the governing board of the county. Temporary members shall be residents of the county in which the proposed facility would be located and shall be selected to represent broadly the local interests that would be directly affected by the proposed facility. At least one member appointed by the city or town shall live within one mile of the proposed facility, and at least one member appointed by the county shall be a resident of a city or town in which the proposed facility would be located. If the appointing authority fails to appoint temporary board members in the period allowed, the governor shall appoint the temporary members to represent the local interests in accordance with this section. Temporary board members shall serve for terms lasting until the board has taken final action on the facility.

History: *1980 c 564 art 4 s 3; 1981 c 352 s 24*

115A.35 REVIEW PROCEDURE.

The board shall meet to commence the supplementary review within 90 days of the submission of a request determined by the board to satisfy the requirements for review under this section. At the meeting commencing the review the chairperson shall recommend and the board establish a scope and procedure, in accordance with the rules of the board, for review and final decision on the

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History: *1980 c 564 art 4 s 4; 1980 c 615 s 60; 1982 c 424 s 130*

115A.36 SCOPE AND CONTENT OF REVIEW.

In its review and final decision on the proposed facility, the board shall consider at least the following matters:

(a) the risk and effect of the proposed facility on local residents, units of government, and the local public health, safety, and welfare, including such dangers as an accidental release of wastes during transportation to the facility, water, air, and land pollution, and fire or explosion where appropriate, and the degree to which the risk or effect may be alleviated;

(b) the consistency of the proposed facility with, and its effect on, existing and planned local land use and development; local laws, ordinances, and permits; and local public facilities and services;

(c) the adverse effects of the facility on agriculture and natural resources and opportunities to mitigate or eliminate the adverse effects by additional stipulations, conditions, and requirements respecting the proposed facility at the proposed site;

(d) the need for the proposed facility, especially its contribution to abating solid and hazardous waste disposal, the availability of alternative sites, and opportunities to mitigate or eliminate need by additional and alternative waste management strategies or actions of a significantly different nature;

(e) whether, in the case of solid waste resource recovery facilities, the applicant has considered the feasible and prudent waste processing alternatives for accomplishing the purposes of the proposed project and has compared and evaluated the costs of the alternatives, including capital and operating costs, and the effects of the alternatives on the cost to generators.

History: *1980 c 564 art 4 s 5*

115A.37 FINAL DECISION OF BOARD.

Subdivision 1. **Approval or disapproval.** In its final decision on the proposed facility, the board may either approve or disapprove the proposed facility at the proposed site. The board's approval shall embody all terms, conditions, and requirements of the permitting agencies, provided that the board may: (a) finally resolve any conflicts between state agencies regarding permit terms, conditions, and requirements, and (b) require more stringent permit terms, conditions, and requirements respecting the design, construction, operation, inspection, monitoring, and maintenance of the proposed facility at the proposed site. The board's

resolution of conflicts under clause (a) shall be in favor of the more stringent terms, conditions, and requirements.

Subd. 2. **Decision paramount.** The decision of the board to approve a facility shall be final and shall supersede and preempt requirements of state agencies and political subdivisions and the requirements of sections 473H.02 to 473H.17; except that the facility shall be subject to those terms, conditions, and requirements of permitting agencies embodied in the board's approval and any requirements imposed pursuant to subdivision 3. The permitting agencies shall issue or amend the permits for the facility within 60 days following and in accordance with the final decision of the board, and all permits shall conform to the terms, conditions, and requirements of the board's decision. No charter provision, ordinance, regulation, permit, or other requirement of any state agency or political subdivision shall prevent or restrict the establishment, operation, expansion, continuance, or closure of the facility in accordance with the final decision of the board and permits issued pursuant thereto.

Subd. 3. **Local requirements.** A political subdivision may impose reasonable requirements respecting the construction, inspection, operation, monitoring, and maintenance of a facility. Any such requirements shall be subject to review by the agency to determine their reasonableness and consistency with the establishment and use of a facility in accordance with the final decision of the board and permits issued pursuant thereto. The agency may approve, disapprove, suspend, modify, or reverse any such requirements. The decision of the agency shall be final.

History: *1980 c 564 art 4 s 6; 1981 c 352 s 25*

115A.38 RECONCILIATION PROCEDURES.

Subdivision 1. **Reports to legislative commission.** At least 30 days before making a final decision under section 115A.37 in a review brought pursuant to section 115A.33, clause (d), the board through its chairperson may report to the legislative commission describing permit conditions or requirements being considered which are not within the existing authority of the agency or the board or which would require legislation or public financial assistance. In any such report the chairperson of the board may request intervention in the review pursuant to subdivisions 2 and 3.

Subd. 2. **Pre-intervention assessment.** If the legislative commission determines that intervention might be warranted under the terms of subdivision 1, the commission may suspend the review process for up to 60 days to allow a pre-intervention assessment. The pre-intervention assessment shall be conducted by an independent, impartial, and qualified public intervenor appointed by the commission with the advice and consent of the parties to the dispute. The intervenor shall report to the commission. The report shall include:

(a) an assessment of whether the dispute is ripe for mediation and whether the parties are willing to mediate;

(b) an assessment of whether, within the terms of subdivision 1, substantive issues exist which cannot be resolved effectively through normal administrative and judicial procedures;

(c) a preliminary definition of the facts and issues in dispute and actions and decisions being considered;

(d) a description of the diverse parties having a legitimate and direct interest in the outcome of the dispute.

Subd. 3. **Suspension of review process; intervention proceeding.** Following the report of the intervenor, the legislative commission may suspend the review process for an additional period not to exceed 90 days for an intervention

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History: *1980 c 564 art 4 s 7*

115A.39 JUDICIAL REVIEW.

Judicial review with respect to conduct or decisions in supplementary reviews brought pursuant to section 115A.33, clauses (c) or (d), shall be as provided in section 115A.30.

History: *1980 c 564 art 4 s 8*

SOLID WASTE MANAGEMENT PLANNING ASSISTANCE PROGRAM

115A.42 ESTABLISHMENT AND ADMINISTRATION.

There is established a planning assistance program to provide technical and financial assistance to political subdivisions of the state for the purposes of encouraging and improving regional and local solid waste management planning activities and efforts and of furthering the state policies and purposes expressed in section 115A.02. The program shall be administered by the agency pursuant to rules promulgated under chapter 14, except in the metropolitan area where the program shall be administered by the metropolitan council pursuant to chapter 473. The agency and the metropolitan council shall ensure conformance with federal requirements and programs established pursuant to the Resource Conservation and Recovery Act of 1976 and amendments thereto.

History: *1980 c 564 art 5 s 1; 1982 c 424 s 130; 1982 c 569 s 12*

115A.43 ELIGIBLE RECIPIENTS.

Political subdivisions shall be eligible for assistance under the program.

History: *1980 c 564 art 5 s 2*

115A.44 FINANCIAL ASSISTANCE.

Eligible recipients may receive grants for up to 50 percent of the cost of the planning activity, except that planning by a regional development commission and joint planning by two or more contiguous counties or political subdivisions located in two or more contiguous counties may receive grants for up to 100 percent of the cost of the planning activity. Financial assistance provided under the program may be used to employ staff, contract with other units of government or qualified consultants, and pay such other planning expenses as the agency or metropolitan council may allow.

History: *1980 c 564 art 5 s 3*

115A.45 TECHNICAL ASSISTANCE.

The agency and metropolitan council shall provide for technical assistance for eligible recipients. The agency and metropolitan council shall provide model plans for regional and local solid waste management. The agency and metropolitan council may contract for the delivery of technical assistance by a regional development commission, any state or federal agency, or private consultants. The agency shall prepare and publish an inventory of sources of technical assistance for solid waste planning, including studies, publications, agencies, and persons available.

History: *1980 c 564 art 5 s 4*

115A.46 REQUIREMENTS.

Subdivision 1. **General.** Plans shall address the state policies and purposes expressed in section 115A.02. Plans for the location, establishment, operation, maintenance, and post-closure use of facilities and facility sites, for ordinances, and for licensing, permit, and enforcement activities shall be consistent with the rules adopted by the agency pursuant to chapter 116. Plans shall address the resolution of conflicting, duplicative, or overlapping local management efforts. Plans shall address the establishment of joint powers management programs or waste management districts where appropriate. Plans proposing a designation of resource recovery facilities pursuant to sections 115A.70 and 400.162 shall be submitted to the waste management board for review and approval or disapproval. The review shall be based on whether the plans conform to the requirements of this section. The board may require revision of a plan as a condition of its approval. Plans shall address other matters as the rules of the agency may require consistent with the purposes of sections 115A.42 to 115A.46. Political subdivisions preparing plans under sections 115A.42 to 115A.46 shall consult with persons presently providing solid waste collection, processing, and disposal services. Plans prepared by local units of government in the metropolitan area shall conform to the requirements of chapter 473.

Subd. 2. **Contents.** The plans shall describe existing collection, processing, and disposal systems, including schedules of rates and charges, financing methods, environmental acceptability, and opportunities for improvements in the systems. The plans shall include an estimate of the land disposal capacity in acre-feet which will be needed through the year 2000, on the basis of current and projected waste generation practices. The plans shall contain an assessment of opportunities to reduce the need for land disposal through waste reduction and resource recovery, the alternative degrees of reduction achievable, and a comparison of the costs of alternatives, including capital and operating costs, and the effects of the alternatives on the cost to generators and on persons currently providing solid waste collection, processing, and disposal services. The plans shall, to the extent practicable and consistent with the achievement of other public policies and purposes, encourage ownership and operation of solid waste facilities by private industry. For solid waste facilities owned or operated by public agencies or supported primarily by public funds or obligations issued by a public agency, the plans shall include criteria and standards to protect comparable private and public facilities already existing in the area from displacement unless the displacement is required in order to achieve the waste management objectives identified in the plan. The plans shall establish a siting procedure and development program to assure the orderly location, development, and financing of new or expanded solid waste facilities and services sufficient for a prospective ten-year period, including estimated costs and implementation schedules, proposed procedures for operation and maintenance, estimated annual costs and gross revenues, and proposals for the use of facilities after they are no longer needed or usable. The plans shall describe

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existing and proposed county and municipal ordinances and license and permit requirements relating to solid waste management and shall describe existing and proposed regulation and enforcement procedures.

Subd. 3. **Plans for designation of resource recovery facilities.** A plan proposing designation of resource recovery facilities pursuant to sections 115A.70 and 400.162 shall evaluate the benefits of the proposal, including the public purposes achieved by the conservation and recovery of resources, the furtherance of local and any district or regional waste management plans and policies, and the furtherance of the state policies and purposes expressed in section 115A.02, and also the costs of the proposal, including not only the direct capital and operating costs of the facility but also any indirect costs and adverse long-term effects of the designation. In particular the plan shall evaluate:

(a) whether the required use will result in the recovery of resources or energy from materials which would otherwise be wasted;

(b) whether the required use will lessen the demand for and use of land disposal;

(c) whether the required use is necessary for the financial support of the facility;

(d) whether less restrictive methods for ensuring an adequate solid waste supply are available;

(e) all other feasible and prudent waste processing alternatives for accomplishing the purposes of the proposed designation, the direct and indirect costs of the alternatives, including capital and operating costs, and the effects of the alternatives on the cost to generators.

History: *1980 c 564 art 5 s 5; 1982 c 569 s 13*

SOLID WASTE MANAGEMENT DEMONSTRATION PROGRAM

115A.49 ESTABLISHMENT; PURPOSES AND PRIORITIES.

There is established a solid waste management demonstration program to encourage and assist cities, counties, and solid waste management districts in the development and implementation of solid waste management projects of potential state wide application or significance and to transfer the knowledge and experience gained from such projects to other communities in the state. The program shall be administered so as to demonstrate the application of feasible and prudent alternatives to disposal, including waste reduction; waste separation by generators, collectors, and other persons; and waste processing. The program shall be administered by the agency and the board in accordance with the requirements of sections 115A.49 to 115A.54 and rules promulgated by the agency and the board pursuant to chapter 14. In administering the program, the agency and the board shall give priority to areas where natural geologic and soil conditions are unsuitable for land disposal of solid waste and areas where the capacity of existing solid waste disposal facilities is determined by the agency or the board to be less than five years. In areas outside the metropolitan area, the agency and the board shall also give priority to projects serving more than one local government unit.

History: *1980 c 564 art 6 s 1; 1982 c 424 s 130*

115A.50 ELIGIBLE RECIPIENTS.

Eligible recipients for assistance under the program shall be limited to cities, counties, and solid waste management districts established pursuant to sections 115A.62 to 115A.72. Eligible recipients may apply for assistance under sections 115A.52 and 115A.53 on behalf of other persons.

History: *1980 c 564 art 6 s 2*

115A.51 APPLICATION REQUIREMENTS.

Applications for assistance under the program shall demonstrate: (a) that the project is conceptually and technically feasible; (b) that affected political subdivisions are committed to implement the project, to provide necessary local financing, and to accept and exercise the government powers necessary to the project; (c) that operating revenues from the project, considering the availability and security of sources of solid waste and of markets for recovered resources, together with any proposed federal, state, or local financial assistance, will be sufficient to pay all costs over the projected life of the project; (d) that the applicant has evaluated the feasible and prudent alternatives to disposal and has compared and evaluated the costs of the alternatives, including capital and operating costs, and the effects of the alternatives on the cost to generators. The agency or the board may require completion of a comprehensive solid waste management plan conforming to the requirements of section 115A.46, before accepting an application.

History: *1980 c 564 art 6 s 3*

115A.52 TECHNICAL ASSISTANCE FOR DEMONSTRATION PROJECTS.

The agency and the board shall ensure the delivery of the technical assistance necessary for proper implementation of each demonstration project funded under the program. The agency and the board may contract for the delivery of technical assistance by any state or federal agency, a regional development commission, the metropolitan council, or private consultants and may use program funds to reimburse the agency, commission, council, or consultants. The agency and the board shall prepare and publish an inventory of sources of technical assistance, including studies, publications, agencies, and persons available. The agency and the board shall ensure statewide benefit from projects assisted under the demonstration program by developing exchange and training programs for local officials and employees and by using the experience gained in demonstration projects to provide technical assistance and education for other solid waste management projects in the state.

History: *1980 c 564 art 6 s 4*

115A.53 WASTE REDUCTION AND SEPARATION PROJECTS.

The agency shall provide technical assistance and grants to projects which demonstrate waste reduction; waste separation by generators, collectors, and other persons; and collection systems for separated waste. Activities eligible for assistance under this section include legal, financial, economic, educational, marketing, social, governmental, and administrative activities related to the implementation of the project. Preliminary planning and development, feasibility study, and conceptual design costs shall also be eligible activities, but no more than 20 percent of program funds shall be used to fund those activities. The rules of the agency shall prescribe the level or levels of local funding required for grants under this section.

History: *1980 c 564 art 6 s 5*

115A.54 WASTE PROCESSING FACILITIES

Subdivision 1. **Purposes; public interest; declaration of policy.** The legislature finds that the establishment of waste processing facilities and transfer stations serving such facilities is needed to manage properly the solid waste generated in the state and to conserve and protect the natural resources in the state and the health, safety, and welfare of its citizens; that opportunities to establish the facilities and transfer stations are not being fully realized by individual political subdivisions or by agreements among subdivisions; and that therefore it is necessary to provide capital assistance to stimulate and encourage the acquisition and betterment of the facilities and transfer stations.

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Subd. 2. **Administration; assurance of funds.** The board shall provide technical and financial assistance for the acquisition and betterment of the facilities and transfer stations from revenues derived from the issuance of bonds authorized by section 115A.58. Of money appropriated for the purposes of the demonstration program, at least 70 percent shall be distributed as loans, and the remainder shall be distributed as grants. An individual project may receive assistance totaling up to 100 percent of the capital cost of the project and grants up to 50 percent of the capital cost of the project. No grant or loan shall be disbursed to any recipient until the board has determined the total estimated capital cost of the project and ascertained that financing of the cost is assured by funds provided by the state, by an agency of the federal government within the amount of funds then appropriated to that agency and allocated by it to projects within the state, by any person, or by the appropriation of proceeds of bonds or other funds of the recipient to a fund for the construction of the project.

Subd. 3. **Obligations of recipient.** No grant or loan for any project shall be disbursed until the governing body of the recipient has made an irrevocable undertaking, by resolution, to use all funds made available exclusively for the capital cost of the project and to pay any additional amount by which the cost of the project exceeds the estimate by appropriation to the construction fund of additional funds or proceeds of additional bonds of the recipient. The resolution shall also indicate that any subsequent withdrawal of allocated or additional funds of the recipient will impair the obligation of contract between the state of Minnesota, the recipient, and the bondholders. The resolution shall pledge payment to the debt service account of all revenues of the project to the extent that they exceed costs and shall also obligate the recipient to levy a tax sufficient to make timely payments under the loan agreement, if a deficiency occurs in the amount of user charges, taxes, special assessments, or other moneys pledged for payment under the loan agreement. Each loan made to a recipient shall be secured by resolutions adopted by the board and the governing body of the recipient, obligating the recipient to repay the loan to the state treasurer in annual installments including both principal and interest. Installments shall be in an amount sufficient to pay the principal amount within the period required by the board. The interest on the loan shall be calculated on the declining balance at a rate not less than the average annual interest rate on the state bonds of the issue from which proceeds of the loan were made. The resolution shall obligate the recipient to provide money for the repayment from user charges, taxes, special assessments or any other funds available to it.

History: *1980 c 564 art 6 s 6; 1981 c 352 s 26*

STATE WASTE MANAGEMENT BONDS

115A.57 WASTE MANAGEMENT FUND.

Subdivision 1. **Creation; receipts.** The commissioner of finance shall maintain a Minnesota state waste management fund. The fund shall receive the proceeds of state bonds and other money appropriated to the fund and disburse money for the acquisition of real property and interests in real property for hazardous waste facility sites and surrounding buffer areas, as authorized by section 115A.06, subdivision 4, and money to be granted or loaned to political subdivisions pursuant to the waste processing facility capital assistance program created by section 115A.54. The commissioner of finance and state treasurer shall deposit in the fund as received (a) all proceeds of Minnesota state waste management bonds, except accrued interest and premiums received upon the sale of the bonds; (b) all other money appropriated by law for purposes stated in sections 115A.57 to 115A.59, and (c) all money granted to the state for those purposes by the federal government or any agency thereof. All the receipts are annually

appropriated for the purposes of the fund, and shall remain available until expended.

Subd. 2. **Disbursements.** Disbursements from the fund shall be made at the times and in the amounts authorized by the board in accordance with applicable state laws and the board's rules.

History: *1980 c 564 art 7 s 1*

115A.58 MINNESOTA STATE WASTE MANAGEMENT BONDS.

Subdivision 1. **Authority to issue bonds.** The commissioner of finance shall sell bonds of the state of Minnesota for the prompt and full payment of which, together with interest, the full faith, credit, and taxing powers of the state are irrevocably pledged. Bonds shall be sold only upon request of the board and in the amount as may otherwise be authorized by this or a subsequently enacted law which authorizes the sale of additional bonds and the deposit of the proceeds in the state waste management fund. Any authorized amount of bonds in this law or any subsequently enacted law authorizing the issuance of bonds for the purposes of the state waste management fund, together with this section, constitute complete authority for the issue. The bonds shall not be subject to restrictions or limitations contained in any other law.

Subd. 2. **Issuance of bonds.** Upon request by the board and upon authorization as provided in subdivision 1, the commissioner of finance shall sell Minnesota state waste management bonds. The bonds shall be in the aggregate amount requested, and sold upon sealed bids upon the notice, at the price, in the form and denominations, bearing interest at the rate or rates, maturing in the amounts and on the dates (without option of prepayment or subject to prepayment upon the notice and at the times and prices), payable at the bank or banks within or outside the state (with provisions for registration, conversion, and exchange and for the issuance of notes in anticipation of the sale or delivery of definitive bonds), and in accordance with any further provisions as the commissioner of finance shall determine. The sale is subject to the approval of the attorney general, but not subject to the provisions of sections 14.02, 14.04 to 14.36, 14.38, 14.44 to 14.45, and 14.57 to 14.62. The bonds shall be executed by the commissioner of finance and attested by the state treasurer under their official seals. The signatures of the officers on the bonds and any interest coupons and their seals may be printed, lithographed, engraved, or stamped thereon, except that each bond shall be authenticated by the manual signature on its face of one of the officers or of an officer of a bank designated by them as authenticating agent. The commissioner of finance shall ascertain and certify to the purchasers of the bonds the performance and existence of all acts, conditions, and things necessary to make them valid and binding general obligations of the state of Minnesota, subject to the approval of the attorney general.

Subd. 3. **Expenses.** All expenses incidental to the sale, printing, execution, and delivery of bonds pursuant to this section, including but not limited to actual and necessary travel and subsistence expenses of state officers and employees for these purposes, and any expenses of litigation relating to the validity of the bonds, shall be paid from the waste management fund, and the amounts necessary are appropriated from that fund.

Subd. 4. **Debt service account in the state waste management fund.** The commissioner of finance shall maintain in the Minnesota state waste management fund a separate account to be called the state waste management debt service account. It shall record receipts of premium and accrued interest, loan repayments, project revenue or other money transferred to the fund and income from the investment of the money and record any disbursements to pay the principal and interest on waste management bonds. Income from investment shall be

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credited to the account in each fiscal year. The amount credited shall be equal to the average return that year on all funds invested by the state treasurer, as determined by the treasurer, times the average balance in the account that year.

Subd. 5. **Appropriations to debt service account; appropriation from account to pay debt service.** The premium and accrued interest received on each issue of Minnesota state waste management bonds, and all payments received in repayment of loans and other revenues received are appropriated to the debt service account. All income from the investment of the Minnesota state waste management fund is appropriated to the debt service account. In order to reduce the amount of taxes otherwise required to be levied, there is also appropriated to the debt service account from any funds available in the general fund on November 1 in each year, a sum of money sufficient in amount, when added to the balance then on hand, to pay all principal and interest on Minnesota waste management bonds due and to become due before July 1 in the second ensuing year. So much of the debt service account of the state waste management fund as is necessary to pay principal and interest on waste management bonds is annually appropriated from the debt service account for the payment of principal and interest of the waste management bonds. All funds appropriated by this subdivision shall be available in the debt service account prior to any levy of the tax in any year required by the Minnesota Constitution, Article XI, Section 7.

Subd. 6. **Security.** On or before December 1 in each year the state auditor shall levy on all taxable property within the state whatever tax may be necessary to produce an amount sufficient, with all money currently credited to the debt service account, to pay the entire amount of principal and interest currently due and the principal and interest to become due before July 1 in the second year thereafter on Minnesota waste management bonds. This tax shall be levied upon all real property used for the purposes of a homestead, as well as other taxable property, notwithstanding the provisions of section 273.13, subdivisions 6 and 7, and shall be subject to no limitation of rate or amount until all the bonds and interest thereon are fully paid. The proceeds of this tax are appropriated to the debt service account. The principal of and interest on the bonds are payable from the proceeds of this tax.

History: *1980 c 564 art 7 s 2; 1982 c 424 s 130*

115A.59 BOND AUTHORIZATION AND APPROPRIATION OF PROCEEDS.

The commissioner of finance is authorized, upon request of the board, to sell Minnesota state waste management bonds in the amount of up to $8,800,000 for the purpose of the waste processing facility capital assistance program under section 115A.54, and in the amount of up to $6,200,000 for the purpose of acquiring real property and interests in real property for hazardous waste facility sites and buffer areas as authorized by section 115A.06, subdivision 4. The bonds shall be sold in the manner and upon the conditions prescribed in section 115A.58, and in the Minnesota Constitution, Article XI, Sections 4 to 7. The proceeds of the bonds, except as provided in section 115A.58, subdivision 5, are appropriated to the Minnesota state waste management fund. The amount of bonds issued pursuant to this authorization shall not exceed at any time the amount needed to produce a balance in the waste management fund equal to the aggregate amount of the loans and grants then approved and not previously disbursed, plus the amount of the loans and grants to be approved in the current and the following fiscal year, as estimated by the board.

History: *1980 c 564 art 7 s 3*

SOLID WASTE MANAGEMENT DISTRICTS

115A.62 PURPOSE; PUBLIC INTEREST; DECLARATION OF POLICY.

The legislature finds that the development of integrated and coordinated solid waste management systems is needed to manage properly the solid waste generated in the state, to conserve and protect the natural resources in the state and the health, safety, and welfare of its citizens, and to further the state policies and purposes expressed in section 115A.02; that this need cannot always be met solely by the activities of individual political subdivisions or by agreements among subdivisions; and that therefore it is necessary to establish a procedure for the creation of solid waste management districts having the powers and performing the functions prescribed in sections 115A.62 to 115A.72.

History: *1980 c 564 art 8 s 1; 1982 c 569 s 14*

115A.63 SOLID WASTE MANAGEMENT DISTRICTS.

Subdivision 1. **Legal status.** Solid waste management districts established pursuant to sections 115A.62 to 115A.72 shall be public corporations and political subdivisions of the state.

Subd. 2. **Establishment by board.** The board may establish waste districts as public corporations and political subdivisions of the state, define the powers of such districts in accordance with sections 115A.62 to 115A.72, define and alter the boundaries of the districts as provided in section 115A.64, and terminate districts as provided in section 115A.66. The board shall promulgate rules pursuant to chapter 14 governing the establishment, alteration, and termination of districts.

Subd. 3. **Restrictions.** No waste district shall be established within the boundaries of the Western Lake Superior Sanitary District established by Laws 1971, Chapter 478, as amended. No waste district shall be established wholly within one county. The board shall not establish a waste district within or extending into the metropolitan area, nor define or alter the powers or boundaries of a district, without the approval of the metropolitan council. The council shall not approve a district unless the articles of incorporation of the district require that the district will have the same procedural and substantive responsibilities, duties, and relationship to the metropolitan agencies as a metropolitan county. The board shall not establish a district unless the petitioners demonstrate that they are unable to fulfill the purposes of a district through joint action under section 471.59. The board shall require the completion of a comprehensive solid waste management plan conforming to the requirements of section 115A.46, by petitioners seeking to establish a district.

History: *1980 c 564 art 8 s 2; 1982 c 424 s 130*

115A.64 PROCEDURE FOR ESTABLISHMENT AND ALTERATION.

Subdivision 1. **Local petition.** Waste districts shall be established and their powers and boundaries defined or altered by the board only after petition requesting the action jointly submitted by the governing bodies of petitioners comprising at least one-half of the counties partly or wholly within the district. A petition for alteration shall include a resolution by the board of directors of the district approving the alteration.

Subd. 2. **Petition contents.** A petition requesting establishment or alteration of a waste district shall contain the information the board may require, including at least the following:

(a) the name of the proposed district;

(b) a description of the territory and political subdivisions within and the boundaries of the proposed district or alteration thereto, along with a map showing the district or alteration.

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(c) resolutions of support for the district, as proposed to the board, from the governing body of each of the petitioning counties;

(d) a statement of the reason, necessity, and purpose for the district, plus a general description of the solid waste management improvements and facilities contemplated for the district showing how its activities will accomplish the purpose of the district and the purposes for waste resource districts stated in sections 115A.62 to 115A.72;

(e) articles of incorporation stating the powers of the district consistent with sections 115A.62 to 115A.72, including a statement of powers proposed pursuant to sections 115A.70 and 115A.71.

After the petition has been filed, no petitioner may withdraw from it except with the written consent of all other petitioners filed with the board.

Subd. 3. **Local review and comment.** At least 60 days before submitting the petition to the board, the petitioners shall publish notice of the petition in newspapers of general circulation in the proposed district and shall cause a copy of the petition to be served upon the agency, the governing body of each political subdivision which is wholly or partly within the proposed district or is affected by the proposed alteration and each regional development commission affected by the proposed district or alteration. Each entity receiving service shall have 60 days within which to comment to the petitioners on the petition and the proposed district or alteration. Proof of service, along with any comments received, shall be attached to the petition when it is submitted to the board.

Subd. 4. **Review procedures.** Upon receipt of the petition, the chairperson of the board shall determine whether the petition conforms in form and substance to the requirements of law and rule. If the petition does not conform to the requirements, the chairperson shall return it immediately to the petitioners with a statement describing the deficiencies and the amendments necessary to rectify them. If the petition does conform to the requirements, and if comments have been received objecting to the establishment or alteration of the district as proposed, the chairperson shall request the office of administrative hearings to conduct a hearing on the petition. The hearing shall be conducted in the proposed district in the manner provided in chapter 14 for contested cases. If no comments have been received objecting to the establishment of the district as proposed, the board may proceed to grant or deny the petition without the necessity of conducting a contested case hearing. If the petition conforms to the requirements of law and rule, the chairperson shall also immediately submit the petition to the solid waste and the technical advisory councils of the board for review and recommendation and shall forward the petition to the director of the agency, who shall prepare and submit to the board a report containing recommendations on the disposition of the petition. The director's report shall contain at least the director's findings and conclusions on whether the proposed boundaries, purposes, powers, and management plans of the district or alteration thereto serve the purposes of waste resource districts, are appropriately related to the waste generation, collection, processing, and disposal patterns in the area, and are generally consistent with the purposes of the agency's regulatory program.

Subd. 5. **Corrections allowed.** No petition submitted by the requisite number of counties shall be void or dismissed on account of defects exposed in the hearing documents or report. The board shall permit the petition to be amended in form and substance to conform to the facts by correcting any errors in the description of the territory or any other defects.

Subd. 6. **Board order.** After considering the reports of the hearing examiner, if a contested case hearing has been held, and the recommendations of the advisory councils director of the agency, the board shall make a final decision on the petition. If the board finds and determines that the establishment or altera-

tion of a district as proposed in the petition would not be in the public interest and would not serve the purposes of sections 115A.62 to 115A.72, it shall give notice to the petitioners of its intent to deny the petition. If a contested case hearing has not been held, the petitioners may request a hearing within 30 days of the notice of intent to deny the petition. The request shall be granted. Following the hearing and the report of the hearing examiner, the board shall make a final decision on the petition and mail a copy of its decision to the governing body of each affected political subdivision. If the board finds and determines that the establishment or alteration of a district as proposed in the petition would be in the public interest and would serve the purposes of sections 115A.62 to 115A.72, it shall, by order, establish the district, define its boundaries, and give it a corporate name by which, in all proceedings, it shall thereafter be known. The order shall include articles of incorporation stating the powers of the district and the location of its registered office. Upon the filing of a certified copy of the order of the board with the secretary of state, the district shall become a political subdivision of the state and a public corporation, with the authority, power, and duties prescribed in sections 115A.62 to 115A.72 and the order of the board. At the time of filing, a copy of the order shall be mailed by the board to the governing body of each political subdivision wholly or partly within the district or affected by the alteration of the district.

History: *1980 c 564 art 8 s 3; 1980 c 615 s 60; 1982 c 424 s 130*

115A.65 PERPETUAL EXISTENCE.

A waste district created under the provisions of sections 115A.62 to 115A.72 shall have perpetual existence to the extent necessary to perform all acts necessary and proper for carrying out and exercising the powers and duties expressly given in it. A district shall not be terminated except pursuant to section 115A.66.

History: *1980 c 564 art 8 s 4*

115A.66 TERMINATION.

Subdivision 1. **Petition.** Proceedings for the termination of a district shall be initiated by the filing of a petition with the board. The petition shall be submitted by the governing bodies of not less than one-half of the counties which are wholly or partly in the district. The petition shall state that the existence of the district is no longer in the public interest. The petitioners shall publish notice of the petition in newspapers of general circulation in the district and shall cause to be served upon each political subdivision wholly or partly within the district a copy of the petition, and proof of service shall be attached to the petition filed with the board.

Subd. 2. **Bond; payment of costs.** If the petition is dismissed or denied, the petitioners shall be required to pay all costs and expenses of the proceeding for termination. At the time of filing the petition a bond shall be filed by the petitioners with the board in such sum as the board determines to be necessary to ensure payment of costs.

Subd. 3. **Hearing; decision.** If objection is made to the board against the petition for termination, a contested case hearing on the petition shall be held in the waste district pursuant to chapter 14. If the board determines that the termination of the district as proposed in the petition would not be in the public interest, the board shall give notice to the petitioner of its intent to deny the petition. If a contested case hearing has not been held, the petitioner may request a hearing within 30 days of the notice of intent to deny the petition. The request shall be granted. Following the hearing and the report of the hearing examiner, the board shall make a final decision on the petition. If the petition is dismissed

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all costs of the proceeding shall be assessed against the petitioner. If the board determines that the existence of the district is no longer in the public interest, the board shall by its findings and order terminate the district. Upon the filing of a certified copy of the findings and order with the secretary of state the district shall cease to be a public corporation and a political subdivision of the state.

Subd. 4. **Limitation.** The board shall not entertain a petition for termination of a district within five years from the date of the formation of the district nor shall the board entertain a petition for termination of the same district more often than once in five years.

History: *1980 c 564 art 8 s 5; 1982 c 424 s 130*

115A.67 ORGANIZATION OF DISTRICT.

The governing body of each county wholly or partly within the district shall appoint two persons to serve on the first board of directors of the district. The first chairperson of the board of directors shall be appointed by the chairperson of the waste management board and shall be a local elected official within the district. The first chairperson shall serve for a term of two years. Thereafter the chairperson shall be elected from outside the board of directors by majority vote of the board of directors. The first meeting of the board of directors shall be held at the call of the chairperson, after notice, for the purpose of proposing the bylaws, electing officers and for any other business that comes before the meeting. The bylaws of the district, and amendments thereto, shall be adopted by a majority vote of the board of directors unless the certificate of incorporation requires a greater vote. The bylaws shall state:

(a) the manner and time of calling regular meetings of the representatives and the board of directors, not less than once annually;

(b) the title, manner of selection, and term of office of officers of the district;

(c) the term of office of members of the board of directors, the manner of their removal, and the manner of filling vacancies on the board of directors;

(d) the powers and duties of the board of directors consistent with the order and articles of incorporation establishing the district;

(e) the definition of a quorum for meetings of the board of directors, which shall be not less than a majority of the members;

(f) the compensation and reimbursement for expenses for members of the board of directors, which shall not exceed that provided for in section 15.0575, subdivision 3; and

(g) such other provisions for regulating the affairs of the district as the board of directors shall determine to be necessary.

History: *1980 c 564 art 8 s 6*

115A.68 REGISTERED OFFICE.

Every district shall maintain an office in this state to be known as its registered office. When a district desires to change the location of its registered office, it shall file with the secretary of state, the board, and the director of the agency, a certificate stating the new location by city, town, or other community and the effective date of change. When the certificate has been duly filed, the board of directors may make the change without any further action.

History: *1980 c 564 art 8 s 7*

115A.69 POWERS.

Subdivision 1. **General.** A district shall have all powers necessary or convenient to perform its duties, including the powers provided in this section.

Subd. 2. **Actions.** The district may sue and be sued, and shall be a public body within the meaning of chapter 562.

Subd. 3. **Acquisition of property.** The district may acquire by purchase, lease, condemnation, gift, or grant, any right, title, and interest in and to real or personal property deemed necessary for the exercise of its powers or the accomplishment of its purposes, including positive and negative easements and water and air rights. Any local government unit and the commissioners of transportation, natural resources, and administration may convey to or permit the use of any property or facilities by the district, subject to the rights of the holders of any bonds issued with respect thereto, with or without compensation and without an election or approval by any other government agency. The district may hold the property for its purposes, and may lease or rent the property so far as not needed for its purposes, upon the terms and in the manner as it deems advisable. The right to acquire lands and property rights by condemnation shall be exercised in accordance with chapter 117. The district may take possession of any property for which condemnation proceedings have been commenced at any time after the issuance of a court order appointing commissioners for its condemnation.

Subd. 4. **Right of entry.** Whenever the district deems it necessary to the accomplishment of its purposes, the district or any member, employee, or agent thereof, when authorized by it, may enter upon any property, public or private, for the purpose of obtaining information or conducting surveys or investigations, provided that the entrance and activity is undertaken after reasonable notice and during normal business hours and provided that compensation is made for any damage to the property caused by the entrance and activity.

Subd. 5. **Gifts and grants.** The district may apply for and accept gifts, loans, or other property from the United States, the state, or any person for any of its purposes, may enter into any agreement required in connection therewith, and may hold, use, and dispose of the money or property in accordance with the terms of the gift, grant, loan or agreement.

Subd. 6. **Property exempt from taxation.** Any real or personal property owned, used, or occupied by the district for any authorized purpose is declared to be acquired, owned, used and occupied for public and governmental purposes, and shall be exempted from taxation by the state or any political subdivision of the state, provided that those properties shall be subject to special assessments levied by a political subdivision for a local improvement in amounts proportionate to and not exceeding the special benefit received by the properties from the improvement. No possible use of the properties in any manner different from their use for solid waste management at the time shall be considered in determining the special benefit received by the properties. All bonds, certificates of indebtedness or other obligations of the district shall be exempted from taxation by the state or any political subdivision of the state. Interest on the obligations of the district shall be exempted from taxation in the same manner provided for interest on obligations qualifying under section 290.08, subdivision 7.

Subd. 7. **Facilities and services.** The district may construct, equip, develop, enlarge, improve, and operate solid waste facilities and services as it deems necessary and may negotiate contracts for the use of public or private facilities and services. The district shall contract with private persons for the construction, maintenance, and operation of facilities and services where the facilities and services are adequate and available for use and competitive with other means of providing the same service.

Subd. 8. **Rates; charges.** The district may establish and collect rates and charges for the facilities and services provided by the district and may negotiate and collect rates and charges for facilities and services contracted for by the district. The board of directors of the district may agree with the holders of

district obligations which are secured by revenues of the district as to the maximum or minimum amounts which the district shall charge and collect for services provided by the district. Before establishing or raising any rates and charges the board of directors shall hold a public hearing regarding the proposed rates and charges. Notice of the hearing shall be published at least once in a legal newspaper of general circulation throughout the area affected by the rates and charges. Publication shall be no more than 45 days and no less than 15 days prior to the date of the hearing.

Subd. 9. **Disposition of property.** The district may sell or otherwise dispose of any real or personal property acquired by it which is no longer required for accomplishment of its purposes. The property shall be sold in the manner provided by section 458.196, insofar as practical. The district shall give notice of sale which it deems appropriate. When the district determines that any property which has been acquired from a government unit without compensation is no longer required, the district shall transfer it to the government unit.

Subd. 10. **Disposition of products and energy.** The district may use, sell, or otherwise dispose of all of the products and energy produced by its facilities. Section 471.345 shall not apply to the sale of products and energy. The district shall give particular consideration to the needs of purchasers in this state and shall actively promote sales to such purchasers so long as this can be done at prices and under conditions that meet constitutional requirements and that are consistent with the district's object of being financially self supporting to the greatest extent possible.

Subd. 11. **Contracts.** The district may enter into any contract necessary or proper for the exercise of its powers or the accomplishment of its purposes.

Subd. 12. **Joint powers.** The district may act under the provisions of section 471.59, or any other law providing for joint or cooperative action between government units.

Subd. 13. **Research.** The district may conduct research studies and programs, collect and analyze data, prepare reports, maps, charts, and tables, and conduct all necessary hearings and investigations in connection with its work and may advise and assist other government units on planning matters within the scope of its powers, duties, and objectives.

Subd. 14. **Employees; contracts for services.** The district may employ persons or firms and contract for services to perform engineering, legal or other services necessary to carry out its functions.

Subd. 15. **Insurance.** The district may require any employee to obtain and file with it an individual bond or fidelity insurance policy. It may procure insurance in amounts it deems necessary to insure against liability of the board of directors and employees or both, for personal injury or death and property damage or destruction, with the force and effect stated in chapter 466, and against risks of damage to or destruction of any of its facilities, equipment, or other property as it deems necessary.

Subd. 16. **Review of projects.** The district may require that persons shall not acquire, construct, alter, reconstruct or operate a solid waste facility within the district without prior consultation with and approval of the district.

History: 1980 c 564 art 8 s 8; 1982 c 569 s 15

115A.70 DESIGNATION OF RESOURCE RECOVERY FACILITIES; REQUIRED USE.

Subdivision 1. **Purpose.** In order to accomplish the objectives of a waste management district, to further the state policies and purposes expressed in section 115A.02, and to advance the public purposes served by resource recovery, the

legislature finds and declares that it may be necessary to authorize a district to require that all or any portion of the solid waste that is generated within its boundaries or any service area thereof and is deposited within the state be taken for processing to a resource recovery facility or a transfer station serving a facility designated by the district.

Subd. 2. **Standards.** Any district designation shall be based upon a plan prepared and approved in conformance with section 115A.46, shall be authorized in the articles of incorporation of the district, and shall be submitted pursuant to section 115A.071 for review and approval or disapproval by the waste management board.

Subd. 3. **Exemption.** The district shall not designate and require use of facilities for materials which are being separated from solid waste and recovered for reuse or recycling by the generator, by a private person under contract with the generator or by a licensed solid waste collector. The district shall not designate and require use of facilities for materials which are being delivered to another resource recovery facility unless the district finds and determines that the required use is consistent with criteria and standards concerning displacement of existing facilities and with the evaluation of resource recovery designation which are required in the solid waste management plan of the district.

Subd. 4. **Procedure.** The district shall proceed as follows when designating and requiring use of facilities:

(a) The district shall notify those persons whom the district has determined should use the facilities. Notification to political subdivisions, landfill operators, and licensed solid waste collectors shall be in writing. All other persons shall be notified at least by publication in a legal newspaper or newspapers having general circulation in the area. The notification shall specify types and quantities of solid wastes, plans for use of the solid wastes, the point of delivery of the solid wastes, and the fee to be charged. During a period of 90 days following the notification, the district shall negotiate with the persons within the areas to be served in order to develop contractual agreements on the terms of required use of the designated facilities.

(b) If contracts have not been made at the end of the 90 day period, or if persons subject to the required use have not made arrangements sufficient to justify exemption under subdivision 3, the district shall hold a public hearing to take testimony on the required use of the designated facilities. The hearing shall be preceded by the notice required under clause (a).

(c) If contracts have not been made within 30 days after the public hearing, or if persons subject to the required use have not made arrangements sufficient to justify exemption under subdivision 3, the district may order any person identified in the notice of the district to use the designated facilities, starting at a specified date which shall be at least 30 days after the order has been issued.

No designation shall be invalid by reason of the district's failure to provide written notice to any of the entities listed in this subdivision.

Subd. 5. **Service guarantee.** The district shall not arbitrarily terminate, suspend, or curtail services provided to any person required pursuant to this section to use designated facilities without the consent of the person or without just cause.

Subd. 6. **Termination.** Use required under contract or order pursuant to this section may be terminated by a person upon an adequate showing to the district that the solid waste has value and that arrangements have been made by the person sufficient to justify exemption under subdivision 3, unless the district determines that the requirement must be continued to assure delivery of waste necessary to the financial support of the district facilities.

History: *1980 c 564 art 8 s 9; 1982 c 569 s 16-18*

115A.71 BONDING POWERS.

Subdivision 1. **General.** A district may exercise the bonding powers provided in this section to the extent the powers are authorized by the order of the waste management board establishing the district and by its articles of incorporation.

Subd. 2. **Debt.** The district's bonds shall be sold, issued, and secured in the manner provided in chapter 475 for revenue bonds and the district shall have the same powers and duties as a municipality and its governing body in issuing revenue bonds under that chapter. No election shall be required. The bonds may be sold at any price and at public or private sale as determined by the district and shall not be subject to any limitation as to rate.

Subd. 3. **Revenue bonds.** A district may borrow money and incur indebtedness by issuing bonds and obligations which are payable solely:

(a) from revenues, income, receipts, and profits derived by the district from its operation and management of solid waste facilities;

(b) from the proceeds of warrants, notes, revenue bonds, debentures, or other evidences of indebtedness issued and sold by the district which are payable solely from such revenues, income, receipts, and profits;

(c) from federal or state grants, gifts, or other moneys received by the district which are available therefor.

Every issue of revenue bonds by the district shall be payable out of any funds or revenues from any facility of the district, subject only to agreements with the holders of particular bonds or notes pledging particular revenues or funds. If any facility of the district is funded in whole or in part by Minnesota waste management bonds issued under sections 115A.57 to 115A.59, the state bonds shall take priority. The district may provide for priorities of liens in the revenues between the holders of district obligations issued at different times or under different resolutions. The district may provide for the refunding of any district obligation through the issuance of other district obligations entitled to rights and priorities similar in all respects to those held by the obligations that are refunded.

History: *1980 c 564 art 8 s 10*

115A.72 AUDIT.

The board of directors, at the close of each year's business, shall cause an audit of the books, records and financial affairs of the district to be made by a certified public accountant or the state auditor. Copies of a written report of the audit, certified to by the auditors, shall be placed and kept on file at the principal place of business of the district and shall be filed with the secretary of state and the board.

History: *1980 c 564 art 8 s 11*

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

OFFICE OF THE COMMISSIONER
POUCH O, JUNEAU, ALASKA 99811

Telephone:(907)
Address:
465-2600

April 17, 1984

Mr. Jim Palmer
Legislative Aide to
Senator Bettye Fahrenkamp
Pouch V
Juneau, AK 99811

Dear Mr. Palmer:

Enclosed, please find our April 13 revision to the fiscal note for CSSB 503 originally submitted April 12 to your office at your request. Please note we have decreased the note by one staff person and reduced the estimated support costs to what we consider a bare minimum. In addition, we have deleted the major capital item, related to performing environmental, social and economic evaluations necessary to justify a hazardous waste management facility and obtain public support for a specific site.

A portion of the capital funds request will be used to establish criteria for evaluating the impacts of a hazardous waste management facility and making preliminary determinations of the types and potential locations of one or more facilities. I understand that Senator Fahrenkamp will support the addition of funds in the FY 86 and 87 budgets necessary to complete the analyses of two to five specific sites, estimated to range from 0.5 to 2 million dollars per potential site.

Sincerely,

Christopher Noah
Deputy Commissioner

CN/SWH/ne

enclosures

cc: Steve Kaddish
Billie Trent

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: April 13, 1984

REQUEST
Bill/Resolution No.: CSSB 503
Title: Hazardous Waste...

Sponsor: Senate Resources
Requestor: Sen. Fahrenkamp & Fischer
Date of Request: April 12, 1984

FISCAL DETAIL
Agency Affected: Environmental Conservation
Program Category Affected: NRMEC

BRU, Program or Subprogram(s) Affected:
Environmental Quality Management
Air & Solid Waste Management

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING		6-months				
100 PERSONAL SERVICES		65.9	131.7	131.7		
200 TRAVEL		16.0	16.0	16.0		
300 CONTRACTUAL		8.4	16.8	16.8		
400 SUPPLIES		2.0	4.0	4.0		
500 EQUIPMENT		13.6	3.2	3.2		
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING		105.9	171.7	171.7		
CAPITAL		480.0	--	--		
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		585.9	171.7	171.7		
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME		3.0	3.0	3.0		
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Stanley W. Hungerford
Phone: 465-2666
Division: Environmental Quality
Date: April 13, 1984

Approved by Commissioner: [signature]
Date:
Agency: Environmental Conservation
Deputy Commissioner

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impactad Agency(ies)

12/1/83

ANALYSIS of FISCAL NOTE
CSSB 503 AMENDED
April 13, 1984

A. Details of the costs for recommending the site and type of state owned/sponsored hazardous waste management facility.

Assumptions:

a) The project will take six to seven years to complete through contracts managed by the Department of Environmental Conservation.

b) In the first year, develop the specific details of siting criteria, the appropriate types of facilities to be evaluated based on industries regulated and types of waste, and five or more general areas for evaluation.

In the second and third years, identify five potential sites, the type(s) of facility to be located at each, and begin physical evaluations of the sites. (75.0 each year)

c) In the next three to four years, conduct detailed evaluations of the five sites, including such parameters as meteorology, geology, hydrology, access, and socioeconomic factors. The cost could range from 500.0 to 2 million per site - an average of 1.25 million is estimated to justify each site to the public. Excess funds would be reserved for the design of the facility after approval of the site by the governor and legislature. (To be included in a fiscal note in 1986 audit cycle.)

d) In the sixth/seventh year conduct the public review of at least two sites. (50.0)

e) Prepare recommendation for the governor and legislature.

f) No inflation of costs or salaries.

Staffing Needs:

1	Environmental Engineer	(Range 19)	50.0 plus support costs
1	Administrative Assistant	(Range 12)	31.7 plus support costs

B. Details of the costs for a collection and transportation service for disposal of hazardous wastes from small quantity generators and households.

Assumptions:

a) The project will be for at least three and one half years.

b) There will be "cleanups" in four or more cities per year. (85.0 per year)

c) No inflation of transportation or disposal costs.

d) An agressive program of technical assistance to the small quantity generator to assure conformance to RCRA (Applicable Federal Hazardous Waste regulations)

e) A comprehensive public information campaign each year to maximize legal collection and disposal of hazardous wastes.

f) Analysis of the types, quantities and sources of hazardous wastes to provide information for the state hazardous waste facility siting project.

g) Site for the collection activity and security will be provided by local government.

Staffing needs:

1 Environmental Engineer III (Range 19) 50.0 plus support costs

C. Details of the estimated support costs for four positions.

	1st year	2nd & 3rd years
Travel Costs:		
Moving costs -- of the 2 Environmental Engineer IIIs: the department has found that the specialized expertise required cannot be found in Alaska.	12.0	--
Travel in support of project work (technical assistance and public information)	3.0	12.0
Travel to meet with contractors, local governments, public meetings	1.0	4.0
Contractual Costs:		
Office costs (5.6 per person -- telephone, xerox, janitor)	8.4	16.8
Supplies:		
Replace expendable laboratory, safety materials	--	2.0
Office	2.0	2.0
Equipment:		
Office equipment (desks, chairs, word processor)	5.1	--
Safety equipment and replacements	8.5	3.2

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

OFFICE OF THE COMMISSIONER

Telephone:(907) 465-2600
Address: Pouch O
Juneau, Ak 99811

October 5, 1983

The Honorable Joe Josephson
The Honorable Vic Fischer
Chairman, and Vice-Chairman
Committee on Health, Education
& Social Services

Dear Senators Josephson and Fischer:

This letter is to clarify some of the information presented at your committee hearing held in Anchorage on Friday September 30, 1983 regarding the developing hazardous waste program in Alaska, and the application of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and its "Superfund" monies in this state. Regarding CERCLA, it is true that the State has declined to nominate a Superfund site, but this was a deliberate, decision based on relevant specific facts from Alaska and federal law.

CERCLA, and "Superfund" grants, deal with inactive industrial hazardous waste disposal sites. The population at risk, immediate safety considerations (fires and explosions) ground water, and surface water contamination are among the criteria used to designate inoperative sites to receive remedial attention. The system of ranking the nation's abandoned hazardous waste sites provides little or no assurance for cleanup protection for public health and the environment in situations where there is a low population density close to the site. At the present time we do not have data in our files on any abandoned hazardous waste sites in Alaska which meet the EPA's hazard ranking system. In other words, we have no "Superfund" sites.

Your Committee was informed at the hearing that EPA offered one site cleanup per state, regardless of its position on the national priority list (developed by computing a score using the EPA's hazard ranking system.)

The state investigated the possibility of receiving Superfund monies for several potential small remote sites (i.e. abandoned fuel drums in tundra areas) but this proved fruitless. My department also explored the possibility of nominating an abandoned military waste site. Superfund monies also cannot be spent on remedial action at a federal facility.

Given these factors, it would be highly unlikely to obtain Superfund money for any known Alaska site. Of the 14,000 sites identified in the U.S. the EPA has formed a list of 418 and appropriated monies for the cleanup of only about 100 sites. We are unaware of any site in Alaska which warrants the cleanup procedurs according to the "Superfund". The few sites which

conceivably are candidates for "Superfund" treatment are too small and too remote to invite the onerous federal administrative controls which are attached to "Superfund" money. We can, and will, make a concerted effort to clean up these remote sites without unnecessary delay or redtape.

Even under the old criteria, an industrialized state like Wisconsin did not submit a potential Superfund site due the unlikely receipt of EPA Superfund money. In addition, no sites have been proposed from the District of Columbia, Hawaii, Nebraska, Nevada, and the Virgin Islands.

My department has not abandoned the issue. We have requested federal grant monies to investigate a list of 93 uncontrolled hazardous waste sites in Alaska (taken from the total of 14,000 identified sites in the U.S.) In a majority of the cases the information is sketchy, anecdotal or incomplete not allowing for any calculated activity. ADEC has submitted a grant program to obtain monies under Section 3012 of the Resource Conservation and Recovery Act (RCRA) to conduct preliminary assessments and site inspections. If the grant is awarded the Department intends to examine the list and establish priorities. In the event sufficient site specific data is meeting EPA's Superfund criteria is garnered, an Alaska Superfund site will be nominated. Also to be considered in any site nomination is the fact that 10% of Superfund cleanup costs will be borne by the State (in the case of privately owned sites) and 50% of the cost for any municipal or state operated facility.

In addition to the grant application to investigate potential abandoned hazardous wastes sites, the Department is seeking money from EPA Region X to aid in assessing any environmental or public health hazards existing at a special waste site in the Kenai Borough (Sterling landfill). In summary, the Department continues to be concerned with hazardous waste sites and will take a close, hard look to see if the nomination of Superfund site is warranted; We have not "closed a window".

I also wish to clarify some current misinformation regarding the development of a hazardous waste management program in this state. It is true that recently I recommended that the state not adopt the hazardous waste regulations at this time and not to apply to EPA for "interim authorization" of RCRA responsibilities in Alaska. However, this action does not reflect a lack of commitment toward this program. The basic timetable remains the same. See the enclosed copy of a letter dated September 26 to Mr. Ron Kreizenbeck of EPA's Alaska Operations Office.

I am also enclosing a copy of remarks which I am making this week in a meeting with members of the Alaska Center for the Environment. As you can see, the the general effort has not abated simply because the regulations are not being adopted at this time. The complexity of the regulations demands a more deliberate approach, I full expect the regulations to be in place in Alaska in July or August of 1984. I believe the educational seminars planned this winter should take place before attempting to enforce a program such as this.

Finally, I hope you will also take note of the fact that this program will require additional funding by the state. Without a commitment form the legislature, it will be difficult to implement and effectively administer a state hazardous waste program.

I hope I have adequately addressed some of the concerns which have recently surfaced. Please contact me if you have any further concerns or questions regarding this program.

Sincerely,

Richard A. Neve'
Commissioner

cc: Senator Pappy Moss
Senator Paul Fischer
Senator Rick Halford

A Gold Streak Freight Lines Inc., employee straps transformers laden with toxic materi

Toxic wastes unl at port

Times

1/15/83

by E.W. Piper
Times Writer

More than 4,000 gallons of materials contaminated by toxic polychlorinated biphenyls (PCB) were unloaded Friday from a barge at the Port of Anchorage, then transported on flat-bed trucks to a storage site at Elmendorf Air Force Base.

The materials came from Air Force installations in western Alaska. They included contaminated soil, clean-up material and transformer oils from Shemya, Nikoski and other sites, said Master Sgt. Bill Bruu, an Air Force spokesman. Contamination ranged from 50 parts per million (ppm), the lowest level designated by federal officials, to more than 500 ppm, the most toxic concentration.

There were no reports of spills or leaks, although workers, along with state and federal officials, were sensitive about the handling of the chemicals. PCBs have been linked to ailments as simple as skin irritations and as deadly as cancer.

According to Bruu, the full cargo included:

- From Shemya — Twelve 55-gallon drums of solid contaminants; 27 drums of soil; 5 drums of oils.
- From Nikoski — 1,690 gallons of PCB liquids.

Six hundred gallons of uncontaminated oil from other sites and 43 empty transformers, 10 of which had been filled with PCB lubricating oils, were also on board.

One longshoreman working for North Star Terminal and Stevedore Co. walked off the job rather than unload the barge, according to Pat Boettger, president of

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Federal regulations say a truck must be marked on the sides and rear as carrying PCBs, according to the Environmental Protection Agency office in Juneau.

Donna Coor, one of the owners of Gold Streak Freight Lines, said she did not put placards on the trucks because she called the state Department of Environmental Conservation and was told there was no regulation calling for any special markings.

The episode illustrated the confusion over regulation of hazardous waste in Alaska. Although the state is developing regulations, it currently has none in effect; federal regulations come from several different agencies.

A DEC inspector came to the site in mid-morning after a phone call from a group of truck driv-

See Toxic, page C-2

Plan would notify comm of hazardous waste ro

by E. W. Piper
Times Writer

Sen. Joe Josephson, D-Anchorage, plans to introduce legislation that would require anyone who ships or transports hazardous wastes to notify the community through which the material is scheduled to pass.

"We need to have some kind of system so that the public can be informed of this kind of thing," said Josephson, whose idea has been in the planning stages since Anchorage began its debate about the fate of polychlorinated biphenyls (PCB) generated within the municipality.

When contacted Friday, Josephson did not know that the Air Force was transporting drums of PCB-contaminated material from the Port of Anchorage to Elmendorf Air Force Base, a route that brought the trucks through part of his district.

His proposed legislation will provide, he says, a way for the public to be informed of similar instances of "potential exposure."

Josephson said that although Anchorage is a community of people who show a willingness to get involved in government, its citizens cannot be aware of everything. Referring to the sudden disclosure this summer that the city intended to burn low-level PCB-laced oil in its incinerator, Josephson said, "Even here in

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SEN. JOE JOSEPHSON
Backs 'right to know'

Anc. Daily News 10-8-83

Anchorage Daily News 10/8/83 Ed. Board

Waste problems demand action

Serious concern properly flows from the decision of the state Department of Environmental Conservation (DEC) not to adopt interim authority to regulate hazardous wastes in Alaska. What state Sen. Vic Fischer called "an outrageous decision" means another year's delay — albeit amid promises of good intent — before state regulations covering hazardous materials in Alaska will reach the books. Those promises are not enough.

Sen. Fischer and others spoke out at a recent public hearing on hazardous waste issues held in Anchorage. There were charges — later denied — that the Sheffield administration had spiked the interim regulations at the request of the oil industry. Whatever the reasons, the hearing revealed a history of indifference demonstrated by DEC budget cuts, bureaucratic hesitation and, finally, failure to adopt the interim regulations. Alaskans should accept that indifference no longer.

For decades American communities large and small unknowingly planted hazardous waste time-bombs in their soil structures and water tables — bombs that have been exploding with tragic results in places like Love Canal and Times Beach, Mo. Just how much damage has already been done, and how it can be dealt with, will be a painful public concern for some time to come.

Alaska, meanwhile, has been blessed with a certain safety in its isolation and small population. Environmental booby-traps have been set here — notably PCB-laced oils in military and other electrical transformers all over the state — but they are, thankfully, relatively few and far between. Yet as surely as more people bring more traffic congestion, Alaska's safety margin from hazardous waste contamination is shrinking as the amenities and effluents of modern civilization permeate the north.

There will be no excuse, however, if we should plant hazardous waste time-bombs in Alaska. We have been forewarned by sad experience elsewhere; we must be forearmed by prudent regulation right here.

DEC Commissioner Richard Neve came to Anchorage Thursday to defend the interim regulation decision, explaining his department's increased inspection program — "doing more with less (money)," he said — and promising current policing action along with administrative vigor in adopting final regulatory authority next year. It was essentially a series of verbal promises, with no word on what will be done about the knotty issue of regulating petroleum drilling muds.

"We need a little better PR," said the commissioner in defending the decision not to act on interim regulatory authority. But he is wrong about that. What we need is an effective program of hazardous waste regulation and enforcement — not promises and delay. We do not have those regulations today, but we do have a fast-growing state in which hazardous waste dangers are burgeoning. Commissioner Neve's department has had more than two years to develop a hazardous waste program. The coming year must bring performance.

PRESENTATION BY

RICHARD A NEVE'
COMMISSIONER

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DEALING WITH HAZARDOUS WASTE IN ALASKA: PROBLEMS AND PROGRESS

I APPRECIATE THE OPPORTUNITY TO TALK WITH YOU TODAY REGARDING MY DEPARTMENT'S ATTEMPTS TO OBTAIN FEDERAL AUTHORIZATION TO MANAGE HAZARDOUS WASTES IN ALASKA. THIS IS A VERY TIMELY TOPIC. AS YOU MAY HAVE NOTICED, THERE HAVE BEEN SEVERAL RECENT NEWS ARTICLES ON HAZARDOUS WASTE MANAGEMENT AND THE INVOLVEMENT OF MY DEPARTMENT. IT CONTINUES TO BE A TIMELY ISSUE IN THIS STATE AS WELL AS THE REST OF THE COUNTRY.

FIRST, LET ME GIVE YOU A LITTLE BACKGROUND ON THE ISSUES. ALASKA STEPPED INTO THE HAZARDOUS WASTE ARENA IN 1981 WHEN THE LEGISLATURE PASSED A BILL REQUIRING DEC TO DEVELOP HAZARDOUS WASTE REGULATIONS AND A HAZARDOUS WASTE PROGRAM FOR ALASKA. WE WERE DIRECTED BY THAT LEGISLATION TO ADOPT REGULATIONS WHICH WERE "CONSISTENT WITH AND SUBSTANTIALLY EQUIVALENT TO THE FEDERAL RESOURCE CONSERVATION AND RECOVERY ACT OF 1976," REFERRED TO AS "RCRA".

THE FEDERAL RCRA REGULATIONS HAVE BEEN IN FORCE FOR THREE YEARS AND HAVE RESULTED IN MINOR PROGRESS NATIONWIDE. OUR LEGISLATIVE MANDATE, COUPLED WITH OUR BELIEF THAT THE RCRA REGULATIONS WERE INADEQUATE FOR ALASKA, GAVE US AN ENORMOUS UNDERTAKING TO ACCOMPLISH. AS WE BEGAN DEVELOPING A HAZARDOUS WASTE PROGRAM FOR ALASKA, WE DISCOVERED A NUMBER OF MAJOR FLAWS IN RCRA.

THE MAIN PROBLEMS WITH THE RCRA STANDARDS ARE:

1. THEY ARE WRITTEN MAINLY FOR STATES WITH HUGE INDUSTRIAL COMPLEXES (AND THEY ARE CONSIDERED TO BE MINIMUM STANDARDS EVEN THERE); 2. THAT NO NEW WASTES HAVE BEEN LISTED IN THREE YEARS, INCLUDING DIOXIN, 3. THIS LISTING APPROACH DOES NOT CALCULATE THE DEGREE OF RISK. 4. THAT THERE ARE TOO MANY EXCLUSIONS AND EXEMPTIONS; AND 5. RCRA, A PRODUCT OF MANY COMPROMISES AS IT IS, IS INCREASINGLY VIEWED BY THOSE INVOLVED WITH THESE ISSUES AS NEEDING IMPROVEMENT. A RECENT STUDY BY THE CONGRESSIONAL OFFICE OF TECHNOLOGY ASSESSMENT HAS STATED THAT CONCLUSION TO CONGRESS.

LATE IN 1981, WE HIRED AN ATTORNEY TO ASSIST IN DRAFTING THE REGULATIONS. WE ALSO BROUGHT ON BOARD A FEDERAL EMPLOYEE CONTRACTED FROM EPA WITH SPECIALIZED KNOWLEDGE AND EXPERTISE WITH THE RCRA REQUIREMENTS. AT THE SAME TIME, WE FORMED THE HAZARDOUS WASTE ADVISORY WORK GROUP, COMPRISED OF TEN MEMBERS. FIVE MEMBERS WERE SELECTED FROM THE PRIVATE SECTOR AND THE MILITARY WHO WOULD BE AFFECTED BY THE REGULATIONS, AS WELL AS FIVE REPRESENTATIVES OF STATE AND ENVIRONMENTAL ORGANIZATIONS. MEMBERSHIP OF THE BODY INCLUDED THE ASSOCIATION OF GENERAL CONTRACTORS, THE ALASKA OIL AND GAS ASSOCIATION, THE ALASKAN AIR COMMAND, ALASKA CENTER FOR THE ENVIRONMENT, SIERRA CLUB, LEAGUE OF WOMEN VOTERS, ALASKA FEDERATION OF NATIVES, ALASKA TRUCKERS ASSOCIATION, ALASKA PUBLIC HEALTH ASSOCIATION, AND THE MUNICIPALITY OF ANCHORAGE.

THE REGULATIONS AS NOW PROPOSED WERE DEVELOPED IN LARGE PART FROM THE ADVISORY WORK GROUP COMMENTS ON THE FEDERAL STANDARDS, THE REGS WENT TO PUBLIC HEARINGS

STATEWIDE IN MAY OF THIS YEAR. WIDESPREAD SUPPORT WAS EXPRESSED FOR AN ADEQUATELY FUNDED AND STAFFED HAZARDOUS WASTE PROGRAM IN ALASKA. EVEN THE OIL COMPANIES EXPRESSED A GENERALLY FAVORABLE RESPONSE, THOUGH THE MOST CRITICAL COMMENTS CAME FROM THAT QUARTER, PARTICULARLY WITH RESPECT TO DRILLING MUDS.

OUR REGULATIONS SHOULD NOT BE DESCRIBED AS RADICAL, BUT THEY DO GO BEYOND RCRA. AMONG OTHER THINGS THEY INCLUDE ONE CRITERION WHICH IS A FUNDAMENTAL FLAW IN RCRA, NAMELY ACUTE TOXICITY. OUR REGULATIONS CREATE A BROADER AND MORE REALISTIC CONCER OF HAZARDOUS WASTE. IN ADDITION, THEY EMBODY A TRUE DEGREE-OF-HAZARD APPROACH PIONEERED BY WASHINGTON STATE. RCRA, UNFORTUNATELY IS A YES-NO, ON-OFF SYSTEM. EITHER A WASTE IS INOCUOUS OR IT IS HAZARDOUS. IT MAKES NO ATTEMPT AT MANAGING WASTE ACCORDING TO THE DEGREE OF RISK PRESENTED. THIS ON THE OTHER HAND IS PRECISELY THE APPROACH WHICH WE HAVE CHOSEN AND WHICH IS MUCH MORE SENSIBLE FOR ALASKA.

IN ADDITION, THE REGULATIONS WE ARE DEVELOPING ARE MORE DIRECT AND SUPERIOR TO RCRA IN THE FOLLOWING WAYS: 1. THEY REQUIRE BUSINESS TO KNOW THEIR WASTES. BY THE END OF THIS DECADE, SUCCESSFUL INDUSTRIAL FIRMS WILL KNOW AS MUCH ABOUT THEIR WASTES AS THEY DO ABOUT THEIR PRODUCTS.

2. THEY ENCOURAGE RECYCLING AND MORE EFFICIENT USE OF CHEMICALS. THIS MAKES GOOD ENVIRONMENTAL AND ECONOMIC SENSE.

3. THEY REQUIRE HAZARDOUS WASTE MANAGERS TO ANTICIPATE FIRES AND SPILLS AND DEVELOP COMPREHENSIVE WRITTEN PLANS TO ASSIST THIS REQUIREMENT.

4. THEY SET A BASIC THRESHOLD LEVEL (400 LBS) WHICH IS MORE REALISTIC FOR THE ALASKA SETTING.

5. THEY SAVE CLEANUP COSTS BY AVOIDING FUTURE DISASTERS SUCH AS THAT AT LOVE CANAL.

THIS DIVERGENT APPROACH FROM RCRA, WHILE MERITORIOUS, IS NEVERTHELESS COMPLEX. WE ARE ATTEMPTING TO SIMPLIFY RCRA AS MUCH AS WE CAN BUT WE ARE ALSO ADDING TO IT. IN ADDITION TO THE TOXICITY CRITERION WE ARE INCLUDING CARCINOGENICITY AND PERSISTENCE. THE CONCEPT OF MODERATE RISK WASTE IS NOT INCLUDED IN RCRA, SO WE MUST DEVELOP SEPARATE STANDARDS FOR MODERATE RISK WASTE DISPOSAL FACILITIES. THE PRECISE ECONOMIC IMPACT OF THE REGULATION IS UNCLEAR AND MUST BE IDENTIFIED. OUR FINAL REGULATIONS WILL IMPACT MORE BUSINESSES THAN ARE PRESENTLY AFFECTED BY RCRA IN THIS STATE. I FEEL WE HAVE AN OBLIGATION TO EDUCATE THESE BUSINESS IN PARTICULAR BEFORE WE PUT THE REGULATIONS ON THE BOOKS.

FOR THESE REASONS AMONG OTHERS, I RECOMMENDED TO THE GOVERNOR ON SEPT. 22ND THAT THE REGULATIONS BE BRIEFLY POSTPONED. THIS ENTAILED A RECOMMENDATION AS WELL NOT TO APPLY TO THE FEDERAL GOVERNMENT FOR INTERIM AUTHORIZATION TO CARRY OUT EPA'S RCRA RESPONSIBILITIES IN THIS STATE.

BUT I WISH TO EMPHATICALLY MAKE CLEAR THAT THIS ACTION DOES NOT CHANGE OUR COMMITMENT TO A HAZARDOUS WASTE PROGRAM, NOR SHOULD IT BE SEEN AS SUCH. I AM COMMITTED AS IS THE GOVERNOR TO THE ESTABLISHMENT OF A TRULY ADEQUATE PROGRAM FOR ALASKA.

GIVEN THE REGS COMPLEXITY, I BELIEVE THAT WE NEED A BIT MORE TIME FOR INDUSTRY AND THE PUBLIC TO BE EDUCATED. TO THIS END, I HAVE DIRECTED MY

STAFF TO PLAN INSTRUCTIONAL SEMINARS TO TAKE PLACE THIS WINTER IN ANCHORAGE AND FAIRBANKS TO TEACH THOSE WHO WILL BE REGULATED. I HAVE ALSO DIRECTED PREPARATION OF A BOOKLET OR MANUAL WHICH EXPLAINS THE PROGRAM AND THE REGULATIONS. I AM ALSO REQUESTING MY STAFF TO FURTHER DEVELOP THE ECONOMIC IMPACT OF THE PROPOSED REGULATIONS. THESE THINGS ARE NECESSARY, I BELIEVE, BEFORE THE REGULATIONS ARE ADOPTED AND ENFORCED.

EVEN AS WE PROCEED, RCRA CONTINUES IN FULL FORCE AND EFFECT. EVEN WITHOUT INTERIM AUTHORIZATION, WE ARE INCREASING THE ENFORCEMENT OF RCRA REQUIREMENTS THROUGH THE INSPECTION OF REGULATED FACILITIES. WE WILL ALSO BE DRAFTING A PERMIT FOR EPA TO ISSUE UNDER THE TERMS OF OUR COOPERATIVE AGREEMENT WITH THAT AGENCY. IN GENERAL, OUR HAZARDOUS WASTE PROGRAM EFFORT RE CONTINUING TO EXPAND. UNDER THE TERMS OF OUR COOPERATIVE AGREEMENT WITH EPA WE ARE DOING MORE THINGS THIS YEAR THAN THE YEAR BEFORE. NEXT YEAR WE WILL BE EXPANDING OUR ROLE EVEN MORE. EVENTUALLY WE WILL ASSUME FINAL AUTHORIZATION FOR HAZARDOUS WASTES IN ALASKA.

RECENTLY WE HAVE BEEN CRITICIZED BY SOME AS PROCEEDING TOO QUICKLY, AND NOW, BY OTHERS, AS PROCEEDING TOO SLOWLY. I BELIEVE THAT NEITHER IS THE CASE. I CAN PROMISE YOU WILL HAVE GOOD, SOUND HAZARADOUS WASTE REGULATIONS BEFORE NEXT SUMMER IS OVER. THE FINAL REGULATIONS WILL NOT BE SUBSTANTIALLY DIFFERENT THAN THE DRAFT WHICH WAS FORMALLY PRESENTED FOR PUBLIC COMMENT. BUT A SYSTEM AS COMPLEX AS THIS TAKES TIME. THE DRAFTING PROCESS IS MORE DIFFICULT, AND THE EDUCATIONAL PROCESS ON THE IMPACT HAS BARELY BEGUN.

FINALLY, I WISH TO TOUCH UPON AN ITEM WHICH IS PART OF THE DEVELOPMENT OF A COMPREHENSIVE HAZARDOUS WASTE PROGRAM IN ALASKA. ULTIMATELY, THERE MUST BE THE DEVELOPMENT OF SUITABLE DISPOSAL OPTIONS IN THIS STATE.

THIS MEANS A DISPOSAL FACILITY, OR AT THE VERY LEAST, COLLECTION STATIONS AS RECOMMENDED BY ONE OF OUR CONSULTANTS. THE DEVELOPMENT OF A DISPOSAL OPTION OR OPTIONS IS FARTHER FROM REALIZATION THAN THE REGULATIONS. IN COMING MONTHS WE WILL INCREASE OUR EFFORTS AT IDENTIFYING AND DEVELOPING DISPOSAL OPTIONS. I PROMISE NOT TO ALLOW THIS ISSUE TO BE JOINED TO THE REGULATIONS IN SUCH A MANNER AS TO DELAY THEM FURTHER. THE REGULATIONS ARE NECESSARY EVEN WITHOUT AN IN-STATE DISPOSAL OPTION FOR RCRA WASTE.

IN SUMMARY, THERE IS NO ABATEMENT OF OUR COMMITTMENT TO A PROPER HAZARDOUS WASTE PROGRAM. IN THESE DAYS OF DECLINING REVENUES WE ARE FORCED TO PROCEED A BIT MORE DELIBERATELY. I HOPE THAT ALL OF YOU HERE CAN APPRECIATE THIS REALITY. I HOPE WE CAN CONTINUE THE COOPERATION IN THE FUTURE WHICH HAS HELPED US COME AS FAR AS WE HAVE.





Bills for those long-distance calls may be going down

Metro, Page B-4

Dodgers clinch National League West title



Sports, Page C-1

nchorage Daily News

60+2

ANCHORAGE, ALASKA, SATURDAY, OCTOBER 1, 1983

PRICE 25 CENTS

Fischer: Sheffield decision 'atrocious'

Interim rules on hazardous wastes killed

By RICHARD MAUER
Daily News reporter

State Sen. Vic Fischer lashed out Friday at a decision by the Sheffield administration to forgo adoption of interim rules on the use and disposal of hazardous wastes.

"It's an atrocious decision. Coming at this time, it seems doubly irresponsible," said Fischer, an Anchorage Democrat.

His comments came during a hearing in Anchorage of the Senate Health, Education and Social Services Committee, which also learned that the state twice turned down offers of federal "Superfund" money to clean up abandoned hazardous waste sites.

Ronald Kreizenbeck, director of the Alaska Operations Office of the U.S. Environmental Protection Agency, said the Superfund money was offered in the fall of 1982 and again last spring under federal policy that allowed each state to participate in the program.

"In both cases, the state declined to nominate a site," Kreizenbeck said. "There are two windows, and they're both closed."

Committee Chairman Joe Josephson sounded incredulous. "We left money on the table that someone else has gotten?" he asked.

The money, which in other areas has amounted to more than $1 million a site, is no longer available, Kreizenbeck said. Though officials have identified scores of abandoned toxic waste sites in Alaska, the state now stands little chance of getting Superfund money. It would have to compete with sites in places like New Jersey, New York and Missouri, where the dangers threaten far more people than they do in Alaska, Kreizenbeck said.

The Senate hearing Friday was called by Josephson, D-Anchorage. While Josephson intended to look into a plan by the Anchorage municipality to test the burning of PCBs in a sewer sludge incinerator at Point Woronzof — now delayed till at least next

See Back Page, FISCHER



Anchorage Daily News/Fran Durner

Zoo gets an addition

Maggie, a 1-year-old orphaned African elephant, arrived Friday at the Anchorage Zoo, but don't plan on seeing her until Wednesday when zoo officials have scheduled Maggie's debut. The elephant was donated to the zoo by Allen and Dorothea Lovejoy of Anchorage.

tributes and memories.

And Rep. Jerry Patterson, D-Calif., on March 7 announced in the record that the Gahr High School Band of Cerritos, Calif., was going to

to members.

Those three measures, which Glickman said would save more than $1.68 million, have in the past died in committee.

Fischer criticizes Sheffield administration for hazardous wastes decision

Continued from Page A-1

spring — the focus shifted to statewide plans by the Alaska Department of Environmental Conservation to control hazardous wastes.

The department's commissioner, Richard Neve, said earlier this week that the state will not adopt interim hazardous waste rules, which, in their draft form, were stricter in some cases than rules now enforced by the U.S. Environmental Protection Agency.

It was Neve's decision that led to Fischer's anger and to a charge by a former legislative aide that the Sheffield administration was bending to the will of the oil and gas lobby.

The former aide, Terrie Gottstein, said a "paper trail" of government documents and leaked correspondence point to the conclusion that "when the oil industry says 'Jump!' the governor says, 'How high?' "

Gottstein, who worked for Senate President Jay Kerttula when legislation authorizing a hazardous waste program in Alaska passed both state houses in 1981, testified at the hearing that as late as July, the Department of Environmental Conservation has demonstrated its intention to adopt the rules.

That intent, she said, was shown in its request to the EPA for a three-month extension of the July 26 deadline for submission of the regulations. The EPA granted the extension in an announcement published Aug. 5 in the Federal Register.

Then, in a letter to Gov. Bill Sheffield dated Sept. 12, which Gottstein presented to the commitee, the president and executive director of the Alaska Oil and Gas Association requested a meeting with the governor and his Cabinet officials to discuss the regulations. The two association officials said in their letter that the regulations would cost the oil and gas industry "greater than $100 million" a year and have a severe impact on petroleum production operations.

"Shortly after he received this letter, all of a sudden there's an announcment from the DEC that they would not provide interim regulations," Gottstein said. "The timing is just too close to be coincidence."

Pete Spivey, the governor's press secretary, said later that Gottstein's analysis "isn't accurate." Dropping the rules was Neve's decision, not Sheffield's, and was made because the regulations weren't ready for submission, Spivey said. A draft letter to the EPA saying the interim rules would be dropped was mistakenly written in Sheffield's name, Spivey said.

Neve was skeptical of the industry's claims that it would cost $100 million to follow the regulations, Spivey said.

Two department officials testified at the hearing that Neve still planned to issue final hazardous waste regulations. But while those regulations are expected to be completed next year, the department won't be able to enforce them until the 1986 fiscal year, they said. In the meantime, federal regulations will govern hazardous waste in Alaska, they said.

Sen. H. Pappy Moss, D-Delta Junction, another committee member, accused the department of dragging its "cotton-picking feet."

"We've had since January of 1982 to do it," Moss said. "We have no regulations."

The purpose of the interim rules, the committee was told, was to enable the state to spend a year or two testing them out in conjunction with the EPA. Once the regulations proved their worth, the EPA would leave enforcement entirely to the state.

Hohman loses appeal over bribery conviction but may take case higher

Continued from Page A-1

missed on some technicality," he said. "We want another trial, a fair trial."

The Alaska Supreme Court may review a Court of Appeals decision if it chooses, but is not required to. The Supreme Court has been

recently, according to Robert Bacon, clerk of the appeals courts.

If necessary, and if Hohman agrees, Share said he will take the appeal for a new trial into the federal court system after exhausting state court options.

Chief Prosecutor Dan Hickey said the state would move

the state appeal process, which he estimated would take from 75 to 90 days.

Hickey said the issues raised in the appeal were "relatively straightforward" and were not likely to engage the interest of either the Alaska Supreme Court or the U.S. Supreme Court.

"The man received a full,

peal," Hickey said.

The state charged that Hohman agreed to accept money to use his influence to obtain an appropriation to purchase the planes and that he attempted to bribe state Rep. Russ Meekins of Anchorage to assist him in getting the money.

A Superior Court jury in Juneau convicted Hohman on Christmas Eve 1981, and Serdahely sentenced him to three years in prison and a $10,000 fine on each count, with the prison terms to run concurrently.

After he was sentenced on March 5, 1982, Hohman was expelled from the Senate by a vote of 15-4.

Section Analysis Continued

Section 3. Temporary Collection of Hazardous Waste.

This section institutionalizes in statute a very successful pilot program currently offered by DEC, known as "Hazardous Waste Clean-ups". Temporary collection and transfer operations will be held for small quantity and household generators of hazardous waste four times a year.

Section 4. Hazardous Waste Management Facilities and Sites.

This section outlines the criteria and public comment procedures DEC should use to determine hazardous waste management sites and facilities in Alaska. Recommendations to the Governor and Legislature should be submitted not later than July 1, 1987. Final sites and facilities should be determined two years later.

Section 5 - 8. Penalties for Violations.

These sections include the technical amendments needed to satisfy federal requirements to obtain final authorization of the hazardous waste program.

Section 9. Definitions.

This section defines certain terms found in the legislation.

STATE OF ALASKA
THE LEGISLATURE

POUCH Y STATE CAPITOL
JUNEAU, ALASKA 99811
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

M E M O R A N D U M April 18, 1984

SUBJECT: Sectional analysis of CSSB 503(Resources)

TO: Senator Bettye Fahrenkamp
Chairman, Senate Resources Committee

FROM: Edward H. Hein EH
Legislative Counsel

Section 1 rewrites the statute dealing with hazardous waste regulations. It provides that the Department of Environmental Conservation must adopt and enforce federal hazardous waste regulations adopted by the Environmental Protection Agency under the Resource Conservation and Recovery Act of 1976. The department has until July 1, 1986 to adopt additional regulations that would take effect a year later. Mining waste and various wastes associated with oil and gas drilling operations would not be covered by the regulations. The department is directed to take the steps necessary to get EPA approval for a state hazardous waste management program. Regulations would cover only hazardous waste generated in amounts of 220 pounds per month or greater, and "acute hazardous waste" in amounts of 2.2 pounds per month or greater. These quantity limits are stricter than federal requirements, but if federal limits were to be made stricter than state limits, the department would be required to extend coverage to match the federal requirements. The department, of course, could establish stricter standards at any time.

Section 2 requires that anyone transporting hazardous waste in the state must first send a copy of a manifest to the department. The department then must send a copy of the manifest to all state and local public safety agencies in areas through which the waste will be transported.

Section 3 requires the department to set up temporary collection points four times a year to receive hazardous wastes from "small quantity generators" and from "household generators" as those terms are defined by the EPA.

Section 4 requires the department to pick sites for hazardous waste management facilities. These would include dumping sites as well as facilities for storage or treatment of hazardous waste. The section lists specific criteria to guide the department in its selections. These criteria are to be expanded upon in regulations adopted by the department not later than July 1, 1986. Those regulations also must set out application procedures for private parties who wish to run hazardous waste facilities. The department is authorized to approve private facilities if they are consistent with the requirements established for all facilities under the bill. Public hearings must be held in each election district where a facility is proposed to be located. The department has to report back to the legislature and the governor with a preliminary findings by July 1, 1987, and final site selections by July 1, 1989.

Sections 5 - 7 work together to establish separate civil penalties for hazardous waste violations of $500 to $100,000 for a violation, with an additional fine of up to $10,000 per day if the violation continues. Punitive fines may be imposed if necessary to deter further violations.

Section 8 sets out separate criminal penalties of up to $10,000 per day and up to one year imprisonment. These penalties are made applicable to organizations as well as individuals.

Section 9 defines certain terms added by the bill.

Section 10 provides an immediate effective date.

NOTE: the bill title could be amended back to the existing title, "An Act relating to hazardous waste; and providing for an effective date" since provisions dealing with penalties for violations of AS 46.03 not related to hazardous waste are no longer being changed by the bill, as they would have been by previous drafts of this committee substitute.

EHH:ojb
J6/056

Alaska State Legislature

BETTYE FAHRENKAMP, Chairman
ROBERT H. ZIEGLER, SR., Vice Chairman
DICK ELIASON
PAUL FISCHER
VIC FISCHER
BOB MULCAHY
ARLISS STURGULEWSKI

POUCH V
STATE CAPITAL
JUNEAU, ALASKA 99811
(907) 465-3834
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Senate

Committee on Resources

SENATE RESOURCES COMMITTEE
LETTER OF INTENT
FOR
CSSB 503 (Resources)

It is the intent of the Legislature that the Department of Environmental Conservation obtain from the United States Environmental Protection Agency authorization to administer and enforce a hazardous waste program in Alaska. The Department should focus its efforts so that the state's final application for full management control be complete by July 1, 1986.

To this end and with respect to the mandate to be codified at AS 46.03.299 (a)(2), the Department is instructed to adopt regulations relating to the management of hazardous waste that exhibit the characteristics of toxicity, persistence, or carcinogenicity and other characteristics of hazardous waste as identified by EPA. The department shall evaluate the most appropriate mechanism by which to identify a waste characteristic of toxicity, persistence or carcinogenicity and other characteristic as identified as hazardous by EPA. This evaluation must include the methods described in the proposed state regulations dated October 26, 1983 that identify hazardous wastes by the characteristics mentioned above. Regulations developed under AS 46.299(a)(2) must incorporate the results of this analysis.

The regulations ultimately adopted by the state are to take effect three years from this bill's enactment, July 1, 1987. The department is to develop and implement a program to educate those effected by this legislation about the requirements of this act during the third year.

In order to gain experience managing a hazardous waste program, the department should assume through cooperative agreement with EPA as much active control as feasible of the currently operating hazardous waste program. The assumption of these duties by the department should begin immediately.

The exceptions for mining waste and waste associated with oil and gas production as defined should be effective until the completion of the studies indicated in the legislation. After each study has been completed and the findings of these studies and proposed federal regulations have been considered by the department, the department may terminate the exemption or promulgate amendments to the state's hazardous waste regulations.

Alaska State Legislature

BETTYE FAHRENKAMP, Chairman
ROBERT H. ZIEGLER, SR., Vice Chairman
DICK ELIASON
PAUL FISCHER
VIC FISCHER
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Senate

Committee on Resources

MINUTES

April 19, 1984 — Beltz Room
11:03 am — Room 211, Capitol

MEMBERS PRESENT

Senator Fahrenkamp, Chairman
Senator Ziegler, Vice Chairman
Senator Eliason
Senator Paul Fischer
Senator Mulcahy
Senator Sturgulewski

CALENDAR

SB 503, An Act relating to hazardous waste; changing penalties for environmental pollution violations.

SB 503

Jim Palmer, Aide to Senator Fahrenkamp, reported that the committee substitute for SB 503 was drafted after meetings with representatives of interested groups, including: environmental groups, oil and gas industry, labor unions, the Governor's office, the Department of Environmental Conservation, and the Alaska General Contractors. He reviewed the highlights of the bill and the proposed letter of intent which outline how the Department of Environmental Conservation will implement the hazardous waste program.

Jay Nelson, Alaska Environmental Lobby, spoke in support of the bill and urged that the Department of Environmental Conservation adopt the "degree of hazard" approach when prolmugating regulations.

Senator Mulcahy moved CSSB 503 and the letter of intent for CSSB 503 from committee with individual recommendations. There was no objection.

The meeting adjourned at 11:25 am.

SAB 505

ALASKA

0 20 40 80 120 160 MILES

HAZARDOUS WASTE

- ✓ KNOWN HAZARDOUS SITES
- X HAZARDOUS SITES THAT HAVE BEEN CLEANED
- ✲ HAZARDOUS SITES PROPOSED TO BE CLEANED, OR THAT ARE BEING CLEANED
- ? UNKNOWN SUBSTANCES REPORTED, CLEAN-UP STATUS UNKNOWN

MINERALS

URANIUM
- MINE (INACTIVE)
- PROSPECT AREA

PETROLEUM
- PETROLEUM FIELD
- PRODUCING OIL FIELD
- OIL SHALE - BEARING STRATA

COAL
- UNDERGROUND MINE (INACTIVE)
- OPEN-PIT MINE
- COAL BASIN

PLANTS
- REFINERY
- TOPPING
- AMMONIA AND UREA PLANT
- LIQUEFIED NATURAL GAS PLANT

ANADYR GULF
CHUKOTSK PENINSULA
BERING STRAIT
SEWARD PENINSULA
NORTON SOUND
KOBUK
NOATAK
KOYUKUK
YUKON
KUSKOKWIM
ALEUTIAN ISLANDS
ALEUTIAN ISLANDS NATIONAL WILDLIFE REFUGE
ANDREANOF ISLANDS
UNIMAK I.
CANADA
U.S.S.R.

Compiled By;

Alaska Center for the Environment

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ARTHUR LYLE ROBSON
3568 GERAGHTY STREET
FAIRBANKS, ALASKA 99701

ATTORNEY FOR
U/A LOCAL 375
& ITS MEMBERS

March 13, 1984

Bettye Fahrenkamp, Chairman
Alaska State Legislature
Senate, Committee on Resources
Pouch V
Juneau, Alaska 99811

Re: CS for SB 503

Dear Bettye:

I have read the bill you sent me on the 9th. The drafting here is a bit dubious. I suspect that the person who drafted it collected the various suggestions, found a logical place for them in the statutes, and then just cranked out all suggestions in serial order. I suggest that there may be a conflict between reckless endangerment and knowing violation; one being a felony and the other a misdemeanor. There may be a way around this and such things are often defended on the basis of giving prosecutorial discretion. I, however, prefer clear drafting in the first place.

Under the duties of the department, it seems foolish in civil and criminal investigations to go through the whole problem of having the department make a determination and then to stop everything for thirty days for public hearings to see if the public wants the department to enforce the law. This probably emasculates the whole process.

In adopting the federal hazardous waste laws, a provision that the department may not adopt regulations makes it impossible to tailor these to Alaska. I realize that this prevents watering down, but I just don't think that everything which is, or appears to be, the gospel in the lower 48 is applicable here.

There is a conflict between the amendment of certain sections and then the immediately following repeal and different enactment of same. This seems a little foolish.

The same seems to apply to the 299(b) situation.

With respect to the gathering centers, I think we are getting into some very heavy costs. Since even polluted fuel is a hazardous waste, we are going to have to have one or more operations that will be about as expensive to run as a nuclear plant.

MAR 16 1984

In the notice to local governments and communities section, I suggest that the fire department and health authorities would be logical to notify.

I have some doubts about misdemeanors and civil penalties running in the $10,000 to $25,000 range. I don't say that this is impossible. I do say that there is a lot of arguing going to be done over whether this is valid.

Beyond that, the ideas and concepts are good. It seems a little bit rigid to start out with the best possible regulation system when Alaska has been the most unregulated area in the world. (What do we do with the nuclear waste from Ft. Greely?) There is, of course, something to be said for starting at the top. Overall, I expect that the cost features are going to kill a good deal of this, but the concept is a good one and it should be pushed.

I suggest contacting Steve Kadish on Vic Fischer's staff in Anchorage, Larry Weiss at the Alaska Health Project in Anchorage, and Mick Hotrum and Dick Currington who are professional safety people employed by unions. They will probably each be able to give you a lot of good input along these lines.

Sincerely,

ARTHUR LYLE ROBSON, Attorney
for U.A. Local 375 and Its Members

ALR:CLM
c.c. Steve Kadish
Senate Committee on State Affairs
1024 W. 6th Avenue, Suite 204 C
Anchorage, Alaska 99501

Larry Weiss
Alaska Health Project
417 West 8th Avenue
P.O. Box 10-1037
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Mick Hotrum
c/o Laborers Union Local 942
315 Barnette
Fairbanks, Alaska 99701

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c/o Teamsters Union Local 959
751 Old Richardson Hwy.
Fairbanks, Alaska 99701

STATE OF ALASKA
DEPARTMENT OF LABOR

BILL SHEFFIELD, GOVERNOR

BOX 1149
JUNEAU, ALASKA 99802
PHONE: (907) 465-4856

March 19, 1984

The Honorable Bettye Fahrenkamp
Chairman
Senate Committee on Resources
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

I appreciate the opportunity to review and comment on the proposed committee substitute for Senate Bill 503, "An Act Relating to Hazardous Waste."

One of the Department of Labor's goals is to protect the worker from occupational injury and illness and, therefore, our main concern with hazardous waste is to provide protection to the worker who works at a dump site where hazardous waste is discharged and stored and to provide protection to the worker who transports hazardous wastes to the site. Senate Bill 503, therefore, is for the most part outside the jurisdiction of the department.

However, I believe that it is important for the State to take a more aggressive role in managing and controlling hazardous waste. The federal Environmental Protection Agency's (EPA) resources in this area are being directed at the huge hazardous waste sites that have been allowed to contaminate various areas in the Lower 48. Although there are some nazardous waste sites in Alaska, these sites are minor problems in comparison. For example, EPA's Superfund project to clean up major hazardous waste sites does not include a single Alaska site. It is, therefore, important that the State and local governments and communities control the disposal of hazardous waste in order to assure that a "Love Canal" never occurs in Alaska.

The work draft of the committee substitute appears to contain duplications. There are two section 46.03.298s, lines 8 through 29 on page 2 and line 1 through 3 on page 3. Both section 46.03.298s contain the requirement that the department (DEC) adopt by reference regulations adopted by the federal government under 42 U.S.C. 6921-6934 but one of the sections, lines 15-19, page 2, prohibits adoption of regulations more stringent than federal regulations while the other, lines 26-28, page 2, allows adoption of "other" regulation for the management of hazardous waste. These sections appear, therefore, to be contradictory. Also, Section 46.03.299 (b) is repeated, once on page 3 line 11 through page 4 line 6, and again on page 3 line 23 through page 5 line 25. Again, althougn most of the provisions are identical, there are differences.

07-GGLH

MAR 2 2 1984

From an occupational safety and health standpoint, I am most interested in knowing where these sites are located so that we can provide protection to workers employed at these sites and provide education and training to owners and employers at these sites. I am, therefore, glad to note that Section 46.030.309 (2), line 22-24 of page 6 requires notification to State and local public safety agencies. I would like to see this language made more specific as far as my agency is concerned. I propose the following amendment:

(2) The State Department of Labor's Occupational Safety and Health Section, and other state and local public safety agencies with jurisdiction over the site at which the waste is to be stored or disposed of.

Again I appreciate the opportunity to comment on this important legislation and if I can be of further assistance, please let me know.

Sincerely,

Richard Arab, Deputy Director
Division of Labor Standards
and Safety

Senator Vic Fischer

Alaska State Legislature
1024 W. 6th Avenue, Suite 204C
Anchorage, Alaska 99501 (907) 278-3654
During Session • Pouch V • Juneau, Alaska 99811 (907) 465-4954

MEMORANDUM

TO: Senator Fahrenkamp, Chair
Senate Resources Committee

FROM: Senator Vic Fischer

DATE: March 26, 1984

In the mail today I received The Toxic Crisis: What the States Should Do, a report prepared by the Conference on Alternative State and Local Policies.

In case you did not receive a copy as well, I am attaching a copy of the table of contents and the three chapters relating to waste disposal. The information included seems very pertinent to current discussions on hazardous waste and also includes some recent references. I thought that these sections might be helpful to the work group that will be meeting on SB 503.

MAR 2 9 1984

THE TOXICS CRISIS:

WHAT THE STATES SHOULD DO

Jeffrey Tryens, Editor

Conference on Alternative State and Local Policies
2000 Florida Avenue, NW
Washington, DC 20009
(202) 387-6030

1983

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Source Reduction

by Ken Geiser

BACKGROUND

At the close of World War II the United States produced about one billion pounds of hazardous wastes per year.[1]

Today, estimates range as high as 275 million tons of hazardous waste generated per year [2] -- more than one ton of waste for every man, woman and child in the country. Only a small percentage of this waste is disposed of properly.

Monitoring and regulating this vast amount of waste has created enormous problems for public officials at all levels of government. The "cradle-to-grave" manifest system mandated by federal legislation has been years in development and only recently begun. State agencies are often overwhelmed by permit requests and various licensing reviews for waste treatment operations.

All hazardous waste cannot be avoided, but 20 to 80 percent of the total hazardous wastestream could be reduced through a series of processes known as source reduction. This includes a range of public and private policies that involve changes in industrial production products and processes.

Wastes with the most potential recycling value include: solvents, alkalis, concentrated acids, oils, combustible materials, and those with high concentrations of recoverable metals.

A 1976 report prepared by Arthur D. Little estimated that six million tons of industrial waste could be recycled each year with a total value of $300 million.[3]

Source reduction is not new or untried. The Piedmont Waste Exchange operated by the University of North Carolina and the privately run Atlantic Coast Exchange provide waste exchanges services to much of South Carolina, North Carolina and Virginia.

The 3M Corporation began a company wide source reduction program in 1975 to reduce pollution and disposal costs. Within five years the corporation had eliminated the equivalent of 75,000 tons of air pollutants, 1,325 tons of water pollutants, 500 million gallons of polluted waste water and 2,900 tons of sludge per year, resulting in an estimated annual cost savings of $2.4 million. Other companies such as Union Carbide and Republic Steel have also developed successful programs.

THE PROBLEM

Market conditions set an encouraging climate for source reduction. The price of raw materials for industrial production continues to increase and, with increasingly tight state and federal regulations, the cost of disposal of wastes continues to rise. Companies caught in the middle can often benefit handsomely from source reduction changes.

However, source reduction still is not fully accepted, either in industrial practice or in public policy debates. This slowness can generally be attributed to three factors: 1) lack of comprehensive planning to encourage source reduction; 2) lack of institutions to assist industries wanting to treat their toxic by-products; and 3) an absence of capital for process and product changes.

Source reduction is a multi-faceted and complex set of activities. In some cases source reduction means simple housekeeping improvements that result in less spillage and mixing of chemicals. In other cases less toxic materials are substituted for more toxic materials. Recycling technologies permit chemicals to be reclaimed and reused, resulting in less waste. Further processes detoxify or reduce the hazard of materials by on-site treatment before substances are discharged as waste. Finally, in some cases firms can exchange wastes with other firms for further use in other industrial processes.

Because source reduction is so important to the health and well-being of the general public, states must take a much more active role than they have in the past to encourage it. Today few states have anything approaching a comprehensive source reduction plan for substantially reducing industrial waste streams.

Planning must include identifying ways to target, prioritize and monitor source reduction activities. Because source reduction can ultimately profit industrial producers, states should work closely with industry representatives and trade associations and consider firm-initiated source reduction plans.

Comprehensive planning must also address the often encumbering and inconsistent regulations which exist in many states concerning source reduction such as on-site treatment and waste exchanges. State regulations to control hazardous waste disposal are often contradictory, contrary to, or silent

on source reduction. For instance, Massachusetts' regulations for hazardous waste are stricter for firms doing on-site recycling than for shipping offsite.

Besides comprehensive plans for source reduction, states must also have institutions to facilitate the transition to a conservation oriented toxics strategy. Firms often do not have access to trade journals, consultants and industrial process engineers to inform them of the latest technologies and assist them in developing and assessing alternatives. This is particularly true of smaller firms, which, coincidentally, are exempted from most hazardous waste laws because they are "small generators."

Yet these small generators are often the worst violators of environmental regulations, the most difficult to enforce compliance upon and the least financially capable of investing in new industrial processes.

Even if firms know of waste reducing technologies and want to make process and product changes, they are often hindered by their limited access to capital necessary to purchase new equipment or institute production changes. States can provide a wide variety of financial assistance to firms, including subsidies and tax incentives. Because tax incentives typically reduce state revenues or shift revenue generation to income taxes, such policies should be among the last tried.

Source reduction is ideally suited to state level policy interventions. States may encourage source reduction directly by requiring source reduction plans, providing technical assistance or setting up research and demonstration projects. States may also advance source reduction more indirectly through interventions in the private market.

Such interventions may either affect production costs through tax incentives and fee structures or through easing the availability of capital. In either case it is particularly important that local officials and local citizen groups be incorporated as active elements in carrying out state policies. Those at the local level have the most incentive to press for source reduction and the best capacity to monitor local programs.

WHAT STATES CAN DO

Develop Comprehensive Source Reduction Plans

° States should either mandate that all firms prepare and submit comprehensive source reduction plans or require that firms seeking licenses, renewals, tax exemptions or changes in fee structure prepare such plans. California has gone a step in this direction by requiring firms that dispose of any of a list of substances determined to be recyclable to explain, in detail, why these substances are disposed of rather than recycled.

° States should develop comprehensive source reduction plans that lay out timetables for the phase out of certain waste disposal techniques in favor of source reduction. Local officials or local citizen bodies might be empowered to oversee and enforce compliance.

° States should review and revise existing regulations to encourage source reduction. States may streamline licensing or exempt some source reduction improvements from particular reviews in order to reduce the complexity of compliance with comprehensive source reduction plans.

° States should ban certain kinds of waste disposal in order to force companies to seek alternatives. New York has banned the landfilling of "environmentally persistent and highly mobile chemical wastes." (See Chapter Fourteen, Land Disposal.)

Encourage Institutional Development

° States should develop or encourage private or trade association sponsored waste exchanges, whereby some firms' wastes become valuable feed stock for other firms' production operations. Iowa has operated a state waste exchange since 1976 while Georgia has shifted the waste exchange to trade association sponsorship.

° States should develop or encourage research and development programs on source reduction either in state departments, universities or private councils. Illinois has a special hazardous waste research fund administered by the state.

° States should develop special small business assistance programs that provide technical assistance agents similar to state sponsored agricultural extension agents. Such pollution abatement assistance agents might work out of local colleges and universities providing special individualized attention to the industrial changes of local small business.

° States should develop special technical assistance divisions in their commerce departments or encourage trade association sponsorship to advance technology transfer or financial analysis programs. Legislation to do this has been introduced in New York and Massachusetts.

° States should build, lease or finance the construction of public resource recovery or treatment facilities at or near large generators. Mississippi provides bond financing to permit municipalities to build or acquire such facilities.

Create Financial Incentives for Source Reduction

° States should structure fees for hazardous waste treatment and disposal to encourage waste reduction. States which impose fees for permits, licenses or renewals should set variable fee schedules that encourage source reduction. Maine has a three-tier fee structure that is lower for resource recovery activity.

States which levy a tax on hazardous waste generators by volume of waste should graduate the tax to encourage source reduction. Kentucky assesses generators one half as much for on-site treatment as for off-site treatment and disposal. Florida exempts facilities from the excise tax which render waste non-hazardous.

° States should consider providing tax incentives to encourage the purchase of machinery and equipment to process or treat hazardous waste. Both Wisconsin and North Carolina exempt such equipment from business property tax while Michigan uses a special tax schedule for assessing such improvements.

Minnesota offers a five percent tax credit on equipment used to recycle hazardous wastes. Oregon offers a tax credit if the treatment produces energy or substances with real market value. Accelerated depreciation on source reduction equipment is used by North Carolina. Amortization over 60 months is authorized on air, sewage and waste treatment equipment.

° States should consider providing loans or loan guarantees to reduce hazardous wastes where private capital is not easily available. Direct loans can be made through new or existing industrial revenue bonds targeted to source reduction. North Carolina, Florida and Illinois authorize the issuance of new bonds for construction of recovery facilities. The Georgia Hazardous Waste Management Authority may underwrite source reduction project costs through the issuance of general obligation bonds. Or states can provide loan guarantees to lower the risk of commercial lenders offering financing for source reduction equipment.

FOR FURTHER INFORMATION

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Organizations

CHEMICAL MANUFACTURERS ASSOCIATION, 2501 M St., N.W., Washington, D.C. 20037, (202) 887-1100.

NATIONAL SOLID WASTE MANAGEMENT ASSOCIATION, 1120 Connecticut Ave. N.W., Washington, D.C. 20036, (202) 659-4613.

RESOURCES FOR THE FUTURE, 1755 Massachusetts Ave., N.W., Washington, D.C. 20036, (202) 328-5000.

Hazardous Waste Regulation

by David Lennett

BACKGROUND

Improperly managed hazardous waste has seriously contaminated drinking water supplies; forced the evacuation of hundreds of people in a number of places; and has killed wildlife, destroyed recreational areas and damaged food supplies.

In addition to these direct losses, the cost of cleaning up contamination resulting from improper waste management is very high. Recent estimates indicate the cost of remedial action needed to address the problems caused by bad past practices may reach $40 billion.[1]

It is much cheaper and easier to manage hazardous waste correctly in the first instance rather than rely upon cleanup to address the mistakes at some later date. Destroying the waste through treatment may cost several hundred dollars more per ton than landfilling, but the price of cleaning up the waste after it leaks from the landfill may be two thousand dollars per ton. In addition, detecting and cleansing contaminated groundwater is not an easy job because the water is underground and thus not available for ready scanning, sampling and analysis.

Thus, a program which strictly regulates hazardous waste management is essential if the mistakes of the past are to be avoided. Unfortunately, hazardous waste is still a major problem despite the passage of federal legislation in 1976 designed to establish a national hazardous waste regulatory program.

The federal legislation enacted in October of 1976 -- the Resource Conservation and Recovery Act (RCRA) -- required federal EPA to issue hazardous waste regulations by April of 1978. However, the first important set of regulations was not issued until early 1980, and even today not all the necessary regulations have been issued. For example, there are no regulations covering underground storage tanks, the injection of hazardous wastes above underground sources of drinking water, and the burning of hazardous waste in industrial boilers.

The record of EPA in this area has been extremely disappointing. This poor performance has placed additional pressures on the states to fill the regulatory gaps; a difficult task to perform due to resource shortfalls and interstate competition for industry siting. As a result, the quality of state programs varies widely, offering little consistency in the protection of human health and the environment.

THE PROBLEM

The inadequacies of the federal government's hazardous waste management efforts arise in a variety of ways, including the failure to identify many toxic wastes for regulation, loopholes in the regulations which allow wastes and facilities to escape regulation, and the failure to require best available technology to minimize environmental contamination.

Many wastes which are hazardous are not yet regulated because EPA hasn't identified them for regulation or has exempted them from regulation. EPA has not identified a new waste for regulation since July of 1980. The existing list of wastes does not include over half of the waste streams generated from the production of carcinogens identified by EPA's Carcinogen Assessment Group. Many wastes from the production of pesticides are also not yet listed.

Even if the Agency has identified a waste stream as hazardous, loopholes in the regulations may allow the waste to escape controls. For example, wastes produced in a quantity of less than 2200 lbs/mo need not be managed at a licensed hazardous waste facility but instead may be sent to a regular garbage dump. EPA has also exempted from regulation over 100 waste streams from particular factories or plants based on faulty or incomplete data. EPA did not examine all the components of these waste streams before exempting them and, in many cases, relied upon a chemical procedure (known as the extraction procedure) which is scientifically inadequate for the job.

EPA's regulations governing land disposal facilities (i.e., landfills, surface impoundments) have many serious problems. Briefly, some of the more serious are that air emissions are not regulated, new facilities are only required to install one liner instead of two, existing facilities are not required to have any liner and may be located in the water table, and contamination beyond the boundary of the facility need not be cleaned up.

RCRA anticipates that the states will be running the regulatory program in lieu of EPA once EPA determines that a state program is at least equivalent to the federal regulations. States are free to issue more stringent regulations than EPA's. Thus, some states have filled some of the regulatory gaps left by EPA. However, a significant number of states just copy the federal regulations, because state law prevents their regulations from being more stringent than the federal requirements, or because they lack the resources or the inclination to improve upon the federal program. As many as sixteen states have laws which prevent them from improving upon the federal program.

WHAT STATES SHOULD DO

Strengthen Regulatory Programs

° States should repeal any state legislation which prevents the state from regulating hazardous waste more stringently than EPA.

° States should develop and enforce a comprehensive hazardous waste regulatory program funded by an industry fee system. Several states, including Ohio, Louisiana and California, fund their regulatory programs using industry fees.

° States should increase the type and quantities of wastes they regulate by listing additional wastes as hazardous and closing the exemption for "small" generators. At least thirteen states have lowered the metric ton per month waste exemption. Several states, including California, Rhode Island, and Louisiana, have eliminated the exemption completely.

° States should minimize the use of land disposal by restricting the type of wastes that can be placed in or on the land. (See Chapter Fourteen, "Land Disposal.")

° States should develop regulations governing landfills, surface impoundments, and other land disposal facilities that will protect the public health instead of simply adopting EPA's inadequate regulations. Pennsylvania, for example, requires that existing surface impoundments be lined. EPA exempts these impoundments from liner requirements and thus requires no barrier between the waste and groundwater supplies.

Improve Procedures for Identifying Hazardous Waste

° States should identify all components of their waste streams. This will enable the state to identify additional wastes for regulation, estimate long-term waste handling needs within the state, and develop a regulatory approach which directs wastes away from land disposal. Minnesota's Hazardous Waste Management Board is currently performing this task.

° States should improve current extraction procedure tests for identifying toxic wastes. California utilizes a more aggressive chemical procedure to identify toxic wastes than does EPA.

° States should tighten procedures for exempting wastes from specific industrial facilities by requiring an examination of all the constituents in the waste before deciding whether the waste should be regulated.

FOR FURTHER INFORMATION

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Organizations

ASSOCIATION OF STATE AND TERRITORIAL SOLID WASTE MANAGEMENT OFFICIALS, 444 North Capitol Street, Washington, D.C. 20001, (202) 642-5828. Sue Moreland, Executive Director. State programs, federal grants, small generator exemption.

CENTER FOR ENERGY AND ENVIRONMENTAL STUDIES, School of Energy and Environmental Studies, Engineering Quadrangle, Princeton University, Princeton, N.J. 08544, (609) 452-6524. Joe Highland, Peter Montague. Extraction procedure, delisting, landfill technology, air emissions.

COALITION ON ENVIRONMENTAL AND OCCUPATIONAL HEALTH HAZARDS, 2530 Jay St., Suite 201, Sacramento, CA 95816, (916) 441-4075. Kent Stoddard. Regulations, disposal restrictions.

ENVIRONMENTAL DEFENSE FUND, 1525 18th Street, N.W., Washington, D.C. 20036, (202) 387-3500. David Lennett and Linda Greer. Federal regulations, state regulatory programs, land disposal restrictions.

HAZARDOUS WASTE TREATMENT COUNCIL, 1919 Pennsylvania Ave., N.W., Suite 300, Washington, D.C. 20006, (202) 296-0778. Richard Fortuna, Executive Director. Alternatives to land disposal, federal regulations.

Land Disposal

by Peter Deibler

BACKGROUND

Land disposal remains the cheapest and most popular method of disposing of hazardous waste in this country despite the adverse publicity and public outcry that has been generated by such environmental disasters as New York's Love Canal and California's Stringfellow Acid Pits.

Recently the U.S Environmental Protection Agency increased its estimate of the amount of regulated hazardous waste generated each year by fourfold to 165 million tons per year. Forty percent of that waste is land disposed, either in landfills, surface impoundments or deep wells.[1] While estimates vary there is little doubt that a higher percentage of the large quantities of hazardous waste, not regulated by EPA, is disposed of in or on land.

Congress recognized the need for comprehensive control over the handling and management of hazardous wastes with the passage of the Resource Conservation and Recovery Act (RCRA) in 1976 and the Comprehensive Environmental Response, Compensation and Liability Act (Superfund) in 1980. Yet, EPA has done little to discourage continued reliance on cheap land disposal.

Even with the recent introduction of tougher design and operation standards for these facilities, the available evidence demonstrates that all land disposal facilities will eventually leak. For example, in Wilsonville, Illinois a landfill permitted in 1976 and declared by the EPA to be one of the most secure in the nation was closed by court order in 1981 after severe leaking had occurred.[2] And two of four recently constructed, "secure" chemical landfills in New Jersey were found to be leaking.[3] Other evidence shows that clay soil liners designed to contain wastes can leak 1000 times for quickly than expected.[4]

And land disposal can result in serious air quality problems. Studies by the California Air Resources Board indicate that hydrocarbon emissions from land disposal facilities may be related to the generation of photochemical smog and that these facilities emit significant levels of toxic and carcinogenic compounds.[5]

The EPA itself stated in 1981: "Unfortunately at the present time, it is not technologically and institutionally possible to contain wastes and constituents forever or for the long time periods that may be necessary to allow adequate degradation to be achieved. Consequently, the regulation of hazardous waste land disposal must proceed from the assumption that migration of hazardous wastes and their constituents and by-products from a land disposal facility will inevitably occur."[6]

THE PROBLEM

Alternative technologies provide a viable waste management option for hazardous wastes. For instance, using a broad menu of technologies it is technically feasible to recycle, treat or destroy up to 75% of the hazardous wastes that are now land disposed in California.[7] And use of these technologies is increasing steadily. But recycling, treatment and destruction technologies cannot usually compete with less expensive expensive land disposal without government action to encourage the use of more advanced technologies.

Three major problems must be addressed: 1) the cost of alternative technologies must be made competitive with land disposal; 2) a more comprehensive approach is necessary; and 3) public participation in planning must be increased. Most alternatives use well known chemical, biological and physical principles and are in common use in many other industrialized nations, particularly where land is scarce and the cost of land disposal prohibitive. The relatively low initial cost of land disposal in the United States is a Faustian bargain, however. Although inexpensive in the short-term, the high probability of eventual contamination suggests the true cost of the technology which are not adequately reflected in today's marketplace.

Proponents of land disposal, including many waste generators, argue that newer, more expensive, "state-of-the-art" land disposal facilities operated according to EPA land disposal regulations will ensure long-term containment of wastes. But the groundwater safeguards in those regulations react to contamination once it has occurred rather than attempting to prevent the leakage. Once again, available evidence demonstrates that even these facilities will leak in the future, causing contamination and creating expensive clean-up problems.

In order to determine which toxics to ban from land disposal, most states will have to develop a much more comprehensive approach to managing hazardous waste disposal which recognizes that the potential health effects associated with exposure to hazardous wastes, whether through contact with contaminated soil, the breathing of air emissions, or the drinking of contaminated water, can only rarely be clearly linked to a given exposure of substance. Acute, or short-term, effects frequently resemble the symptoms associated with a variety of diseases. The longer-term chronic effects such as cancer and mutated genes may not be manifested for several decades, or even several generations, by which time any attempt to prove that the health effect is related to that original exposure is meaningless. As a result of these unavoidable uncertainties in assessing health effects, the best governmental posture is one of caution.

We already know many of the deficiencies of land disposal practices. Why continue to rely on land disposal when other options are available?

Nationwide it is becoming politically impossible to site new land disposal facilities. But as a few states are demonstrating, the public is willing to accept the siting of alternative technology facilities once the range of options is clearly understood.

Contrary to common misconception on the part of many industry and government representatives, local citizens are capable of distinguishing between land disposal and recycling, treatment or incineration facilities. In one instance in California, a state-sponsored attempt to locate potential sites for new landfills in seven southern California counties has resulted in widespread opposition with hundreds of citizens voicing their opinions in town meetings. During the same time period, several alternative recycling and treatment facilities were sited and began successful permitting processes in the same seven counties.

Acceptance of alternative facilities requires education of both the media and the public, as well as an essential development of trust between the facility builder, the surrounding community and state and local officials. Successful siting and permitting involves an unusual degree of government coordination and a willingness on the part of the builder to be entirely forthright and honest in dealing with the community.

Effective hazardous waste regulation enforcement and treatment requires that the "front-line" communities have a major say in how laws are administered. The role of the expert, who can rarely offer decisive results, must be combined with sympathy for the trauma and anguish felt by citizens who experience the fear of possible exposure to hazardous substances.

The burden is on state and local governments to present the case for alternative technologies in a way the layperson can understand. The states, in designing hazardous waste programs, may correct these deficiencies by acting to restrict the use of land disposal for those wastes that pose the greatest risk to public health and the environment when disposed in or onto the land, and to encourage the use of alternative technologies for recycling, treating and destroying hazardous wastes.

Although a number of states, including New York, Wisconsin, Minnesota, Illinois, North Carolina and Washington are considering or encouraging the use of alternative technologies, California has the only comprehensive restriction program.

WHAT STATES SHOULD DO

Provide Incentives for Alternative Technologies

° States should streamline the permit process for preferred waste management facilities.

° States should consider providing financial incentives, such as low-interest loans, to encourage the development of alternative technology facilities.

° States should impose fees on hazardous waste land disposal that vary with the relative degree of hazard of the waste. Higher land disposal costs encourage the use of alternative technologies.

° States should provide technical and financial assistance to small businesses considering the use of alternative technologies.

° States should provide waste exchange services to aid generators in identifying recycling opportunities.

Develop a Comprehensive Approach

° States should review waste manifests and other records of hazardous waste generation to determine what industries generate which wastestreams and how those wastes are currently managed.

° States should pick a waste classification system for use in matching wastestreams with the alternative technologies best able to handle them.

° States should examine the menu of alternative waste management technologies and adopt a hierarchy of preferred waste management options that reflects the economic and environmental benefits of resource conservation. California's system entails:

- Waste reduction at the source.
- Recycling of those wastestreams that cannot be reduced.
- Biological, chemical and physical treatment technologies to de-toxify or immobilize wastes that cannot be recycled.
- Incineration for wastes, principally synthetic organic compounds, that cannot be reduced, recycled or treated. Incineration should be minimized due to its high cost and the need for strict control of air emissions.

° States should pick criteria for choosing the wastes to be restricted from land disposal that reflect the public health and environmental risks of land disposal of these wastes. The California criteria include:

- Acute and chronic toxicity.

- Persistance and bioaccumulation in the environment.

- Mobility of the wastes in a land disposal environment.

° States should compare: a) the characteristics of each wastestream and the criteria for banning wastes; b) the technical and economic feasibility of alternative technologies for each wastestream. Recommendations should be developed for waste classes that should be restricted from land disposal. The waste classes banned in California include cyanide liquids, strong acids, toxic metals, polychlorinated biphenyls and halogenated organics.

° States should develop comprehensive surveillance and enforcement programs at the state and local level.

° States should develop computerized waste management information systems to monitor and anticipate waste generation and management trends.

Develop Publically Acceptable Alternatives

° States should develop socially based criteria for siting new alternative technology facilities, while recognizing that no quantitative system will resolve the essential conflicts of facility siting.

° States should involve local citizens and community groups in any siting decisions. Citizens need to be involved early so that their contributions to the siting process can be made in a timely manner, rather than be rejected because they come too late in the process. States should be very cautious in the use of siting override mechanisms that circumvent local decisionmaking processes.

° States should develop means for informing citizens of the available options for hazardous waste management. This type of education can best be achieved if state agencies work closely with environmental groups and community organizations that enjoy high credibility with the public.

° States should encourage developers to deal with community concerns in an open and honest fashion. Such an approach is to any developer's long-term advantage.

FOR FURTHER INFORMATION

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Final Statement of Reasons - For Changes in Regulations Regarding Hazardous Waste Land Disposal Restrictions (R-32-82), California Department of Health Services, November 1982. Justification for issuance of regulations to restrict land disposal.

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Organizations

ASSOCIATION OF STATE AND TERRITORIAL SOLID WASTE MANAGEMENT OFFICIALS, 444 N. Capitol St., Washington, D.C. 20001, (202) 624-5828. Susan Moreland, Executive Director.

CALIFORNIA DEPARTMENT OF HEALTH SERVICES, Toxic Substances Control Division, 1219 K St., Sacramento, CA 95814, (916) 324-1807. Dr. David Storm, . Agency responsible for implementing California's land disposal ban.

CITIZENS FOR A BETTER ENVIRONMENT, 88 First St., Suite 600, San Francisco, CA 94105, (415) 777-1984. Michael Belliveau. Active in development of California's restriction program.

HAZARDOUS WASTE TREATMENT COUNCIL, 1919 Pennsylvania Ave., N.W., Washington, D.C. 20006, (202) 296-0078. Richard Fortuna. Represents firms involved in hazardous waste recycling, treatment and incineration.

TOXICS ASSESSMENT GROUP, 2530 J St., Suite 200, Sacramento, CA 95816, (916) 441-4075. Specializes in developing strategies for safer management of toxic substances and hazardous wastes.

alaska survival
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March 20, 1984

Senator Bettye M. Fahrenkamp
Senate Resources Committee
Alaska State Legislature
Pouch V (MS 3100)
Juneau 99811

Senator Fahrenkamp:

Senate Bill 503 in its present form clearly cannot meet the needs of Alaska.

The state's obvious unwillingness to accept it rightful responsibility to the citizens concerning the issue of hazardous waste is not commendable. To claim reliance upon EPA is nothing more than avoidance of the problems that do now exist, and will continue to exist if the State determines to hide its head in the sand. Time and time again EPA has proven itself negligent and ineffective in controlling the widespread misuse and mismanagement of toxic substances. There is no reason to believe that EPA's record will suddenly improve.

Therefore we strongly urge you to make every effort to protect the integrity of the environment and the health and safety of the people of Alaska by supporting legislation which will implement the "degree of hazard" approach to hazardous waste.

Judy Price
Community Resources
Coordinator

MAR 26 1984

Alaska Oil and Gas Association

AOGA

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March 23, 1984

The Honorable Bettye Fahrenkamp, Chairman
Senate Committee on Resources
Pouch V
State Capitol
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Thank you for the opportunity to comment on the proposed committee substitute for SB 503.

Members of the Alaska Oil and Gas Association have reviewed the draft, and our suggestions for modification are enclosed.

I would be happy to discuss these comments with you or your staff at any time.

Very truly yours,

Tom Brooks

TOM BROOKS

TB:tp3:167

Enclosure

WORK DRAFT WORK DRAFT

Cain
3/8/84

Original sponsor: Resources Committee

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE BILL NO. 503 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to hazardous wastes; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

~~* Section 1. AS 11.41 is amended by adding a new section to article 2 to read:~~

~~Sec. 11.41.260. RECKLESS ENDANGERMENT WITH HAZARDOUS WASTE. (a) A person commits the crime of reckless endangerment with hazardous waste if the person recklessly engages in conduct involving storing, transportation, or disposal of hazardous waste that creates a substantial risk of serious physical injury to another person.~~

~~(b) For purposes of this section, "hazardous waste" is defined as any substance subject to regulation as a hazardous waste under AS 46.03.250 - 46.03.312.~~

~~(c) Reckless endangerment with hazardous waste is a class C felony.~~

* Sec. 2. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.295. DUTIES OF THE DEPARTMENT. The department shall

(1) investigate and respond in writing to a complaint filed by a person in accordance with 42 U.S.C. 6901 - 6987;

(2) provide public notice and a public comment period of not less than 30 days for a proposed settlement of a department enforcement action; and

(3) inform the public of the dangers of hazardous wastes and of the provisions of AS 46.03.295 - 46.03.312.

We recommend that Section 1, which adds AS 11.41.260, entitled "Reckless Endangerment with Hazardous Waste" be deleted. This section is not required or authorized by federal law regarding penalties for hazardous waste violations. If this section is not deleted, we recommend that the state define "reckless". Secondly, the penalty under this section should be, at a maximum, a class A misdemeanor, rather than a felony.

* Sec. 3. AS 46.03.296(b) is amended to read:

(b) The department shall adopt regulations in accordance with the Administrative Procedure Act (AS 44.62) for the treatment, storage, transportation, and disposal of hazardous wastes to ensure the protection of human health, livestock, wildlife, property, and the environment.

* Sec. 4. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.298. FEDERAL HAZARDOUS WASTE ~~LAWS~~ REGULATIONS ADOPTED BY REFERENCE. (a) ~~Pursuant to 42 U.S.C. 6921-6934, the authority to implement state hazardous waste regulations is by this section assumed. 42 U.S.C. 6921 - 6934 (Subchapter III of the Resource Conservation and Recovery Act of 1976) is adopted by reference as a part of this chapter.~~

(b) The department shall adopt by reference and shall enforce regulations relating to hazardous waste management adopted by the federal government under 42 U.S.C. 6921 - 6934.

(c) The department may not adopt regulations relating to hazardous waste

(1) that are more stringent than federal regulations adopted by reference under (b) of this section; and

(2) except as required under this chapter.

* Sec. 5. AS 46.03.298 is repealed and reenacted to read:

Sec. 46.03.298. HAZARDOUS WASTE REGULATIONS. (a) The department ~~shall adopt~~ may adopt

(1) by reference and shall enforce regulations relating to hazardous waste management adopted by the federal government under 42 U.S.C. 6921 - 6934, as amended, or

(2) ~~other regulations for the management of hazardous waste that may include regulation according to the degree of hazard presented by the wastes.~~ may develop and adopt other regulations which are consistent with the provisions of this chapter.

~~(b) If a regulation adopted under this section requires testing~~

State adoption of federal laws is unnecessary and may, in fact, result in conflicting statutes. For example, 42 U.S.C. 6928, which would be incorporated here, provides a comprehensive scheme for civil and criminal penalties, as does AS 46.03.312, AS 46.03.760 and AS 46.03.790. Additionally, other sections of 42 U.S.C. 6921 - 6934 may not be appropriate for state adoption. In light of these concerns, and the inclusion of other sections of this bill which would accomplish the same objective, Section 46.03.298 (a) should be modified as shown.

If it is retained, we would point out that "Subchapter III" should be "Subtitle C".

~~to determine whether a substance is a hazardous waste, the department shall provide the testing without charge to the generator of the substance.~~

* Sec. 6. AS 46.03.299 is repealed and reenacted to read:

Sec. 46.03.299. CONTROL OF HAZARDOUS WASTES. (a) The department shall facilitate coordination with federal, state, and local agencies in adopting regulations under the Administrative Procedure Act (AS 44.62) for a comprehensive state hazardous waste program consistent with 42 U.S.C. 6901 - 6987 and regulations adopted under those sections by the Environmental Protection Agency.

(b) The department shall

(1) ~~identify the characteristics of hazardous wastes,~~ adopt only, as identified in regulations of the Environmental Protection Agency adopted under 42 U.S.C. 6921(b)~~,~~:

~~(A) establish~~

(A) the characteristics of hazardous wastes;

(B) ~~(A)~~ criteria for listing hazardous wastes;

(C) ~~(B)~~ requirements for ~~hazardous waste that is used, re-used, recycled, or reclaimed;~~ encouraging the use, re-use, recycling and reclamation of hazardous wastes; and

(D) ~~(C)~~ exclusions;

(3) adopt as a preliminary list the lists of hazardous wastes identified by the Environmental Protection Agency in regulations adopted under 42 U.S.C. 6921(b);

(4) identify the sources of hazardous wastes listed under (3) of this subsection or enumerated under (c) of this section;

(5) qualify the department to receive authorization from the administrator of the Environmental Protection Agency to administer and enforce a hazardous waste program in accordance with 42 U.S.C. 6901 - 6987;

(6) determine the amount of a hazardous waste that is so small as to not present a hazard to public health, livestock, fish, wildlife, and the environment of the state when disposed of;

(7) adopt preliminary requirements for hazardous waste produced by small quantity generators as specified under 42 U.S.C. 6921 - 6922;

(8) adopt, in accordance with 42 U.S.C. 6924, procedures by which the public shall have opportunity to review and comment on issuance of hazardous waste disposal permits by the department.

(c) Four years after the date on which the Environmental Protection Agency approves the state hazardous waste program, the department may

(1) develop new regulations for the control of hazardous wastes; and

(2) enumerate specific hazardous wastes, within the meaning of AS 46.03.900(32), subject to the provisions of AS 46.03.302 and 46.03.305; however, the department may not list as hazardous a waste that has not been listed as a hazardous waste by the United States Environmental Protection Agency under 42 U.S.C. 6921, unless the commissioner first determines by a specific written finding that the waste is hazardous as defined in this chapter.

* Sec. 7. AS 46.03.299(b) is repealed and reenacted to read:

(b) The department shall

(1) identify the characteristics of hazardous wastes, as identified in regulations of the Environmental Protection Agency adopted under 42 U.S.C. 6921(b);

(2) establish

(A) criteria for listing hazardous wastes;

(B) requirements for ~~hazardous waste that is used, re-used, recycled, or reclaimed;~~ encouraging the use, re-use, recycling and reclamation of hazardous wastes; and

(C) exclusions;

(3) adopt as a preliminary list the lists of hazardous wastes identified by the Environmental Protection Agency in regulations adopted under 42 U.S.C. 6921(b);

(4) identify the sources of hazardous wastes listed under (3) of this subsection or enumerated under (c) of this section;

(5) qualify the department to receive authorization from the administrator of the Environmental Protection Agency to administer and enforce a hazardous waste program in accordance with 42 U.S.C. 6901 - 6987;

(6) determine the amount of a hazardous waste that is so small as to not present a hazard to public health, livestock, fish, wildlife, and the environment of the state when disposed of;

(7) adopt preliminary requirements for hazardous waste produced by small quantity generators as specified under 42 U.S.C. 6921 - 6922;

(8) adopt, in accordance with 42 U.S.C. 6926,

(A) criteria for identifying appropriate hazardous waste disposal site locations;

(B) procedures by which the public shall have opportunity to

(i) participate in hazardous waste disposal site locations; and

(ii) review and comment on issuance of hazardous waste disposal permits by the department.

(9) [insert new section (9)

~~Sec. 8. AS 46.03 is amended by adding a new section to read:~~

~~Sec. 46.03.301. MUNICIPAL REGULATION. Notwithstanding other provisions of law, a home rule or general law municipality may enact an ordinance consistent with the provisions of AS 46.03.295~~

(9) not list as hazardous a waste that has not been listed as a hazardous waste by the United States Environmental Protection Agency under 42 U.S.C. 6921, unless the commissioner first determines by a specific written finding that the waste is hazardous as defined in this chapter.

~~46.03.313 regulating the storage and disposal of hazardous wastes. A borough may regulate the storage and disposal of hazardous wastes outside or in the borough area outside cities.~~

* Sec. 9. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.306. ~~GATHERING~~ COLLECTION AND STORAGE CENTERS. (a) Not later than one year after the effective date of this section the department shall establish and operate regional hazardous waste ~~gathering~~ collection and storage centers for the ~~collection~~ management of hazardous wastes that are to be prepared for shipment to a federally approved hazardous waste disposal site.

(b) The commissioner by contract may transfer the operation or ownership of ~~gathering~~ collection and storage centers to suitable private parties at not less than fair market value.

(c) ~~A generator of hazardous wastes may not be charged for deposits of less than 2,200 pounds per month at a gathering center.~~ A small quantity generator of hazardous waste may not be charged for deposits of hazardous waste at a collection and storage center.

* Sec. 10. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.309. NOTICE TO LOCAL GOVERNMENTS AND COMMUNITIES. (a) The department shall notify the following persons or agencies in each community in which a person intends to store or dispose of a hazardous waste:

(1) a representative of the local elected governing body; and

(2) the state and local public safety agencies with jurisdiction over the site at which the waste is to be stored or disposed of.

(b) If a storage or disposal site is permitted under this chapter, a general notice of intention to periodically store or dispose of hazardous waste may be made to the representatives under section (a)(1) and (2) of the above. Such notice shall be valid for a period not to exceed one year.

(b) insert new section (b)

* Sec. 11. AS 46.03.311 is amended to read:

Sec. 46.03.311. PUBLIC RECORDS. (a) Permits, permit applications, records, reports, and information and documentation obtained under AS 46.03.295 - 46.03.318 [AS 46.03.302 - 46.03.308] are available to the public for inspection and copying. However, upon a showing

satisfactory to the commissioner that a record, report, permit, application, or information would, if made public, divulge methods or processes entitled to protection as trade secrets, the commissioner shall treat the record, report, permit, application, or information as confidential.

(b) Information that is confidential may be transmitted under a continuing restriction of confidentiality to other officers or employees ~~or authorized representatives~~ of the state or of the United States if

(1) the person responsible for furnishing the record, report, permit, application, or information to which such information pertains is informed at least two weeks before the transmittal, except that information obtained under AS 46.03.295 - 46.03.318 shall be made available under a claim of confidentiality to the Environmental Protection Agency upon request of the agency; and

(2) the information has been acquired by the department under the provisions of AS 46.03.295 - 46.03.318 [AS 46.03.296 - 46.03.311].

(c) The provisions of this section do not limit the department's authority to release confidential information during emergency situations.

* Sec. 12. AS 46.03 is amended by adding a new section to article 5 to read:

Sec. 46.03.312. CIVIL REMEDIES AND PENALTIES. (a) In the enforcement of AS 46.03.295 - 46.03.311 the department may

(1) petition the superior court for injunctive relief to restrain a person from engaging in an unauthorized activity that ~~is~~ constitutes an imminent and substantial endangerment to ~~endangering or damaging~~ the public health or the environment;

(2) assess a civil fine under (b) of this section; or

The language proposed is consistent with federal law.

(3) bring an action in the superior court seeking civil penalties under (b) of this section.

(b) A violation of a provision of AS 46.03.295 - 46.03.311 is punishable by a civil fine of not less than $10,000 and not more than $100,000 for the first day of the offense, and a civil fine of not more than $10,000 per day for each day the offense continues.

* Sec. 13. AS 46.03 is amended by adding new sections to read:

ARTICLE 5A. DISPOSAL FACILITY SITE BOARD.

Sec. 46.03.313. HAZARDOUS WASTE DISPOSAL FACILITY SITE BOARD. (a) The Hazardous Waste Disposal Facility Site Board is created in the department.

(b) The board consists of 12 members appointed not later than October 1, 1984, by the governor as follows:

(1) one member representing the department;

(2) one member representing the Office of the Governor;

(3) two members representing public interest environmental conservation organizations;

(4) two members representing the oil and gas industry;

(5) two members with expertise in public health matters related to the transportation and disposal of hazardous wastes;

(6) four members representing the general public, who are elected officials, two of whom shall be from rural areas of the state and two of whom shall be from urban areas of the state.

(c) The governor shall designate the chairperson of the board. elect board

(d) The department shall provide administrative and clerical services to the board.

Sec. 46.03.314. DUTIES AND POWERS OF THE BOARD. (a) The board shall evaluate and select potential sites for hazardous waste disposal facilities, in the state. In evaluating and selecting sites for recommend potential state recommending

state hazardous waste disposal facilities, the board shall consider at least the following factors:

(1) economic feasibility, including proximity to concentrations of generators of the types of hazardous wastes likely to be proposed and permitted for disposal;

(2) intrinsic suitability of the sites;

(3) federal and state pollution control and environmental protection rules;

(4) the risk and effect for local residents, units of government, and the local public health, safety, and welfare, including such dangers as an accidental release of wastes during transportation to a facility or at a facility, water, air, and land pollution, and fire or explosion;

(5) the consistency of a facility with, and its effect on, existing and planned local land use and development; local laws, ordinances, and permits; and local public facilities and services; and

(6) the adverse effects of a facility at the site on agriculture and natural resources and opportunities to mitigate or eliminate the adverse effects by stipulations, conditions, and requirements relating to the design and operation of a disposal facility at the proposed site; and

(7) insert new section (7)

(b) The board shall hold public hearings in each election district in which a potential hazardous waste disposal facility site is located. The board shall give reasonable public notice of the time, date and place of each public hearing at least 30 days before the hearing. The public shall be afforded an opportunity at each hearing to submit written and oral testimony concerning a potential site. The board shall consider the testimony submitted at public hearings when it develops recommendations to be submitted in its report under

(7) the necessity for industry and business to have disposal sites in state in order to continue operations.

AS 46.03.317.

(c) For purposes of this section, "intrinsic suitability" of a site means that, based on existing data on the inherent and natural attributes, physical features, and location of the site, there is no known reason why a waste disposal facility that may be located in the site could not reasonably be expected to qualify for a permit under AS 46.03.302.

Sec. 46.03.315. MEETINGS OF THE BOARD. The board shall meet at the call of the chairperson and at other times as agreed by the members. The board shall hold its first meeting not later than January 31, 1985.

Sec. 46.03.316. COMPENSATION. A board member may not receive a salary for performing official duties of the board, but is entitled to per diem and travel expenses as provided for other boards and commissions.

Sec. 46.03.317. REPORT OF SITE AND FACILITY RECOMMENDATIONS. Not later than January 31, 1987, the board shall submit to the governor and the legislature a report that includes recommendations for

(1) the siting of hazardous waste disposal facilities in the state;

(2) the methods of financing and operating the facilities; and

(3) the types of facilities that should be constructed, such as chemical processing facilities, incineration facilities, and transfer and storage facilities.

Sec. 46.03.318. DEFINITION. For purposes of AS 46.03.313 - 46.03.317, "board" means the Hazardous Waste Disposal Facility Site Board.

* Sec. 14. AS 46.03.760(a) is amended to read:

(a) A person who violates or causes or permits to be violated a provision of this chapter, other than AS 46.03.295 - 46.03.311, or AS 46.04, or a regulation, a lawful order of the department, or a permit, approval, or acceptance, or term or condition of a permit, approval, or acceptance issued under this chapter or AS 46.04 is liable, in a civil action, to the state for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than ~~$10,000~~ ($5,000) for each day thereafter on which the violation continues, and which shall reflect, when applicable,

(1) reasonable compensation in the nature of liquidated damages for any adverse environmental effects caused by the violation, which shall be determined by the court according to the toxicity, degradability and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

(2) reasonable costs incurred by the state in detection, investigation, and attempted correction of the violation; [AND]

(3) the economic savings realized by the person in not complying with the requirement for which a violation is charged~~; and~~

~~(4) the need for an enhanced civil penalty to deter future noncompliance~~.

~~* Sec. 15. AS 46.03.760(b) is amended to read:~~

~~(b) Except as determined by the court under (c)(4) of this section, costs, [ACTIONS] under this section may not be used for punitive purposes, and sums assessed by the court must be compensatory and remedial in nature.~~

* Sec. 16. AS 46.03.790 is amended to read:

Sec. 46.03.790. CRIMINAL PENALTIES. (a) Except as provided in

The purpose of Section 15 is to allow for necessary penalties under AS 46.03.295-46.03.311. It is inappropriate to suggest additional changes which do not accomplish this purpose.

(d) - (f) of this section, a [A] person who negligently violates [OR WHO CAUSES OR PERMITS A VIOLATION OF] a provision of this chapter or AS 46.04, or of a regulation, lawful order of the department, or permit, approval, or acceptance, or term or condition of a permit, approval, or acceptance issued under this chapter or AS 46.04 is guilty of a class B misdemeanor.

(b) Except as provided in (d) - (f) of this section, a [A] person who knowingly [WILFULLY] violates a provision of this chapter or AS 46.04, or of a regulation, lawful order of the department, or permit, approval, or acceptance, or a term or condition of a permit, approval, or acceptance issued under this chapter or AS 46.04 is guilty of a class A misdemeanor.

(c) Each day on which a violation described in [(a) OR (b) OF] this section occurs is considered a separate violation.

(d) Notwithstanding (a) and (b) of this section, a [A] person who knowingly fails to provide or falsely states information required under AS 46.03.755 or AS 46.04 is guilty of a misdemeanor and, upon conviction, is punishable by a fine of not more than $25,000, or by imprisonment for not more than one year, or by both. Each unlawful act constitutes a separate offense.

(e) Notwithstanding (a) and (b) of this section, a person who knowingly (1) transports any hazardous waste to a facility without a permit required under AS 46.03.250 - 46.03.311; (2) treats, stores, or disposes of hazardous waste without a permit required under AS 46.03.250 - 46.03.311; or (3) makes a false statement or representation in an application, label, manifest, record, report, permit, or other document filed, maintained, or used for purposes of compliance with the hazardous waste provisions of AS 46.03.250 - 46.03.311 or regulations adopted under those provisions, is punishable by a fine of not more than $10,000 per day or by imprisonment for not more than one year, or both.

(f) Notwithstanding the penalty provisions of (a) - (e) of this section, a defendant that is an organization is, upon conviction of a violation of any of the provisions listed in this section, subject to the penalties set out in AS 12.55.035(c).

* Sec. 17. AS 46.03.313 - 46.03.318 are repealed June 30, 1988.

* Sec. 18. Section 5 of this Act takes effect four years after the effective date of ~~secs. 1 - 4, 6, and 8 - 17 of this Act~~ the state's hazardous waste regulations.

* Sec. 19. Section 7 of this Act takes effect June 30, 1988.

noranda

Noranda Mining Inc.
Greens Creek Project
P.O. Box 2277
Juneau, Alaska 99803
(907) 789-4171

MEMO TO: P. W. Richardson
S. R. Smith

FROM: Glenn Akins

DATE: March 7, 1984

SUBJECT: FEDERAL MINING WASTE STUDY

On February 27, 1984, I met with Dr. James Antizzo of EPA's Waste Management staff in Washington, D.C.

Summary

EPA's mining waste study is well behind schedule. It should have been completed in mid-1983. Completion is now estimated to be in early 1985. The study is fairly broad in scope and includes investigation of:

- mitigation and prevention options
- identification of types of wastes
- damage complaints, incidences and actions

About 100 sites have been investigated so far (none in Alaska). The emphasis has been on metals, asbestos and phosphate operations. Site surveys have included analysis of wastes (EP toxicity), leachates and tailings dam stability.

When the report is issued, EPA will begin a six-month review period. It is very likely they will be developing draft regulations during this period. As I indicated to you previously, these new rules will be "tailored" standards, not the Subpart C regulations under RCRA. The standards could be developed under Subpart D (solid wastes).

This confirms our position that mining wastes are not suitable for regulation under the current Subpart C rules.

GA/als

April 2, 1984

To: Members of CSSB 503 - Hazardous Waste Legislation Work Group
From: Jim Palmer in Senator Fahrenkamp's office and Steve Kadish in Senator Vic Fischer's office.

Re: Attachments and New Meeting Date

The meeting scheduled for Friday, April 6 has been rescheduled to Monday, April 9 at the same time and address, 1024 W. 6th, 2nd floor conference room, 9:00 - 5:00. If necessary, we will meet on Tuesday as well.

All the comments on the committee substitute for SB 503 are enclosed for your review. A chart of those issues of concern raised in the comments is also attached. Note that each set of comments focused on only a portion of those concerns mentioned.

It is very important that you have read this material before the meeting. If you have any questions, please contact Jim or another member of the Senate Resources staff at 465-3762, or Steve at 278-3654.

Issue of Concern CSSB 503	1 Akins	2 AK.AT	3 ACE	4 AEL	5 AHP	6 AOGA	7 APHA	8 AGC	9 B&R	10 CHEV	11 DEC	12 FISC	13 GOTT	14 HEIM	15 DOL
Identity of Hazardous Waste															
Degree of Hazard		*	*	*	*		*		*		*	*	*	*	
RCRA						*		*		*					
RCRA w/additions	*														
Mining exemptions	*														
Drilling Mud exempt.															
Other exemptions												*			
No exemptions				*											
Notification															
Who: Local Govt	*		*									*	*		
Public Safety Dpt					*							*	*		*
State Depts.	*				*			*				*			*
When: Annual Report								*							
Each Permit App.										*					
By Incident					*							*	*		
What: Transportation	*		*		*							*	*		
Transp. Route					*	*						*	*		
Name, Amount, etc												*			

(*) indicates support for this issue

Issue of Concern CSSB 503	16 LWV	17 MOA	18 MYER	19 NOR	20 RDC	21 ROBS
Identity of Hazardous Waste						
Degree of Hazard	*	*	*			
RCRA				*	*	
RCRA w/additions						
Mining exemptions				*		
Drilling Mud exempt.			*			
Other exemptions						
No exemptions						
Notification						
Who: Local Gov't		*				
Public Safety Dpt		*				*
State Depts.		*				
When: Annual Report						
Each Permit App.						
By Incident						
What: Transportation		*				
Transp. Route		*				
Name, Amount, etc						

Issue of Concern CSSB 503	1 Akins	2 AK.AI	3 ACE	4 AEL	5 AHP	6 AOGA	7 APHA	8 AGC	9 B&R	10 CHEV	11 DEC	12 FISC	13 GOTT	14 HEIM	15 DOL
Local Regulations															
Equivalent to State								*		*					
More Restrictive		*	*				*					*			
Public Hearing Only	*														
Oppose Concept	*					*									
Gathering Centers															
Clean-up Alternative		*	*		*							*			
State Pays Disposal	*														
Generator Pays Disp.			*		*		*				*				
Coordinate w/site brd.					*							*			
For Small Gener. Only									*						
Oppose Concept															
Testing															
State Pays															
Generator Pays		*					*	*		*	*	*	*		
Subsidy to Small Bus.												*		*	

Issue of Concern CSSB 503	15 LWV	17 MOA	18 MYER	19 NOR	20 RDC	21 ROBS
Local Regulations						
Equivalent to State						
More Restrictive	*	*				
Public Hearing						
Oppose Concept					*	
Gathering Centers						
Clean-up Alternative	*	*	*			
State Pays Disposal						
Generator Pays Disposal					*	
Coordinate w/site brd.		*				
For Small Gener. Only						
Oppose Concept						*
Testing						
State Pays			*		*	
Generator Pays						
Subsidy to Small Bus.						

Issue of Concern CSSB 503	1 Akins	2 AK.AT	3 ACE	4 AEL	5 AHP	6 AOGA	7 APHA	8 AGC	9 B&R	10 CHEV	11 DEC	12 FISC	13 GOTT	14 HEIM	15 DOL
Siting Board															
Changes in Membership			*		*	*		*	*	*					
Chgs in Recommendation Dates			*		*					*					
Storage/Collectin Priority															
Support as Suggested												*	*		
Oppose Concept	*									*					
Minimization															
Technical Assistance					*							*		*	
Pilot Projects, loans, etc												*			
Reuse, Recycle, etc						*						*			
Public Records															
Only Parts Confidential							*								
Oppose 30 day Comment Period															
Oppose Confidentiality		*													
Support as Suggested	*														
Clarification Needed															
Reckless v. Negligent						*		*		*					
Penalties		*				*		*		*		*	*	*	

Issue of Concern CSSB 503	16 LWV	17 MOA	18 MYER	19 NOR	20 RDC	21 ROBS
Siting Board						
Changes in Membership					*	
Chgs in Recommendation Dates						
Storage/Collection Priority		*				
Support as Suggested	*					
Oppose Concept						
Minimization						
Technical Assistance	*					
Pilot Projects, loans, etc						
Reuse, Recycle, etc	*					
Public Records						
Only Parts Confidential		*				
Oppose 30 day Comment Period		*				*
Oppose Confidentiality						
Support as Suggested						
Clarification Needed						
Reckless v. Negligent		*			*	
Penalties					*	*

alaska international air

MEMORANDUM

TO: All Operations Personnel

FROM: ~~Manager of Facilitation~~ ROB CLAY MNGR CARGO SERV.

DATE: August 12, 1983

SUBJECT Handling and Spill Procedures for Polychlorinated Byphynels (PCB)

Effective immediately, the following procedures for PCB's should be adhered to by all personnel:

Packaging, Marking CFR 40 761.40 - 761.60 Polychlorinated Byphynels (PCB's)

1. PCB containers must comply with CFR 4g 178.80 Spec. 5, 178.82 Spec 5B, 178.115 Spec. 17C. Larger containers for non-liquid PCB's may be used if the containers are designed and constructed in a manner that will provide as much protection against leaking and exposure as the DOT specification containers (CFR 40 761.65). All containers are steel.

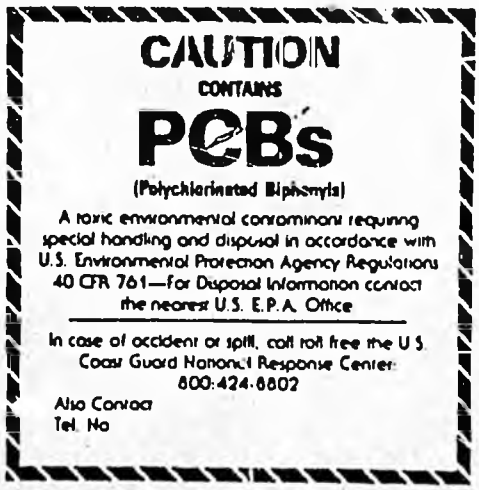
2. Any contaminated rags, soil or other debris must be considered as PCB's, packaged marked and transported accordingly.

3. Specification packagings for overpack must comply with CFR 49 178.102 steel drum with 2S or 2SL polyethylene containers.

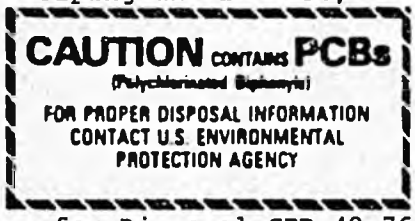
Marking PCB's CFR 40 761.45

1. Large PCB mark -M_L - white or yellow background with black letters and striping. Each to be 6" (15.25 cm) on each side (see figure 1).

Figure 1



2. If the package or device is too small to accommodate the label in Figure 1, a small PCB mark - Ms - may be used. White or yellow background with black striping and letters, rectangular 2" x 1" (5 cm x 2.5) (See Figure 2).



PCB Storage for Disposal CFR 40 761.65

1. Facilities must provide adequate protection to prevent rain water from reaching stored PCB and PCB devices.

2. No drain valves, floor drains, expansion joints, sewer lines or other openings that would permit liquids to flow from the area.

3. These requirements are for PCB's or PCB devices that may leak or because of weather, release PCB's to the environment.

   a) CFR 40 761.65 (C)(1).

   PCB devices or containers may be stored for up to thirty days outside if the following criteria is adhered to:

   a. Non-leaking PCB articles and equipment separated from other commodities.

   b. Leaking PCB articles and equipment sealed in a non-leaking PCB container and packed with sufficient sorbent material to absorb any liquid PCB's remaining in the PCB items.

   c. PCB containers containing non-liquid PCB's such as contaminated soil, rags and debris.

   d. Liquid PCB's in PCB containers, concentration between 50 ppm and 500 ppm (parts per million) provided a spill prevention, control and counter-measure plan has been prepared for the storage area.

Spillage and Contamination Control

1. CFR 40 761.65(5)

2. Any leaking PCB articles and PCB containers and their contents shall be transferred immediately to properly marked non-leaking containers.

3. Any spilled or leaked materials shall be immediately cleaned-up using sorbents or suitable solvents, and the PCB-contaminated materials and residues shall be disposed of in accordance with CFR 40 Part 761 (in authorized DOT drums).

4. As Alaska International Air is not a certified PCB storage facility, we can only store PCB items for up to thirty days.

5. Any spills of "substantial risk" must be reported. "Substantial risk" would be any spill that people come into direct and uncontrolled contact with, large enough to expose a significant number of animals, when the extent of the spill is unknown or if it is likely to enter drainage or water systems.

6. The first priority with any spill is to control the spread of the spill by damming or diking the leak. Also any threats to water should be given top priority.

7. Once a spill is contained, clean up with sorbents or just a matter of removal and packaging of contaminated soil or debris. Large or complicated spills should be cleaned up by experienced personnel.

Personal Contamination EPA Final PCB Ban Rule

1. PCB's have an oil-like consistency and weigh 10-12 pounds per gallon. PCB's are mainly used in "closed" or "semi-closed" systems in electrical transformers, capacitors, heat transfer systems and hydraulic systems.

2. PCB's are harmful to the environment because once released, they do not break apart into new and less hazardous chemical arrangements, instead they bioaccumulate in organisms. (They accumulate in tissues, and as they move up the food chain to man, concentration increases.)

3. Although PCB is a toxin, there are no adverse effects in humans without high concentration exposure over many years. The concentrations we will be dealing with are almost non-existent under normal transportation handling.

4. Personal exposure when handling high concentrations of liquid PCB's or contaminated soils can be minimized by the following:

   a. Skin protection by wearing heavy overalls (AIA coveralls), boots, and with liquids--non-porous gloves. Non-porous protective clothing can be decontaminated with solvents. Work clothes can usually be laundered and re-used, unless the garment is heavily contaminated. Launder the exposed work clothes separately from others.

b. Eye protection should be worn when it is possible for PCB's to be splashed in the eyes. Removing contaminated soil does not usually pose such a threat.

5. If liquid or solid PCB's are splashed or spilled on an employee, contaminated clothing should be removed promptly and the skin washed thoroughly with soap and water for at least 15 minutes.

   a. Eyes should be irrigated for at least 15 minutes if liquid or solid PCB's get into them. A drop of vegetable oil may be put into the eye to relieve the irritating effect of PCB.

6. Common sense in handling, storage and transportation of PCB's will result in little chance of contamination for employees and the environment.

7. Procedures for emergency response as follows:

   a) Immediately contain the spill.

   b) Notify station manager, ramp supervisor, cargo manager.

   c) Notify Rob Clay, Manager of Facilitation, 243-1414 x 260, 261 (wk) or 561-0595 (hm).

   d) Take outlined steps for any personal contamination.

   e) Onboard the aircraft, contain the spill, notify the captain and then use sorbent material to clean-up any liquid. For soil or debris, place in non-leaking container.

   f) On arrival at principal operations station, follow steps B thru D.

Rob Clay

K. Daniel Hinkle
Attorney, Anchorage District
Production United States

Marathon Oil Company

P.O. Box 102380
Anchorage, Alaska 99510
Telephone 907/274-1511

January 31, 1984

Jim Palmer
Senate Resource Committee
Alaska State Legislature
Pouch V (MS 3100)
Juneau AK 99811

Dear Jim:

HAZARDOUS WASTE LEGISLATION

Per our January 26, 1984 conversation, enclosed for your review are the following:

1. Draft language on technical amendments (penalties) ADEC needs in order to obtain EPA approval;

2. Draft amendment language to place sideboards on ADEC's effort to develop a hazardous waste program different from the federal program; and

3. A draft Letter of Intent to tie down ADEC's authority to adopt regulations other than those regulations of EPA.

As to Items 1 and 2, please note we have also enclosed a copy of the hazardous waste statutes presently on the books. Incorporated in that copy on the opposite/back page we have copied Items 1 and 2, also, in an effort to allow a review of the entire matter in a single document.

It is my understanding that once these materials have been reviewed and approved in your office a meeting will take place between your office and representatives of the Administration. Following a meeting of the minds, there will be a bill introduced setting out that accord.

Please note these drafts were all developed in-house. During the interim and in order to expedite the matter, we will be reviewing the drafts with other interested parties to obtain comments and consensus. It is our intent to pass additional comments on to you by February 6.

Should you have any questions as to our rationale, or should you need further effort on our part, please feel free to call Tom Brooks or me at 561-5311.

Jim, we appreciate both your efforts and those of Senator Fahrenkamp in this matter.

Very truly yours,

K. Daniel Hinkle

KDH:mh
Enclosures
xc: Tom Brooks

D'APPOLONIA
WASTE MANAGEMENT SERVICES

Karl H. Kinkade
NORTHWEST MANAGER

February 23, 1984

The Honorable Bettye Fahrenkamp, Chairman
Senate Resources Committee
515 - 7th Avenue, Suite 320
Fairbanks, Ak 99701

Dear Senator Fahrenkamp:

I appreciated the opportunity to meet you at the Resource and Development Committee Meeting in Anchorage, February 15 and 16. I know that you are a busy person trying to help Alaska.

The brochures enclosed explain a little bit about my company and its abilities. I hope in some way we can be of service to Alaska and industry.

We are very experienced in numerous hazardous waste projects. I, myself, have been involved in quite a few hazardous waste projects in Alaska.

If I, or my company, can be of further help to you or your colleagues, please do not hesitate to call me at any time.

Thank You.

Very truly yours,

Karl H. Kinkade

Karl H. Kinkade

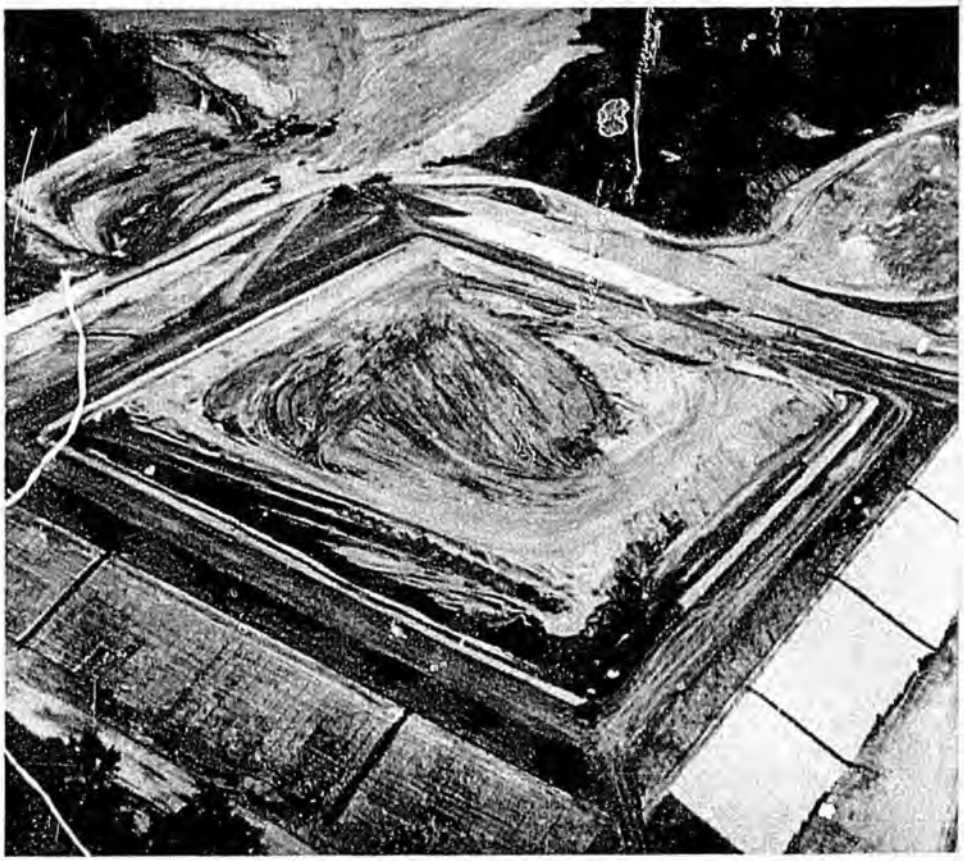
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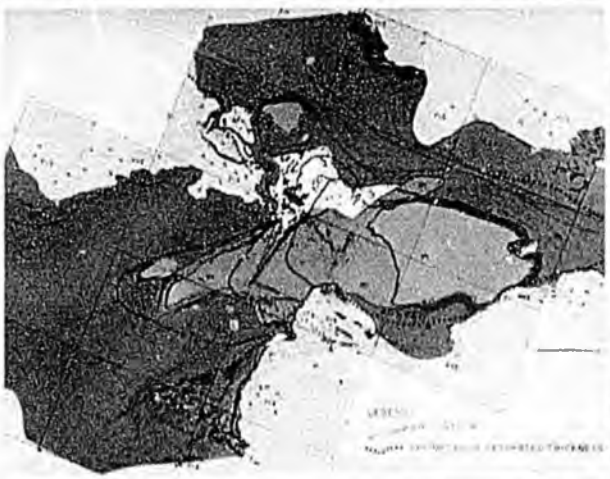
Enclosures
CC: File

11058 MAIN STREET, SUITE 110, BELLEVUE, WA 98004 TELEPHONE: 206/462-1016

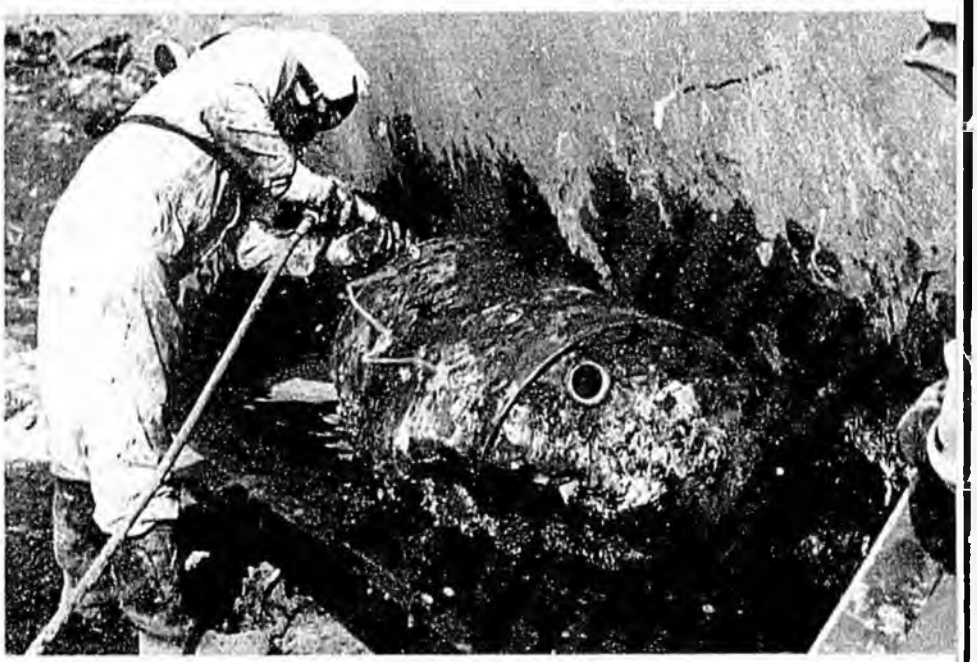
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WASTE MANAGEMENT PROBLEM SOLVING









IDAMPODLONIA
WASTE MANAGEMENT SERVICES

D'APPOLONIA WASTE MANAGEMENT SERVICES

Investigation/Assessment
- Waste Characterization
- Geophysical Investigation
- Exploratory Drilling
- Monitor Well Installation
- Remote Sensing

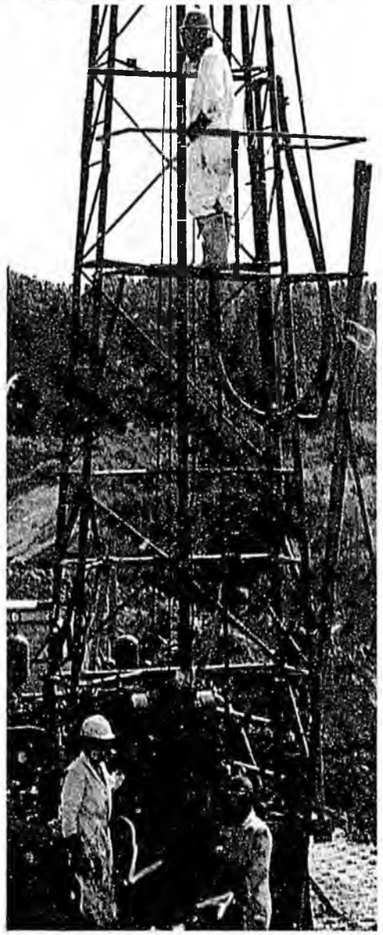
Engineering and Design
- Feasibility and Siting Studies
- Hydrogeological Modeling
- Treatment/Landfill Design
- Health/Safety Plans
- Agency Liaison and Permitting
- Delisting

Remedial Site Work
- Emergency Response
- On-Site Containment
- Drum/Contaminated Soil Removal
- Pond Cleaning
- Slurry Trench Cut-Off Walls
- Aquifer Restoration

Facility Construction/Operations
- Landfill Construction
- Product Recovery/Reprocessing
- Site Closure
- Monitoring







The D'Appolonia Tradition of Excellence Takes Nothing for Granted In Your Waste Management Assignment

Problem solving is a tradition at D'Appolonia. Part art, part science; it combines scientific, engineering, and construction capabilities into one integrated system.

Although all hazardous waste assignments are in some degree similar, each is site-specific and unique. As a company, we use our broad-based experience to develop innovative solutions that often preclude off-the-shelf methods.

We started solving problems in 1956; realized many outstanding achievements over the years in geotechnical, environmental, and construction fields. At the outset, we established the practice of dealing with clients on a one-on-one basis. Now that we are a group of engineering, construction and development companies with 9 U.S. and three European offices, we still maintain the same basic approach.

The fact that D'Appolonia is one of the few companies with in-house capabilities to handle all aspects of a hazardous waste management problem contributes to our successes. Drilling and sampling; laboratory testing; ground water studies; contaminant transport modeling; regulatory legal expertise; design of waste isolation, containment, and off-site programs; remedial site work; construction of new facilities and post-construction monitoring; all capabilities are in-house. And we have been in these businesses for more than 10 years.

Construction people with mud on their boots interact with our technical specialists applying scientific principles to workable site-specific real-world solutions. Engineers, scientists and constructors with competent support staff are integrated into one problem solving team. The skills and experiences of each synergize the others.

In public projects, we are able to perform each of the four stages of hazardous waste work; site characterization, feasibility, design, and remedial construction. For private clients, we are often asked to handle the entire assignment in one package which combines all aspects of the project.

Clients tell us they like our approach; find it responsive, responsible, and cost-effective. This brochure tells something of what we do and how we do it. We would appreciate the opportunity to put this experience to work for you.

Engineering Investigation and Design for

Waste Management Planning

There are options when it comes to managing wastes. And it's our job to help you find the most cost-effective options within the regulatory and other constraints that face waste management.

Our engineers, scientists, and constructors are experienced at doing this in real time in the real world. We do it for one-time site cleanups, on remedial programs, and for the continuous handling of waste over time in on-going manufacturing operations.

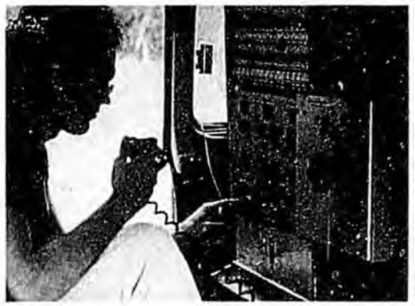
We understand the processes which generate the waste and tailor the waste management solution to fit the process as well as the site.

We look at the problem from both the short range and long range effects of available options. There are no preconceived notions of what the best way may be; only standards of performance to result in the most responsive yet cost-effective answer to each unique situation.

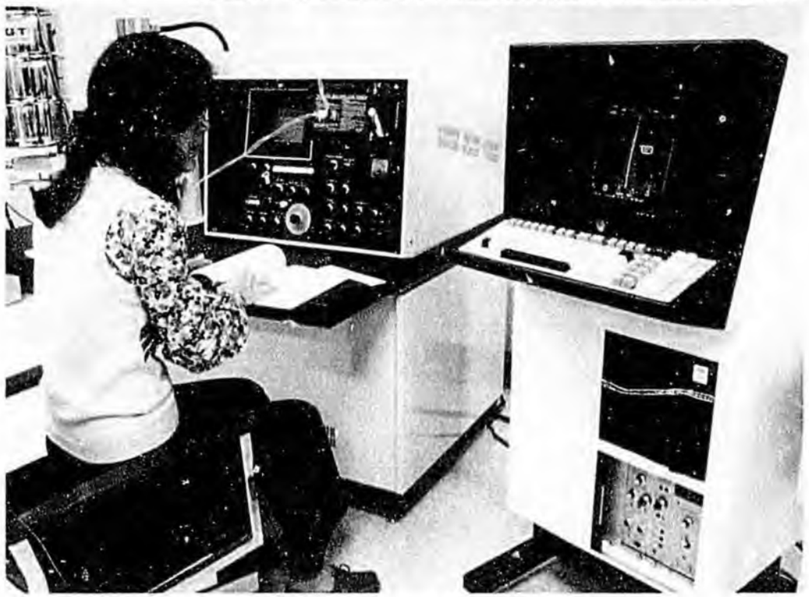
Permitting and Licensing

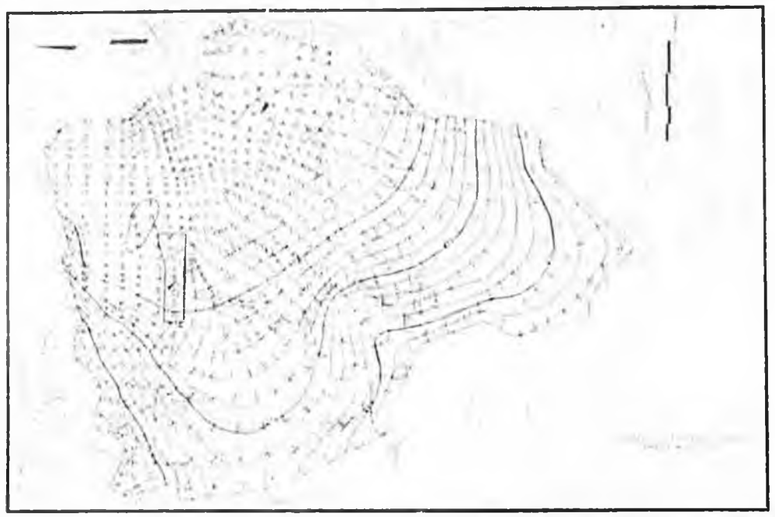
We work with you to secure the necessary permits and licenses needed to put your option into action.

We appear before governmental agencies and the public, as needed, and we come equipped with project-specific graphics to promote understanding and secure approval. Woven throughout the entire process is our respect for and awareness of your public image and the importance of public acceptance to regulatory approval.









Hazardous Waste Management

Assessment

Your waste management situation is unique. The site alone would qualify it as such. But there are other special parameters as well. Realistic assessment is the essential key to effective problem solving.

We characterize the waste; its composition and physical properties; its impact on the environment and the characteristics of the site where it is generated or stored. Testing is performed in our fully-equipped environmental laboratories.

Site investigations usually center on hydrogeology, remote sensing and geochemistry. Our geophysics staff often uses Ground Probing Radar, electromagnetic resistivity, and seismic surveys to complement drilling and sampling techniques.

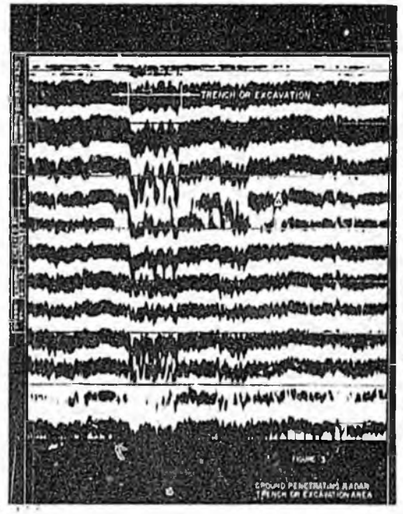
Engineering

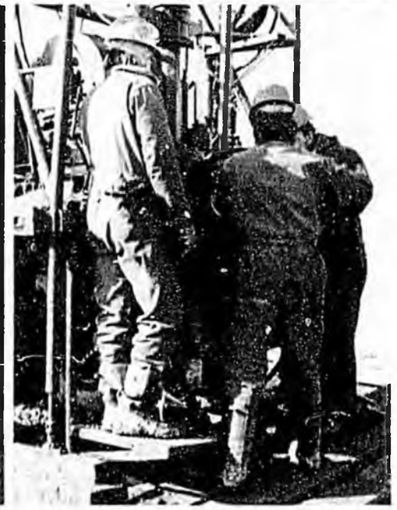
Some problems can be solved with existing techniques, while others require the development of innovative solutions based on the individual characteristics of specific waste and site conditions.

The best engineering solutions integrate imaginative application of technology and practical constructability into cost-effective, efficient designs.

Our staff of civil, environmental, chemical engineers and scientists have developed and implemented solutions for a wide range of waste management problems; from design of major new landfills and treatment facilites to developing remedial action plans for uncontrolled hazardous waste sites.









Remedial Site Work

Cleanup and Disposal

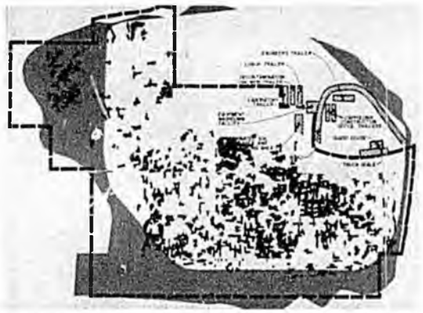
You've got to be an experienced professional for even the simplest remedial site work in hazardous waste management. And you can't take anything for granted.

The work calls for meticulous attention to detail. It requires a rare blending of skills, technology, and equipment. It calls for a great respect for the hazards involved and a commitment to render the site secure far into the future.

Some projects are relatively straightforward. They might call for stabilizing pond sludges, capping a pond, and rendering the ground water safe from potential leachate contamination. We've done many of them; enough to know that even the simplest can hold surprises.

Other remedial projects may be more complex. One of our projects called for removing 6,000 drums of hazardous and toxic materials as well as some 45,000 tons of contaminated soil. Waste materials included solvents, heavy metal sludges, acids, packed laboratory chemicals, and other materials.

We implemented special project protocols for excavating, staging, and on-site laboratory testing, health and safety protection for workers, spill prevention and control. D'Appolonia performed all the site work, waste transportation and disposal under a fixed-price contract for this massive cleanup.







Treatment and Recovery

One cost-reducing option available on some sites involves treatment of wastes to recover materials of commercial value while rendering the site nonhazardous.

On some projects we design site-specific treatment equipment. We can also use portable treatment plants as part of the recovery process.

One of our projects involved building a slurry trench cutoff, extracting contaminated ground water on the up-gradient side of the wall, treating the water and reinjecting on the down-gradient side. Recently, we have found the use of cut-off walls especially cost-effective for recovery/recycle applications.

As in all hazardous waste work, various options exist. Experience has taught us which will work best for your unique situation.

In-Place Isolation/ Containment

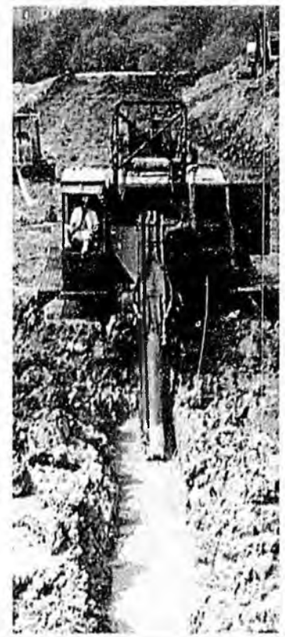
D'Appolonia pioneered the use of low permeability slurry trench cut-off wall construction to isolate and prevent hazardous waste leachates from contaminating ground water.

One of our papers on slurry trench techniques is used as a state-of-the-art document as are other of our various papers on the interaction of wastes with earth materials. We don't recommend slurry trenching for every site. We know when to use them and when not to. We've gone as deep as 130 feet to key a slurry trench into an aquaclude. And we've built more than 50 miles of cutoff trenches.

Cutoff walls are just one of the specialty construction skills we apply in our on-site isolation and containment projects. Others call for on-site vault construction, clay capping, leachate collection and treatment systems, special liners, ground water purge and treatment systems, and other skills.

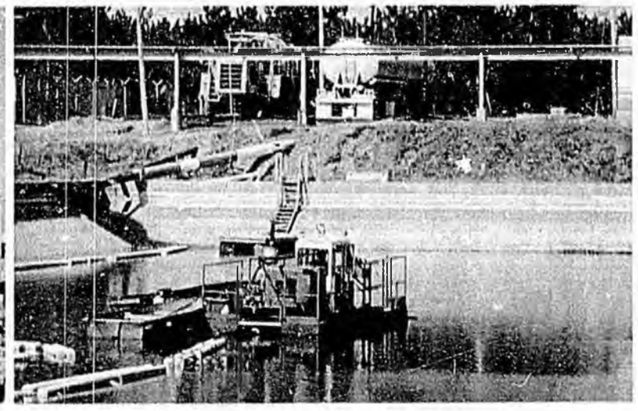
We've dismantled old facilities as well as built new ones. One project involved constructing an on-site vault to contain over 1,000,000 cubic yards of contaminated materials associated with a chemical plant close out. Another project included solidifying 25 million gallons of sludge and vaulting the stabilized sludge and other contaminated materials in an on-site facility. Our construction staff knows equipment and how to get the job done safely and efficiently.











We Design and Build New Hazardous Waste Facilities, too

Design/Construct or Construction Alone

All of the D'Appolonia skills and experience come into play in our design/construct approach to new facilities for hazardous waste management.

We offer you this time-saving, cost-effective option in addition to our design-only or construction-only services. In design/construct, we take on the sole-source responsibility for the performance of the entire project.

This procedure often leads to a more cost-effective, timely construction. It avoids implementation delays and provides constant interaction of builder, designer, and regulatory agencies to avoid technical problems and costly misunderstandings.

Design/construct allows constant evaluation of planning, design, and construction as actual site conditions are exposed. Our unique total in-house capabilities in hazardous waste management, from testing and engineering through permitting, design, and construction, give us the hands-on skills to provide you this service. More and more facility owners and operators are examining this sole-source option because of the benefits it brings them.

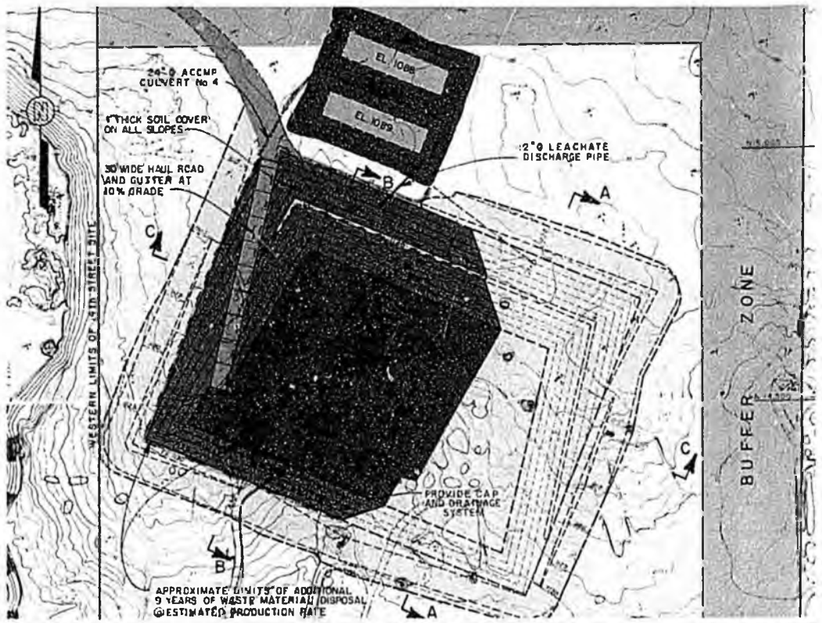


Facility Financing and Operation

You can also contract with D'Appolonia for turnkey development, operation, and financing of your hazardous waste facility. A typical contract of this nature has us provide these services for a 15-year operating period. We lease the site on client property; provide the financing; design, permit, and build the facility; and operate the facility for handling the client's waste during the contract period. We take the full responsibility for cost and performance.

We offer a similar scope program for closing existing hazardous waste facilities. D'Appolonia will design, construct and maintain a closure, taking full contractual responsibility for performance of the facility and associated environmental liability for a 30-year period.

Our full-scope service approach may be the answer to your hazardous waste management problems and to guaranteeing safer and more economical facility operations. In other words, getting you out of the hazardous waste business without you losing control.









Five Added Features From D'Appolonia

HEALTH/SAFETY

We tailor health and safety programs to the site-specific chemical risks with in-house safety and industrial hygiene specialists. This includes protective equipment selection, personal hygiene practices, special handling techniques, pre- and post-work physicals, and worker exposure monitoring.

DATA MANAGEMENT

We use in-house computer facilities both for engineering studies and construction project management. We have developed hydrological models, contaminant transport and attenuation models and other pertinent state-of-the-art techniques as well as laboratory and field data management and data portrayal programs.

ANALYTICAL LABORATORIES

Our environmental and geotechnical laboratories are certified by EPA, and the National Institute for Occupational Health. They are available for contract work in soils and materials testing, biology, wet chemistry, GC/MS, AA and electron microscopy. Fully equipped mobile laboratories are available to perform analytical work onsite when advantageous.

QUALITY CONTROL

Each aspect of our work is subject to a rigid quality control program independent of project personnel to cover materials, equipment and procedures. This inplace program which can be expanded to Quality Assurance when required, helps maintain the D'Appolonia standard of excellence.

VALUE ENGINEERING

Our blending of engineering and construction knowhow permits us to apply value engineering concepts to the designs we bid on. Our clients often realize dramatic cost savings as a result.



50 Representative Clients

ALCOA
Allied Chemicals
American Cyanamid
Amoco Oil Company
Bethlehem Steel Corporation
Borden Chemical Corporation
Browning-Ferris Industries
Chemtronics
Chevron
Ciba-Geigy
Crown Zellerbach
Diamond Shamrock
Dow Chemical Company
DuPont
Ethyl Corporation
Exxon
FMC Corporation
Georgia-Pacific
Hammermill Paper
Hughes Aircraft
IBM Corporation
IT Corporation
Jones & Laughlin Steel Corporation
Koppers Company
Lord Corporation
Mobil Oil Company
Monsanto Chemical Company
Motorola
Occidental Chemical
Olin
Onan Corporation
PPG Industries
Quaker State
Republic Steel Corporation
Sharon Steel Corporation
Texaco
Texas Instruments
Townsend-Textron
Union Carbide
Union Chemical
Union Oil
U.S. Army Corps of Engineers
U.S. Army Toxic and Hazardous Materials Agency
U.S. Department of Energy
U.S. Steel Corporation
Van Waters & Rogers
Vertac
Warner Electric Brake & Clutch
Westinghouse
Witco Chemical Company

Protecting Tomorrow with Solutions Today

D'APPOLONIA

WASTE MANAGEMENT SERVICES

D'APPOLONIA
WASTE MANAGEMENT SERVICES

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  2340 Alamo Street, S.E. Suite 306
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- Baton Rouge, LA 70809
  8116 Calais Avenue Suite 2D
  504/769-9700

- Bellevue, WA 98004
  11058 Main Street Suite 110
  206/462-1016

- Englewood, CO 80112
  7400 South Alton Court
  303/771-3464

- Glenview, IL 60025
  603 Revere Road
  312/998-0113

- Houston, TX 77042
  2925 Briarpark Suite 400
  713/784-5070

- Irvine, CA 92714
  17500 Redhill Avenue Suite 202
  714/556-5340

- Milwaukee, WI 53223
  4300 West Brown Road Suite 130
  414/354-3500

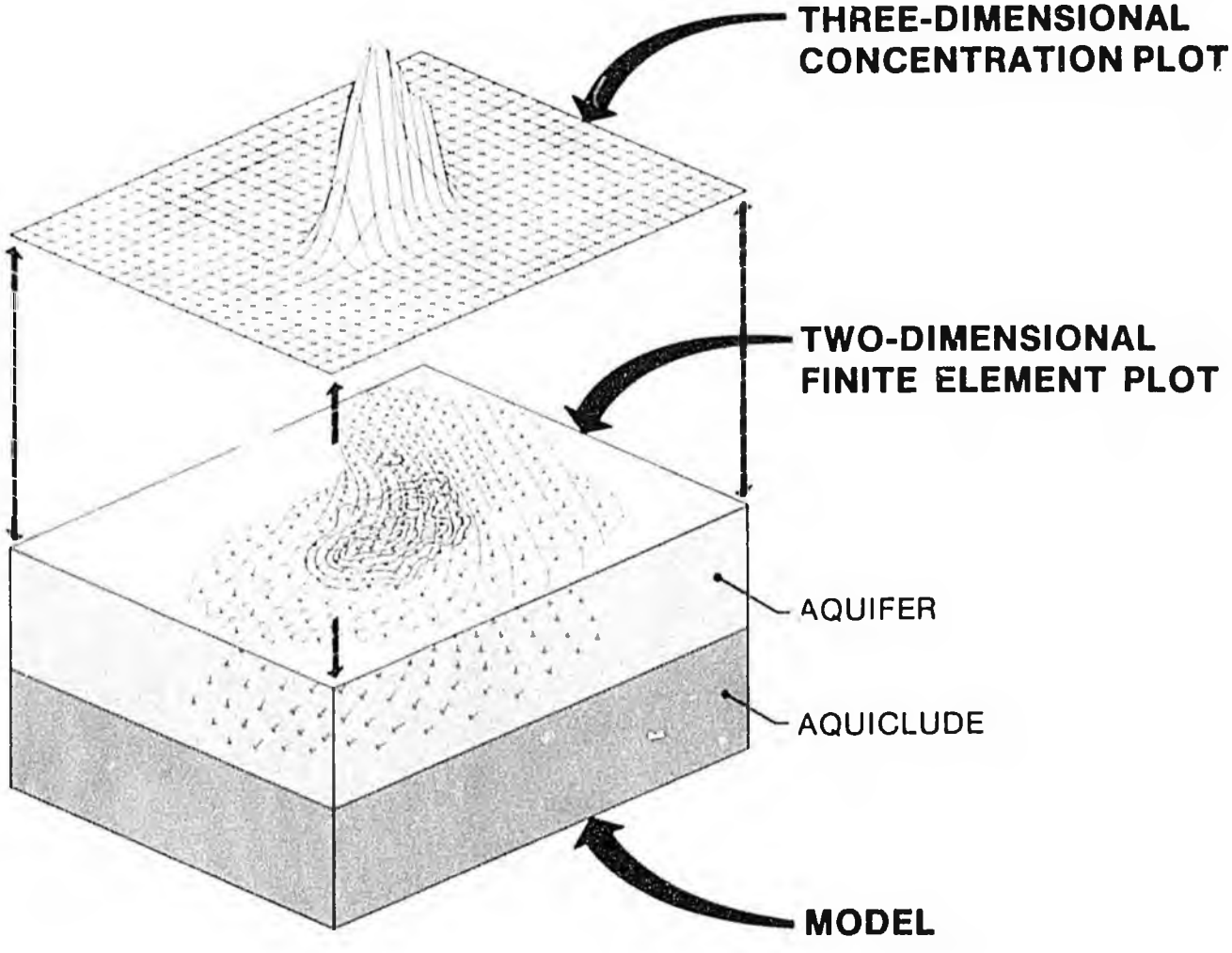
- Pittsburgh, PA 15235
  10 Duff Road
  412/243-3230

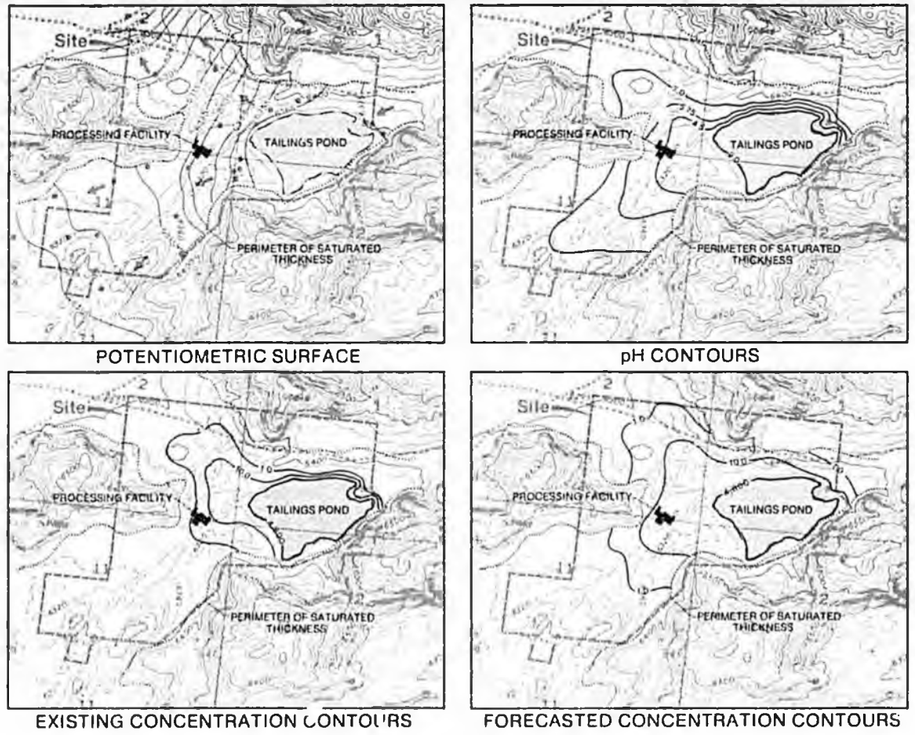
- Scottsdale, AZ 85251
  6900 East Camelback Road Suite 700
  602/994-0877

D'APPOLONIA
WASTE MANAGEMENT SERVICES

GEOFLOW

COMPUTER MODELING OF GROUND WATER FLOW AND CONTAMINANT TRANSPORT





Flow and Contaminant Transport Modeling

GEOFLOW

Program Capabilities and Characteristics

GEOFLOW is a finite element computer program developed to help eliminate uncertainties in the evaluation of existing sites and the design of new waste disposal and remedial treatment facilities. Proven in numerous applications since 1977, it predicts the flow of contaminants and their potential effect over time on ground water and surface water regimes. The program has been validated by extensive testing on project work and also undergone formal verification and review by Quality Assurance. A comprehensive User's Manual has been prepared and is now available.

GEOFLOW has been used for hydrologic impact assessments, slurry wall designs, optimization of interceptor well and monitoring well locations, contaminant transport evaluations, mine inflow forecasts, and the design of leachate collection systems.

The program numerically simulates two-dimensional fluid flow and solute mass transport. It contains two mutually dependent finite element subprograms. One is the flow program which solves the equations of motion and continuity for ground water flow. The other is a solute mass transport program which solves the hydrodynamic dispersion equation. The domain to be studied is divided into a grid system of varying size elements depending on the site and flow conditions. The four, eight, or twelve nodes of each element serve as input or output data points.

The grid pattern can be treated as several regions and each region can have different hydrogeologic and geochemical properties such as transmissivity, recharge, storage coefficient, dispersion coefficient, and retardation factor.

The program can simulate confined, semiconfined or leaky, and unconfined aquifers. They can also be nonhomogeneous, anisotropic, and of nonuniform thickness. Multiple recharge or discharge wells with time-dependent flow rates can be specified. Geochemical reactions such as adsorption, acid neutralization, and radioactive decay are additional options in the program.

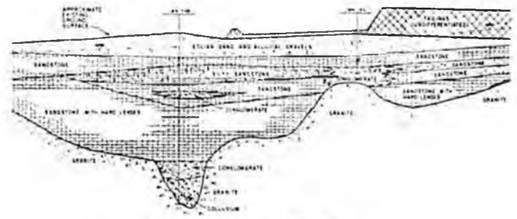
Results are reported for specified future times and include piezometric heads, velocity and flow vectors, concentrations, saturated thicknesses, and adsorption capacities at any location during the simulation period. A second program permits the graphical display of these results in the form of two- or three-dimensional plots with illustration of flow-direction and magnitude by plotting velocity vectors.

The program was developed by Dr. S. Haji-Djafari and his associates at D'Appolonia Waste Management Services, Inc. The company operates nationally with in-house capabilities to handle all aspects of hazardous waste management including drilling, geophysical testing, laboratory analysis, assessment studies, permitting, design, construction, monitoring, and facility operation/maintenance.

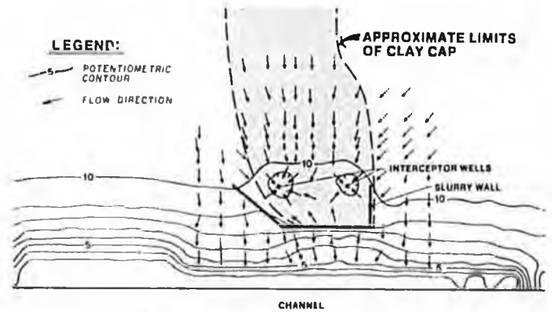
Program Applications

Predicting Radionuclide Migration

An early application of GEOFLOW involved the prediction of radionuclide migration from a uranium tailings facility threatened with closure. GEOFLOW predicted that radionuclides would not migrate significantly over the 20-year facility life. A proposed liner was found to be unnecessary and the facility was subsequently permitted to continue operation. In 1982, monitoring well data confirmeo GEOFLOW predictions to be on target. This may have been the first integration of computer modeling and geochemical testing to predict on-site contaminant migration with attenuation due to adsorption characteristics of soil.



Geologic Cross-Section



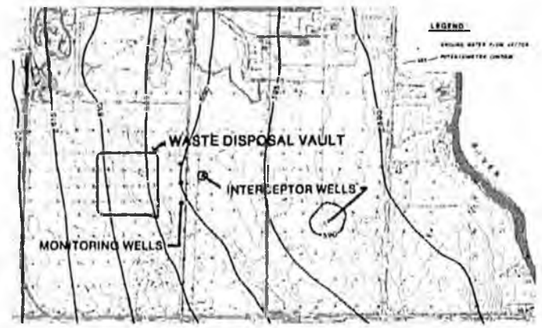
Predicted Ground Water Flow Directions and Potentiometric Surface

Modeling Slurry-Wall Performance

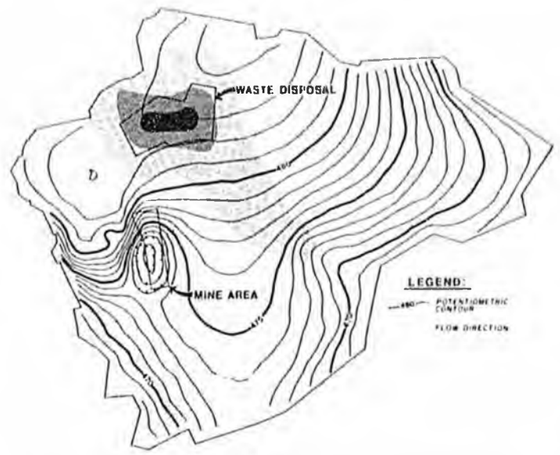
GEOFLOW modeling led to cost savings due to reductions in slurry-wall and clay-cap sizes at a Gulf Coast chemical plant where leachates were affecting both surface and ground water. The site was modeled as four layers (in ascending order): a regional aquiclude as a confining base layer at a depth of 50 to 60 feet; an overlying fine silty sand as a semiconfined aquifer; peaty clay of varying thickness as a semiconfining bed; and a surficial alluvial fill-surface layer modeled as an unconfined aquifer.

Locating Monitoring/Interceptor Wells

GEOFLOW has helped optimize the location of monitoring wells and interceptor wells at many hazardous waste sites. One such facility for a major chemical company was modeled to locate monitoring wells for a 50-year ground water monitoring program and develop the optimum pumping sequence and schedule for the interceptor wells. Geochemical interaction of the waste and liner material was also modeled as part of the design of the clay-lined vault at the site.



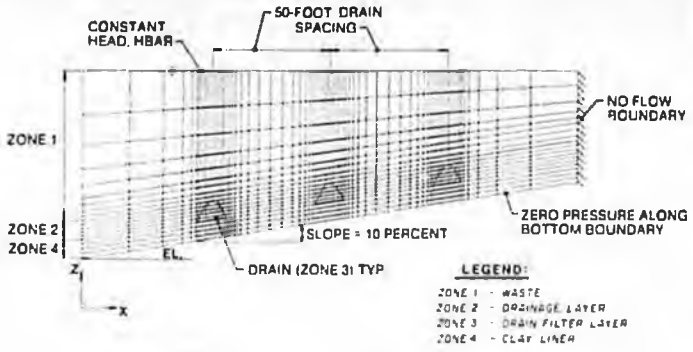
Response of Aquifer to Interceptor Well Operation



A Simulated Plan of Mine and Waste Disposal Operation

Assessing Impacts of Mines/Waste Disposal Facilities

Twenty-five mine development and waste disposal plans were studied utilizing GEOFLOW. GEOFLOW predicted ground water drawdowns and defined zones of influence of drawdown, computed changes in ground water discharge to area lakes and streams, and simulated movement of chemical constituents seeping from mine waste disposal sites. This led to great cost savings through evaluation of alternative concepts for the waste disposal facility design while minimizing the impact on the hydrologic regime.



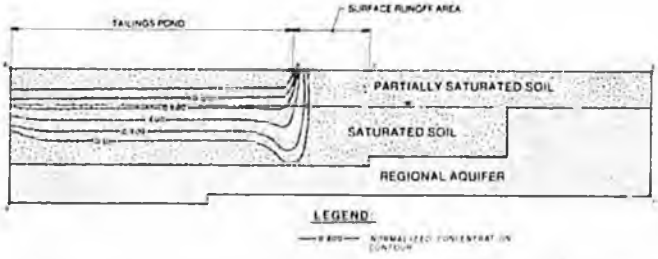
Grid System for Underdrain-Liner Design

Designing Leachate Collection Systems

Optimization of the design of the leachate collection drainage network for an Appalachia synfuels plant waste disposal facility was performed using GEOFLOW. The model included saturated waste material, the underdrain system, the clay liner, and native material below the liner. Design variables studied were drain spacing, waste depth and permeability, underdrain geometry, clay liner permeability, ground slope and time. Hydraulic pressures on the liner and seepage into the ground water regime were determined by GEOFLOW.

Forecasting Contaminant Transport

For a new tailings impoundment, GEOFLOW determined the movement of chemical constituents in the regional ground water regime in conjunction with saturated/partially saturated modeling of the ionic species through the disposal facility soil liner. Regional impacts of potential ground water contamination were forecasted by modeling saturated flow and dispersion in the underlying aquifer considering expansion of the impoundment during the 15-year operational life.



Contaminant Migration from Tailings Disposal Facility

GEOFLOW User's Manual

- Basic equations governing ground water flow and mass transport
- Solution of system equations
- Complete user information
- Functional flow chart
- Methodology for modeling hydrogeologic regimes
- Simulation restart capability
- Methods of computation
- Case study
- Five test problems and solutions
- Figures
- 308 pages



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D'APPOLONIA NEWS

Toxic wastes: Philadelphia cleans up its mess

Reprinted from
Philadelphia Inquirer
Monday July 19, 1982
by
D'Appolonia Waste Isolation, Inc.

By Roger Cohn
Inquirer Staff Writer

It is an alien world.

Towering mounds of black earth rise from a barren field that resembles a moonscape. Men in white coveralls, face masks and thick black rubber boots trudge along the hollowed ground, lifting corroded drums that emit fumes they dare not breathe. Behind them, huge backhoes rumble along, digging the dirt until striking chunks of metal that reveal the poison that lies below.

It may sound like something from a science-fiction movie, but it is all too real and far too close to home. The unearthly scene is being played out daily this summer at a Southwest Philadelphia site where the most extensive toxic-waste cleanup in the history of the city—and one of the largest ever attempted in the country—is under way.

"After Love Canal, this ranks right up there with the biggest cleanups ever," observed George Bochanski, a spokesman for the U.S. Environmental Protection Agency.

When the operation is completed this fall, the city will have spent $10 million to remove an estimated 10,000 drums of toxic chemicals and hundreds of tons of contaminated soil from the 57-acre site near Philadelphia International Airport, where hazardous wastes were illegally dumped by the truckload during the mid-1970s.

The tale of how those wastes ended up on the city-owned site was unraveled through an intensive investigation by the city Water Department and the District Attorney's Office. That investigation has led to the convictions of two Streets Department employees on charges of accepting bribes, and of three officials of waste-hauling companies who were charged with bribing the workers to allow the dumping.

It also led to the discovery that between 1972 and 1976, hazardous wastes—including some regarded by the federal government as among the most highly toxic—were routinely brought to the site off Enterprise Avenue. And, consultants for the Water Department concluded, the possibility existed that if not removed, the poisonous chemicals could eventually seep through the ground water and threaten the underground water supply on which much of South Jersey depends.

Since the cleanup began last month, workers have taken out 250 drums, plus the rusted remnants of hundreds of others, and tons of soil—all of which has been shipped by truck to a disposal site near Niagara Falls, N.Y.

The operation is being conducted with elaborate security precautions, with no one permitted in the work area without full protective paraphernalia. Even so, four Water Department surveyors were suspended for a day last week for refusing to report to the site. The employees contended that the hazardous substances posed a potential threat to their health and that they should not be forced to work there. Municipal labor leaders say they will support the surveyors' position—to the point of staging a job action, if necessary.

The city never intended to have any hazardous wastes put on the Enterprise Avenue site. Since the

1960s, the Streets Department had been bringing tons of ash from the city's trash incinerators to the marshy land behind the Southwest sewage treatment plant. Plans called for hauling only ash to the site, but some enterprising Streets Department workers had other ideas.

According to court testimony, Clarence Walker, who operated a bulldozer for the Streets Department, devised a scheme in 1972 in which he took payments from the Lightman Drum Co. of Berlin, N.J., for allowing the company to dump toxic wastes at the site. As part of the bargain, Walker would bulldoze ash over the drums so they could not be detected.

To protect his illegal arrangement, testimony showed, Walker regularly gave a cut of the bribe money to the night watchman, Calvin Carson. The two city workers soon made similar deals with two other companies—ABM Disposal Corp. ofLester and Jonas Waste Removal of Sewell, N.J.—that began dumping drums and draining poisonous wastes from tank trucks onto the site, according to testimony. Before the Streets Department stopped using the Enterprise Avenue site, authorities say, Walker and Carson received nearly $50,000 in bribes for allowing the dumping of anywhere from 5,000 to 15,000 drums.

The presence of hazardous chemicals at the site went undetected until late 1978, when an attorney for Manfred DeRewal, a convicted polluter from Bucks County, wrote to authorities asking why his client was being prosecuted while tons of toxic wastes had been dumped on city land in Southwest Philadelphia. The letter was passed on to the Water Department, which began its own investigation and found that the attorney was referring to the Enterprise Avenue site, where the city planned to construct a sludge-recycling center.

In January 1979, the Water Department started excavating a small portion of the site, and, by the time workers stopped digging, they had unearthed more than 1,700 drums. Tests showed the drums contained primarily wastes from chemical and paint manufacturing processes, including such highly toxic substances as toluene, a solvent.

"We kept bumping into drums wherever we put the shovel down there," said Thomas Healey, chief of the Water Department's industrial waste unit.

The city then hired a consulting firm, Roy F. Weston Inc. of West Chester, which studied the site and used radar equipment to determine where the drums had been buried. Weston proposed the removal of all wastes and contaminated soil, and that recommendation was accepted by the city and endorsed by federal and state environmental agencies. In May, the cleanup contract was awarded for $5 million to the low bidder, D'Appolonia Waste Isolation Inc. of Pittsburgh, which began work at the site on June 14.



Zack Smith tests the sometimes flammable air at the dump

The excavation work is scheduled for completion by the end of the summer, when the site will be capped with a layer of clay, gravel and topsoil and then revegetated. Officials estimate that the total cost of the cleanup will reach $10 million.

At the site one day last week, workers wore specially treated coveralls and full face masks with respirators as they used a shovel to scrape a gummy chemical substance from a rusted drum. The material was transferred to a secure container; and the corroded drum was hauled by tractor to a waste pile that would be loaded onto a waiting tractor-trailer truck.

The contractors have instituted extensive safety procedures, and two D'Appolonia workers who violated the rules—one who repeatedly failed to wear his face mask and another who smoked on the site—have been fired. All workers must pass through a decontamination trailer, which includes showers and a laundry, before entering or leaving the site. Waste water from the shower and laundry is pumped to a tank where it is tested and, if found contaminated, shipped out with the contaminated material to a disposal site.

"We do everything by the book out here," said Edward Rogan, project engineer for Weston. "We don't take any chances."



Workers at the site must wear protective clothing to guard against the hazardous chemicals

The city never intended to have any hazardous wastes put on the Enterprise Avenue site . . . but some enterprising Streets Department workers had other ideas. Before the end, they received nearly $100,000 in bribes for allowing the dumping of anywhere from 5,000 to 15,000 drums of waste.

Despite the precautions, four Water Department surveyors, who are responsible for monitoring the contractors' progress, have refused to work at the site. They say they fear the hazards, including the possible long-term risks of being exposed to the toxic chemicals, some of which are cancer-causing. On Tuesday, the city suspended the surveyors for one day without pay.

Discussions between city officials and the unions representing the surveyors are continuing. Water Commissioner William J. Marrazzo said Friday that he would consider returning the day's pay to the suspended employees, even though he feels certain that working there is safe. But Thomas P. Cronin, president of District Council 47 of the American Federation of State, County and Municipal Employees, which represents some of the surveyors, sounded a less conciliatory note.

"There is no room for compromise on the health and safety of the workers," said Cronin, who noted that the surveyors would not report to the site while excavation work was in progress. "If they think it's so damn safe, let Marrazzo and [Mayor] Green go out there and work it."

While the cleanup continues, so do the court cases.

Some of those convicted in connection with the dumping are serving time in jail: Carson and Walker, the Streets Department employees, were sentenced to 24 to 57 months and 6 to 23 months, respectively; Franklin P. Tyson, president of ABM Disposal, was sentenced to 1-½ to 7 years and Jerome Lightman, president of Lightman Drum, was sentenced to 1-½ to 4 years, although he is free on bail pending appeals. Frank Pertnoy, a foreman for Jonas Waste Disposal, was convicted of bribery and conspiracy in December but has not yet been sentenced, according to Assistant District Attorney David Michelman.

In addition to the criminal prosecutions, the city filed a lawsuit in federal court in March 1981 seeking damages of $30 million from 35 companies that produced the wastes dumped at the Enterprise Avenue site. That pending suit has attracted national attention as the first filed under the 1980 "Superfund" law, which makes the generators of hazardous wastes liable for how the substances are disposed.

So far, the city has obtained $3 million through out-of-court settlements with companies that supplied wastes to Lightman Drum and ABM Disposal. City attorneys argue that these companies should have known that their wastes were being dumped illegally because the haulers charged far less than the cost of proper disposal.

"When you go to the company officials and you inquire," said Deputy City Solicitor Frank Thomas, "you find that they just didn't ask any questions about how it was being disposed . . . Maybe they didn't want to know."

D'Appolonia Enterprise Avenue Scope of Work

D'Appolonia's scope of work at Enterprise Avenue included all aspects of the site cleanup. We excavated, analyzed, handled, repackaged and shipped for disposal more than 6,000 drums of hazardous and toxic materials. Many drums were no more than corroded fragments. More than 45,000 tons of contaminated soil were excavated, characterized and either transported for offsite disposal or stored on site. Waste products included solvents, heavy metal sludges, oils, acids, packed laboratory chemicals and other materials. Waste characterization was performed on site in D'Appolonia's mobile laboratory which included instrumentation for gas chromatography, atomic absorption spectrophotometry, total organic halogen analysis, flash point testing, and wet chemistry. D'Appolonia developed special project procedures for laboratory testing protocols, health and safety protection for workers, erosion and sedimentation control, spill prevention and control, and materials handling and staging. Work began in May 1982 and was completed in October 1982.

Here's what D'Appolonia's Hazardous Waste Group Can Do for You...

It's unique in concept; experienced and skillful in execution. D'Appolonia's Hazardous Waste Group provides an integrated, full-service resource that can handle all aspects of hazardous waste management and remedial action. Or individual components of the Group are available to help with specific aspects of your problem. Here are the services offered:

- **Waste Management Planning**
  Waste stream evaluation, recycling potential, range of disposal/treatment methods, regulatory/public considerations.
- **Permitting**
  Liason and interface with agencies on regulations and site alternatives.
- **Waste Characterization**
  Composition, physical properties, hazardous classifications, toxic characteristics, atomic absorption and GS/MS testing, permeability and soils and rock testing.
- **Engineering**
  Hydrology, hydrogeology, geochemistry, ground water chemistry, leachate reactions, aquifer flow and absorption characteristics, contaminant potential, air pollution, ground water flow and chemical transport modeling, risk identification and assessment.
- **Landfill Design**
  Containment requirements, permitting, drawings and specifications, monitoring, capital requirement estimates, operating costs, cash flow analysis.
- **Health and Safety Planning**
  Protective safety equipment, personnel hygiene, air monitoring, biological monitoring.
- **Remedial Action**
  Waste removal, stabilization, in-place isolation, sludge handling, reprocessing.
- **Construction**
  Slurry trench cutoff walls, clay capping, on-site vault construction, leachate treatment systems, special liners, grouting, soil stabilization, dewatering.
- **Operations**
  Contract operation, supervision, facility operation management services and systems monitoring.

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March 1983

D'APPOLONIA
WASTE MANAGEMENT SERVICES

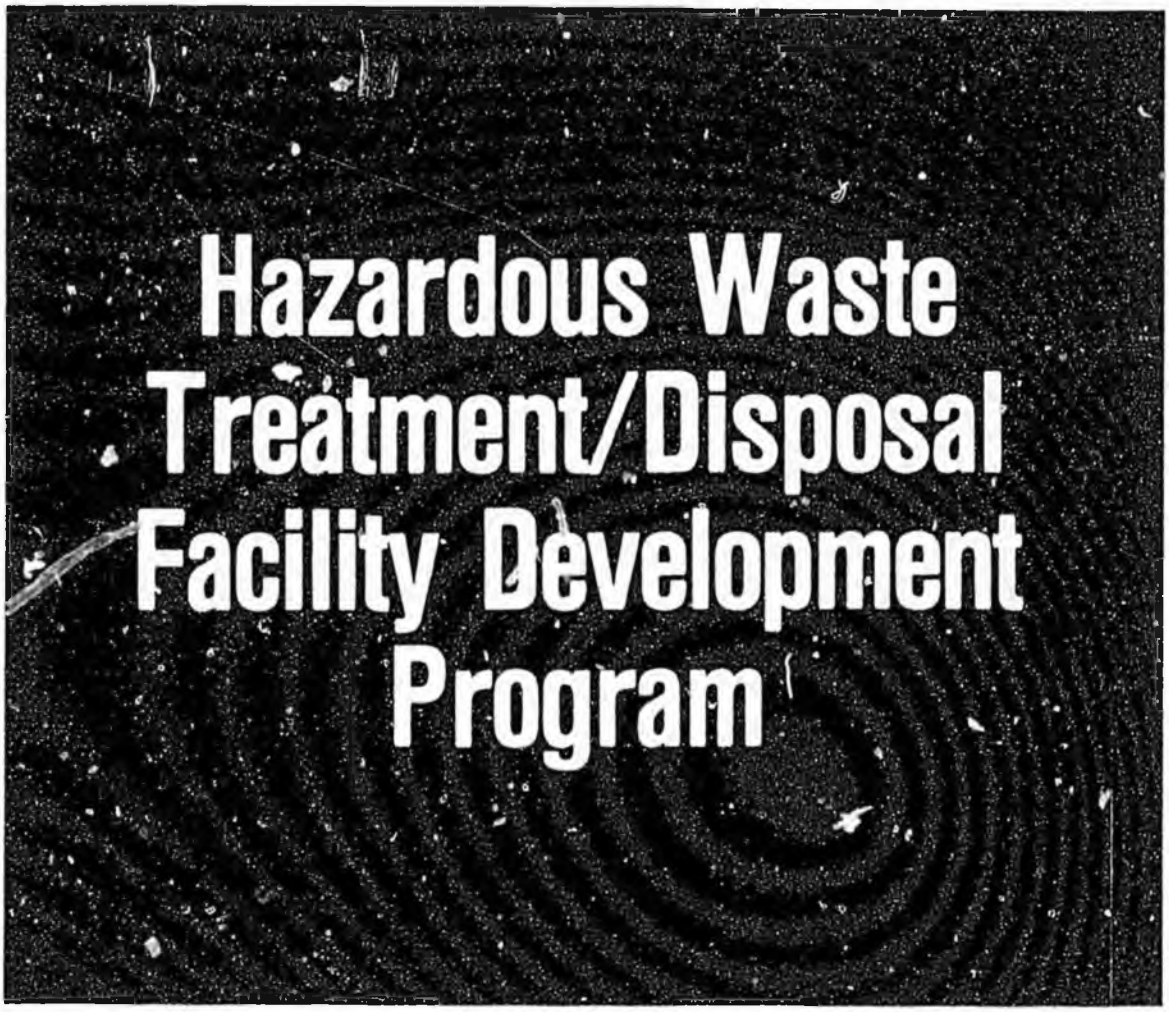
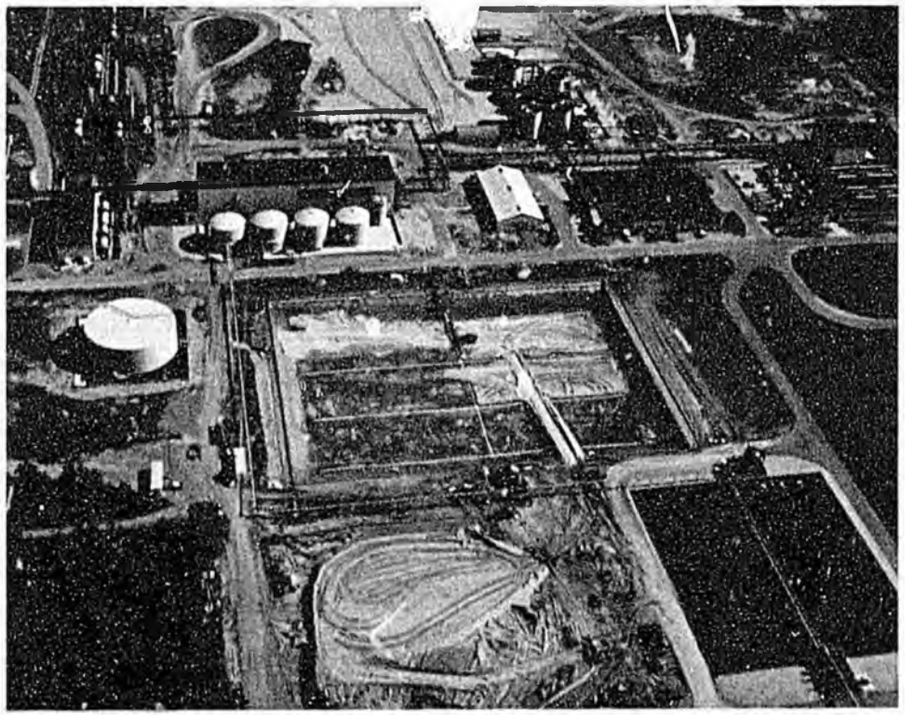


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HAZARDOUS WASTE TREATMENT/DISPOSAL FACILITY DEVELOPMENT PROGRAM

PROGRAM

D'Appolonia has established a program for developing hazardous waste treatment/ disposal facilities on sponsor property leased by D'Appolonia. The facility is developed and operated by D'Appolonia for the exclusive benefit of the sponsor during the contract period.

A contract is initiated when the sponsor and D'Appolonia enter into an agreement wherein the sponsor agrees to pay for use of the facility services once in operation at unit costs fixed in the contract agreement. D'Appolonia then takes complete technical and financial responsibility for placing the facility on line and keeping it in operation — investigation, design, permitting and licensing, financing, construction, and operation of the facility in conformance with regulatory and sponsor requirements.

In cases where an existing noncomplying facility is present on a sponsor site, the capital cost of abatement or improving the existing facility can be incorporated in the expanded or new facility development program.

BENEFITS TO SPONSOR

The D'Appolonia facility development program has several distinct and important benefits to the sponsor:

- No sponsor funds are required until the facility is on line and operating; capital costs are then amortized through user fees over the operations period of the contract.
- Single-source responsibility for program development, operations, and facility performance in accordance with specifications and regulatory requirements.
- Sponsor maintains control of waste treatment/disposal practices, but is not burdened with direct responsibility/liability.
- Low operations cost treatment/disposal cost to sponsor is often significantly less than the cost of off-site treatment/disposal; fees are fixed during the term of the contract.
- Sponsor is indemnified from claims, encumbrances, and liability arising from D'Appolonia's contracted responsibilities for the facility design, construction, and operation.

PROJECT DEVELOPMENT

D'Appolonia originates a hazardous waste treatment/ disposal facility development program using a series of well-defined phases leading to project commitment and execution. The phases are designed so that the sponsor takes no risk until the project is defined and sponsor costs are firmly fixed.

The project development phases are as follows:

Project Formulation

The first step involves D'Appolonia's review of the potential sponsor's waste stream characteristics and quantities; potential site locations and geology; existing site and permit conditions, as applicable; and waste treatment/ disposal options. All information, provided to and obtained by D'Appolonia, is held in strict confidence and no obligation is incurred by the potential sponsor. D'Appolonia then performs a preliminary assessment and formulates the project, including conceptual design, projected development methodology, and construction and operating cost estimates.

Preliminary Proposal

D'Appolonia then presents a preliminary proposal to the sponsor providing the following information:

- Project formulation and rationale
- Proposed technical parameters
- Proposed performance specifications
- Pro forma economic parameters

The sponsor may take either of two actions upon the presentation of D'Appolonia's preliminary proposal:

- Reject the proposal and return it to D'Appolonia without sponsor obligation.
- Authorize D'Appolonia to proceed to develop a final proposal.

Final Proposal

Once authorized to prepare as final proposal, D'Appolonia proceeds with site exploration, sample collection and data analysis, regulatory and permitting review, facility design bench scale testing, financing studies, and in-depth cost analysis. D'Appolonia subsequently presents a final proposal detailing lease terms, contract conditions, performance parameters and obligations, technical information and firm contract-pricing.

The sponsor may take any of three alternative actions upon the presentation of the final proposal:

- Accept the proposal and enter into contract for project development and operation.
- Reject the proposal. If the final proposal is rejected because it does not conform with pro forma technical and economic parameters projected in the preliminary proposal, the sponsor may return the final proposal without obligation. If rejection is due to other sponsor business decisions, the sponsor pays D'Appolonia proposal development fees (stated and fixed in the preliminary proposal) and retains the final proposal.
- Negotiate new or additional conditions subject to either of the above two resolutions.

Project Realization

Once a contract is executed, D'Appolonia proceeds to place the facility in operation. In general, these activities involve:

- Project financing
- Final project design
- Permitting and licensing
- Facility construction
- Facility start up
- Funding reserve accounts
- Obtaining environmental impairment and other insurances

Project Operation

When the facility is on line and begins operation, the sponsor pays for facility use under an agreement wherein the sponsor pays a base monthly lease fee fixed over the lease term plus a unit price applicable to the quantity of waste actually handled by the facility. If the sponsor wishes, wastes from other generators can be processed in the facility and the income used to offset the base lease fees. During the operation phase, D'Appolonia takes full responsibility for facility operation, maintenance, and performance in compliance with regulatory requirements and sponsor specifications defined in the contract.

Project Turnover

At the conclusion of the lease term or optional extensions as provided in the contract, the facility can be either turned over to the sponsor for continued operation or the facility is closed by D'Appolonia. In the latter case, D'Appolonia will monitor and maintain the closure on a guaranteed performance compliance basis, if desired by the sponsor.

REPRESENTATIVE PROJECT EXAMPLE

D'Appolonia has recently entered into an agreement with Republic Steel Corporation (Republic) to finance, design, permit, construct, and operate a hazardous waste disposal facility for Republic plants in Canton and Massillon, Ohio. These plants generate about 25,000 cubic yards per year of electric arc furnace dusts and pickle liquor treatment sludge; both of these materials are specifically listed as hazardous wastes due to the high metals concentrations in leachates from EP toxicity analyses. On the other hand, the furnace dusts contain sufficient metals content to be potentially attractive for future recycling depending on technological advances and economic conditions.

Through a corporate-wide evaluation of hazardous waste management options, Republic identified a site at their Canton facility for possible future waste disposal. This site, referred to as the 14th Street site, was found to represent a feasible location for hazardous waste disposal. In November 1981, Republic selected D'Appolonia to evaluate alternative plans for disposal of the annual waste quantities, as well as about 90,000 tons of furnace dust currently in temporary storage at a location adjacent to the site. In the preliminary stage, D'Appolonia's work included the following:

- Characterization of waste materials relative to engineering properties and leachate quality.
- Ground water investigations, including the installation of monitoring wells/piezometers at the site.
- Examination of native soils for use as low-permeability lining materials including waste/liner interaction analyses to assess long-term liner performance.
- Development and evaluation of alternative disposal schemes.
- Preliminary construction planning and cost estimation for the preferred alternative.

Subsequent to these studies, Republic accepted D'Appolonia's fixed-price proposal to finance, design, permit, construct, and operate the 14th Street facility. The following are highlights of our agreement with Republic:

- After the preliminary determination of site acceptability by the Ohio Environmental Protection Agency (OEPA), D'Appolonia prepares the final design of the facility in accordance with OEPA and the U.S. Environmental Protection Agency (EPA) requirements.
- D'Appolonia submits permit applications to the OEPA and the EPA as the facility owner/operator.
- D'Appolonia assumes the risk for the design and permitting of the facility except as impacted by changes in regulations.
- D'Appolonia finances the project through private lending institutions.
- D'Appolonia constructs the 14th Street facility and removes the existing wastes from interim storage to the new vault.

- Once the initial waste placement is completed, Republic pays a monthly retaining fee and a unit price per ton for waste disposed in the vault.
- D'Appolonia operates the facility (i.e., receives and places wastes) throughout its 15-year life and closes the facility once it reaches capacity.
- Republic and D'Appolonia may seek to identify and contract with other generators of similar wastes to place up to 12,000 tons per year of third-party wastes in the 14th Street facility with revenues shared by Republic and D'Appolonia.

Through this program, Republic eliminates near-term capital expenditures and provides for waste management through operating budgets. The price for on-site disposal is significantly less than what Republic currently pays for off-site transportation and disposal.

D'APPOLONIA CORPORATE PROFILE

D'Appolonia has been providing engineering, scientific, and construction services to industrial and government clients for over 25 years. Our corporate headquarters is located in Pittsburgh, Pennsylvania, and we maintain eight regional offices within the United States and three in Europe. The D'Appolonia Group of Companies includes civil and environmental engineers and consultants; a commercial development group; Architect/ Engineer and construction organizations; heavy civil, earthwork and foundation contractors; geophysical and geotechnical drilling companies; and an oil and gas production company.

D'Appolonia Waste Management Services is involved with the treatment and disposal of hazardous waste materials, covering a wide-range of activities including siting studies, hydrogeologic investigations and contaminant transport studies, design and construction of waste management facilities, and cleanup of formerly utilized hazardous waste sites. In the past two years, D'Appolonia has successfully completed more than 90 projects directly related to finding solutions for difficult hazardous waste/materials problems. During this period the total contract value for diagnostic studies and design has totaled nearly $15 million and our construction activities have resulted in billings in excess of $25 million.

Our projects are organized on a project-team basis. Each project team works under the direction of a project manager and is staffed by an integrated team of engineers, scientists, and/or construction personnel. Team members are selected on the basis of their individual experience and capabilities as related to the project. The size of the team is determined by the project scope and schedule.

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Engineered Construction International
D'Appolonia Drilling
D'Appolonia Engineers-Constructors
D'Appolonia Petroleum
D'Appolonia Waste Management Services

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

OFFICE OF THE COMMISSIONER
POUCH O, JUNEAU, ALASKA 99811

Telephone:(907)
Address:
465-2600

March 5, 1984

Mr. C. Carpenter
Box 80764
College, AK 99708

Dear Mr. Carpenter:

Thank you for your letter of February 13. Your continuing support of the hazardous waste program and your commitment to providing a healthy environment for all Alaskans is commendable. To clear up any possible ambiguities, the following schedule has been set by the Department of Environmental Conservation (DEC) for hazardous waste program adoption:

1. The Environmental Protection Agency (EPA) is expected to complete its review of the October 1983 proposed hazardous waste regulations this month. This review will outline any possible problems existing with the regulations that might prohibit the EPA from granting Alaska authorization of the Resource Conservation and Recovery Act (RCRA). The regulations are only one component of the authorization package. EPA will also be concerned that the program description indicates that adequate staff and budget will be available to implement the authorized program in 1985.

2. DEC met with EPA Region X staff February 15 to 17, 1984, to review the necessary statutory changes related to civil and criminal penalties. At the same time, we reviewed EPA's preliminary comments to determine whether any regulatory changes are needed.

3. DEC plans to submit the regulations to the Department of Law for their formal review by April 1984 after incorporating EPA's comments.

4. Following the Department of Law's review, DEC will submit the regulations to the Lieutenant Governor for filing by December 1984. I expect the state will have a fully authorized RCRA program on July 1, 1985.

MAR 7 1984

Again, thank you for your concern and support regarding the state's hazardous waste program. With the cooperation of our Alaskan citizens, legislative leaders, and industry, we will develop a hazardous waste program that will protect Alaskans from the experiences of many other states.

Sincerely,

Richard A. Neve'
Commissioner

RAN:DD:bs

cc: Governor Sheffield
Senator Fahrenkamp

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

Telephone: (907)
Address:

OFFICE OF THE COMMISSIONER
POUCH O, JUNEAU, ALASKA 99811

465-2600

March 15, 1984

Ms. Martha K. Reynolds
SR 30541
Fairbanks, AK 99701

Dear Ms. Reynolds:

Thank you for your post card of March 4. Your continuing support of the hazardous waste program and your commitment to providing a healthy environment for all Alaskans is commendable. To clear up any possible ambiguities, the following schedule has been set by the Department of Environmental Conservation (DEC) for hazardous waste program adoption:

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APR 3 1984

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Sincerely,

Richard A. Neve'
Commissioner

RAN:DD:bs

cc: Senator Fahrenkamp

March 27, 1984

TO: Jim Palmer
Senate Resources Committee

FR: Glenn Akins

RE: CS for Senate Bill No. 503

For your information, here are my comments on the consolidated bill:

(1) Sections 1 and 2, page 1: No problem, a housekeeping addition.
(2) Section 3, page 2: previous to the great Homer PCB caravan, it appeared that federal regulation of the transportation of hazardous wastes and materials was adequate. Perhaps addition of local and state government notification requirements is appropriate. Otherwise I would rely on federal regulation.

(3) Sections 4,5,6,7 re: Scope of the Program:

This is the part of the proposal I have a problem with. I believe the existing statute is adequate. My suggestion would be to amend the existing statute slightly to mandate the process which I thought was required, but apparently is only authorized, and that is to:

* Use the federal RCRA list as the definition of wastes which are subject to the program in Alaska;

* Allow the list to be expanded by a "public interest finding process" by the Commissioner, which would identify the source and hazards of wastes in Alaska not covered by the federal program, and would then provide for the "listing" of those specific wastes under the regulatory program, after the Commissioner's "finding" of a risk.

For exempted wastes, such as mining wastes, a study would be necessary. The federal mining waste study could be used as a basis for a decision, especially if consideration of Alaskan sites were added. For small generators, examination of hazards should proceed from a realistic inventory (State, EPA, Municipality of Anchorage) of what is here, rather from the larger universe of what might be here, or what someone might think was here.

(4) Section 8, p. 5: I don't think local regulation is a good idea when the subject is hazardous waste. There is a problem now with the State program, in terms of the amounts of waste being small, and the regulatory costs being high. A further problem is the extreme complexity of this program and the risks involved. While protecting local concerns and perogatives is certainly important, I don't think a case can be presented for the appropriate expertise and economic base for local management of hazardous wastes.

As a substitute for local regulation, I would add requirements for State notification and public hearings for any actions substantially affecting local government

Again, the basic problem is that the existing statute gives these responsibilities to the State, and if the State is having difficulties, why does that argue for spreading the confusion? Further, this is an issue that requires centralized management, not further fragmentation.

(5) Section 9, p. 6 (Gathering Centers): I like the idea, but I would give the Department more than a year, and leave the charges open to further analysis.

(6) Section 10, p 6 (Notice to Local Governments): This section could be broadened to include any state action affecting a local area and used in lieu of local programs.

(7) Section 11, p. 6 (Public Records): No problem.

(8) Section 12, p. 7 (Civil Penalties): No problem.

(9) Section 13, p. 8 (Siting Board): The major problem with siting boards is that they do not produce sites, only controversy about sites. This authority should remain with State government. The Board, if appointed by the Department (or the Governor) to advise the Department and the State [redacted] (to facilitate public hearings and notifications) may be a beneficial addition to the current system. Advisory boards can help. But, the State should not delegate the authority to make a critical decision, such as siting a hazardous waste facility. A candidate site will be in someone's back yard, no matter where it is.

B & R
3105 MOUNTAIN VIEW DRIVE
ANCHORAGE, ALASKA

March 19, 1984

Bettye Fahrenkamp
Senate Resources Committee
Pouch V, State Capital
Juneau, Alaska

Dear Betty:

I would first of all like to thank you for allowing me to comment on the substitute for SB503.

If I understand the first portion of your changes it relates to the adoption of the Federal Regulations with no further changes being allowed for 4 years. I feel that we should strive to pursue the approval of the proposed state regulations providing we have proper enforcement. No matter what regulations are adopted, they will only be worth the paper they are printed on without funding for proper enforcement.

In relation to Section 46.03.306 GATHERING CENTERS. We (B & R Trucking) are presently in the engineering stage of developing a part B authorized collection, consolidation and transfer facility within the Anchorage Borough. Our intentions are to eventually set up a "gathering center" at Fairbanks, Anchorage, Kenai and one in Southeast. We would definitely be interested in working with the State of Alaska which could reduce both our financial requirements. We were strictly looking to reduce the cost to the small generator by allowing them to take advantage of the consolidated rate on transportation. As you are aware, the scare in everybodys mind regarding hazardous waste is the cost involved to dispose of it.

Another very interesting item in your proposed bill is the Disposal Facility Site Board. I presently am a member of the Hazardous Waste Task Force for the municipality of Anchorage and find that 80% of the problems directly or indirectly relate to transportation. Therefore, I would strongly suggest that you include one member with expertise in the transporting of hazardous waste not necessarily related to public health.

Again I would like to say thanks for giving me this opportunity to respond and am looking forward to any help I can give in this matter.

Sincerely,

Jerry Schreiner

Jerry Schreiner

MAR 2 1 1984

JS:sc

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

Telephone:(907)
Address:

OFFICE OF THE COMMISSIONER
POUCH O, JUNEAU, ALASKA 99811

465-2600

March 23, 1984

The Honorable Bettye Fahrenkamp
Alaska State Senate
Pouch V
Juneau, AK 99811

Dear Senator Fahrenkamp:

This will respond to your March 9, 1984, request for comments and suggestions on the proposed committee substitute for SB 503. The draft bill contains elements of SB 498, SB 486, and SB 450; as well as SB 503. Each of these bills deals with different aspects of the complex problem of hazardous waste.

One of the fundamental and underlying premises of the Resource Conservation and Recovery Act of 1976, and every other state program now in existence, is that the generator of such waste must be responsible for the proper disposal of the waste. This includes bearing the cost of that disposal. The state needs to be involved in selecting such a site(s) and then turn it over by contract to the private sector.

Some additional information which may assist you is an initial analysis by the Department of Environmental Conservation staff which estimates that the cost of constructing a single "gathering center" would be one million dollars (please refer to the attached fiscal note). This does not consider property acquisition costs or design costs. We very likely would need additional sites. The operation of such a single facility by the state is estimated to require a minimum of five persons at an average salary of $50,000 per year (including benefits).

The combination bill appears to relieve the generator from the responsibility of knowing the nature and composition of the waste. This aspect would require the State to perform testing to determine the nature of the waste so that it may be properly disposed.

The combination bill would relieve the generator from responsibility for the cost of disposal of a waste which by definition is hazardous and which has been created from activity engaged in for profit.

Chemical identification of organic substances is very complex. In order to know anything about their chemical composition would require starting from scratch and could necessitate a "DU PONT" type of sophisticated laboratory and equivalent personnel or have the state contract for the service with an outside laboratory at high cost. I am not opposed to the construction of such a "gathering center" at state expense, as we do need a permanent disposal site(s).

There is one other aspect of this draft bill which I will comment on, i.e. the manner by which the draft bill would alter existing law to confine a state hazardous waste program strictly to the Resource Conservation and Recovery Act of 1976 (RCRA). It would destroy the degree-of-hazard approach, which has been carefully developed ever since the 1981 legislation, endorsed by the Hazardous Waste Advisory Work Group, and was generally well received at public hearings held last year around the state. RCRA is already in effect in this state, administered by the federal government and DEC, under a cooperative agreement. If the choice is between a state RCRA program without the degree of hazard consideration or the federal EPA operated RCRA, I would choose the latter. Then RCRA would still exist in this state, but the state would not have the burden of administering the program.

SB 498, introduced by the Governor, would effect the statutory changes which EPA maintains is necessary for the state to be able to obtain final authorization from EPA to fulfill its responsibilities in this state under RCRA. This will have to be done anyway to comply with federal law. The proposed state program goes beyond RCRA to do what is important to protect the public health of Alaskans. I therefore request that your committee proceed with a hearing on SB 498.

Sincerely yours,

Richard A. Neve'
Commissioner

RAN:JC:ml

cc: Governor Sheffield

Alaska Center for the Environment
1069 W. 6th Avenue
Anchorage, Alaska 99501 274-3621

March 28, 1984

Senator Bettye Fahrenkamp
Alaska State Legislature
Pouch V(MS 3100)
Juneau, Alaska 99811

Dear Senator Fahrenkamp and Resource members:

The omnibus bill proposed as CSSB503 is a cut and paste attempt to undermine the proposed state hazardous waste regulations. Postponing responsible hazardous waste management is not a solution.

My comments include the following recommended changes to CSSB503.

Section 1	adopt
Section 2	delete
Section 3	delete language in CSSB503. Adopt language from SB 486 Sec. 46.03.299.
Section 4	adopt
Section 5	adopt
Section 6	delete language in CSSB 503 Adopt language from SB486 Sec. 46.03.299
Section 7	Delete Section 7 except add #8 to Section 6
Section 8	Language not clear. Municipalities and Boroughs must be allowed to be more stringent because local govermental enities will be responsible for managing those amounts of hazardous waste not regulated by federal and state enities.
Section 9	Delete Section 9 The authority for siting should rest with the siting board as statutorily proscribed under CSSB 46.03.317. Until the completion of siting task the Alaska Department of Environmental Conservation should conduct annual, bi-annual, or quarterly clean-ups modeled after the 1983 Hazardous Waste Clean-up, designated as a fiscal note in ADEC budget.
Section 10	ammend to read Section 46.03.309. Notice to Local Governments and Communities The department shall notify the following persons or agencies in each community in which a person intends to transport, store or dispose of a hazardous waste....

APR 3 1984

Section 11 Delete part (However, upon a showing satisfactory to the commissioner that a record, report, permit, application, or information would, if made public, divulge methods or processes entitled to protection as trade secrets, the commissioner shall treat the record, report permit, application, or information as confidential.)

also delete Sec. 46.03.301 (b) (1)

Section 12 Delete: Not necessary with adoption of CSSB Section 14 & Section 15.

Section 13 Sec. 45.03.313
Make up of board should be changed to read:
(4) one member representing oil and gas industry
one member representing the mining industry
(5) two members with expertise in public health matters, one from DSS public health, and one related to the transportation and disposal of hazardous waste.
(6) 3 members of the general public, two from rural areas and 1 who shall be from urban areas of the state.
(7) one member representing labor

Sec. 46.03.317 ammended to read:

Not later than January 1, 1985 the board shall submit to the Governor and to the Legislature a report that outlines information necessary for making recommendations. Include(1) (2) (3)

Add: Not later than January 1, 1986 the board shall submit to the Governor and the Legislature a report that includes recommendation
(1) from CSSB Section 13
(2) from CSSB Section 13
(3) from CSSB Section 13

Section 14 AS46.03.760 (a)
delete underlined language (<u>other than AS46.03.295-46.03.311</u>)

Section 15 adopt as proposed

Section 16 (g) add effective immediately in accordance with AS 01.10.070(c)

Section 17 adopt as proposed

Section 18 Ammend to read Section 6 of this Act (revised in these comments) takes effect upon effective dates of Sections 1-3 and 8-17 as proposed in this evaluation.

Section 19 This should be made in reference to revised Section 6 and the effective date should be effective immediately in accordance with AS.01.10.070(c)

Reduction of nazardous waste is a key step in sound hazardous waste management. There is no such thing as a secure landfill. Incineration works with some chemicals but creates more problems than it solves over a period of time. To achieve reduction household producers and business producers need incentives. A sound hazardous waste management program incorporates strong incentives.

There are serious objections to tying the state of Alaska to a R.C.R.A regulatory scheme designed for industries that produce a minimum of 2200 pounds per month and regulate only a small percentage of harmful chemicals. Adopting the proposed state tests for characteristics of toxicity, persistence, and carcinogencity in an industrial society that creates 30,000 new chemicals per year is common sense.

It is acceptable for the state to assume fiscal responsibility for a one time opportunity enabling a business to test a waste stream. The responsibility to know what is in a waste stream is the responsibility of the business owner but to implement the new regulations assistance could be allowed. The cost resulting from future changes in the hazardous waste by-product should be passed on to the consumer.

Collection sites should be a decision made by a siting board. The present program undertaken by the Alaska Dept. of Environmental Conservation on an annual basis should be expanded to a quarterly hazardous waste clean-up. The ADEC presently takes three 55 gallon barrels of hazardous waste with no charge to the disposer. It is a mistake for the state to absorb all costs of disposal because it removes incentive to reduce hazardous waste at the source.

The greatest outrage of SB503 and CSSB503 is the intent to ignore public participation in an open government process. Undermining the public process and jeopardizing human health to benefit a profit interest is unacceptable public policy. The intent must be to evaluate the problem and to create the safest future for all Alaskans.

We need to pass enabling legislation for the proposed state regulations (SB498). This is an issue that crosses party lines and effects the lives of all of us.

Sincerely,

Mary Whitmore Core

Mary Whitmore Core
Executive Director-Issues

cc:

Robert H. Ziegler, Sr.	Governor Bill Sheffield
Richard I. Eliason	Lennie Boston
Paul A. Fischer	John Shively
Vic Fischer	Commissioner Neve'
Bob Mulcahy	John Ringstad
Arliss Sturgulewski	Richard Shultz

Resource Development Council
for Alaska, Inc.

444 West 7th Avenue, Anchorage, Alaska 99501-3512
Box 100516, Anchorage, Alaska 99510-0516 – 907/278-9615

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Governor Bill Sheffield
Senator Ted Stevens
Mayor Stan Thompson
Congressman Don Young

March 23, 1984

Senator Bettye Fahrenkamp
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Enclosed are the Resource Development Council's comments on the work draft of CSSB503 which you have requested.

As you know, the Council has been extremely concerned with the potential impacts of regulations proposed by the Alaska Department of Environmental Conservation. We are encouraged that your committee has taken what we consider to be a positive step toward resolving a potentially serious problem for Alaska without causing undue economic hardships on our citizens and businesses.

The Council supports you in your efforts and we look forward to working with you to develop a hazardous waste management program that will benefit--not punish--the Alaska economy.

Sincerely,

RESOURCE DEVELOPMENT COUNCIL
for Alaska, Inc.

Paula P. Easley
Executive Director

cc: Members, Senate Resources Committee
DEC Commissioner Neve'

MAR 26 1984

Resource Development Council for Alaska,Inc.
Comments on CSSB 503
Hazardous Wastes
March 21, 1984

Section 1:

Sec 11.41.260(a): The phrase "that creates a substantial risk of physical injury to another person" is too vague and lends itself to punitive interpretation too easily.

Sec.11.41.260(c): The Council questions whether "reckless endangerment" should constitute a class C felony unless there is a more precise definition of the term.

Sec.4.: The amendment proposed is redundant! Federal laws are already in force where applicable. To state that the entire federal law is adopted by reference could have the effect of denying the state latitude to deal with a problem at a later date.

Sec.5.:

Sec.46.03.298(a)(2): The Council believes that the degree of hazard testing should not be prescribed in the legislation. This could have the effect of tying the state to that process although it is determined that there are better methods of detecting hazardous waste.

Section 46.03.296(b): The Council recommends that this section be deleted and replaced with the following: Alaska citizens and businesses shall not be subjected to bearing the costs of unnecessary testing to determine the nature of possible hazardous materials.

Sec.6.:

Sec.46.03.299(b)(1) Delete "identify the characteristics of hazardous wastes" and insert "adopt only."

Sec.46.03.299(b)(2): Delete "(2) establish" and add "(A) the characteristics of hazardous wastes;" Change A,B,and C to B,C and D respectively.

Sec.46.03.299(c): Delete subparagraph (1) in its entirety. Delete the number (2) and add the wording of that subparagraph to (c) so that it reads, " the department may enumerate specific.." Add Sec.46.03.299(d): Regulations drafted by the department shall be made subject to review by the Alaska Legislature to verify consistency with the enabling legislation.

Sec.7.:

At the end of the section, add an additional subparagraph to read: (c) The department may not list as hazardous a waste that has not been so listed by the US EPA under 42 U.S.C. 6291 unless the commissioner has first determined that the waste is hazardous as defined in this chapter.

Sec. 8.: The Council questions the advisability of this section. If the Section remains as currently written, it literally begs for a confrontational atmosphere between state and local governments. We recommend elimination of the section.

Sec.9.: Change all references to "gathering centers" to "collection and storage centers" and delete Sec.46.03.306.(c).

Sec.10.: The notice provisions are too encompassing and could have the result of requiring notice for the movement or srage of minute quantities.

Sec.12.: Article 5A.

Sec.46.03.313.(b): (4). change "oil and gas"to " extractive resource industries."

(5) change to read," two members with nationally recognized expertise in all aspects of the transportation and disposal of hazardous waste."

(6) change from four members to two members with one from rural and one from urban areas.

add: (7) two members representing public interest development and business related organizations.

Sec.46.03.314.: All references to sites should specify state sites so as to avoid applicability to sites developed by other entities. Additionally, there should be recognition in the legislation of the possible necessity for business and industry to establish their own sites.

Sec.14.: The increased penalties are irrelevant to the subject, particularly the provisions of (a)(4).

Sec.16.: The use of the word "negligently" as it pertains to violators is too general. Suggest the word willfully or knowingly be used instead.

March 23, 1984

Senate Resource Committee
Senator Bettye Fahrenkamp, Chairman
Attention: JIM PALMER

From: LEAGUE OF WOMEN VOTERS OF ALASKA
Pat Redmond
Hazardous Waste Chairman

P.O. Box 4-079
Anchorage, Alaska 99509-0079

Dear Senator Fahrenkamp,

We have reviewed the work draft of the proposed committee substitute for SB503 and offer the following remarks.

The League objects to combining somany different pieces of legislation into one. Portions of the legislation may be difficult to pass. Other parts that would be acceptable could be lelayed by combining them in CSSB503.
There are specific portions of the proposed CSSB503 that we cannot support.

We feel that the currently proposed regulations most adequately meet the present and future needs of Alaska. We object to the State regulations being the same as the Federal regulations. If that is to be the case there is no need for the State to take over the program.

We cannot support sections 4 and 5 of the work draft. The degree of hazard method of classification is clearer way of defining hazardous waste and more appropriate for Alaska.

We question the definition and intent of Section 8 46.03.301--MUNICIPAL REGULATIONS--Our interpetation of the wording is that municipalities would not be able to adopt ordinances that were not consistant with the provisions of AS46.030295-46.03.312. If this is a correct interpetaton then this would eliminate the currant Hazardous waste Management Program being developed by the Municipality of Anchorage. We would object to any wording that would keep any municipality from controlling low-level hazardous waste in the way that best meets the needs of that specific area.

Also omn page 6 Section 46.03.06--GATHERING CENTERS--We feel that permanent centers may not be appropriate in the near future. Perhaps a program that provides for collection and collective disposal and a yearly or twice yearly would be more appropriate for a few years. This would be smilar to the Clean-up program held last May by DEC.

The concept of a siting board is good. The League has a very specific list of siting criteria which we will be glad to share with you at the proper time.

We feel that public education and providing for public comment is very important when dealing with any type of regulations.

It is the goal of the League nationally and here in Alaska to encourage waste reduction, resource recovery, treatment and recyling before land disposal of hazaordous wastes. The regualtions that have already been proposed by the Department of Environmental Conservation are a step in this direction. We find it very difficult if not implssible to support any attempts to weaken those regualtions.

Sincerely,

Pat Redmond

Pat Redmond
Hazardous Wastes Chairman
League of Women Voters of Alaska

21 March 1984

Senator Bettye Farenkamp
Pouch V
Juneau, Alaska 99811

Dear Senator Farenkamp,

This letter is in response to your correspondence dated 9 March 1984 concerning the proposed committee substitute for SB 503 (workdraft dated 3/8/84) now before the Senate Resources Committee. Because of the many complexities related to the numerous proposals embodied in the workdraft and the limited time available, I will limit my comments to only a few aspects of the proposed bill.

General Comments

While I appreciate the desire on the part of the Committee to address the hazardous waste-toxics issue in a comprehensive fashion, I am concerned that combining all of the various bills before the Seanate (SB 498, SB 450, SB 486 and SB 503) may actually increase the difficulty of enacting responsible legislation.

Each of the measures now lumped into SB 503 as proposed by the workdraft has its own myriad complexities and each deserves to be addressed seperately. In particular, it would be inappropriate to have support for the community right-to-know measure, the need for waste facility siting legislation and elements of the current hazardous waste law pitted against one another in order to achieve some kind of complete package. I urge you to reconsider this approach and deal with each legislative proposal discretely, on its own merits.

ADEC Program vs. RCRA

The most significant issue before the Committee, as contained in the workdraft, is contained in Sections 4-6. The practical effect of repealing and reenacting the enabling legislation for developing a state hazardous waste management program would be to force ADEC to abandon its two-year effort to adopt regulations.

As revealed in a recent news article (attached), the intent of the proposal is to put off the current ADEC effort for "at least four years." Such an intent does a great disservice to the need in Alaska for a program to control hazardous wastes. The article also indicates that Mr. Palmer perceives the proposed measure as a compromise. I strongly disagree.

It is the ADEC proposed regulations which have been developed as a result of compromise. These regulations, developed over the past two years, already embody many changes and concessions which have evolved as the ADEC

has worked and reworked its proposal. The regulations have been through the public review process and have been carefully redrafted to reflect the concerns and comments raised by various parties to the debate. It must be clearly understood that nobody is entirely satisfied with the regulations but that is symptomatic of the compromise process rather than an indication that the ADEC regs should be abandoned.

Among the more notable compromises is the two year exemption for drilling muds. This special status for the oil industry can not be justified logically but the special case of drilling muds perhaps warrants additional consideration over the next two years. Similarly, the creation of a new "moderate waste" category is evidence of ADEC's responsiveness to the debate and testimony encountered throughout the extensive public review process. Perhaps most importantly, the extremely liberal waiver clause in the regulations (Section 760) provides extraordinary (I would argue far too much) discretion to ADEC which will allow for flexibility in the implementation of the proposed regulations.

The essential intent of the proposed legislation, as I read it, is to force ADEC to adopt the federal RCRA scheme rather that the program it has developed through extensive review, analysis, debate and compromise. The proposed legislation would relegate to the indefinite future adoption of regulations based on assessment of the degree of hazard. Such an approach flies in the face of what has been learned elsewhere about the RCRA program and simply caters to special interest industries.

The failings of the federal RCRA "listing" approach have been well documented elsewhere. According to the federal Office of Technology Assessment (OTA), the RCRA program has not effectively detected, prevented or controlled the release of toxic substances into the environment. I won't belabor the point as I know you are familiar with the OTA findings. The current ADEC proposal responds to the widely acknowledged deficiencies of the RCRA program. The ADEC regulations are premised on the need for a dynamic, flexible program to identify and manage hazardous wastes. The degree of hazard approach embodied in the ADEC regulations establishes a regulatory framework which is responsive to an uncertain development future as well as to the current problems in Alaska. One especially important aspect of the ADEC proposal is that it would allow industrial interests to know at the outset that they are responsible for the effects of their waste streams, not simply whether a produced waste is on a list.

The degree of hazard approach must be the central provision in Alaska's hazardous waste management strategy. I hope that the Committee will recognize this essential point throughout its deliberations on the legislation.

Technical Assistance

There is no doubt that the ADEC should be required to provide technical assistance to those who would become subject to the state's hazardous waste management program. Especially where testing would be required, it would be essential for ADEC to assist businesses with the necessary information about how tests are to be conducted. The establishment of a special testing facility would be appropriate and subsidized lab fees as well. Of

course, such technical assistance would be expensive and must be funded adequately. I can not think of any more appropriate use of petroleum revenues than to insure healthful and sustainable devlopment of Alaska's economy and resources. If needed, a tax could be considered, levied on consumer goods associated with hazardous waste generation. Because so many products are associated with hazardous wastes, this could perhaps be a broad low-level sales tax. With all the prodigal spending of oil revenues that has become so standard over the past few years, the cost of a hazardous waste management program should not be an issue.

Gathering Centers

Recognizing that any program to address the hazardous waste problem in Alaska will take a considerable time to implement effectively, I would greatly support the establishment of regional hazardous waste gathering centers. The annual ADEC "Spring Clean Up" should be instituted as a regular and dependable recurring event. Again, this program should be heavily subsidized. Public health and safety are an appropriate investment to make with Alaska's public wealth.

I appreciate this opportunity to comment on the legislation now before the Committee. Please keep me informed as to the progress made.

Sincerely,

Eric F. Myers
Wild Mountain Drive
SRA 9405
Eagle River, Alaska 99577
(907) 694-5377

cc: Governor Bill Sheffield
Sen. Joe Josephson
members, Senate Resources Committee

Municipality of Anchorage

600 EAST 38TH AVENUE
ANCHORAGE, ALASKA 99503-6091
(907) 564-1323

TONY KNOWLES,
MAYOR

PUBLIC UTILITIES

March 21, 1984

Senator Bettye Fahrenkamp, Chairwoman
Senate Committee on Resources
Pouch V
State Capital
Juneau, Alaska 99811

Honorable Senator Fahrenkamp:

I appreciate the opportunity you are providing for the Municipality of Anchorage to review and comment on the Senate Resources Committee working draft Bill No. 503 on hazardous waste management in the State of Alaska.

As you know, the Municipality has a vital interest in assuring that Anchorage citizens are protected from dangers associated with improper handling of hazardous wastes. The Municipality has, therefore, been directly involved in the State of Alaska's efforts to develop hazardous waste regulations and has initiated a hazardous waste management program to address local government concerns.

As has been previously expressed in a letter by Mayor Knowles to Governor Sheffield, the Municipality endorses the assumptions of the hazardous waste management program by the State of Alaska as called for in the draft Bill. In addition, the consolidation of Senate Bills 450, 486, 498, and 503 into the draft revised Bill 503 will help to streamline an already complex set of State and Federal legislation and regulations. The provision in the working draft for establishment of a Disposal Facility Site Board is also a positive step in addressing the long-term need for some type of a hazardous waste facility in the State of Alaska.

While there are many aspects of the draft Bill which are excellent, there are several provisions that create concerns relating to the burden which will be placed on local government for disposal of hazardous wastes. It is important to recognize that any hazardous wastes not regulated by the State will likely become the responsibility of local governments for disposal. For example, in a questionnaire recently conducted by the Municipality, over 600 businesses reported that they dispose of small quantities of hazardous wastes in landfills or the sewer system. In many cases these facilities are not capable of handling these types or quantities of hazardous wastes.

MAR 2 3 1984

Based on this concern, the Municipality has been supportive of requirements which would broaden the coverage of the State hazardous waste program and minimize the types and amounts of materials which may end up being disposed of in Municipal facilities. We have, therefore, supported (1) the concept of the "degree of hazards" approach since it closes many of the existing Federal loopholes for hazardous wastes and (2) a lower quantity exclusion limit to better control small quantity generators of hazardous wastes.

As you are probably aware, the Alaska Department of Environmental Conservation last year and again this year is funding a spring clean-up campaign for hazardous wastes in Anchorage and Fairbanks. This program is primarily directed at the small quantity generator and has been extremely successful. It is my understanding that after this year the program will no longer be funded due to budget constraints. I would like to encourage the Senate Resources Committee to incorporate this type of a program into the draft legislation and to provide continued funding for this worthwhile clean-up effort.

Detailed comments, questions, or concerns on specific provisions of the draft Bill are attached. Also attached, is a summary of comments the Municipality received at a Citizens Workshop on Hazardous Wastes co-sponsored with the League of Women Voters. This workshop was attended by approximately 120 people and the summary represents the concerns expressed by citizens in work sessions.

Thank you for the opportunity to provide our input on this important legislation. We are prepared to work closely with your Committee to assure that an environmentally and economically sound bill is passed.

John L. Harshman
Executive Manager
Public Utilities

JLH:lc

MUNICIPALITY OF ANCHORAGE COMMENT

SENATE RESOURCE COMMITTEE BILL NO. 503

HAZARDOUS WASTES

SECTION 1 - RECKLESS ENDANGERMENT WITH HAZARDOUS WASTES

No comments.

SECTION 2 - DUTIES OF THE DEPARTMENT

It is not clear what is intended by paragraph (1) of this section. If the State assumes the program any complaint response would be in accordance with State regulation. The process of investigating and providing written responses to complaints is certainly a good policy but may not be appropriate for inclusion in a statute.

In paragraph (2), the public notice and comment period of 30 days for any proposed settlement of an enforcement action may be excessive. An enforcement action can range from a warning letter or notice of violation to a civil or criminal suit. Public notice is certainly proper on major cases, but not necessarily on routine actions.

SECTION 4 - FEDERAL HAZARDOUS WASTE LAWS ADOPTED BY REFERENCE

The Municipality is concerned that this section would leave local governments with the responsibility for disposing of significant quantities of hazardous wastes which would not be regulated if RCRA regulations are adopted by reference. In addition, the types of wastes regulated by RCRA are quite different than those found in Anchorage. We are not a chemical processing or manufacturing center and regulations should be tailored to addressing the Alaska specific situation. We agree with the often quoted statement that "Alaska is different" and find if inconsistent that a Federal regulation not fitting our unique conditions is now being advocated. For example, the quantity exclusion limit of 2,200 pounds per month would result in regulating only a relatively small percentage of the total hazardous wastes potentially generated in Alaska. Most generators in Anchorage and Alaska produce only small quantities of hazardous wastes. These wastes still need proper disposal in order to prevent significant health and environmental effects. The Municipality, as a result, has supported the lower quantity exclusion limit of 400 pounds per month to better control small generators of hazardous wastes; in fact, the Municipality would prefer to have the exclusion limit reduced to 220 pounds per month, as proposed in pending Federal legislation.

SECTION 5 - HAZARDOUS WASTE REGULATIONS

It is not apparent why this section would become effective four years after implementation of a State hazardous waste program. If there is merit in considering the "degree of hazard" approach a implied in paragraph (2), it should be done now instead of in four years. The potential clean-up and liability costs of waiting four years could significantly outweigh the costs of implementing this approach now.

From a policy standpoint, we are also concerned about the precedent of the State being required to provide for testing of hazardous wastes without charge to generators. As a policy issue it should be the responsibility of a generator to know what type of wastes are being produced and if those wastes are potentially hazardous. The cost of any testing needed is a justifiable cost of doing business, provided the testing is not unnecessary or excessive. We do agree, however, that some type of technical or financial assistance program by the State may be appropriate for small businesses which may be potentially generating hazardous wastes. We would suggest that such a provision be incorporated into this legislation.

SECTION 6 - CONTROL OF HAZARDOUS WASTES

We do not believe it is possible to "determine the amount of hazardous waste that is so small as to not present a hazard..." as provided in paragraph (a) (6). It must be understood that the quantity exclusion limits contained in RCRA regulations are strictly for administrative convenience. EPA considered whether it could establish small quantity exclusion limits below which no subs antial hazard to human health or

the environment exists under conditions of improper management and concluded that "the Agency has not been able to find a way of determining de minimis quantities."

The provisions in paragraph (6) prohibiting classifying a substance as a hazardous wastes seems inconsistent with the purposes of this draft bill. If a material would be a hazardous waste four years from now it should be handled as a hazardous waste now. The comments made on Section 5 would apply here also.

SECTION 7

Paragraph (b) in Section 7 is identical to paragraph (b) in Section 6, except for subparagraph (b)(8). In addition, Section 7 does not become effective until June 30, 1988. The purpose of this section, its relationship to Section 6, and the effective date are not clear. It would appear that this section could be eliminated, or changes in subparagraph (b)(8) incorporated into Section 6. If this section is not eliminated, its purpose must be clarified.

SECTION 8 - MUNICIPAL REGULATION

The intent of this section is not clear. Municipalities under home rule or general law already have the authority to enact ordinances regulating the storage and disposal of hazardous wastes. The Municipality has already adopted ordinances regulating disposal of hazardous wastes into the sewer system and in landfills. The section may imply or be interpreted as not permitting municipalities to adopt regulations more stringent than those promulgated by the State of

Alaska or under RCRA. This could cause a major problem, since Anchorage in some cases already has ordinances more stringent than RCRA. For example, RCRA permits the disposal of hazardous wastes quantities less than 2,200 pounds per month in sanitary landfills; Anchorage already has an ordinance which prohibits the disposal of any quantities of hazardous wastes in local landfills. The purpose of this section needs to be clarified to assure that it does not interfere with a municipality's right to establish ordinances on hazardous wastes, where more stringent requirements are necessary to protect community health and welfare.

SECTION 9 - GATHERING CENTERS

The Municipality in general supports the concept of centralized Gathering Centers (also called transfer and storage facilities). However, there are several concerns with the way this section is drafted. It appears to be inconsistent with the provisions of ARTICLE 5A - DISPOSAL FACILITY SITE BOARD since the State would be directed to have a Gathering Center in operation within one year; ARTICLE 5A, however, provides for the Hazardous Waste Disposal Facility Site Board to not make a recommendation on locating such facilities until January 31, 1987. In addition, paragraph (c) of this section which prohibits the State from charging for deposits of less than 2,200 pounds per month could become a significant financial liability and policing problem. Most of the businesses in the Anchorage area generate less than 2,200 pounds per month of hazardous wastes. The number of potential depositors at a gathering center serving Anchorage alone could be more than 600 according to recent Anchorage question-

naire responses from small quantity generators. The language in the draft bill also implies that for sources generating greater than 2,200 pounds per month, the first 2,200 pounds could be deposited free. Such provisions could also discourage efforts towards recycling or the use of products less harmful to our environment.

Until a decision can be made on siting of a Gathering Center by the Hazardous Waste Disposal Facility Site Board, it is suggested that the current hazardous waste spring clean-up program conducted last year in Anchorage and Fairbanks and scheduled again this year, be continued and expanded. The Alaska Department of Environmental Conservation has indicated that this will be the last year of this program due to budget constraints. It is strongly recommended that this program be expanded to make it available on a more frequent basis in major population centers and to serve additional communities. The program has been extremely successful and deserves continued support and funding.

SECTION 10 - NOTICE TO LOCAL GOVERNMENTS AND COMMUNITIES

The scope of this section is too narrow to satisfy local governments need to know regarding hazardous wastes. The provision only provides for notification, with no requirements on when the notification is to occur and what information needs to be provided. In addition, this section does not cover notice for transportation of hazardous wastes into or through a community. The issue of transportation of large quantities of hazardous wastes and a communities right-to-know about such shipments has been the subject of significant controversy and needs to be addressed in this bill.

SECTION 11 - PUBLIC RECORDS

A local government, particularly agencies such as local fire and police departments, need to have access to information regarding hazardous wastes that may be classified as confidential. This information must be available prior to the occurance of an emergency, as provided for in paragraph (c), so that adequate emergency response plans can be developed.

SECTION 12 - CIVIL REMEDIES AND PENALTIES

No comment.

SECTION 13 - DISPOSAL FACILITY SITE BOARD

The concept of a Hazardous Waste Disposal Facility Site Board is supported and the language in this provision seems to be very good. It is suggested that the Site Board be required to make recommendations on siting a Gathering Center (transfer and storage facilities) well before January 31, 1987. Providing such a facility sooner could have significant benefits and substantially lower costs for shipping hazardous wastes out of state.

SECTIONS 14, 15, 16, 17, 18 and 19

No comments.

JS:lc/3-21-84
HD3/SRCB503.1/2

SUMMARY OF RECOMMENDATIONS BY DISCUSSION GROUPS OF HAZARDOUS WASTE WORKSHOP

The Citizen's Workshop on Hazardous Waste was held on Saturday, February 25 at UAA from 1-5 pm. Approximately 120 people attended the Workshop. Materials for the Workshop including the Agenda are attached to this report. As part of the workshop, participants were asked to break in to discussion groups to discuss and give recommendations on several questions on hazardous waste management in Anchorage. Approximately 30 people participated in this part of the conference. The discussion groups were limited in the amount of time allowed to discuss the questions because the panel presentations lasted longer than originally planned. These groups were facilitated by members of the League of Women Voters. There were 3 discussion groups.

The following is a summary of the concerns and ideas expressed in the three groups. It is broken into three sections; 1) Recommendations stated in all three groups, 2) recommendations stated in two of the groups, 3) points of interest.

Stated in All Three Groups

Education

Public education on hazardous waste is of utmost importance for both business and household waste:

A) Identification of hazardous waste

B) Waste Reduction

C) Disposal of Hazardous Waste

Periodic Clean-ups

A spring Clean-up or dump day should be held periodically for household and small business waste.

Ordinances

There is a need for ordinances as opposed to regulations for the control of hazardous waste disposal.

Incentives

Incentives should be provided to businesses for waste reduction - recycling, exchanging, substituting, modifying processes and proper waste disposal. examples of incentives:

1. Tax incentives should be used for reduction or proper disposal
2. small business loans could be offered at a lower interest rate for reduction of hazardous waste

3. Businesses could have lower property taxes if they reduce or properly dispose of waste
4. Mill rates could be adjusted for business who use proper disposal methods
5. There could be subsidies for small businesses who could not afford to properly dispose of or manage wastes
6. An incentive for reduction is paying for your own hazardous waste disposal
7. Chamber of Commerce or Municipality of Anchorage awards could be given out to companies which reduced or properly disposed of waste

Labelling

Products should be labeled or the place of purchase should have information posted including:

A) Identification of hazardous waste
B) Disposal information

Siting

When determining the location or type of disposal, environmental, health, and safety precautions are the primary consideration

Transportation

Members of a community should be notified in advance if hazardous materials will be shipped through their town. Transportation precautions should be contingent on the degree of hazard of a waste.

STATED IN TWO OF THE GROUPS

Information

Hotline or toll free number for identification and disposal of hazardous waste is necessary for information purposes.

Disposal Alternatives

- The need for a year round collection site for household hazardous waste was stated

- The need for a year round collection site for small business hazardous waste was stated

- The need for a disposal facility in Alaska was expressed

- Some wastes might still have to be shipped out of state depending on the type of waste and the availability fo sufficient disposal methods

Who should pay

-Businesses should take more responsibility than households in disposing of wastes and paying the cost. The suggested method of payment was by user fee; the business pays according to quantity.

- Small business cooperatives were suggested as a way to reduce costs. Each business could be part owner in a disposal, recycling or exchange system.

Who should pay - continued

-Payment for household hazardous waste disposal should be through the solid waste bill

POINTS OF INTEREST - Ideas brought up in one group

Disposal Alternatives

-It was recommended that the municipality implement tertiary treatment in the sewer system

-Septic tank pumpers should be required to take contents to a sewer system that could treat these wastes

-Anchorage should invest in a profit making type of hazardous waste treatment or disposal rather than investing in land disposal

-Alaska needs more than one type of hazardous waste disposal facility but they should not be located in the same place nor operated by the same business

- There should not be a hazardous waste incinerator in the Anchorage bowl area

-More information is needed before determining the type or site of a hazardous waste facility

-No ocean dumping of hazardous waste

Monitoring

-It was recommended that waste oil be monitored before it is re-used

Inventory

-It was recommended that a more complete inventory be done on hazardous waste generated in Anchorage

Legis. ation

-A deposit legislation was recommended for tin and bottles and some hazardous waste in Anchorage

Education

-It was recommended that there be more research and education on hazardous substance alternatives for households and businesses

Source Separation

-Source separation of hazardous waste at the source was recommended for both business and households

Storage

-Businesses waste should not be stored for a long period of time

Who should Pay

-Taxes on disposal of hazardous waste should be levied at the manufacturer level rather than the local level

Transportation

-The Department of Transportation regulations should be enforced

-The public needs more education on transportation regulations and enforcement

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March 22, 1984

Senator Bettye Fahrenkamp
Chairperson, Senate Resources Committee
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

I sincerely appreciate the opportunity to comment on the Work Draft of CSSB 503 (Resources), dated 3/8/84. I am, indeed, interested in the establishment of a State hazardous waste management program, and have been following the issue with interest ever since 1981, when I worked on the enabling legislation for the State regulations.

Due to your short time frame, my comments will be general, rather than a line by line analysis of the bill. I support the proposed state regulations for management of hazardous wastes, and view your bill as a thinly veiled attempt to dismantle those regulations. In doing so, I fear you are trading the future health and well-being of the people of the state, to save industry from expending a small percentage of the profits they have already made from our resources.

Unlike yourself, I believe that people and/or businesses who generate toxic materials bear a definite responsibility to the public at large. For any State hazardous waste program to be truly meaningful, generators of hazardous materials must be held accountable for their actions. This is one reason why I support the regulations which have been developed by the State.

Another reason I support the regulations is that I believe they are fair to all parties involved. The process under which the State regulations were developed included input from a balance of representatives from industry, the military, State agencies, and public interests, to insure the formation of workable regulations. All parties had equal opportunity, during the process, to make their views known and get them accepted. This even-handed process was time-consuming, but presumably resulted in an acceptable compromise.

By introduction of SB 503, you seem to be attempting to make a mockery out of that process. In callous disregard for the health of the people of Alaska, you suggest implementing a program which, through it's failure at the Federal level, has already seriously damaged the health and homes of citizens in many communities throughout the lower 48. Your bill holds the Federal program up as some sort of standard of excellence, while, in

truth, it has been grossly ineffective.

This is partially due to the listing/de-listing approach, which regulates only those substances on "the list", without the flexibility to deal with substances which are later proven to be toxic. It also throws decisions about what should and should not be listed into a political arena, allowing large companies to invest in expensive lobbying campaigns, in which the public can have no part. The State regulations, on the other hand, utilize a "degree of hazard" approach--setting simple standards for what is and is not to be regulated.

Of all the points of the State program, it is this "degree of hazard" approach which is key to the protection of the environment--and therefore, the health and livelihoods of the people--of Alaska. By not allowing the State do adopt regulations more strigent than the Federal program (Work Draft, CSSB 503(Resources), Page 2 Lines 15-20), you are ignoring the unique and delicate nature of the arctic environment, and making all references to "degree of hazard" in your bill totally meaningless.

As far as having the State pay for any testing required, I feel it appropriate that the burden of proof, and its cost, be borne by those who are coming in to the State to develop our resources, at a substantial corporate profit. Not only can they best afford to undertake the cost of the proof, but, as generators of the waste, they have a special obligation to help preserve the environment.

I view your combining the various issues embodied in this work draft as a pretense at compromise which, in truth, is merely an attempt to further delay implementation of meaningful State management of hazardous wastes. I would much prefer that each piece of legislation on different aspects of hazardous wastes (i.e., SB 498, Siting, Community Right-to-Know, etc.) be handled individually--both to allow for full discussion on the merits of each issue, and to prevent unwise tradeoffs for industry on one issue in order to protect the public's health on another.

However, lest the positive aspects of your "hodge-podge" slip by unmentioned, I do support the following concepts:

1) The amendment giving the State the authority to regulate the "transportation" of hazardous wastes (Page 2, Line 4);

2) Notification to local governments and communities--however, this should also specifically include direct notification to public safety officials (i.e., police, fire, etc.) who would be responsible for dealing with any emergencies involving mishandling of hazardous wastes. To be consistent, this clause should also include provisions for advance notification to local governments and communities for "transportation" of hazardous wastes (Page 6, Lines 16-24);

3) The Civil Remedies and [illegible] sections, as I assume the penalties specified are suff[illegible], obtain EPA approval for a state program; and

4) The concept of Disposal Facility Site Board--however, an amendment should be added to this section to give comments and testimony of communities within a given radius of a proposed disposal site greater weight than those of other parties. Your bill allows for comments by a local community, but does not designate what weight should be given to those comments.

I do not support the general concept of "gathering centers", as experience in other states has shown that these end up serving as an invitation to abuse--more often ending up as long-term dump sites, rather than merely serving as the temporary holding facilities for waste, which they are intended to be.

To summarize, I am appalled, though not surprised, at your "end run" attempt to dismantle the proposed State regulations, in favor of the weaker Federal regulations. And, frankly, I seriously question whose interests you are representing with this bill.

Once again, thank you for this opportunity to comment on the bill. I will continue to follow this issue with interest, and hope, in spite of our differences, you will continue to keep me apprised of its progress.

Sincerely,

Terrie Gottstein

Terrie Gottstein

cc: Governor Bill Sheffield
Commissioner Richard Neve
Other Senators

Senator Vic Fischer

Alaska State Legislature
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MEMORANDUM

TO: Senator Bettye Fahrenkamp

FROM: Senator Vic Fischer

DATE: March 23, 1984

RE: Hazardous Wastes

Thank you for the opportunity to formally share my comments on the work draft of CSSB 503.

While I appreciate the efforts that you and your staff have taken, I do have some difficulty with the overall approach. I'm not sure we gain much by combining the principal hazardous waste legislation introduced this session. Although the four bills discuss a common topic, they are at considerably different stages of development. The specific issues raised in the draft committee substitute can and should better be individually addressed.

However, as requested, I have reviewed the draft as proposed and prepared my comments to fit the context of the draft committee substitute, should you decide to pursue this course.

I believe that you and I, business and labor, environmental groups, health professionals, representatives of the fishing industry and native organizations, and others all agree that:

(1) hazardous waste products providing a risk to human health and the environment are generated in Alaska;

(2) unnecessary illness and disease and the poisoning of our environment through improper handling of hazardous waste should be avoided.

(3) these hazardous wastes need to be properly and responsibly managed;

(4) the Alaska environment and economic structure are significantly different from the industrial mix of the nation as a whole; and

The duty of the Legislature is to provide a body of law that builds upon these areas of agreement in a responsible, economic, and ethical manner. This, of course, was the intent of the original enabling legislation passed in 1981.

Over the 3 years since that measure was adopted, the Department of Environmental Conservation (DEC) has developed proposed state regulations specific to Alaskan needs. It is the proposed regulations, not the present U.S.

Resource Conservation and Recovery Act (RCRA), or the proposed and soon to be adopted amendments to RCRA, which best address the management of hazardous wastes in Alaska.

RCRA is not appropriate to Alaska for the following reasons:

(1) The RCRA approach identifies about 360 toxic chemicals and 120 hazardous streams that must be regulated. However, very few of these substances are found in Alaska. The RCRA regulations are essentially irrelevant to Alaska.

(2) The intent of the federal legislation is that new substances would be added to the original list, but no additional hazardous wastes have been included. In fact, a substance as toxic as dioxin, which, due to unregulated disposal, contaminated the town of Times Beach, Missouri is not included on this list.

(3) The International Agency on the Research of Cancer (IARC), the National Institute for Occupational Safety and Health (NIOSH), and the U.S. Occupational Safety and Health Administration (OSHA) list thousands of substances that are known to have toxic effects. Furthermore, it is estimated that about 3,000 new chemical substances are introduced into the industrial environment each year. Very few of these substances are tested for their effect on human health and the environment.

(4) The U.S. Environmental Protection Agency (EPA) officials and others admit that RCRA criteria used to evaluate whether or not a waste is hazardous are flawed. The RCRA characteristics of a hazardous waste must exceed accepted standards of ignitability, corrosivity, reactivity, and waste extraction procedures. In other words, only the "safety" characteristics, the ability for a waste to explode, ignite, and corrode are evaluated. The ability of a waste to cause cancer, birth defects, and other health risks are not considered.

(5) The limitation which excludes the regulation of hazardous waste in quantities of less than 2200 lbs. (or even 220 lbs. and 400 lbs. as proposed respectively in federal and state regulations) was not based on a detailed evaluation of the risks associated with exempting the "small" quantity generators. Rather, it is a consideration of administrative convenience.

(6) There is no need for the state to take over a program that the federal government will enforce on its own. The state should not take on a program that adds bureaucracy, expense, and responsibility, but is essentially controlled by regulations developed in Washington, D.C.

The proposed state regulations would provide a framework to responsibly and economically manage Alaska's hazardous waste. I support them for these reasons:

(1) As opposed to identifying hazardous wastes through a list as in RCRA, the state proposed regulations use a "degree of hazard" criteria to determine if something is, in fact, hazardous. This

approach allows Alaska to identify and focus on our problems and not to simply accept an outdated irrelevant list of hazardous wastes.

(2) The degree of hazard method qualifies the level of risk to the community associated with the hazardous waste. Where RCRA mandates certain handling and disposal procedures, the proposed state criteria provide much needed flexibility. For example, the degree of hazard method would identify some wastes as "moderate risks". These wastes can be handled safely and economically in state, and not be shipped out of state as required by RCRA. In this sense, RCRA overregulates.

(3) The degree of hazard method includes both safety and health effects when determining whether or not waste is hazardous. This approach helps insure that Alaska's people and communities are protected from improper handling of hazardous wastes.

(4) Liability and other insurance costs to business that generate hazardous wastes will also likely be reduced. The degree of hazard approach takes the guesswork out of whether or not a waste is hazardous. Responsible actions to prevent harmful exposures can be taken.

Accordingly, sections 4 and 5, and parts of 6, of the work draft (which would require that the state regulations be the same as the federal and prohibit use of the degree of hazard approach for four years) should be dropped. This issue is, of course, the heart of the matter. My position is in strong support of the proposed state regulations as the best means of addressing Alaska's needs.

My comments on other issues in the proposed committee substitute are as follows:

Page 2-3, Sec. 298 (b). This item proposes that testing for hazardous waste be paid for by the state. In general, this is not sound public and economic policy. Tests are legitimate business expenses that are tax deductible. However, if certain small businesses require assistance, it may be appropriate to provide help.

Page 5, Sec. 8. The ability of a municipality to establish its own hazardous waste regulations is provided in this section. Home rule provisions already allow municipalities to develop hazardous waste programs. As written, this section may prohibit municipalities from implementing programs that are more comprehensive or specialized than the state's program. In communities in Alaska and across the U.S., it has been at the local level where innovative and efficient methods to handle small quantities of hazardous waste have been initiated. This provision may inhibit local government from developing programs to adequately protect the public health and prevent the pollution of landfills and aquifers. Municipal solid waste and waste water treatment facilities are not equipped to handle hazardous waste.

Page 6, Sec. 9. This section proposes the establishment of state-run regional hazardous waste gathering centers. This concept is appealing, but probably needs to be more carefully developed. The siting of such a facility is politically, economically, and environmentally sensitive. Because of these complexities, I have proposed the creation of a hazardous waste disposal facility site board, which has been incorporated in this draft as Sec.13. Instead of "permanent" gathering centers, the institutionalizing of the spring clean-up, as sponsored by the state last year, may be a more appropriate way to address this problem. Clean-ups could be held several times a year and at locations throughout the state.

Page 6, Sec. 10. This section provides for localities to be notified of the storage or disposal of hazardous wastes. This is an important idea, but weakly presented. This section should require that the communities be notified of the transportation, as well as the storage and disposal of hazardous wastes. The notification procedure should include a specific time frame and require that DEC, local governing bodies, state and local public safety agencies should be recipients of the notification. The notice itself could be either the manifest or a material safety data sheet, but must include (a) chemical and common name of the hazardous waste, (b) quantity of the waste, (c) final and intermediate destinations of the waste, (d) proposed transportation route, (e) dates of departure and arrival to and from destinations, and (f) recommended emergency handling procedures.

Penalties. I am confused by the exemption of most of the law from the penalties sections, especially the civil penalties that are amended on the top of page 11. I would like to have this explained and also to have it reviewed by the Department of Law.

The minimization of hazardous waste is not adequately addressed in either the state or federal regulations. Our goal should be not only to manage hazardous wastes, but to reduce the quantities generated. To this end, I propose the development of a technical assistance program to assist business in decreasing the amount of hazardous waste that needs to be treated and disposed of through pilot projects, loan and grant programs, technical analysis of industrial processes, and waste recycling and exchange programs. I would be happy to pursue this in more detail with the work group if you agree that it's a concept that should be included.

To conclude, I believe that, if there are perceived problems with the proposed state's hazardous waste law and regulations, it would be far better to address them specifically than to discard the entire program. If particular generators of hazardous wastes -- miners, oil companies, or any other segment of our economy -- can demonstrate convincingly that they need an exemption or other special treatment, I would prefer to deal with that directly rather than to undermine all of the progress made in the last three years. In our efforts to reach our goals of a meaningful program to meet Alaska's unique needs, let us reform the developing state program, if necessary, with a rifle shot rather than a grenade.

I look forward to continued dialogue on this issue, perhaps the most important health and environment legislation before us this session.

THE ALASKA CHAPTER
ASSOCIATED GENERAL CONTRACTORS
OF AMERICA, INC.

SKILL
RESPONSIBILITY
INTEGRITY

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3201 SPENARD ROAD
ANCHORAGE
RICHARD M. PITTENGER
MANAGER

March 22, 1984

Senator Bettye Fahrenkamp
State of Alaska
Pouch V
State Capital
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Thank you for the opportunity to comment on the proposed Committee Substitute for SB503 currently before your committee.

Section 11.41.260: For clarification, does the definition of "reckless endangerment" encompass negligence? There are surely instances where a person is unaware that a substance is hazardous, and through his negligence cause limited damage; consequently, a Class C felony would be too stringent.

Section 46.03.298, para. 2: I would suggest that language be included to assure that other regulations that are developed are consistent with this chapter.

Section 46.03.298(b): Providing tests at no charge to the generator is a step in the right direction. My concern is that if a substance is found hazardous, what liability or costs will the generator incur.

Section 46.03.299, (b)(1): "Identifying the characteristics of hazardous wastes" should be deleted and replaced with "to adopt only".

Section 46.03.301 - Municipal Regulation: I would strongly recommend that the State regulations apply uniformly throughout the state. If municipalities and/or boroughs are allowed to enact separate regulations, even though they are "consistent" with SB503, there could be considerable problems with the transportation of hazardous wastes from one jurisdiction to another. I would substitute the following language: "Notwithstanding other provisions of law, a home rule, general law municipality or borough may not enact an ordinance nor adopt regulations different from the provisions of ...."

Section 46.03.309: Rather than provide notices each and every time a hazardous waste is stored or disposed of, I would recommend that an annual general notice be delivered, by the waste disposer or storage agent, to the government representatives.

Section 46.03.313 - Hazardous Waste Disposal Facility Site Board: To provide a better balance on the board, I would recommend the following changes:

(b) The board consists of 12 members appointed no later than October 1, 1984, by the governor as follows:

(1) one member representing the department;
(2) one member representing the Office of the Governor;
(3) two members representing public interest environmental conservation organizations;
(4) two members representing public interest business-related organizations;
(5) two members representing the resources recovery industry;
(6) two members with demonstrated experience in the transportation and disposal of hazardous wastes;
(7) two members representing the general public, one of whom shall be from a rural area of the state and one of whom shall be from an urban area of the state.

Section 46.03.314 - Duties and Powers of the Board: Add (7) "the necessity for industry and business to establish a cost effective disposal facility".

Section 46.03.790(a) - Criminal Penalties: Substitute "willfully" for "negligently".

If you desire further comment on the State hazardous waste program, please contact me.

Sincerely,

ALASKA CHAPTER
ASSOCIATED GENERAL CONTRACTORS

Bill/RK.
William E. Schneider

WES/cc/85

Chevron U.S.A. Inc.
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March 22, 1984

Senator Bettye M. Fahrenkamp
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Enclosed you will find Chevron's comments on proposed Resource Committee substitute for Senate Bill 503 dealing with hazardous waste. We certainly appreciate the opportunity to make these comments, and Chevron sincerely hopes that a successful and acceptable compromise can be reached on this legislation.

Should you have any questions regarding these comments, please contact me at 415-680-3035.

Very truly yours,

CHEVRON U.S.A. INC.

Marc D. Bond

for A. C. Moore

cc: Mr. R. E. Plummer
Mr. M. R. Brennan

CHEVRON'S COMMENTS ON PROPOSED RESOURCE COMMITTEE SUBSTITUTE FOR SENATE BILL 503

General Comments

In general, Chevron believes it would be wise administrative policy to require the Department of Environmental Conservation (DEC) to adopt the regulations as promulgated by the Environmental Protection Agency (EPA) under Subchapter III of the Resource Conservation and Recovery Act of 1976 (RCRA) 42 U.S.C. 6921 - 6934. Since DEC has not had any experience in administering a hazardous waste program, it appears best to rely on the expertise developed in the EPA. Then, after four years experience, DEC will be sufficiently familiar with the administration of a hazardous waste program so that the promulgation of additional or alternative regulations may be appropriate.

Section 1.

This section is not required for approval of the state hazardous waste program by EPA. 40 C.F.R. 271.16 requires criminal penalties only for "knowing" acts. Insofar as it is not required for an approved hazardous waste program, Chevron recommends deleting it. In the alternative, if this provision is adopted, the term "reckless" should be defined to assure that it will require a mental culpability significantly greater than mere negligence.

Section 2.

40 C.F.R. § 271.16(d) sets forth certain enforcement requirements for an approved state program. It appears from the

legislation that the state has selected alternative (2) in 271.16(d). 40 C.F.R. 171.16(d)(2) has three specific requirements. Among those requirements, 40 C.F.R. 271.16(d)(2)(ii) requires assurance that the state enforcement agency (DEC) will "not oppose intervention by any citizen when permissive intervention may be authorized by statute, rule or regulation." This provision should also be included in the legislation in order to assure compliance with EPA regulations.

Section 3.

No comment.

Section 4.

Chevron does not understand why the state legislation adopts federal law concerning hazardous waste by reference. Many of the provisions incorporated by reference are irrelevant to the development of the state program. Subsection (b), which requires the adoption of EPA regulations, is all that is required. However, it probably does no harm to adopt the federal statutes by reference.

Section 5.

Chevron does not believe that the Department should be required to adopt other regulations for the management of hazardous waste, if, at the end of four years, the federal regulations are appropriate. Proposed AS 46.03.298(a) could be interpreted as requiring DEC to adopt other regulations at the end of the four-year period. Chevron recommends that the provision read: "(a) The department may adopt . . ."

In addition, Chevron believes that subsection 2 of subsection (a) should read as follows: "(2) Other regulations for the management of hazardous waste." DEC should not be confined to rules which regulate "according to the degree of hazard presented by the waste." Rather, DEC should be free to adopt regulations it deems appropriate at that time.

Finally, Chevron believes subsection (b) should be deleted. Each company (and its respective customers) should be required to finance the testing of its own potential hazardous wastes.

Section 6.

Chevron believes that subsection (b)(1) should be changed to read: "(1) [~~identify~~] adopt the characteristics of hazardous waste . . ." It should be made clear that DEC is required to adopt the RCRA regulations for the first four years.

Subsection (c)(1) is unnecessary surplusage in view of .298(a)(2).

Section 7.

No comment.

Section 8.

Article X, Sec. 11 of the Alaska Constitution grants home rule municipalities authority to exercise all legislative powers not prohibited by law or charter. Because the state will have a comprehensive program, it is possible (although Chevron believes unlikely) court may infer that a home rule municipality is prohibited from legislating in the hazardous waste area.

Chevron is concerned about this provision, and believes it should be made clear that a municipality cannot prohibit the transportation, storage, etc., of hazardous waste within its boundaries. If this is not done, municipalities may well adopt a balkinist attitude concerning hazardous waste, thus complicating the state's ability to effectively regulate hazardous waste.

Section 9.

Chevron believes that subsection (c) of this section should be deleted. Each generator of hazardous waste should be required to pay the cost of dealing with its own hazardous waste.

Section 10.

Chevron is concerned that this provision might be interpreted to require public notice (and perhaps a hearing) for each instance where hazardous waste is stored or disposed. Chevron believes that the provision should be changed to require public notice only for each permit application for a storage or disposal site.

Section 11.

No comment.

Section 12.

40 C.F.R. § 271.16(a) sets forth the remedies that state agencies enforcing the hazardous waste program must have. 40 C.F.R. § 271.16(a)(2) requires that an agency be able to "sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement, including permit conditions, without the necessity of prior revocation of the

permit . . ." This provision should be included in AS 46.03.312(a) as a new subsection.

Section 13.

Chevron does not believe that the creation of this Board is necessary in view of DEC's responsibilities to enforce the hazardous waste program. See, e.g. AS 46.03.302. In addition, since the Board is not required to make its report before January of 1987, Chevron is concerned that the Department of Environmental Conservation will take the position that no hazardous waste facilities may be permitted under AS 46.03.302 until the Board makes its report. Therefore, Chevron proposes that either (a) the Board be required to make its report by January of 1985 or 1986 at the latest; or (b) that it be made explicitthat DEC is authorized to permit hazardous waste disposal sites pursuant to AS 46.03.302 prior to the time the Board makes its report.

In addition, Chevron believes that the make up of the Board should include two members representing public interest business-related organizations. These representatives would provide input on the considerations of a broad spectrum of Alaska industry.

Finally, Chevron believes that the factors listed in proposed AS 46.03.314(a) should include the necessity for industry to have disposal sites in Alaska in order to continue operations. Chevron concurs that the environmental considerations set forth in the six factors already present in the proposed subsection (a) are important. The Board should also

be instructed that it is necessary that it find at least some disposal sites for industry to continue operations.

Section 14.

With the exception of the change in the second line of AS 46.03.760(a), the proposed changes are unrelated to the management of hazardous waste, and Chevron recommends the deletion of the other changes from the bill. Furthermore, Chevron fully believes that the penalties provided in that statute are already sufficient to deter noncompliance with environmental statutes. Punitive damages are unnecessary and should be disallowed. This is the clear intent of the present AS 46.03.760(b). In addition, it seems odd that punitive damages would be available for noncompliance with environmental conservation regulations outside of the area of hazardous waste, but would not be available in the hazardous waste area. Chevron believes that punitive damages are unnecessary in either area.

Section 15.

As stated above, Chevron believes that punitive damages are unnecessary. Accordingly, section 15 of the bill should be deleted.

Section 16.

Penalties for negligence are not required for approval of a hazardous waste program by the Environmental Protection Agency. Chevron therefore believes that the change in subsection (a) of AS 46.03.790, which allows conviction for a merely negligent act, should be deleted. Chevron concurs in the

addition of subsection (e) to AS 46.03.790, as that is required by the EPA regulations. 40 C.F.R. § 271.16(a)(3)(ii).

Section 17.

No comment.

Section 18.

Chevron believes that Sec. 5 of the Act, which allows the DEC to adopt other regulations than those promulgated by the EPA under RCRA, should not be effective until four years after the date on which the Environmental Protection Agency actually approves the state hazardous waste program. The state should have four years of experience operating under EPA's hazardous waste program before it proceeds to adopt regulations on its own.

Section 19.

No comment.

Alaska Health Project

417 West Eighth Avenue — P. O. Box 10-1037, Anchorage, Alaska 99510 — (907) 276-2864

March 20, 1984

Senator Bettye Fahrenkamp
Alaska State Legislature
Pouch V (MS 3100)
Juneau, Alaska 99811

RE: CS for SB 503

Dear Senator Fahrenkamp and Resource members:

I appreciate the Resources Committee's efforts to resolve the controversial issue of hazardous waste in Alaska. It is quite a task. The creation of a work group comprised of all Alaskan interests is especially appealing. The success of the right-to-know legislation (SB79) was a direct result of a similar workgroup. I am optimistic that the CSSB 503 workgroup can formulate a bill that most everyone can live with.

By combining various pieces of proposed hazardous materials legislation into a single bill, as you have done with CSSB 503, you underscore the need for us all to consider the overall hazardous materials picture and not single issues. Yet, it is my hope that this bill (503) will not overshadow the need for continued discussion on key elements of a thorough hazardous waste program. Only then, can a truly comprehensive and workable plan be developed for Alaska. There are many sections outlined in CSSB 503 that still need to be discussed and perhaps amended.

The following is a list of some of my concerns:

1. Article 5, Section 46.03 313 Hazardous Waste Facility Site Board Part (b) should be amended to include at least one labor representative with knowledge and experience in the hazardous waste field.

   Article 5, Section 46.03 317 Report of Site and Facility Recommendations Line 17 should be amended to read not later than January 1, 1986.

   The issue of hazardous waste facility siting should not be delayed. Central to any hazardous waste management plan are facilities properly designed and operated to dispose, treat, store and recycle these dangerous wastes.

   Above all, the board should be directed to consider alternatives to land disposal of hazardous wastes. The board should be guided by the premise that generators, wherever possible, be required to reduce or eliminate their production of hazardous wastes. Only then will we begin to mitigate our present and future waste problems in Alaska.

MAR 2 3 1984

2. Section 10 46.03 309 Notice to Local Communities should be amended to include notification to fire and police and emergency medical personnel who typically are the first responders to hazardous materials emergencies.

   A new section should be added requiring employers to notify the department prior to transporting hazardous materials intended for disposal and/or storage. The department should then notify each affected community along the shipping route. A simple telephone call to the fire, police or responsible agency would be sufficient.

3. Section 9 46.03 306 Gathering Centers should be amended by substituting the phrase "Hazardous Waste Spring Clean-up Program" where the words "gathering center" now exist.

   In recent years the spring clean-up programs in Anchorage and Fairbanks have been supported enthusiastically by local businesses, the community, and local government. It is the only currently existing hazardous waste program that actually attacks the problem at the source. This program should be continued. It will need state financial support if it is to survive.

   It would be a bit premature, and perhaps costly, to develop regional gathering centers prior to reviewing the Siting Board's Recommendations. Until the board's recommendations are available, I feel the spring clean-up approach will continue to receive wide public support. People are now expecting it to take place.

4. Paragraph C of the Section 9 should be amended to read all persons partaking in the spring clean-up program shall be assessed a user fee dependant upon the toxicity and the volume of the wastes submitted for disposal.

   The fees should be used to create a Technical Training and Assistance fund available to hazardous waste generators wishing to develop methods to reduce and/or eliminate their hazardous wastes.

Finally, Section 4 46.03 298 reveals the true debate at hand - whether the state should adopt the federal program, the Resource Conservation and Recovery Act (RCRA) by reference or dovetail the proposed state hazardous waste regulations (Title 18, Chapter 62) into RCRA as they have been designed.

CSSB 503 currently forces the state to adopt RCRA by reference. Forcing the state to adopt RCRA thereby preventing the development of Alaska specific regulations counters the growing national trend in the area of hazardous waste management. EPA now encourages states to adopt their own hazardous waste regulations to fit their own specific needs. EPA directs states to use RCRA only as a foundation upon which to build a comprehensive state-specific program.

Given the loopholes in RCRA it seems ludicrous for any state to adopt the federal program by reference. Recent EPA statistics highlight the inadequacies of the federal program and its failure to regulate the estimated 150 million metric tons of hazardous waste generated in the United States.

* Less than 25% of the 60,000 firms that identified themselves to the agency (EPA) as hazardous waste generators were , in fact, subject to the EPA's regulations.

* Less than 60% of the treatment, storage, and disposal facilities listed with the agency managed their hazardous wastes in a regulated process during 1981.

* Businesses generating less than 2200 pounds of hazardous waste per month are currently exempt from RCRA regulations and may dispose of their wastes in facilities which are not designed for such activity (the states proposed regulations reduces the volume limit to 400 pounds. U.S. Congress is considering a 220 pound level).

* Currently, to be a hazardous waste under RCRA the waste must exhibit the characteristic a hazardous waste or be listed by name. None of the RCRA characteristic tests - ignitability, corrosivity, reactivity, or extraction procedure toxicity - identify wastes on the basis of organic toxicity and carcinogenicity.

* The present EPA list of hazardous wastes is approximately 370 chemicals long. Today, there are well over 60,000 toxic chemicals available for use. In fact, vinyl chloride, known to cause angiosarcoma, a rare liver cancer, and dioxin are unregulated by RCRA.

* RCRA does not mandate that facilities that treat, store, and dispose of hazardous waste be regularly inspected.

* The federal program does not regulate hazardous wastes that are mixed with oil to be burned as fuel in boilers, incinerators, etc. Investigations reveal that generators will blend their hazardous waste with waste oil in order to circumvent the regulations.

The list of loopholes presented above is by no means complete. Perhaps the most glaring inadequacy of the federal program is its failure to require generators to identify the toxic and carcinogenic properties of their wastes (extraction procedure toxicity is a limited toxicity test designed to simulate how a waste leaches in a landfill. It does not assess the toxicity of a waste. Further, it covers only 14 chemicals under the present federal program. The states proposed program amends this list to include approximately 27 chemicals. The states' list is more realistic).

In short, RCRA manages wastes not by their degree of hazard, but by the volume generated (2200 lbs.) and whether it is included in a pre-determined list of chemicals. This scheme avoids confronting the real issue - the toxicity of a waste.

It is my hope that the work group and the Senate Resources Committee will dovetail the Alaska Department of Environmental Conservation's degree of hazard approach (which addresses toxicity, carcinogenicity, and persistence) into the framework of the federal program. Other states such as Washington, California, and Oregon are and have developed a similar approach. The approach is well-founded and represents a clear understanding of the problems with the federal program. Waiting 4 more years to consider the degree of hazard approach (as CSSB 503 suggests) will only allow the idea to sink further into the quagmire of politics and drilling muds. How long can Alaskans continue to excuse themselves by saying that "time is on our side?"

It is estimated that Alaska generates 400 tons of hazardous waste each year (JRB Report 1981). A recent 1984 study of hazardous waste generated in Anchorage suggests that Anchorage alone could be producing as much as 400 tons of hazardous waste annually. It appears from these figures that "time" is taking its own course.

Thank you for allowing me to comment on CSSB 503. Across the country communities and states are now paying the price for neglecting their hazardous waste problems. By acting now Alaska can develop a model program which fills the gaps apparent in the federal program. This unique opportunity should not and must not be wasted. I hope that the Resources Committee will agree.

Yours sincerely,

David Wigglesworth

David Wigglesworth
Occupational/Environmental
Health Specialist

cc: Lennie Boston
Representative Clocksin
Mary Core
Senator Eliason
Senator Paul Fischer
Senator Vic Fischer
Ray Gallespie
Mick Hotrum
Senator Josephson
Steve Kadish
Senator Kerttula
Senator Moss
Senator Mulcahy
Commissioner Neve'
Jim Palmer
Representative Ringstad
Roland Shanks
Governor William Sheffield
John Shively
Jim Sweeney
Senator Ziegler

3/27/84

Marilyn Heiman
7821 Lotus Drive
Anchorage Alaska 99502

Senator Bettye Fahrenkamp
Alaska State Legislature
Pouch V
Juneau Alaska 99811

Dear Senator Faharenkamp,

Thank you for your interest and concern on the hazardous waste issues facing Alaskans. The working draft of SB503 seems to address many of these issues in a positive way, but the draft's approach presents some problems that I would like to share with you.

Each of the issues in the draft; siting, community right to know, the state's program, and disposal are very complex and can not be combined into one bill. By combining the legislation, important sections of each bill are lost. There is no question that these issues must be addressed seperately to ensure safe and cost effective implementation and enforcement in the area of hazardous waste management.

The most important part of the state's program, the degree of hazard approach, has been clouded in an attempt to combine these bills. It is important for reasons of safety and health that we do not postpone implementation of the state's program as it exists.

It is common knowledge that the federal program, RCRA, is not preventing hazardous waste mismanagement in Alaska and in the lower 48. The degree of hazard approach is an effective way to decrease unnecessary contamination. The argument that we have to have regulations that are equivalent to the federal regulations does not hold much credibility. EPA approved the degree of hazard approach in the state of Washington and it is working effectively there. In addition, the amendments to RCRA contain changes that are similar to the degree of hazard approach.

The costs to oil companies are high but it does not mean these costs are unwarranted. Their cost analysis does not look at the long term in terms of health and clean up costs. The regulations could save them money in the future .... RCRA certainly does'nt do that for anyone.

I agree with you that we need to subsidize small business because they are unable to handle the entire costs involved with testing and disposal under the state's program or new RCRA (quantity exclusion of 220 lbs/mo.)

Helping small businesses with testing costs is appropriate since these costs are one time costs. The state should be careful not to compete with private business in providing testing. A partial subsidy may be a more workable solution.

State subsidies for small business disposal costs, on the other hand, is not an effective way to deal with the problem. If disposal is cheap or free, businesses will have an incentive to dispose of waste rather than reducing waste (recycling. substituting, exchanging, changing processes etc.) Instead of subsidizing disposal, why not subsidize businesses which reduce wastes. If we are going to provide assistance, it should be assistance that can help prevent health and environmental problems rather than increase them.

In closing, I would like to stress again that each bill is important and essential to the health and well being of all Alaskans. I would like to have the opportunity to comment on each bill seperately. This combination of the bills tends to lose the perspective of a hazardous waste management program which is both preventive and effective.

Thank you very much for the opportunity to comment on your draft.

Sincerely,

Marilyn Heiman

Marilyn Heiman

cc:

Honorable Governor Sheffield
Senator Ziegler
Senator Eliason
Senator Paul Fischer
Senator Vic Fischer
Senator Mulcahy
Senator Sturgulewski
Senator Joe Josephson
Senator Jay Kerttula
Representative Ringstad
Commissioner Neve, DEC
John Shively
Lennie Boston

Alaska Oil and Gas Association

505 W. Northern Lights Boulevard
Suite 219
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(907) 272-1481

March 23, 1984

The Honorable Bettye Fahrenkamp, Chairman
Senate Committee on Resources
Pouch V
State Capitol
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Thank you for the opportunity to comment on the proposed committee substitute for SB 503.

Members of the Alaska Oil and Gas Association have reviewed the draft, and our suggestions for modification are enclosed.

I would be happy to discuss these comments with you or your staff at any time.

Very truly yours,

Tom Brooks

TOM BROOKS

TB:tp3:167

Enclosure

MAR 26 1984

Kein
3/8/84

Original sponsor: Resources Committee

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE BILL NO. 503 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTEENTH LEGISLATURE - SECOND SESSION

A BILL

For an Act entitled: "An Act relating to hazardous wastes; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

~~* Section 1. AS 11.41 is amended by adding a new section to article 2 to read:~~

~~Sec. 11.41.260. RECKLESS ENDANGERMENT WITH HAZARDOUS WASTE. (a) A person commits the crime of reckless endangerment with hazardous waste if the person recklessly engages in conduct involving storing, transportation, or disposal of hazardous waste that creates a substantial risk of serious physical injury to another person.~~

~~(b) For purposes of this section, "hazardous waste" is defined as any substance subject to regulation as a hazardous waste under AS 46.03.250 - 46.03.312.~~

~~(c) Reckless endangerment with hazardous waste is a class C felony.~~

* Sec. 2. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.295. DUTIES OF THE DEPARTMENT. The department shall

(1) investigate and respond in writing to a complaint filed by a person in accordance with 42 U.S.C. 6901 - 6987;

(2) provide public notice and a public comment period of not less than 30 days for a proposed settlement of a department enforcement action; and

(3) inform the public of the dangers of hazardous wastes and of the provisions of AS 46.03.295 - 46.03.312.

We recommend that Section 1, which adds AS 11.41.260, entitled "Reckless Endangerment with Hazardous Waste" be deleted. This section is not required or authorized by federal law regarding penalties for hazardous waste violations. If this section is not deleted, we recommend that the state define "reckless". Secondly, the penalty under this section should be, at a maximum, a class A misdemeanor, rather than a felony.

* Sec. 3. AS 46.03.296(b) is amended to read:

(b) The department shall adopt regulations in accordance with the Administrative Procedure Act (AS 44.62) for the treatment, storage, transportation, and disposal of hazardous wastes to ensure the protection of human health, livestock, wildlife, property, and the environment.

* Sec. 4. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.298. FEDERAL HAZARDOUS WASTE ~~LAWS~~ REGULATIONS ADOPTED BY REFERENCE. (a) ~~42 U.S.C. 6921 - 693 (Subchapter III of the Resource Conservation and Recovery Act of 1976) is adopted by reference as a part of this chapter.~~ Pursuant to 42 U.S.C. 6921-6934, the authority to implement state hazardous waste regulations is by this section assumed.

(b) The department shall adopt by reference and shall enforce regulations relating to hazardous waste management adopted by the federal government under 42 U.S.C. 6921 - 6934.

(c) The department may not adopt regulations relating to hazardous waste

(1) that are more stringent than federal regulations adopted by reference under (b) of this section; and

(2) except as required under this chapter.

* Sec. 5. AS 46.03.298 is repealed and reenacted to read:

Sec. 46.03.298. HAZARDOUS WASTE REGULATIONS. (a) The department ~~shall adopt~~ may adopt

(1) by reference and shall enforce regulations relating to hazardous waste management adopted by the federal government under 42 U.S.C. 6921 - 6934, as amended; or

(2) ~~other regulations for the management of hazardous waste that may include regulation according to the degree of hazard presented by the wastes.~~ may develop and adopt other regulations which are consistent with the provisions of this chapter.

~~(b) If a regulation adopted under this section requires testing~~

State adoption of federal laws is unnecessary and may, in fact, result in conflicting statutes. For example, 42 U.S.C. 6928, which would be incorporated here, provides a comprehensive scheme for civil and criminal penalties, as does AS 46.03.312, AS 46.03.768 and AS 46.03.790. Additionally, other sections of 42 U.S.C. 6921 - 6934 may not be appropriate for state adoption. In light of these concerns, and the inclusion of other sections of this bill which would accomplish the same objective, Section 46.03.298 (a) should be modified as shown.

If it is retained, we would point out that "Subchapter III" should be "Subtitle C".

~~to determine whether a substance is a hazardous waste, the department shall provide the testing without charge to the generator of the substance.~~

* Sec. 6. AS 46.03.299 is repealed and reenacted to read:

Sec. 46.03.299. CONTROL OF HAZARDOUS WASTES. (a) The department shall facilitate coordination with federal, state, and local agencies in adopting regulations under the Administrative Procedure Act (AS 44.62) for a comprehensive state hazardous waste program consistent with 42 U.S.C. 6901 - 6987 and regulations adopted under those sections by the Environmental Protection Agency.

(b) The department shall

(1) adopt only, ~~identify the characteristics of hazardous wastes,~~ as identified in regulations of the Environmental Protection Agency adopted under 42 U.S.C. 6921(b)~~,~~:

~~(2) establish~~

(A) the characteristics of hazardous wastes;

(B) ~~(A)~~ criteria for listing hazardous wastes;

(C) ~~(B)~~ requirements for ~~hazardous waste that is used, re-used, recycled, or reclaimed,~~ encouraging the use, re-use, recycling and reclamation of hazardous wastes; and

(D) ~~(C)~~ exclusions;

(3) adopt as a preliminary list the lists of hazardous wastes identified by the Environmental Protection Agency in regulations adopted under 42 U.S.C. 6921(b);

(4) identify the sources of hazardous wastes listed under (3) of this subsection or enumerated under (c) of this section;

(5) qualify the department to receive authorization from the administrator of the Environmental Protection Agency to administer and enforce a hazardous waste program in accordance with 42 U.S.C. 6901 - 6987;

(6) determine the amount of a hazardous waste that is so

small as to not present a hazard to public health, livestock, fish, wildlife, and the environment of the state when disposed of;

(7) adopt preliminary requirements for hazardous waste produced by small quantity generators as specified under 42 U.S.C. 6921 - 6922;

(8) adopt, in accordance with 42 U.S.C. 6924, procedures by which the public shall have opportunity to review and comment on issuance of hazardous waste disposal permits by the department.

(c) Four years after the date on which the Environmental Protection Agency approves the state hazardous waste program, the department may

(1) develop new regulations for the control of hazardous wastes; and

(2) enumerate specific hazardous wastes, within the meaning of AS 46.03.900(32), subject to the provisions of AS 46.03.302 and 46.03.305; however, the department may not list as hazardous a waste that has not been listed as a hazardous waste by the United States Environmental Protection Agency under 42 U.S.C. 6921, unless the commissioner first determines by a specific written finding that the waste is hazardous as defined in this chapter.

* Sec. 7. AS 46.03.299(b) is repealed and reenacted to read:

(b) The department shall

(1) identify the characteristics of hazardous wastes, as identified in regulations of the Environmental Protection Agency adopted under 42 U.S.C. 6921(b);

(2) establish

(A) criteria for listing hazardous wastes;

(B) requirements for ~~hazardous waste that is used, re-used, recycled, or reclaimed,~~ encouraging the use, re-use, recycling and reclamation of hazardous wastes; and

(C) exclusions;

(3) adopt as a preliminary list the lists of hazardous wastes identified by the Environmental Protection Agency in regulations adopted under 42 U.S.C. 6921(b);

(4) identify the sources of hazardous wastes listed under (3) of this subsection or enumerated under (c) of this section;

(5) qualify the department to receive authorization from the administrator of the Environmental Protection Agency to administer and enforce a hazardous waste program in accordance with 42 U.S.C. 6901 - 6987;

(6) determine the amount of a hazardous waste that is so small as to not present a hazard to public health, livestock, fish, wildlife, and the environment of the state when disposed of;

(7) adopt preliminary requirements for hazardous waste produced by small quantity generators as specified under 42 U.S.C. 6921 - 6922;

(8) adopt, in accordance with 42 U.S.C. 6924,

(A) criteria for identifying appropriate hazardous waste disposal site locations;

(B) procedures by which the public shall have opportunity to

(i) participate in hazardous waste disposal site locations; and

(ii) review and comment on issuance of hazardous waste disposal permits by the department.

(9) Insert new section (9)

~~* Sec. 8. AS 46.03 is amended by adding a new section to read:~~

~~Sec. 46.03.301. MUNICIPAL REGULATION. Notwithstanding other provisions of law, a home rule or general law municipality may enact an ordinance consistent with the provisions of AS 46.03.295~~

(9) not list as hazardous a waste that has not been listed as a hazardous waste by the United States Environmental Protection Agency under 42 U.S.C. 6921, unless the comissioner first determines by a specific written finding that the waste is hazardous as defined in this chapter.

~~46.03.312 regulating the storage and disposal of hazardous wastes. A borough may regulate the storage and disposal of hazardous wastes areawide or in the borough area outside cities.~~

* Sec. 9. AS 46.03 is amended by adding a new section to read:

COLLECTION AND STORAGE

Sec. 46.03.306. ~~GATHERING~~ CENTERS. (a) Not later than one year after the effective date of this section the department shall establish and operate regional hazardous waste ~~gathering~~ collection and storage centers for the ~~collection~~ management of hazardous wastes that are to be prepared for shipment to a federally approved hazardous waste disposal site.

(b) The commissioner by contract may transfer the operation or ownership of ~~gathering~~ collection and storage centers to suitable private parties at not less than fair market value.

(c) ~~A generator of hazardous wastes may not be charged for deposits of less than 2,200 pounds per month at a gathering center.~~ A small quantity generator of hazardous waste may not be charged for deposits of hazardous waste at a collection and storage center.

* Sec. 10. AS 46.03 is amended by adding a new section to read:

Sec. 46.03.309. NOTICE TO LOCAL GOVERNMENTS AND COMMUNITIES. (a) The department shall notify the following persons or agencies in each community in which a person intends to store or dispose of a hazardous waste:

(1) a representative of the local elected governing body; and

(2) the state and local public safety agencies with jurisdiction over the site at which the waste is to be stored or disposed of.

(b) If a storage or disposal site is permitted under this chapter, a general notice of intention to periodically store or dispose of hazardous waste may be made to the representatives under section (a)(1) and (2) of the above. Such notice shall be valid for a period not to exceed one year.

(b) insert new section (b)

* Sec. 11. AS 46.03.311 is amended to read:

Sec. 46.03.311. PUBLIC RECORDS. (a) Permits, permit applications, records, reports, and information and documentation obtained under AS 46.03.295 - 46.03.318 [AS 46.03.302 - 46.03.308] are available to the public for inspection and copying. However, upon a showing

satisfactory to the commissioner that a record, report, permit, application, or information would, if made public, divulge methods or processes entitled to protection as trade secrets, the commissioner shall treat the record, report, permit, application, or information as confidential.

(b) Information that is confidential may be transmitted under a continuing restriction of confidentiality to other officers, or employees, ~~or authorized representatives~~ of the state or of the United States if

(1) the person responsible for furnishing the record, report, permit, application, or information to which such information pertains is informed at least two weeks before the transmittal, except that information obtained under AS 46.03.295 - 46.03.318 shall be made available under a claim of confidentiality to the Environmental Protection Agency upon request of the agency; and

(2) the information has been acquired by the department under the provisions of AS 46.03.295 - 46.03.318 [AS 46.03.296 - 46.03.311].

(c) The provisions of this section do not limit the department's authority to release confidential information during emergency situations.

* Sec. 12. AS 46.03 is amended by adding a new section to article 5 to read:

Sec. 46.03.312. CIVIL REMEDIES AND PENALTIES. (a) In the enforcement of AS 46.03.295 - 46.03.311 the department may

(1) petition the superior court for injunctive relief to restrain a person from engaging in an unauthorized activity that ~~is endangering or damaging~~ constitutes an imminent and substantial endangerment to the public health or the environment;

(2) assess a civil fine under (b) of this section; or

The language proposed is consistent with federal law.

(3) bring an action in the superior court seeking civil penalties under (b) of this section.

(b) A violation of a provision of AS 46.03.295 - 46.03.311 is punishable by a civil fine of not less than $10,000 and not more than $100,000 for the first day of the offense, and a civil fine of not more than $10,000 per day for each day the offense continues.

* Sec. 13. AS 46.03 is amended by adding new sections to read:

ARTICLE 5A. DISPOSAL FACILITY SITE BOARD.

Sec. 46.03.313. HAZARDOUS WASTE DISPOSAL FACILITY SITE BOARD. (a) The Hazardous Waste Disposal Facility Site Board is created in the department.

(b) The board consists of 12 members appointed not later than October 1, 1984, by the governor as follows:

(1) one member representing the department;

(2) one member representing the Office of the Governor;

(3) two members representing public interest environmental conservation organizations;

(4) two members representing the oil and gas industry;

(5) two members with expertise in public health matters related to the transportation and disposal of hazardous wastes;

(6) four members representing the general public, who are elected officials two of whom shall be from rural areas of the state and two of whom shall be from urban areas of the state.

(c) The ~~governor~~ board shall ~~designate~~ elect the chairperson of the board.

(d) The department shall provide administrative and clerical services to the board.

Sec. 46.03.314. DUTIES AND POWERS OF THE BOARD. (a) The board shall evaluate and ~~select potential~~ recommend potential state sites for hazardous waste disposal facilities. ~~in the state.~~ In evaluating and ~~selecting~~ recommending sites for

state hazardous waste
disposal facilities, the board shall consider at least the following factors:

(1) economic feasibility, including proximity to concentrations of generators of the types of hazardous wastes likely to be proposed and permitted for disposal;

(2) intrinsic suitability of the sites;

(3) federal and state pollution control and environmental protection rules;

(4) the risk and effect for local residents, units of government, and the local public health, safety, and welfare, including such dangers as an accidental release of wastes during transportation to a facility or at a facility, water, air, and land pollution, and fire or explosion;

(5) the consistency of a facility with, and its effect on, existing and planned local land use and development; local laws, ordinances, and permits; and local public facilities and services; and

(6) the adverse effects of a facility at the site on agriculture and natural resources and opportunities to mitigate or eliminate the adverse effects by stipulations, conditions, and requirements relating to the design and operation of a disposal facility at the proposed site; and

(7) insert new section (7)

(b) The board shall hold public hearings in each election district in which a potential hazardous waste disposal facility site is located. The board shall give reasonable public notice of the time, date and place of each public hearing at least 30 days before the hearing. The public shall be afforded an opportunity at each hearing to submit written and oral testimony concerning a potential site. The board shall consider the testimony submitted at public hearings when it develops recommendations to be submitted in its report under

(7) the necessity for industry and business to have disposal sites in state in order to continue operations.

AS 46.03.317.

(c) For purposes of this section, "intrinsic suitability" of a site means that, based on existing data on the inherent and natural attributes, physical features, and location of the site, there is no known reason why a waste disposal facility that may be located in the site could not reasonably be expected to qualify for a permit under AS 46.03.302.

Sec. 46.03.315. MEETINGS OF THE BOARD. The board shall meet at the call of the chairperson and at other times as agreed by the members. The board shall hold its first meeting not later than January 31, 1985.

Sec. 46.03.316. COMPENSATION. A board member may not receive a salary for performing official duties of the board, but is entitled to per diem and travel expenses as provided for other boards and commissions.

Sec. 46.03.317. REPORT OF SITE AND FACILITY RECOMMENDATIONS. Not later than January 31, 1987, the board shall submit to the governor and the legislature a report that includes recommendations for

(1) the siting of state hazardous waste disposal facilities in the state;

(2) the methods of financing and operating the facilities; and

(3) the types of facilities that should be constructed, such as chemical processing facilities, incineration facilities, and transfer and storage facilities.

Sec. 46.03.318. DEFINITION. For purposes of AS 46.03.313 - 46.03.317, "board" means the Hazardous Waste Disposal Facility Site Board.

* Sec. 14. AS 46.03.760(a) is amended to read:

(a) A person who violates or causes or permits to be violated a provision of this chapter, other than AS 46.03.295 - 46.03.311, or AS 46.04, or a regulation, a lawful order of the department, or a permit, approval, or acceptance, or term or condition of a permit, approval, or acceptance issued under this chapter or AS 46.04 is liable, in a civil action, to the state for a sum to be assessed by the court of not less than $500 nor more than $100,000 for the initial violation, nor more than ~~$10,000~~ [$5,000] for each day thereafter on which the violation continues, and which shall reflect, when applicable,

(1) reasonable compensation in the nature of liquidated damages for any adverse environmental effects caused by the violation, which shall be determined by the court according to the toxicity, degradability and dispersal characteristics of the substance discharged, the sensitivity of the receiving environment, and the degree to which the discharge degrades existing environmental quality;

(2) reasonable costs incurred by the state in detection, investigation, and attempted correction of the violation; [AND]

(3) the economic savings realized by the person in not complying with the requirement for which a violation is charged~~; and~~

~~(4) the need for an enhanced civil penalty to deter future noncompliance~~.

~~* Sec. 15. AS 46.03.760(b) is amended to read:~~

~~(b) Except as determined by the court under (e)(4) of this section, actions~~ [ACTIONS] ~~under this section may not be used for punitive purposes, and sums assessed by the court must be compensatory and remedial in nature.~~

* Sec. 16. AS 46.03.790 is amended to read:

Sec. 46.03.790. CRIMINAL PENALTIES. (a) Except as provided in

The purpose of Section 14 is to allow for necessary penalties under AS 46.03.295-46.03.311. It is inappropriate to suggest additional changes which do not accomplish this purpose.

(d) - (f) of this section, a [A] person who negligently violates [OR WHO CAUSES OR PERMITS A VIOLATION OF] a provision of this chapter or AS 46.04, or of a regulation, lawful order of the department, or permit, approval, or acceptance, or term or condition of a permit, approval, or acceptance issued under this chapter or AS 46.04 is guilty of a class B misdemeanor.

(b) Except as provided in (d) - (f) of this section, a [A] person who knowingly [WILFULLY] violates a provision of this chapter or AS 46.04, or of a regulation, lawful order of the department, or permit, approval, or acceptance, or a term or condition of a permit, approval, or acceptance issued under this chapter or AS 46.04 is guilty of a class A misdemeanor.

(c) Each day on which a violation described in [(a) OF (b) OF] this section occurs is considered a separate violation.

(d) Notwithstanding (a) and (b) of this section, a [A] person knowingly who fails to provide or falsely states information required under AS 46.03.755 or AS 46.04 is guilty of a misdemeanor and, upon conviction, is punishable by a fine of not more than $25,000, or by imprisonment for not more than one year, or by both. Each unlawful act constitutes a separate offense.

(e) Notwithstanding (a) and (b) of this section, a person who knowingly (1) transports any hazardous waste to a facility without a permit required under AS 46.03.250 - 46.03.311; (2) treats, stores, or disposes of hazardous waste without a permit required under AS 46.-03.250 - 46.03.311; or (3) makes a false statement or representation in an application, label, manifest, record, report, permit, or other document filed, maintained, or used for purposes of compliance with the hazardous waste provisions of AS 46.03.250 - 46.03.311 or regulations adopted under those provisions, is punishable by a fine of not

more than $10,000 per day or by imprisonment for not more than one year, or both.

(f) Notwithstanding the penalty provisions of (a) - (e) of this section, a defendant that is an organization is, upon conviction of a violation of any of the provisions listed in this section, subject to the penalties set out in AS 12.55.035(c).

* Sec. 17. AS 46.03.313 - 46.03.318 are repealed June 30, 1988.

* Sec. 18. Section 5 of this Act takes effect four years after the effective date of ~~secs. 1 - 4, 6, and 8 - 17 of this Act~~ the state's hazardous waste regulations.

* Sec. 19. Section 7 of this Act takes effect June 30, 1988.

Getting RCRA under control

The Environmental Protection Agency says it plans to issue this month a number of technical regulations and standards on hazardous waste. These will form part of a program the agency says will bring its administration of the Resource Conservation and Recovery Act (RCRA) under control. But industry, state governments and environmentalists have adopted a wait-and-see attitude. Although the EPA has issued numerous regulations since Nov. 17, 1980, when the act took effect, some of the most important are still hanging fire, and the act's final shape is in doubt.

Moreover, that doubt is now being compounded with confusion. Industry and environmentalists alike, unhappy with much of what they already see,

Despite many regulations, the shape of RCRA's policies remain in doubt

have challenged numerous regulations and are involved with EPA in lengthy negotiations over the way those regulations should ultimately read. The states, which administer RCRA, are finding their efforts hobbled because promised federal aid has not materialized.

Into the fray. With an election coming up, Congress is likely to get into the fray—particularly since RCRA must be reauthorized by Sept. 30, the end of the fiscal year. The House Energy and Commerce Committee has passed amendments that would tighten RCRA and force the EPA to implement the entire act on a specified timetable.

Top EPA officials say that their agency has adjusted to the change from the Carter to the Reagan Administration and that they are making progress in implementing the act. They have gone numerous times to Capitol Hill, armed with statistics and schedules that show, from the agency's point of view, a clear stream of regulatory progress. These officials also say that most of the technical standards are already in effect, and that those that are not soon will be—including definitions of hazardous waste, and standards for the design and operation of hazardous-waste landfills.

The chemical industry, for its part, is doing its best to cope with the confusion. Companies are generally complying with regulations already issued, while awaiting the outcome of negotiations with EPA on 27 of the more technical issues (*box, p. 38*) in what has become known as Shell Oil vs. EPA. The industry, hoping that the regulations will be issued soon in their final form, is almost unanimous in its support of EPA. The Chemical Manufacturers Assn. maintains that the agency "has been doing a responsible and conscientious job addressing the issues," calling the pace of development, "necessarily slow." The delays, says the association, result from "the difficulty and complexity of achieving the goals prescribed by the act, and not from lack of statutory authority or from lack of diligence on EPA's part."

Money shortage. The opinions of state environmental officials vary widely both on the act and on the way it is being implemented by EPA. But most agree that there is not enough money available to fund their programs for enforcement and issuing permits. Says Norman H. Nosenchuck, director of solid waste for New York's Dept. of Environmental Conservation: "States are now faced with the grim prospect of attempting to carry out urgently needed, federally mandated programs with decreasing federal financial support."

While RCRA allows states to obtain "authorization" to implement their own versions of the act, more and more states are coming to the conclusion that, in the face of federal budget cutbacks, they may not have the money or manpower to do so. Money is not the only problem for the state agencies, however. Constantly changing RCRA regulations and delays in releasing some of the most important rules have brought additional difficulties, and some states are about to cease trying to enforce RCRA, a move that would force EPA to implement the act by itself.

Environmental groups, on the other hand, see all this delay as an attempt by EPA to render the act impotent. "Since the change of administrations in 1981," says Khristine L. Hall, attorney for the Environmental Defense Fund, "it has become regrettably clear we are no longer moving forward in protecting health and the environment from mismanagement of hazardous waste."

But there are some who feel the act is having a positive effect. "RCRA is working surprisingly well," says James A. Rogers, formerly chief attorney for EPA's air, water and solid waste section, and now an attorney with Skadden, Arps, Slate, Meagher & Flom in Washington. He bases his case on the simple assertion that "no one is going to court." Rather, says Rogers, people are willing to negotiate their differences. He feels industry and environmentalists have, over the past 10 years, learned valuable lessons from the complexities of the Clean Air Act and the

EPA's Gorsuch feels political pressures



UPI



lorio wants to tighten the screws.

'lean Water Act. "They have found hat you can litigate for years and, beause the courts generally don't rule on reane technical matters, you wind up egotiating anyway."

hrough negotiation. So far, the chemil industry seems to agree. "We have ade progress through negotiations beve n industry and government," says . H. Dreith of Shell Oil's environmenl affairs department. Shell is one of petitioners—including Dow Chemical, e Chemical Manufacturers Assn., and e Environmental Defense Fund—that e negotiating with EPA. The Shell Oil se developed in response to EPA's andards, promulgated May 19, 1980, at cover operations that produce and ansport hazardous waste. The indusial petitioners in the Shell negotiations ve identified 24 poir ts in those regutions that they want specifically adessed by EPA, while EDF has named ree issues it wants clarified.

"At one time there were 27 recogzed serious points of contention," says reith. "That has been trimmed to five, d negotiations are under way on ose." The act i very comprehensive its approach to hazardous wastes, he ys, "but there has been a big problem dealing with the language of the laws—in some cases we've had to put out our own interpretations of just what the law is supposed to do and not do."

The Chemical Manufacturers Assn. has taken a conciliatory view of the way EPA has been implementing RCRA. Philip A. Palmer, head of CMA's RCRA Regulatory Task Group and Du Pont's top hazardous waste consultant, says that when the act was passed few states had regulations for hazardous waste, and that the early state laws were not as comprehensive as those EPA must now adopt under RCRA.

The process at the federal level, says Palmer, began without good models, and the agency was faced with the difficult task of defining such fundamental terms as "hazardous" and "solid waste." Further, he says: "It is clear that the initial statutory deadlines for promulgation of RCRA regulations were unrealistic." But, he adds, "the EPA has made commendable progress, especially during the last three years."

'Playing catch-up.' Despite this record of progress, says Rita Lavelle, EPA's new assistant administrator for hazardous waste, it is still easy to attack the agency. "We're playing catch-up in the RCRA arena, so it would appear that we're disorganized and disjointed." She blames EPA's "uphill battle" on the Carter Administration which, she says, waited until the end of its four years to issue several "ill-conceived" hazardous waste rules. "The regulations promulgated at the end of 1980 were thrown out as a Band-aid to the public to show that something had been done with RCRA," says Lavelle. 'But, boy, talk about a midnight dump. Those regulations contained a lot of 'thou-shalt-not' rhetoric, but very little on what one can do to manage hazardous waste."

The regulations expected from EPA this month include long-awaited standards for new and existing landfill sites and incinerators and rules for issuing permits for new hazardous-waste facilities and expansion of those already existing. Definitions of what constitutes solid waste are to be issued about the same time. Lavelle says these rules will be a great improvement on those issued under the Carter Administration.

Less optimistic. The House Energy and Commerce Committee, however, is not so optimistic. While it is considering legislation to reauthorize the act, the committee would like to tighten the regulatory screws a little. In April, at hearings of the House subcommittee on Commerce, Transportation and Tourism, chaired by Representative James J. Florio (D., N.J.), witnesses from environmental groups, state governments, universities and some industries made clear their concern about the way EPA is implementing the act—and about some of its loopholes.

On May 11, Florio's subcommittee recommended a number of amendments, most of which have been passed by the full Energy and Commerce Committee. These would: reduce to 100 from 1,000 kilograms/month the amount of waste a "small generator" would be allowed to produce before being required to comply with RCRA regulations; tighten regulations governing disposal of hazardous liquids in landfills; regulate industrial boilers that burn fuel containing hazardous wastes; limit the time allowed EPA to issue landfill-site permits to four years; and create a national groundwater commission to assess the relationship between groundwater contamination and hazardous wastes.

Election politicking. Some members of the chemical industry see Florio's hearings and subcommittee amendments as so much election-year politicking. "What data, what problems warranted these amendments?" one industry lobbyist asks, contending that no one presented the subcommittee hearing with data or facts that would support these amendments. He believes that the amendments may only cause further delay in the act's implementation.

States applying the act are hobbled by a lack of Washington funding

For small chemical companies, though, the Florio subcommittee's package could result in more than just delays. "The small-generator exemption could pose a lot of problems for our companies," says Ronald A. Lang, executive director of the Synthetic Organic Chemical Manufacturers Assn. He warns that almost every chemical company, no matter how small, would fall under the proposed RCRA amendment, with all the cost that would entail. "This means we now have to pay a lot of attention to [Florios's] RCRA reauthorization bill," says Lang.

Some states, moving ahead with their own RCRA regulations, have already taken action against the small generator of hazardous waste because they fear future dumpsite problems. California, for instance, allows no exemptions at all; Louisiana has acted in a similar way. "Yes, we are very concerned



EPA's Lavelle blames Carter's times for delays.

about this stuff going to municipal landfills," says William B. DeVille, director of policy development for Louisiana's Office of Environmental Affairs. "That is why we don't provide small generators of hazardous waste any exemptions"—even though state law would allow exemptions to be made.

Not the roadside. Tennessee, on the other hand, does allow exemptions, seeing the situation much as does the Synthetic Organic Chemical group's Lang. "I think you'd have more problems if you tried to include the small generators in the regulatory network," says T. Dwight Hinch, chief of policy development and planning with Tennessee's Solid Waste Management Div. Hinch points out that it is better to have small quantities of such waste going to municipal landfills than being dumped along the roadside.

Aside from the flap over what Florio and some environmentalists view as "loopholes" in RCRA regulations, nothing has been more irritating to industry than EPA's inconsistency in implementing many of the regulations. The agency's recent 360-degree spin over the disposal of liquid hazardous wastes—first lifting the RCRA ban, then imposing it once again—has not helped its credibility.

The issue underscores the effect of a series of missteps by EPA. "What the agency up to this point did not understand," says one industry lawyer, "is that every time the agency sneezes, the marketplace catches cold." Consistency,

'Playing catch-up' gives EPA the look of being disorganized and disjointed

he says, is must come if industry is to cope with RCRA, and that is one thing that so far the EPA has managed to avoid. "With the very lengthy and complex regulations and frequent notes in the Federal Register amending them," says this lawyer, "giving advice on the status of RCRA regulations is like working with the morning racing form."

While EPA has yet to issue final landfill regulations, with or without provisions for liquid wastes, the issue could be rendered moot by a *de facto* prohibition on the industry of new landfills—

Talks continue with EPA

Disputes over implementation of the Resource Conservation and Recovery Act, unlike those arising out of some of its forerunners in the field of environmental control and protection, are being settled by negotiations with the Environmental Protection Administration, rather than by litigation in the courts. For the chemical processing industries, the most substantial and wide-ranging series of negotiations under way so far are what has come to be known as "Shell vs. EPA"—which developed in response to a set of standards, applicable to generators and transporters of hazardous-waste material, that EPA promulgated May 19, 1980.

The proceedings have found 38 parties—including Dow Chemical, the Chemical Manufacturers Assn., and the Environmental Defense Fund—locked in lengthy talks with EPA officials over 27 separate issues. Among the most important are:

- **Recycle/reuse.** EPA's original definition of "solid waste" –and the resulting regulations proposed by the agency—gave EPA authority to regulate the recycling and reuse of hazardous waste. Industry is arguing that the rules inhibit the recycling and reuse of waste—both of which it considers a better practice than disposal—and has challenged EPA regulations. Court action by industry is on hold until EPA issues a new regulation. "The new rule will answer a lot of specific industry concerns," says Lisa K. Friedman, EPA's attorney in charge of RCRA proceedings. Tied to the rule will be EPA's program of regulations covering burning hazardous wastes in boilers, at present not regulated under RCRA.
- **Listing wastes.** Industry is challenging EPA rules that allow the agency to classify as hazardous any waste that contains any of the toxic chemicals listed in RCRA regulations. This, industry petitioners say, allows a "presumption of toxicity," and places an unfair burden of proof on industry. The absence of a *de minimis* standard, they claim, makes it extremely difficult to dispose of sludges containing trace amounts of listed hazardous chemicals. Last Nov. 12, industry proposed changes in the criteria for a substance to be listed as hazardous, and EPA is apparently giving these proposals its consideration. Companies have already endorsed EPA's new-mixture rule in effect since late last year, that allows companies to overlook small amounts of hazardous waste mixed with nonhazardous materials in wastewater-treatment facilities.
- **Generic listings.** Industry petitioners challenge EPA's authority to list solid wastes by classes or generic types, saying that the agency's authority is limited to reviewing particular waste streams. EPA says "editorial" changes in the rule will resolve the dispute.
- **Delisting.** The dispute over the process of removing chemicals from the list of hazardous wastes is regarded as settled by industry petitioners. Because EPA has yet to publish a new rule, no one will discuss the settlement.
- **Degree of hazard.** Industry had wanted EPA to adopt a hazardous-waste classification system based on the "degree of hazard" of the chemical involved, but it is no longer pushing the issue. According to court documents, industry petitioners now believe that "the agency has effectively conceded that it must consider the degree of hazard associated with particular wastes and waste disposal practices."
- **Incidental accumulation.** New EPA rules have resolved this dispute. The



y aims to beef up RCRA enforcement.

and even of new incinerators. "We have a tremendous need for disposal facilities, especially commercial incinerators and landfills," says Tennessee's Hinch. "Right now we have neither."

Borderline wastes. Ferro Corp. (Cleveland) also sees the lack of dumpsites as a growing problem. "And we feel it is going to continue to grow as regulations tighten and wastes which are borderline, but leaning toward what one might call hazardous, are classified as hazardous," says Lowell E. Snodgrass, Ferro's director of safety and health. As a result, he says, "we're out on the front lines right now, trying to push the states to be consistent with federal regulations in their site selection and permiting, and to be able to use condemnation proceedings, the right of eminent domain, in these procedures."

FMC Corp. (Chicago) is another company that's trying to deal with the squeeze. "It depends upon what part of the country you're in," says Neil Elphick, the company's director of environmental planning. "The way to cope is through the expenditure of money. If you have a waste that's 500 or 1,000 miles from the nearest licensed and acceptable waste-disposal site, then you spend the money to transport it that distance. It's unsatisfactory," he says, "but we have not yet been driven to the point of attempting to establish our own waste-disposal site."

Ferro's Snodgrass agrees that the situation is still unsettled. "There are still some fly-by-nighters who don't use the

'EPA doesn't seem to realize that every time it sneezes, the marketplace catches cold'

[hazardous-waste disposal] system, who are skirting the system," he says. "There are some smaller companies who close their eyes to the risk they encounter by not following through with the waste-handler very, very carefully." It is within that transportation link, Snodgrass says, that most abuses, such as not labeling wastes as hazardous, are to be found. "But these are the small minority," he adds.

Special treatment. Although labeling is mandatory for any waste that contains any substance on the EPA's hazardous

decided that sludge should
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the question was: 'When is it
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contended that EPA could
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d final RCRA permits. Legis-
ed in 1980 reinforced agency
authority, prompting companies to drop the issue.

- **Extraction procedure.** EPA has suspended negotiations on this issue until its land-disposal regulations have been completed. Industry wants special testing procedures at landfills that contain only one kind of waste, rather than the complex test procedures proposed by the agency for municipal and industrial facilities that handle many kinds of hazardous and nonhazardous wastes.
- **Short-term storage.** Wastes stored by generators at a facility for disposal away from that facility, and wastes stored for later disposal on-site, were at first treated differently under RCRA regulations. An EPA rule issued Nov. 19, 1980, requires that both kinds of wastes be placed in a regulated facility within 90 days. Previously, only wastes destined for on-site disposal had to be placed in such a facility within 90 days—a cause for industry complaint.
- **Small accumulations.** Regulations covering storage of small accumulations of waste in temporary containers are also under dispute. Industry believes EPA's current tough standards are not needed and hopes that new standards, which may be approved soon, will make it easier for companies to use small containers for short-term storage.
- **Groundwater monitoring.** Industry objected to the installation of wells to monitor groundwater around waste facilities, but now that the deadline for installation has passed, the issue is moot and the wells are in. Groundwater monitoring and other remaining issues are held up because EPA experts are under court order to publish other (land disposal) regulations first.
- **Closure and post-closure.** An EPA regulation of Jan. 12, 1981, has rendered this issue moot. Until then, EPA required that hazardous wastes be disposed of, or treated, either 90 days after a site received its last load of waste or after the approval of a shutdown plan. The new rules allow a period of grace if the facility "has the capacity to receive additional waste and there is a reasonable likelihood that a person other than the owner or operator will recommence operation of the site."
- **Surface impoundments.** Corporate petitioners contended that EPA regulations failed to distinguish between existing and new facilities, while arbitrarily imposing inflexible cover-and-close requirements. Most of these contentions have been resolved through an "agreement in principle," which none of the parties will discuss because of continuing negotiations.

list, there are materials not on that list that might deserve special treatment too. "Many people believe that if a substance is not on the RCRA hazardous-waste list they have no legal exposure," says a Washington attorney. "But most manufacturers realize, when they are dealing with substances that are at least as toxic as the listed wastes, they should treat them as such to avoid civil lawsuits."

While it is virtually impossible to assess the amount of waste going into landfills unlabeled or improperly labeled, perhaps the biggest unknown quantity in the whole RCRA question is the volume of hazardous waste burned in industrial boilers. Because this burned waste is being put to a "beneficial use," it is not covered by RCRA regulation. Florio's subcommittee would change that, and in this he has the support of the Hazardous Waste Treatment Council, a group of waste-treatment firms. "The scope of this is truly enormous," says Richard M. Hall, attorney for the group. "Some EPA officials have estimated that tens of thousands of boilers may be burning hazardous waste." The hazardous-waste group also sees the possibility of problems in disposing of residue from industrial boilers burning hazardous waste. The group says that such residue is also hazardous and should be treated accordingly.

EPA wants to negotiate but is prepared to take companies to court if need be

Anguished cries. While EPA has caused cries of anguish from all quarters for the stutter-step way it has issued RCRA regulations, it is the agency's capability and willingness to enforce those regulations that has caused the most heated debate on Capitol Hill. And as critical elections near, the enforcement issue could cause the Administration some of its most serious political problems. Florio says simply that lately EPA's enforcement effort has been "virtually nonexistent," and points out that from March to December 1980, during the Carter Administration, EPA referred 43 RCRA enforcement cases to the Justice Dept. for prosecution. Throughout 1981, the first year of the Reagan Administration, EPA referred no more than five such cases, says Florio, adding that no cases were sent to Justice during the first three months of 1982.

At EPA, however, they see it differently. "We feel we are meeting the congressional mandates of RCRA," says Rita Lavelle of the agency's hazardous waste department. "And we feel we are meeting them within the framework of relevant objectives put forth by President Reagan." Despite what such critics as Florio say, Lavelle claims the Administration's policies on hazardous waste enforcement are working out well. She stresses EPA support for voluntary cleanup agreements with companies, as opposed to lengthy litigation. "Industry has the talent and expertise to protect the environment. We need their help. Our best success stories are those in which we have cooperated with industry," says Lavelle.

Nonetheless, the absence of a "body count" on the Justice Dept. court docket is weighing heavily on EPA. Gorsuch has admitted as much, and the agency may be out to improve its record. "There's going to be a line drawn," says Robert M. Perry, EPA's new associate administrator for legal and enforcement counsel. "It will be clear that if you go beyond the line, there's going to be a court case."

Lack of communication. The problem over the past year, Perry says, has been in a lack of communication between headquarters and regional offices over how to negotiate with companies. Perry insists that the Reagan Administration's approach "does not mean we're going to sit and negotiate all day." He says that some regional officials misunderstood the intent of the agency's enforcement policy and stopped preparing for litigation when entering negotiations with a company. That practice has ended, Perry says. "You've got to have the possibility of litigation to have meaningful negotiations. We want to make that clear to the regulated community. We are ready to go to court if necessary."

Perry, however, says that to carry out this redefined policy the agency will by the fall have beefed up its criminal investigation staff to 20 investigators and four lawyers from the present five investigators and two lawyers. Field technicians and some lawyers have been sent to the Federal Law Enforcement Training Center near Brunswick, Ga., to learn basic criminal-investigation techniques. Further, the agency has signed a memorandum of agreement with the Federal Bureau of Investigation under which the bureau will handle up to 30 environmental investigations a year. "We're really committed to the enforcement program," Perry says. "Believe me, if we can't get voluntary compliance, we'll move in with every tool we've got."



Nosenchuck of New York. States may quit RCRA.

'More with less.' And EPA may have to do just that, according to Norman Nosenchuck of New York State's Environmental Conservation Dept. "The states are not effectively picking up where the federal enforcement effort leaves off," says Nosenchuck, who is also president of the Assn. of State and Territorial Solid Waste Management Officials. He says that many states organized their initial RCRA enforcement efforts while counting on 75% federal funding. "But that funding never materialized," says Nosenchuck, "and states are being asked to do more with less." And he cites an EPA proposal for a 16% cut in state funding for fiscal 1985.

Nosenchuck says bluntly that New York and nine other states are considering withdrawing from the federal RCRA program. "It's a good law," he says, "but it needs to be funded properly." That funding, he adds, may have to come in the form of new state fees and taxes on the chemical industry. □



Alaska Environmental Lobby, Inc.

419 6th Street, Suite 328 Juneau, Alaska 99801 907-586-2345

March 23, 1984

Senator Bettye Fahrenkamp
State Capitol, Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp;

Thank you for the opportunity to comment on the provisions in the Resources Committee substitute for SB-503, an act relating to hazardous wastes. We appreciate the process you have initiated involving the formation of a private/public work group, in addition to your invitation for comments. Your efforts demonstrate concern for the complexity and serious implications of this issue.

Recognizing that Alaska has many businesses producing relatively small quantities of hazardous wastes, legislation must address the issue of currently unregulated disposal of hazardous wastes by small producers and the aggregate effect they have. The federal regulations to be adopted under SB-503 are seriously deficient and and do not adequately address the hazardous waste problem in Alaska. And as you are aware, these outdated federal regulations are going to be reauthorized in a much more comprehensive form this year. We see little value in adopting obsolete regulations.

The effect of a substance on the environment and people is the ultimate concern of regulating agencies and businesses alike. Listing substances that are known to be hazardous under federal regulations is a slow bureaucratic process that cannot possibly keep up with the 3000 new substances being introduced each year by industry. And only a limited number of the listed hazardous substances are used by Alaska businesses.

We suggest that the testing procedures be adopted to provide a standard against which all substances can be measured for hazardous properties. Characteristics to test for should include reactivity, ignitability, and corrosivity found in federal regulations and persistance, carcinogenicity, and toxicity found in the proposed ADEC regulations. If a business knows what wastes it produces, it can easily determine if it will be regulated prior to any capital investment. The second-guessing inherent in the listing process would be eliminated.

We also feel that hazardous wastes should be regulated according to their degree of hazard. Why should a producer of a substance that has minimal impact be regulated the same as a producer of a substance that presents

a serious hazard? The degree of hazard concept would allow the State to direct its' attention where it is needed the most. Procedures could be implemented to re-use waste, treat waste to reduce its' hazardous properties, or contain extremely hazardous waste according to the degree of hazard it presents.

An exclusion for drilling muds used during exploration and development of crude oil is not justified from an environmental standpoint. The decision to regulate should be based on the character of the substance. If drilling muds are truly safe then they will not be regulated. What public policy rationale can possibly justify a blanket exclusion for this industry?

The Alaska Department of Environmental Conservation has already drafted extensive regulations that meet most of Alaska's hazardous waste problems. Senate Bill 503 would specifically prohibit the adoption of DEC's comprehensive program. The four year delay in promulgation of any new regulations, after EPA authorization of the state program, unacceptably undermines a sensible solution to the hazardous waste dilemma in Alaska. A solution already formulated in conjunction with extensive public hearings.

We feel the first step toward a useful hazardous waste program in Alaska is adoption of DEC regulations as a minimum. The Alaska environmental comunity is seeking to establish a hazardous waste program adequate to protect Alaskans and we are willing to work with you toward that end.

Sincerely,

Jay Nelson
Executive Director

Bob Sizemore
Volunteer Lobbyist

P.O. Box 6769
6441 South Air Park Place
Anchorage, Alaska 99502
Phone 907/243-1414
Telex 090-25274

MARKAIR

M E M O R A N D U M

To Sam Padgett

From Manager Cargo Services

Date March 30, 1984

Subject Senate Bill No. 503

SENATE BILL # 503

"An act relating to hazardous waste; and providing for an effective date."

Senate Bill 503 calls for amendments to Alaska Statuates, which provide for extremely redundent practices. Although I agree with Section 1, Amendment to AS 11.41, Reckless endangerment with hazardous waste, the remainder of the Bill only calls for administration, enforcement and control which repeat those of the E.P.A. and the D.O.T.

The Environmental Protection Agency has designed regulations to cover packing, labeling, marking and storage of hazardous waste. For example, CFR 40 Part 761.40 thru 761.60 adopts requirements for marking, storage for polychlorinated byphynels (PCB). If the State of Alaska also adopts regulations for hazardous wastes (PCB is a hazardous waste), it would be nearly impossible to provide more stringent controls than those listed in the CFR 40. Use of specification containers 5, 5B or 17C for PCB's is more than safe and secure for conditions incident to normal transportation. If CFR 40 Regulations are adhered to there is virtually no danger of exposure of the commodity to the environment. The CFR 40 Part 761.65 also provides regulations in order to protect the commodity from contacting the environment during storage and disposal of PCB's.

Under Section 4 of SB 503 addition of A Section (46.03.298) that is only adoption of Federal Laws. Section 4 (c) relates that the State may not adopt regulations that are more stringent than Federal Regulations. If this is so, why, if we are concerned about protecting against release of hazardous waste to the environment, would we adopt less stringent regulations, or ask the shipper and carrier to duplicate requirements already in effect.

Under Section 8 the Bill allows for a municipal to adopt an ordinance consistent with AS 46.03.295 thru 46.03.312 regulating storage and disposal of hazardous wastes. Now we must comply with Federal, State and Municipal Regulations, an impossibility if we are to provide transportation on a timely basis.

Transportation of hazardous wastes is governed by the CRF 49. The addition of State permits, records, labeling, marking and transportation under this Bill will cause an unjustified economic burden on the carrier. As the carrier must follow all Federal Regulations, duplication of State Regulations will force the carrier to pass extra costs to the consumer, or to refuse to transport the commodity, the ramifications to Bush Alaska are obvious.

In summary the extra redundent regulations will adversely effect the residents of Bush Alaska. As a carrier we cannot possibly comply with three sets of rules, possibly conflicting, as well as document all phases of storage and transportation in triplicate without passing a considerable cost on to the consumer.

I have attached a copy of my PCB handling procedures, I think you will see the Regulations provide for safety to the environment except in the case of gross negligence.

Rob Clay

RC:bh

ALASKA PUBLIC HEALTH ASSOCIATION

PO BOX 4-1825 ANCHORAGE AK 99509

Alaska Public Health Association

Resolution In Support Of Proposed Adoption Of Hazardous Waste Regulations

Recognizing that Alaska industries and businesses currently generate at least 400 tons per year of hazardous waste as defined by the federal Resource Conservation and Recovery Act (RCRA).

Noting that the federal RCRA regulations do not appear adequate to protect the quality of Alaska's environment and public health;

Noting that the quantities of hazardous waste that is currently not regulated by the federal RCRA regulations (less than 2200 pounds per month per generator) will be disposed of in unsecure disposal sites i.e. municipal landfills, dumps or the generators property) and that possible exposure to the public and environment cannot be adequately contained at these disposal sites.

Realizing that the proposed Alaska hazardous waste regulations had generally lowered the quantity of hazardous waste that is regulated from 2200 pounds per month to 400 pounds per month per generator;

Recognizing that the Alaska proposed regulations determines a waste to be hazardous using the additional waste characteristics of toxicity, persistence (halogenated hydrocarbons and polycyclic aromatic hydrocarbons) and carcinogencity, which are currently not in the federal regulations;

Recognizing that the proposed Alaska regulations degree of hazard approach of defining hazardous waste provides a systematic framework for dealing with complex hazardous waste issues;

Recognizing that the near term costs of properly managing waste by the generator is at least 100 times less than long term cost of remedial clean up borne by society as a whole (not taking into account the cost of affecting the public health).

Recognizing that the Alaska State Legislature intended in Chapter 93 SLH 1981 that the Department of Environmental Conservation develop a hazardous waste program to meet the needs of Alaska and to adequately protect its environment in the future;

Urges the Department of Environmental Conservation to adopt without any significant changes the proposed hazardous waste regulations and program.

MEMORANDUM

TO: Senator Bettye Farenkamp

FROM: Anita Burke-Reinhart

DATE: March 23,1984

RE: Proposed Hazadous Waste Legislation SB 503

Initially, let me thank you for the opportunity to adress my comments to you on the proposed substitute for SB 503.

It is admirable of you and your staff to have taken the effort to comprehensively address the needs of Alaska's hazardous waste management program. Although, I have some strong concerns I would like to share with you regarding this "combination" approach. Hazardous waste mamanagemnet has long been a process of steps, each being as carefully scrutinized for its appropriateness as its predecessor. Whereas the four bills disscussed are all relevant and vital to an appropriate waste management framework, they should remain succinct and individually represented throughout the legislative process. I reccommend that each of the issues outlined in the combined bill be dealt with on an individual basis.

As per your request I have taken the opportunity to utilize the proposed draft and comment on what we obviously agree to be the major components of the hazardous waste management program best suited to the State of Alaska.

In 1981, the state of Alaska began to address the severity of indiscriminate disposal of hazardous wastes with the passage of SB 29. It recognized that the state could and would better address its needs with a state managed and operated program. It was here that the basic concerns and needs of the program were outlined. This legislation, that you, business and labor, environmentalists, health professionals,the native community and the general public heartily supported, recognized these common concerns:

1). hazardous waste is generated in the state of Alaska.

2). this generation and lack of disposal alternatives and a mangement program threaten to endanger human health and the cleanliness of our environment.

3). that the state of Alaska must design a program to meet the specific needs of hazardous waste generators in the state , "that will ensure the protection of human health, livestock, wildlife, property, and the environment."

It is my impression that the intent of SB 29 was to meet the specific needs of the generator of hazardous waste in the state of Alaska. It is self evident that the industrial development and economic forecasts for the growth of this state as well as the environmental structure offer a scenario that is succinctly different from any other location in the lower forty eight or the world. In recognition of this, the Department of Environmental Conservation began to design a program to meet the needs of this diverse and growing state.

During the past three years the Department of Environmental Conservation has drafted an Alaskan approach to the hazardous waste problem we have here in Alaska. The program has successfully met the review of the public,local government and federal government. Oddly enough the program the state has opted for is indeed the preferred approach of the major industrial complexes of the U.S when RCRA was initially drafted (see enclosed article). Yet, it is the same industrial complex that now comes out against such an approach.

It is for the following reasons that I continue to <u>support the proposed state management program</u> over RCRA or its proposed ammendments as the best alternative for the unique situation we face here in Alaska:

1). The RCRA approach is one that requires the EPA to identify and <u>list</u> each particular by product that it deems potentially hazardous to the safety of human health and the environment. Although, the regulations were legislated in 1976 it wasn't until 1980, four years later, that the first list of regulated by products were promulgated. This approach cuurrently identifies 368 toxic chemicals and 120 toxic waste streams that must be regulated. Very few of these by products address or identify the unique hazardous by products that are found in Alaska. RCRA does not identify Alaska's problem.

2). It was intended by the federal program to add any and all additional by products to the list. Not one addition has been made since the release of the initial list in 1980. The city of Times Beach was contaminated by dioxin, this by product is not on the list.

3). Under the Agency's present regulations to be a hazardous waste, a waste must exhibit a characteristic of hazardous waste or be listed by name . None of the characteristics of hazardous waste promulgated so far - ignitability, corrosivity, reactivity, or extraction procedure toxicity - identifies wastes on the basis of organic toxicity. In addition, EPA's listing process has been virtually stalled for several years.

4). Due to the 2,200 pound exclusion limit set by RCRA, it is estimated by the Office of Technology and Assesment that up to four million metric tons (one billion gallons) of hazardous waste are escaping effective control due to this exemption. This includes a majority of the waste being generated in Alaska and recognizes the impact small quantity generators have on the overall problem.

5). If the state were to opt for a program restricted to the mandates of RCRA it would be yet another unnecessary expenditure of state revenues. It makes little sense for the state to take over the program that the Federal Government is required to implement regardless. The state should not take on the additional expense, bureaucracy and duties of a program that is essentially out of their control and dictated by the folks in Washington D.C..

The state managment framework outlined by the DEC has designed an approach that will economically and reponsibly address the specific needs of the hazardous waste problems we face in Alaska. It is with a professional and educated committment that I support the proposed state program. Following are some of the major higlights of the program that support my committment:

1). The state program proposes to address the identification of hazardous by the " degree of hazard " they represent to our environment. This approach determines the actual degree of hazard a particular by product, regardless of its name, poses to human health and the environment

. This allows each generator to rate its by product on a scale of quantity generated and the composition of its waste to determine the degree of their individual problem. The state has determined thresholds at which it has been scientifically proven that a by product is harmless. Rather than relying on an outdated and irrelevent

list, the state is allowing each by product to measured against the standard it has determined to be accaptable. The bioassay system of testing utilized in the state, as an example of one of the indentified methods of testing, has been used by the scientific community since the 1930's as an indicator for environmantal pollution

and is the method utilized by the EPA to identify new toxicants.

2). The state program also includes tests for organic toxicity not addressed in RCRA. The state includes testing for toxicity, persistence, carcinogenicity, ignitability, corrosivity, reactivity as well as a Waste Extraction Procedure characteristic. The EPA and Congressional reports have found that the lack of these testing approaches and the limitation of merely listing a waste have severely undermined the original intent of RCRA.

3). The state program also addresses the needs of the small quantity generator

by reducing the limit of quantity exclusion. The state program would regulate the generation of 400 lbs. per month or batch (approximately one 55 gallon drum). Although, the Federal regulations may reduce that criteria to 220 lbs.. The fear that this will place an unnecessarily cumbersome burden on the small quantity generator is not necessarily well founded.

3.) cont. Quantity of generation is not the only criteria that determines wether a particular by product is regulated. The toxicity of the waste is also a criteria. As well, the state program has gone one step further and designed a waste management framework for those wastes known as "Moderate Risk Wastes". It is perceived that the framework will the much needed flexability that RCRA is lacking for the small generator. The moderate reisk wastes can be safely and economically handled within the state and therefore avoid the costly alternative of shipping the waste out of state.

4). Finally, the state program serves the needs of the state of Alaska by recognizing the changing pattern of growth that has faced Alaska for the past 25 years. By desigining a flexible and manageable program for Alaska we find ourselves with a program that meets the needs of a flexible, growing economy and industrial base.

In adressing the particular mandates of the proposed legislation, Sections four, five and six specifically require that any state managed program be limited to the mandates of the federal RCRA approach and delay the degree of hazard approach for four years. Due to the observations listed above and my extensive background in the management and identification of hazardous waste problems in other states, I must support the removal of any reference to limiting the state program to the mandates of RCRA. I remain committed to the process on line for the state and continue strong support for the proposed state regulations as they are currently drafted.

With reference to the other mandates of the legislation I have several comments and will address them as they pertain to each section of the proposed legislation.

Page 2 and 3, Section 298.2b It is irresponsible for the state to blindly accept responsibility for the payment of testing to determine the toxicity of the waste. I invision the Department being bombarded with waste sample after waste sample, testing everything from household water systems to prank samples. As well, tests are legitimate business exspenses that can be written off. Morally, I feel that as a tax payer I do not wish to see the states money, our money, be used for the benefit of a generator that originally made money creating the problem.

Page 5, Section 301

Munincipalities already have the home rule provision "given" to them in this section. The remainder of the section limits the Munincipality to the provisions of RCRA. It is at the local level that the issue of household hazardous waste production and small business generation has been most effectively addressed. This section eliminates that option for Alaska and severly undermines any plans that current Alaska munincipalities have for abating the problem of toxics in their landfills and water systems.

Page 6, Section 309

This section allows for the design and development of regional gathering centers. This is an attractive concept but, I believe it neds a much more in depth approach than that which is outlined here. Currently, the state has no criteria for the transportaion, storage or disposal of hazardous waste. As well, a public input and education process should be developed. I suggest that instead of permanent gathering centers that a fiscal support system be designed to institue the DEC's "Spring Clean-Up" on a regional basis and at least four times per year.

PENALTIES I do not think that the intent of SB 498 was correctly transferred in this legislation. This change in Alaska code is vital to any program in the State. I would like to see this explained in greater detail and to have a report of compliance and effectiveness presented by the Department of Law.

Again, let me thank you for this opportunity. May I suggest that rather than scraping three years of hard work and monies spent on the current proposed regulations, we address any problems with the current program as it is implemented and ammend it as necessary to meet the ever changing needs of the state. If a particular generator fells that the regulations severely hamper their operations in this state and that an exemption is necessary let us utilize the steps available to address each request individually. As well, let us be reminded that the regulations as they stand allow each generator to exempt themselves from regulation by not producing a hazardous by product or utilizing the available technologies to limit and recycle their production. I feel it is a little extravagant and unecessary to blast three years of hard work out of the water for political reasons and not address the needs of human safety and environmental protection on a responsible and scientifically supported platform. If we must, let us alter the exsisting program to meet Alaska's unique needs and not crawl back to the abyss of the Federal bueauracracy.

I look forward to seeing you and continuing to work together to address what is becoming one of the most important pieces of legislation to face the state on the environmetal and human safety front.

ALASKA PUBLIC HEALTH ASSOCIATION

P.O. BOX 4 - 1825 ANCHORAGE, AK 99509

Great public support exists for the State of Alaska to establish a strong, viable program to control toxic substances and hazardous wastes. Current efforts to establish a hazardous waste program through State legislation represent several years of combined work by labor, business, industry, public interest groups, and government agencies. The draft Committee Substitute for Senate Bill 503 by the Resources Committee represents an attempt to combine several related pieces of legislation in a compromise bill. The Alaska Public Health Association has several comments on the work draft dated 3/8/84 that we hope will be helpful in reaching an acceptable compromise version.

1) The inclusion of Section 11.41.260, Reckless Endangerment With Hazardous Waste; and Article 5A, Disposal Facility Site Board, starting with Section 46.03.313, represent the incorporation of parts of SB 498 and SB 450 and should be fully supported, although there appears to be no obvious necessity of combining all three bills.

2) Section 46.03.298 will prevent the State from adopting regulations relating to hazardous wastes that are more stringent than federal regulations. It would seem not to be in the State's best interests to tie State options so restrictively to the cumbersome federal Resource Conservation and Recovery Act of 1976, which is generally held to be ineffective in controlling hazardous waste problems in the lower 48 states.

In recognition of the great opportunity that Alaska has now to prevent the hazardous waste problems that have plagued many of the lower 48 states, Department of Environmental Conservation for the past two years, has been developing regulations under a "degree of hazard" approach. The 1981 proposed Dow-Shell Group Petrochemical Feasibility Study and the subsequent review of that proposal by an interagency task force of State of Alaska Departments highlighted the need for a different approach to controlling hazardous waste in Alaska than other states. In addition, the Alaska Public Health Association convened a special Health Congress to evaluate health hazards and potential risks associated with petrochemical development. Fourteen of the world's most prominent experts in the evaluation of health affects related to major petrochemical industrial development attended, representing a cross-section of environmentalist and industry expertise. Consistent with recommendations made by the Dow-Shell Group scientists and the Interagency State Task Force Report, the experts who participated in the Alaska Public Health Association Health Congress, which included a Moot Science Court, unanimously agreed that the State of Alaska was in a position to develop its legislation to prevent future problems.

The "degree of hazard" approach is consistent with State goals to develop its natural resources, provide industry development, develop jobs and economical benefits, and protect health and the environment. The burdens of adopting fragmented and piecemeal federal regulations with their many loopholes, inordinant bureaucratic inefficiencies, scientific and technlogic obsolescence, and excessive costs can be avoided.

Enactment of the proposed Committee Substitute for Senate Bill 503 will stop this degree of hazard approach and lock the State into the federal Resource Conservation and Recovery Act of 1976. By requiring that DEC may not adopt regulations more stringent than federal regulations, the legislation will remove State options to develop a flexible and more reasonable approach to hazardous waste control. It will be difficult under federal regulations to deal with both major industrial development as well as the numerous small hazardous waste generators in the State.

The constant development of new knowledge is enabling ever greater application of efficient, cost-effective technology to hazardous waste control. State regulations should be flexible in order to utilize new technology and minimize impediments to resource development. By tying State regulations to federal regulations, this flexibility will be lost. ALPHA urges that the Committee consider adoption of language which would insure this flexibility to the State by supporting the degree of hazard management approach.

3. There may be an internal conflict in the present draft of the bill between Section 46.03.298, Federal Hazardous Waste Law; Adopted By Reference; and Section 46.03.298, Hazardous Waste Regulations. The first section requires that the Department not adopt regulations more stringent than federal regulations. The second section allows the development of regulations for the management of hazardous waste according to the degree of hazard presented by the waste. Development of regulations according to the degree of hazard should be supported. However, it would appear that these two Sections conflicts with each other as federal regulations do not allow degree of hazard evaluation.

4. Under Section 46.03.298, Hazardous Waste Regulations, subheading (b) states that if a regulation adopted under this section requires testing to determine whether a substance is a hazardous waste, the Department shall provide the testing without charge to the generator of the substance. ALPHA urges the committee to examine this provision with great care. One effective approach to the regulation of hazardous waste has been to place squarely the responsibility on the generator. If the generator must pay for his hazardous wastes, the generator has a strong economic incentive to reduce or eliminate their production.

5. Section 46.03.299, Control of Hazardous Wastes, subheading (c) would prohibit the State from developing new regulations for the control of hazardous waste for four years from the date on which the EPA approves the state hazardous waste program, a process which in itself could take 1-2 years. Subheading (c)(2) again would prohibit the Department from listing as hazardous a waste that has not been listed by the U.S. EPA unless the commissioner first determines that the waste is hazardous as defined in this chapter. It is unclear by reading the chapter how the Commissioner can make a determination that a waste is hazardous. In addition, this Section would appear to conflict with Section 46.03.298 subheading (c) that would prohibit the Department from adopting regulations more stringent than federal regulations. A four year delay seems unnecessary in view of widespread public support and a development process that has been going on for two years already.

6. Section 46.03.301, Municipal Regulation, appears to prohibit local municipalities or local governmental units from adopting hazardous waste programs more restrictive than State legislation. Local municipalities may find themselves unable to respond to hazardous waste problems particularly from small generators, if restricted to programs no more stringent than federal regulations adopted under the Resource Conservation and Recovery Act of 1976, and restrictively adopted by this legislation under Section 46.03.298 (c).

7. Section 46.03.311, Public Records, Section (a) allows the Commissioner to treat records, reports, permits, applications, or information as confidential. However, the wording is unclear as to whether or not an entire document would be confidential if only a part of the document was determined to be proprietary information; or if only the proprietary information can be treated as confidential. It would seem desirable that the Commissioner should be able to make a determination that only information which is proprietary be kept confidential, not the whole report.

8. Section 46.03.306, Gathering Centers, provides that a generator of hazardous waste may not be charged for deposits of less than 2,200 pounds per month at a gathering center. This provision would again appear to remove responsibility from the generators to reduce or to eliminate the production of hazardous waste material. ALPHA urges that the amount be lowered substantially or that this provision be eliminated altogether.

The Dow-Shell Group industry representatives; experts who attended the Alaska Public Health Association Health Congress in May 1981; experts in various State and federal, agencies; and private organizations all have stated that modern technology exists to control hazardous waste problems. The State can develop legislation that will allow profitable economic development of State resources and prevent future hazardous waste problems. Federal legislation has proved to be ineffective in dealing with many hazardous waste problems occurring nationally. ALPHA urges the committee to avoid restricting the options of State government by tying State hazardous waste legislation restrictively to the Resource and Recovery Act of 1976.

In summary the Committee Substitute for Senate Bill 503 would appear to be a major retreat from the efforts conducted during the past two and one-half years to establish a comprehensive hazardous waste program in Alaska. Alaska currently does not produce large volumes of hazardous waste. Therefore, a great opportunity exists to prevent future problems with hazardous waste by establishing a comprehensive and flexible program. This opportunity seems to be recognized by the public, which has shown past strong support for the development of a comprehensive program for hazardous waste control and management in the State of Alaska.

Alaska State Legislature

Senate

Official Business

RESOURCES COMMITTEE

Pouch V
State Capitol
Juneau, Alaska 99811

MEMORANDUM

TO: Senate Resources Committee Members

FROM: Jim Palmer
Committee Staff

DATE: January 26, 1981

RE: SB 29 "An Act Relating to Nuclear Materials"

The Chairman has called for a hearing on SB 29 "An Act Relating to Nuclear Materials" at 1:30 PM on Wednesday, January 28. This measure was introduced by Senator Kerttula and was referred to the Resources and Judiciary Committees.

Last session two measures (SB 269 and SJR 34) were intoduced in the Senate. HB 511 was introduced in the House. These bills concerned nuclear materials.

SB 269 was considered by the Health, Education and Social Services Committee. A committee substitute replaced the original bill and this substitute was passed out of committee. It was further referred to the Senate Judiciary Committee. The Judiciary Committee had the bill under consideration when the session ended.

SB 269 is similar to the current bill SB 29.

Attached for you information is the pertinent background material relative to SB 269 and HB 511.

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

MAR 1 8 1980

J. S. HAMMOND, GOVERNOR

...O – JUNEAU 9981...

The Honorable J. M. Kerttula
Senator
Alaska State Senate
Pouch V
Juneau, Alaska 99811

Dear Senator Kerttula:

The Department recently completed an analysis of House Bill 511 relating to the disposal of hazardous wastes. Because of your interest in hazardous wastes, we have enclosed a copy for your information. The bill will need some changes if we are to develop a reasonable hazardous waste disposal program, and our analysis makes recommendations on how that might occur.

There have been indications in the past several weeks that the House Resources Committee expects to schedule this bill for hearings. We are working with committee's staff in drafting a substitute bill in preparation for those hearings. This should occur soon, and we will keep you informed on this effort.

Sincerely yours,

C. Deming Cowles

C. Deming Cowles
Deputy Commissioner

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ANALYSIS OF HB 511, AN ACT
RELATING TO THE DISPOSAL OF HAZARDOUS WASTE

A. SUMMARY OF BILL

The department interprets the intent of HB 511 to mean that the Legislature wishes to protect the lands and people of the state from the potential dangers of hazardous waste disposal rather than the use or generation of hazardous materials. The bill delegates to the Alaska Department of Environmental Conservation (ADEC) the power to adopt regulations for the safe, proper disposal of hazardous waste so as to protect the health, safety and welfare of the public and the quality of the environment. However, it grants this power with reservations, since the bill also prohibits the disposal of hazardous waste in Alaska unless processing renders the wastes harmless.

B. ANALYSIS

The department's interpretation of HB 511 takes into account the numerous examples of illness, death, and mutations throughout the continental United States that have been traced directly to disposal sites for hazardous wastes. The department further assumes that the intent is not to halt the use or generation of hazardous substances except in certain instances, because such a ban would hinder economic development. As the Alaska economy diversifies the possibility exists that more industries and corporations which generate hazardous waste will be attracted to and wish to locate in the state.

1. Positive Aspects of the Bill

HB 511 is the first attempt to grant specific Legislative authority to handle and manage hazardous wastes in Alaska. Currently the Alaska Statutes authorize ADEC to adopt regulations concerning collection and disposal of garbage, refuse, and other discarded solid waste materials from industrial, commercial, agricultural and community activities or operations. It is under this broad statutory authority that ADEC has assumed responsibility for establishing a hazardous waste management program. Specific legislative authorization would, however, clarify the state's role and responsibility in hazardous waste management.

Specifically, the following aspects of the bill are necessary for a coordinated hazardous waste management program.

(a) Section 20 authorizes the department to adopt regulations for the disposal of hazardous wastes. This power, however, is limited by Section 10, which bans all disposal of hazardous waste in the state. The materials considered below are examples of wastes which the department presumes could be regulated under the bill.

While uranium is not presently being mined in Alaska, at least one earlier mine and continuing explorations present evidence that Alaska has the potential for large-scale uranium mining. The large amounts of waste rock and overburden contain potentially hazardous radioactive materials, either directly through radon escape or indirectly through leachate. From a practical standpoint, this overburden would have to remain in Alaska.

Waste oil is considered by the Environmental Protection Agency to be hazardous. In fact, it is singled out for special treatment because the use of waste oils for dust suppression or incineration has been known to cause serious environmental effects. However, waste oil is heavily utilized as a dust suppressant on roads throughout Alaska. The only State requirement to its use in such a manner is that the user obtain a department permit under 18 AAC 75.010-060. The use of waste oil in this manner may be considered illegal by EPA once their final hazardous waste regulations are promulgated this Spring and Summer.

Because of Alaska's increasing involvement in petroleum production, the number of oil spills has been increasing yearly. In 1979 alone there were four major oil spills - the M/V Lee Wang Zin near Ketchikan, the M/V Ryuyu Maru off the Pribiloffs, the Cordova Chugach Cannery, and the Ltigun Pass spill. Oil spilled from these four incidents alone totalled over 632,000 gallons. Much of this oil went directly into the environment; the remainder has or is being cleaned up. While EPA does not consider oily wastes as hazardous, Alaska does consider them special enough to warrant specific legislation, AS 30.25.120.(c). Also, Section 30.25.061(c) of HB 205, "An Act Relating to the Prevention and Control of Oil Pollution" deals with the disposal of oil spill clean-up materials. When not handled correctly these wastes pose a hazard for individuals and the environment. Bulky, difficult and expensive to transport, and a cause of localized air pollution if burned and water pollution if leachate forms, oily wastes cannot be shipped out of state nor simply left in a stored condition with no future plan for disposal.

In the above situations the conditions under which disposal will be allowed must be clarified. If section 10 were deleted or modified, Section 20 would give the department the authority to clarify these conditions and would then provide the sound basis for a management program geared to Alaskan conditions.

(b) If Section 10 were deleted or modified, Section 20 would be the start of obtaining the required authority should the department decide that assumption of the federally-mandated hazardous waste program is in the best interest of the state.

In 1976 the Resource Conservation and Recovery Act (RCRA) was passed by Congress. One of the main goals of the Act was prevention of pollution caused by the disposal of hazardous wastes, the primary means for achievement being a manifest system. The manifest, similar to a bill of lading and signed by all persons in contact with the wastes, would be filed with the responsible state or federal agency. In this way a waste could be traced from generation to final disposal.

Congress stressed that states should assume responsibility for their own hazardous waste management program. Funds were appropriated for hazardous waste inventories, economic analyses of addition . state resources needed under program adoption, analyses of the effect on industries, and planning. If a state did not assume responsibility, EPA would be required to manage hazardous wastes in that state.

Alaska is considering whether or not to assume all or part of the RCRA-mandated program or allow the Environmental Protection Agency to assume responsibility. Some of the points to consider are additional staff and paperwork necessary for program implementation, need for the State to have control over these wastes versus leaving control in federal hands, and the economic feasibility and preferences of industrial generators regarding state or federal jurisdication. While federal money is available for program planning and start-up, the program must be completely state-funded within a few years. The department plans to make its decision in Fall, 1980.

While the authority given this department in HB 511 would probably be sufficient for interim authorization, full authorization by EPA will be dependent on the passage of complete legislative program authority as well as numerous requirements promulgated as regulations. Not only would a section on the state's authority to write regulations for specified aspects of hazardous waste management be needed, the bill should be changed to reflect the shortcomings and considerations discussed below.

2. Shortcomings of the Bill

The bill as written has several deficiencies;

a. Sections 10 and 20 are conflicting. Whereas Section 10 prohibits disposal of hazardous waste in Alaska, Section 20 authorizes ADEC to write regulations for the safe disposal of hazardous waste. Since some hazardous wastes may need disposal instate, the Legislature should remove the conflict.

b. The bill defines hazardous waste so broadly that it is vague. The definition of hazardous wastes, taken from the Resource Conservation and Recovery Act, is adequate, however, RCRA further authorizes the Environmental Protection Agency to refine the definition by listing hazardous wastes. While the department could use Sec. 20 to identify hazardous wastes, the bill does not specifically give the department that authority.

c. Banning hazardous waste disposal alone will not guarantee protection. Transportation and storage of hazardous wastes are potentially as damaging as disposal. Even should Section 10 stand as written, hazardous wastes will need to be stored prior to processing or transporting. Again, the department could use Sec. 20 to guarantee proper treatment, storage, and transportation methods, but the bill does not explicitly grant this authority.

d. Section 30 singles out corporations for special punishment for a violation of any hazardous waste requirement. However, the potential of contamination from improper hazardous waste handling is as great from individuals as from corporations. Penalties should either come under existing penalty provisions in AS 46.03 or be generalized so as to cover everyone.

e. A slight point in Section 10 is that once a hazardous waste is processed to remove its harmful qualities, it is no longer hazardous. Therefore this qualifying phrase in the section is unnecessary.

3. Considerations

a. At this time the status of hazardous waste in Alaska is unknown. The department recently began a inventory of hazardous waste types and amounts, generators, disposal sites, transporters, processors, and handling methods in order to determine what controls Alaska should have. This would include evaluating whether Alaska needs a disposal site and what alternatives are available for disposal of hazardous wastes. Once these results are available the Legislature will be in a position to know what legislation would protect the people and lands of the State.

b. Many states are reacting to improper and unsafe hazardous waste disposal practices by prohibiting all disposal or by prohibiting disposal of out-of-state generated hazardous wastes. As the Alaskan economy diversifies, there will be the probability of attracting more industries and corporations that potentially generate hazardous waste. The Legislature should consider the possibility that Washington, which is the destination of most Alaskan transportable hazardous wastes, might not accept Alaskan hazardous waste in the future.

c. The term "processed" is undefined; its definition will clarify the distinction between processing or treatment and disposal.

C. RECOMMENDATIONS

Hazardous waste generation is often a necessary part of industrial development. Since economic diversification is a prime goal of the state, limiting or banning the disposal of hazardous waste could limit the number and types of industries wishing to locate in Alaska.

Even with limited industrial activity, however, a total ban on hazardous waste disposal would be inappropriate. Hazardous wastes are generated by medical facilities, by automobiles and other vehicles, by utilities and other facilities. However, the state must guarantee that when such wastes are generated that disposal and storage does not threaten or harm its people or environment. To do this HB 511 should be modified to take into account why and how hazardous wastes are generated and by whom.

As currently drafted, House Bill-511 would modify Alaska Statutes relating to the Department of Health and Social Services. Because the intent of this legislation is for the Department of Environmental Conservation to carry out hazardous wastes control efforts, we recommend that this proposed legislation be integrated into Alaska Statutes 46.03, which relates to the Department of Environmental as follows:

1. AS 46.03.020(10) be amended to add the following

(I) " Proper handling, transportation, treatment, storage, disposal, and control of hazardous wastes from the time of initial generation to final disposition."

2. The title of Article 6 be amended to read as follows:

"Article 6. Pesticide and hazardous solid waste control"

3. A new section AS 46.03.340 be added as follows:

"46.03.340. HAZARDOUS WASTE CLASSIFICATION, REPORTING. (a) The department shall classify hazardous wastes and their sources. Classifications made under this subsection may be for the state as a whole or to substate areas.
(b) the department may require a person generating, handling, or possessing hazardous solid wastes to submit reports containing information concerning location, amounts, and types of hazardous wastes.

4. A new section AS 46.03.350 is added to read as follows:

"46.03.350. HAZARDOUS SOLID WASTE REGULATIONS. The department shall adopt hazardous waste control regulations to provide for the disposal of hazardous wastes to protect the public health, livestock, wildlife, and the environment from any adverse effects. Such regulations may include requirements

for the handling, treatment, storage, and disposal of hazardous wastes, containerization, labeling and reporting."

5. AS 46.03.826 DEFINITIONS be amended to add the following:

(__) "Generation" means the act or process of producing hazardous waste.

(__) "Hazardous Waste" means a waste or combination of wastes which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or increase in serious, irreversable, or incompassitating reversible illness or propose a substantial present or potential hazard to human health or environment when improperly disposed."

POSITION PAPER/Department of Health & Social Servic

POSITION PAPER

SENATE BILL NO. 269

"An Act prohibiting the disposal of nuclear waste material."

Senate Bill No. 269 prohibits the storage and disposal of nuclear waste material in Alaska. This prohibition is without qualification as to quantity, origin, and kind.

Alaska has approximately 35 licensed users of radioactive materials. Since Alaska is not an Agreement State under the Atomic Energy Act, the Department of Health and Social Services does not have jurisdiction over these sources. They are licensed and controlled by the United States Nuclear Regulatory Commission.

Presently, nuclear waste material in some form or other is either stored and/or disposed of in Alaska. It is estimated that from eight to ten of the facilities licensed in the State by the Nuclear Regulatory Commission use unsealed sources which require some storage and disposal following use.

Unsealed sources, as differentiated from sealed sources, are those not encapsulated in a container. Unsealed sources, kept in openable bottles or other containers, are necessary in research and nuclear medicine so they can be used in various laboratory procedures or in medical practice by ingestion, inhalation or injection. This use results in various kinds of radioactive wastes. Facilities presently using unsealed sources are four hospitals located in Juneau, Anchorage, and Fairbanks. Unsealed sources are also frequently used in private, Federal, and State research and/or educational facilities carrying out activities such as those conducted by the NOAA Auke Bay Fisheries Laboratory, U.S. Geological Survey, and the University of Alaska Institutes of Marine Science and Arctic Biology. Some of these unsealed sources may also be used in industrial applications--for example, activities related to the oil industry.

Radioactive wastes are in the form of liquids, contaminated laboratory articles, biological samples, and such items as towels and clothing. Generally these would be stored in liquid-tight barrels, on site, in an area with limited and controlled access. Storage is necessary until materials can be shipped to a licensed radioactive waste disposal site, such as the one in Rickland, Washington. Alaska does not have an approved waste disposal site, and the present low volume of such waste has not yet caused a problem for users in Alaska.

Presently, hospitals in Alaska store radioactive waste until it has decayed to very low levels (near background). The material is then either incinerated or disposed of in sanitary sewerage systems according to regulations established by the Nuclear Regulatory Commission.

This Bill, if passed as presently worded, will eliminate the use of unsealed radioactive sources in Alaska--a situation which will have a harmful impact on the delivery of medical services and research activities within the State. Accordingly, the following changes in wording are recommended:

Line 12: Leave in the phrase "OR NUCLEAR WASTE DISPOSAL FACILITY".

Lines 26-28: Section 18.45.027. DISPOSAL OF NUCLEAR WASTE MATERIAL. The disposal of high levels of nuclear waste material in the State from nuclear power plants is prohibited.

The changes recommended above are suggested only to protect the use of radioactive materials in nuclear medicine facilities, research, and education. It is recognized that the prohibition of the disposal of high level waste from nuclear power plants may directly affect future State policy and the interest of other State agencies. This matter of State policy regarding disposal of high level waste has ramifications far beyond the authority of this Department, and consequently is not addressed by this position paper.

With the above recommended changes, the Department of Health and Social Services takes a neutral stand on Senate Bill No. 269.

Recommended by: _____
Dean F. Tirador, M.D.
Director, Division
of Public Health

Date: 17 Mar 80

Approved by: _____
Helen D. Beirne
Commissioner

Date: 3/20/80

Department of Health & Social Services

STATE OF ALASKA

JAY S. HAMMOND, GOVERNOR

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

opinions

POUCH K–STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3686

April 15, 1980

The Honorable Glenn Hackney
Alaska State Legislature
Senate
Pouch V
Juneau, Alaska 99811

Re: Nuclear Waste Transportation
Our file J-66-606-80

Dear Senator Hackney:

On April 4, you requested this department's views on whether the State of Alaska could prohibit the Federal Government from utilizing state roads to transport nuclear waste for disposal within the state. The state of the law in this matter is fluid, and we cannot give a definitive answer.

Many states, and local governments, have enacted legislation prohibiting or restricting the transportation of radioactive wastes across their roads. In response, the Federal Department of Transportation has proposed regulations which, if enacted, would preempt states from imposing outright prohibitions on nuclear waste transport, at least on federal aid highways, although states would be allowed a voice in particular routing decisions. A copy of these regulations is enclosed. Several states are actively protesting these

regulations, and are contemplating litigation in the event that they are adopted -- on the grounds that the regulations are statutorily and constitutionally unauthorized.

Absent the adoption of these regulations, the state probably could prohibit private carriers from transporting nuclear wastes across state roads. A different problem exists with respect to transportation by the Federal Government and its instrumentalities. Unless a specific statutory waiver could be found, direct federal transport would be immune from state regulation. Hancock v. Train, 426 U.S. 167 (1976). Congress has waived federal sovereign immunity with respect to solid waste activities in section 6001 of the Resource Conservation Recovery Act of 1976 (P.L. 94-950). The applicability of that waiver to nuclear waste transportation by the Federal Government would be questioned under section 1006(a) of the Act, which provides that:

> Nothing in this Act shall be construed to apply to (or to authorize any state, interstate, or local authority to regulate) any activity or substance which is subject to the . . . Atomic Energy Act of 1954 (42 U.S.C. 2011 and following) except to the extent that such application (or regulation) is not inconsistent with the requirements of such acts.

As implemented, the regulation of the transportation of nuclear wastes is governed not by the Atomic Energy Act, but rather by the Hazardous Materials Transportation Act.

49 U.S.C. § 1801 et seq. Thus, the exceptions to the sovereign immunity waiver contained in the Resource Conservation and Recovery Act, at least potentially, may not include the transportation of nuclear waste materials. However, because sovereign immunity waivers are strictly construed in favor of the Federal Government (Hancock v. Train, supra) the argument may be a difficult one to make. */

As I hope this letter indicates, the subject of the permissible scope of state regulation with respect to nuclear power involves an accommodation of several major federal regulatory programs, and ongoing federal agency activities. Certainly, 42 U.S.C. § 2021 -- the state cooperation section of the Atomic Energy Act -- has certain preemptive effects. For example, it has been held that states may not prohibit the construction of a nuclear plant for reasons premised on radioactivity hazards, although it may deny siting approval on other environmental or land use grounds. See Northern States Power Co. v. State of Minnesota, 447 F.2d 1143 (8th Cir. 1971); United States v. City of New York, ___ F. Supp. ___, 12 ERC 1600 (SDNY, December 26, 1978); Pacific Legal Foundation v. California State Energy Comm'n,

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*/ The sovereign immunity waiver in the Clean Air Act (sec. 118: P.L. 95-95) may also be applicable, to the extent that transportation of nuclear waste poses a threat of atmospheric radioactive release.

___ F. Supp. ___ 12 ERC 1899 (S.D. Cal., March 6, 1979). The extent to which this rationale is applicable to direct regulation of nuclear waste disposal activities is unclear. Because it is unsettled, many state and local governments have chosen to legislate in this area. Moreover, it is my understanding the Nuclear Regulatory Commission has taken a cooperative attitude in this respect -- although the Department of Transportation, as noted previously, may differ. In sum, it does not appear from initial review that there exists any clear legal obstacle at this time which would override the public interest which would be served by state nuclear power regulation.

Sincerely,

AVRUM M. GROSS
ATTORNEY GENERAL

By
Jonathan K. Tillinghast
Assistant Attorney General

JKT:dlm

Enc.

cc: Ernst W. Mueller, w/enc.
Commissioner
Department of Environmental
Conservation

STATE OF ALASKA

DEPT. OF HEALTH AND SOCIAL SERVICES

DIVISION OF PUBLIC HEALTH

JAY S. HAMMOND, Governor

POUCH H-06-JUNEAU 99811
~~POUCH H XX JUNEAU 99801~~

April 15, 1980

The Honorable Glenn Hackney
Chairman
Health, Education
and Social Services Committee
Alaska State Senate
Pouch "V", State Capitol Building
Juneau, Alaska 99811

Document# 79-80

Dear Senator Hackney:

Sid Heidersdorf, Radiological Physicist for the Division of Public Health, is out of town this week and therefore unable to testify at the Wednesday hearing on CSSB 269. He has asked that I convey his concerns regarding this bill to you for consideration by your committee.

We are pleased to note that the Committee Substitute for Senate Bill 269 allows the storage and disposal of nuclear waste resulting from medicine, scientific research and education. We have a few additional concerns we feel should be weighed by the committee in their deliberations on this bill.

Consideration No. 1

Section 18.45.025 removes nuclear waste disposal facilities from the permit requirements listing. At some time in the future, if disposal requirements from medical, scientific and educational sources become great enough, a waste disposal facility may be required within the state for wastes generated from these sources. In that event, any such facility should be required to receive a permit from the Department of Environmental Conservation.

Consideration No. 2

Section 18.45.027 prohibits the transportation of nuclear waste material in the state except for purposes of disposal outside the state. It is suggested that the prohibition should be directed against high level nuclear waste materials since there may be necessity to transport low level wastes from medical, scientific and educational sources. The State has regulations covering the transportation of nuclear materials (18 AAC 85.320).

Consideration No. 3

Section 18.45.029(b)(1)(B) seems to add to the potential for confusion

over the term "high level nuclear material" rather than to clarify the definition as intended. For example, low level wastes from medical, research and educational uses, when improperly stored or disposed of, could be "material of a kind or quantity which .... would constitute a threat to the health or safety of the public....". Safe disposal of radioactive wastes is already covered by regulation in 18 AAC 85.270 - 310.

Recommendations

1. In Section 18.45.025, retain the requirement for a permit for the siting of a nuclear waste disposal facility.

2. In Section 18.45.029, delete subpart (1) (B) since it does not appear to add clarity to the definition of "high level nuclear material" and rephrase 18.45.029 (1) (A) to read "nuclear waste material produced by nuclear power plants and nuclear fuel processing facilities".

3. A preferable alternative to Recommendations 1 and 2 is to delete Section 18.45.029 in its entirety and rephrase Section 18.45.027 as follows:

   > Section 18.45.027. TRANSPORTATION, STORAGE AND DISPOSAL OF NUCLEAR WASTE MATERIAL. The transportation, except for purposes of disposal outside the state, storage and disposal of high level nuclear waste material from nuclear power plants or nuclear fuel processing facilities is prohibited.

   Such phrasing would be consistent with the continued use of low level nuclear materials for medical, scientific or educational purposes and would eliminate the need for defining "high level nuclear waste".

Department's Position

The Department of Health and Social Services is neutral on CSSB No. 269 if these recommendations are incorporated in the final draft.

Thank you for the opportunity to present Mr. Heidersdorf's testimony to you in this letter. He will be back in his office Monday, April 21st and will be able to provide you or your committee members with any additional information you may require.

Sincerely,

Dean F. Tirador, M.D.
Director
Division of Public Health

DFT/md

STATE OF ALASKA
DEPT. OF ENVIRONMENTAL CONSERVATION

JAY S. HAMMOND, GOVERNOR

POUCH O – JUNEAU 99811

April 15, 1980

The Honorable Glenn Hackney
Chairman
Senate Health & Social
Services Committee
Alaska State Senate
Pouch V
Juneau, Alaska 99811

Dear Senator Hackney:

The Alaska Department of Environmental Conservation would like to submit the following comments and recommendations on SB 269 concerning the disposal of nuclear wastes in Alaska. We support this bill and the several minor changes which have been recommended. We would be more than willing to present these comments and answer any questions you might have at the 3:00 pm Committee meeting on April 16, 1980.

Sincerely,

Ernst W. Mueller
Commissioner

Enclosure

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

REVIEW OF SB-269
AN ACT PROHIBITING THE DISPOSAL OF NUCLEAR WASTE MATERIAL

Submitted to the
Senate Health, Education and Social Services Committee

SB 269 makes changes in the current Alaska Statutes 18.45.025 FACILITIES SITING PERMIT REQUIRED, to prohibit the siting of any facilities which would allow the storage or disposal of radioactive waste materials within the State of Alaska. The Department strongly supports this legislation, particularly as it relates to the disposal of highly radioactive waste materials from nuclear power plants.

Wastes from nuclear power generating facilities require extremely long storage times before their radioactivity is reduced to safe levels. These wastes are difficult to contain in a safe manner, require extremely expensive containment technology which up to now has not proven reliable for long-term storage. While wastes from existing plants in other states will require some form of disposal method, Alaska should not become a dumping ground for these wastes. SB 267 would prohibit this from occurring, except in the unlikely event of federal preemption.

In supporting this legislation, we understand that a change has been or is going to be made in the legislation to expressly prohibit only the disposal of high level radioactive wastes from nuclear power plants. We support this change, because the disposal of small amounts of low level radioactive wastes generated from medical, laboratory and industrial facilities can be accomplished without creating a hazard to public health and the environment. Many of these low-level wastes cause no danger to the public if they are disposed in a safe and environmentally sound manner. Therefore, the existing authority to establish regulations under AS 46.03.250 should be adequate to assure proper handling and safe disposal of the low-level radioactive waste materials presently being generated in Alaska.

We thank you for the opportunity to comment on this legislation.

COMMITTEE REPORT

SENATE

FURTHER: Judiciary

4/18/79

Date: 5-12-80

Mr. President:

The Committee on HEALTH, EDUCATION & SOCIAL SERVICES has had SB 269

prohibiting the disposal of nuclear waste material

under consideration and (a majority of the committee) (the committee) reports it back with the following recommendations:

[ ] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[ ] replace with CS for _____ [ ] same title [ ] new title

and recommends _____

[ ] AND attaches a "Letter of Intent" [ ] New Fiscal Note

[ ] reports it back without recommendation

[ ] referred to the _____ Committee

MEMBERS SIGNING DO PASS	MEMBERS HAVING OTHER RECOMMENDATIONS:
Collette	

[signature]
CHAIRMAN

S 60 (Rev. 12/78)

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

MEMORANDUM April 4, 1980

SUBJECT: CSSB 269, relating to nuclear wastes

TO: Senator Glenn Hackney, Chairman
Senate Health, Education and Social Services Committee

FROM: John B. Chenoweth
Legislative Counsel

There was some confusion concerning instructions to complete the second redraft of this committee substitute. While the department's "position paper" wanted a ban only on "high level nuclear wastes" from nuclear power plants, your committee's actual request was limited to "high level nuclear wastes", presumably from any source. I do not know how to quantify "high level" with precision. Not wanting to tie to a figure expressed in terms of measurements that delight physicists and trouble legislators, I have suggested language in the draft that leaves the determination (other than as to wastes from nuclear plants) to an administrative agency. I note that, at 18 AAC 85, the Department of Environmental Conservation has already defined permissible disposable nuclear wastes.

The bill draft also makes clear that the prohibition is not intended to preclude storage and disposal of quantities of nuclear wastes generally used in education, research and medicine.

JBC:ljb

Enclosure

MUD IS THE KEY TO DRILLING SAFETY*

by

Sharon O. Hillman

Senior Environmental Scientist

One of the questions frequently asked when a well is to be drilled is "How will the effluents such as drilling muds be disposed of and won't disposal in the marine waters kill the marine life?"

The answer is "No."

The main components of mud are water, clay, barite and lignosulfonate and when properly disposed of in the marine environment it will not kill the marine life. The disposal is carefully regulated, prohibiting disposal of mud containing harmful quantities of oil or toxic substances. Permit applications must be made to federal and state agencies and the disposal requirements must be followed. Studies in Alaskan waters and throughout the world have consistently shown how mud, very much like the natural sediments in Alaskan waters, disperses within a few meters of the rig, and that clean mud can be discharged at sea without harming the environment or fisheries resources.

SOH/0133H

* Published in Alaska Offshore (Published as an information service by Sohio Alaska Petroleum Company) January 1983.

WHAT DOES DRILLING MUD DO?

During the drilling of an exploratory or development well, the wellbore is filled with a special fluid, called drilling mud. Drilling mud is essential to drilling operations, performing a number of important functions including:

- removal of rock cuttings from the beneath the bit and transport of the cuttings to the surface;

- cooling and lubrication of the drill bit and string;

- formation of a filter cake on the wellbore, to reduce loss of drilling fluid into permeable formations;

- control of subsurface pressure, preventing high pressure flow into the well bore (primary well control) from the formation;

- maintain suspension of cuttings and weight material when circulation is interrupted;

- help support the weight of the drill string and provide a non-interfering fluid for accurate well logging.

DRILLING FLUID COMPONENTS

In order to provide the special functions required to maintain a well, mud compositions will vary with both the well depth and location. The primary component of water based fluids is water. Fresh, salt, or brackish water compose 30 - 85% by weight of the fluid. The chemical components commonly used in water-base drilling muds are barite, bentonite, lignosulfonate and lignite. These four components account for about 90 percent of the total tonnage of drilling mud solids.

Barite is a naturally occurring mineral. It is used to increase the density of drilling mud to balance and control the pressures in the formation being drilled using between 25 and 200 pounds per barrel (lb/bbl).

Bentonite is a naturally occurring clay. When mixed with water, clay has the ability to gel when suspended and be fluid during pumping. This ability to gel helps sweep cuttings from the borehole, maintain the cuttings in suspension if circulation is interrupted and carry the cuttings up the well. Bentonite also helps by forming a filter cake, controlling loss of fluids to the formation. Bentonite concentrations average between 5 and 20 lbs/bbl.

Lignosulfonate acts as a thinner and is used to reduce viscosity. Up to about 15 lbs/bbl may be used.

Lignite is a naturally occurring substance and is used to control filtration rates with up to 10 lbs/bbl being used.

As drilling proceeds, specific downhole requirements may call for specialty products or other additives. These may include lubricants, defoamers, hydrogen sulfide scavengers, corrosion inhibitors, salts -to control formation damage- or lost circulation materials. Starch may be used as a thickening agent in water based drilling muds, but usually requires a biocide to control bacterial growth in order to maintain the correct mud composition. Polymers are more frequently used now as a thickening agent and additionally are used to control troublesome formations. Caustic soda is normally used to maintain a pH of 10 to 12.

Additives are formulated to meet specific drilling requirements. Normally only a few are used in a well and they are used in low concentrations -generally less than 10%- of the total materials used. A mud log is maintained of all components and additives used on each well.

DISPOSAL OF WASTE DRILLING MUDS AND CUTTINGS

The drilling mud system is basically a semi-enclosed circulating system. Cuttings, cut up rock particles from the drilled hole, are removed during the drilling operation. Occasionally, it is necessary to add materials to

the mud system during drilling to maintain the proper density and chemistry. The added material increases the total volume, so some of the fluid must be removed from the system and disposed of. Additionally bulk mud discharges occur intermittently, for example if the mud system requires a complete change such as from salt to fresh water, or at the end of the well.

Common practice in offshore areas, in full accordance with regulations which prohibit disposal of mud containing harmful quantities of oil or toxic substances, is to discharge waste drilling muds and cuttings into offshore waters. Where it is determined that onsite discharge is not approved, the waste drilling muds and cuttings must be disposed of in an alternate, approved manner.

The appropriate discharge criteria for offshore disposal is a current concern in Alaska. The Federal Environmental Protection Agency (EPA) has been working with the State Department of Environmental Conservation (ADEC) and the industry during the last year to draft general permits for the areas in the Beaufort Sea and Norton Sound. EPA has issued general permits in other offshore areas of the United States. These general permits allow for a number of minor discharges in one area to be regulated under one permit for all operators.

The discharge of mud is regulated by general mud types with ratio's of components for each type. Additives are regulated for disposal based on toxicity and concentration in muds to be disposed of in offshore waters.

EFFECTS OF DISCHARGE OF MUD AT SEA

Numerous studies are available on drill muds and cuttings fate (where the mud disperses to) and effects in the environment. Several recent studies in the Alaskan marine environment include Cook Inlet, the Beaufort Sea and Norton Sound. Worldwide and Alaskan studies have found no significant short-term harm and no measurable long-term harm to the environment nor to marine resources in the affected areas. Long term low level toxic effects have not been observed, even in such areas as the Gulf of Mexico where extensive, long-term oil and gas operations have occurred.

BEAUFORT SEA DRILLING EFFLUENT DISPOSAL STUDY

This study, preformed by Nortec, was started in early 1979 by Sohio on behalf of the Reindeer Island Participants (i.e. "Reindeer Island Study"). The study addressed the disposal of drilling muds and cuttings in the shallow arctic waters of the Beaufort Sea. The comprehensive program considered below- and above-ice disposal tests, biological studies including bioassay testing and benthic effects studies.

Below-ice disposal tests showed rapid mixing of drilling mud, with concentrations less than 1% and solids settling rapidly to the seafloor. Above-ice disposal tests show that muds are slowly released during breakup, combining with the natural sediments frozen in sea ice during freezeup and released during breakup creating naturally high turbidities.

Bioassay Tests confirm that drilling mud is relatively non-toxic to arctic marine organisms and the arctic organisms do not accumulate large amounts of trace metals (short term). Benthic Studies show that discharging 100 barrels of drilling mud and cuttings below the sea ice do not change benthic communities.

BEAUFORT BIOASSAY TEST RESULTS

Drilling fluids are not toxic to marine organisms in the arctic environment as shown by numerous tests preformed on mud components and used mud. To test the organisms and have the information comparable to other studies we were required to use what is called the "LC-50" test. This EPA standard test is defined as the mixture of drilling mud and seawater which kills half the test organisms in four days (50 percent represents the average susceptibility of the population of organisms).

The results of these tests showed that the organisms had to be subjected to large concentrations of drilling fluids in order to die even in the test. Worms, snails, small shrimp-like organisms and five species of fish were tested. The most sensitive organism, the four-horned sculpin (a fish) required four days constant exposure to four times the maximum amount of drilling muds measured on direct discharge under the ice (approximately one percent) before they began to show effects. Organisms which live on the bottom such as snails and worms, required 30 to 60 times the maximum discharge concentration to show effects under test conditions. In reviewing the information on toxicity from this and other studies, the Alaskan species are shown to be hardier while all studies showed that muds approved for discharge are not toxic.

ABOVE-ICE DRILLING EFFLUENT DISPOSAL MONITORING

Nortec, for Sohio, conducted the monitoring activities for the above-ice drilling effluent disposal associated with the Sag Delta No. 7, 8, and Challenge Island No. 1 exploratory wells in the Beaufort Sea during 1980-81. Specific objectives of the study included; assessing the dilution of drilling effluents in the above-ice disposal sites through

breakup, the effects of berming in areas subject to river overflooding and measuring the effects and possible bioaccumulation of trace metal levels in seafloor sediments beneath and adjacent to the disposal sites, and in benthic communities.

A number of experiments were installed to monitor the disposal sites during the breakup period. Seafloor sediment and biological samples were collected at the disposal sites in order to quantify physical and chemical effects of drilling effluent disposal. Biota were limited due to the limited number of organisms in the area.

The studies concluded that above-ice disposal of drilling mud and cuttings had no noticeable effect on the melting process of the sea ice adjacent to the disposal site and only caused localized changes to the surface melting in the disposal sites. Thick layers of effluents melt more slowly and berming had little effect in preventing river overflooding.

MUD DISPERSION STUDY-NORTON SOUND COST WELL No. 2

The Norton Sound C.O.S.T. Well No. 2 mud dispersion study was conducted by ECOMAR for ARCO Alaska Inc, on behalf of the C.O.S.T. well participants. This dispersion test, as predicted by data from previous tests, concluded that except near the discharge source, drilling fluids have a negligible effect on ocean water quality during high rate, high volume discharges in shallow (16 meter) marine areas. The temporary effect that the discharges create in sediment loading is significant only within 50 meters of the point of discharge.

CONCLUSIONS

In the Alaska studies, the only effects have been found in the immediate vicinity of the discharge generally from larger cuttings particles, settling to the bottom and smothering the benthic organisms directly under the discharge. The dispersion rates into the open water and broken ice conditions, as well as above-ice disposal are very rapid. Mixing and dispersion in below-ice disposal is somewhat slower depending on the water depth, but generally very adequate in water greater than 8 meters (24 feet). The muds are for the most part composed of chemical compounds that are common to nature, easily mixing with the high natural sediment loads present in the majority of Alaskan waters, causing no effects.

FATE AND EFFECTS OF DRILLING DISCHARGES IN THE MARINE ENVIRONMENT

By

R. C. Ayers, Jr.
Senior Research Associate
Exxon Production Research Company

Presented at the American Society for Environmental Education
Technological Conference on Georges Bank Hydrocarbon Exploration
and Development, Nantucket Island, Massachusetts, April 27-30, 1982

FATE AND EFFECTS OF DRILLING DISCHARGES IN THE MARINE ENVIRONMENT

R. C. Ayers, Jr.

Senior Research Associate

Exxon Production Research Company

Introduction

Prior to 1977 there was little research information available on the fate and effects of water base drilling discharges in the marine environment. A great deal of historical information was available. At that time 23,000 wells had been drilled in the Gulf of Mexico and Offshore California over a period of several decades with no noticeable impact on fisheries. However, little confirming research results were available to answer questions posed by concerned regulators as the industry moved into frontier areas where drilling had not occurred before.

Since 1977 a large body of research information has been developed by government and industry. Research is still continuing, however, a great deal has been learned regarding both the nature of the discharges and their impact. This paper summarizes the results of this research.

Before considering the research results it will be useful to review the nature of drilling discharges. A schematic diagram of a drilling mud circulation system is shown in Figure 1[1]. The mud components are added through the hopper and mixed in the mud tanks. Drilling mud is pumped from the mud pits down the drill string and through the bit. Here it sweeps the crushed rock cuttings from beneath the bit and carries them back up the annular space between the drill string and the borehole or casing to the surface. This action permits drilling to continue and is the fluids' most important function.

Back at the surface, the drilling mud is passed through mechanical separation equipment to remove the formation drill solids or cuttings. The solids control equipment is an integrated system that consists of shale shaker screens that remove the coarse particles and hydrocyclones that remove the sand and silt fractions from the mud. The drill solids separated by the solids control equipment are discharged to the ocean. This type of discharge is continuous in the sense that it occurs while drilling is in progress. Typically, this is 20-50 percent of the time the rig is on location.

The rates of this type of discharge vary from about one to ten barrels per hour. The higher number is more characteristic of the shallow part of the hole when drilling is fast and the bit diameter is large. Over the life of a well some 3,000-6,000 barrels of wet solids from the solids control equipment are discharged.

After the mud passes through the solids control equipment and the solids are separated, it goes back to the mud pits for recirculation. Here another type of discharge may be required. The solids control equipment cannot remove the fine clay and colloidal sized particles that are generated from the formation solids that are drilled up. As time goes on, the concentration of these fine particles continues to increase and eventually reaches a point where the mud becomes too viscous. At this time a portion of the mud is discharged and the discarded volume is replaced with water and appropriate quantities of mud additives. This is done to bring the concentration of fine solids down to an acceptable level. This method of reducing the concentration of fines in the mud system is called the "Dilution Method". On a less frequent basis, bulk mud discharges occur if the mud type needs to be changed prior to penetrating a particular formation or if a formation is encountered which contains soluble salts (e.g. sodium chloride, calcium sulfate) in high enough concentrations to adversely affect mud properties. In addition, it is also necessary to discharge the entire mud system at the end of each exploratory well.

Bulk mud discharges occur only intermittently. These discharge volumes normally range from 100-1,000 barrels. Typically, every one to three days a small volume, 100-200 barrels, might be discharged. The 1,000 barrel type discharge is more characteristic of what occurs at the end of the well or if it is necessary to charge out the mud system.

Bulk discharge rates are normally in the 500-2,000 barrels per hour range and only last for a few minutes. Over the life of an exploratory well some 5,000-30,000 barrels of mud are discharged. Because development wells are normally shallower, smaller in diameter and require less time to drill, the quantity of mud discharged is somewhat less.

The range of mud volume discharged is broad primarily because of economic factors. For lightly treated, low density muds which are not expensive the dilution method (discharge and make up) is a cost efficient way to control the concentration of fine solids. Discharge volumes will usually be higher for this type of system since most of the material discharged is water and the make up cost is low. On the other hand, for heavily treated, high density muds which are expensive it is desirable to minimize bulk mud discharges. This is accomplished by more extensive use of solids control equipment (centrifuge) and by increasing the concentration of chrome lignosulfonate to deflocculate the fine clay particles and reduce mud viscosity. In these cases, discharge volumes will be low compared to the inexpensive, low density mud systems.

The well to well variation in quantities of discharged material becomes considerably less if one considers only the quantity of solids -everything but water - that is discharged. Including both bulk mud and solids control equipment discharges, about 1000 cubic meters (2,000 tons) of dry solids (formation solids plus mud additives) will be discharged

over the life of a typical exploratory well. Mud additives account for roughly half of this value and formation solids account for the other half.

Composition of Discharge

Solids control equipment discharges and mud discharges have different compositions. The former contains primarily formation solids and the latter contains primarily mud additives. The composition of a representative shale shaker discharge obtained from a well drilled in the Mid-Atlantic is illustrated in Table 1[2]. The small amount of barium sulfate results from barite particles that have adhered to the cuttings particles. The montmorillonite clay comes from both added bentonite and from formation clays. The remaining material is representative of the formation being drilled at that time and consists primarily of clays, quartz, and low concentrations of calcite, pyrite, and siderite. This particular shale shaker sample contained 65% solids and 35% water. Typically, the water content of these discharges falls in the 20-40% range.

Mud composition varies with both depth and location. In the shallow portion of the hole the mud will consist of low concentrations of bentonite and caustic soda in seawater. As hole depth increases the system may be converted to fresh water and more bentonite and caustic plus lignite, lignosulfonate and barite are added. Also, if hole

problems occur, low concentrations of specialty chemicals may be required. Total usage rates for these materials are low (barite, bentonite, lignite, lignosulfonate, and caustic soda account for 92% of drilling mud additives[3]). Moseley has discussed specialty chemicals used in drilling mud formulation[4].

The vast majority of muds discharged on the OCS will resemble the two representative mud compositions shown in Table 2[2,5]. The high density example was the final mud composition used in a well in the Gulf of Mexico and the low density example was the mud composition used in the latter stages of a Mid-Atlantic well. The high density mud weighs 2.1 grams per cc and contains 62% barite and 30% water. The low density mud weighs 1.2 grams per cc and contains 15% barite and 76% water. The concentration of the other ingredients-low gravity solids, chrome lignosulfonate, and lignite are similar. The low gravity solids consist of bentonite clay plus formation solids.

Trace metals in drilling discharges originate from both formation solids and mud additives. Representative metal concentrations for a shale shaker sample and a mud sample taken from a well in the Mid-Atlantic are shown in Table 3[2]. The presence of barite causes the barium concentration to be much higher than any of the other metals. The other metal that is higher than what is normally seen in formation solids or sediments is chromium. The source of the chromium is chrome lignosulfonate. Approximately 3% of the chrome lignosulfonate is chromium which is present in the trivalent state. Both barium and chromium

concentrations are higher in the mud than in the shale shaker sample. This is because the source of these metals are mud additives and only a small amount of mud components adhere to the cuttings when they are screened out. The other metals shown in Table 3 are present in concentrations comparable to levels that are normally found in formation solids or sediments.

Fate and Effects of Drilling Discharges

This field of research has taken two lines of investigation, both of which are necessary. Laboratory studies are needed to determine mud concentrations where toxic effects occur. Field studies are needed to determine exposure; that is what are the concentrations of mud components in the marine environment and how long do they persist at elevated concentrations. Field studies are also needed to determine actual impacts on organisms in the marine environment.

Laboratory Studies

Most of the work to date has been directed toward determining acute toxicity. In these tests, organisms are subjected to different concentrations of mud for a set time, usually 96 hours. By observing mortality rates, the concentration required to kill 50% of the test organisms which are present in an aquarium in 96 hours is determined.

This is called the 96 hour LC_{50}. This type of test is useful because it is comparatively rapid and inexpensive and produces a single number to help make a judgement on toxicity. Chronic tests are similar to the acute tests except that the organisms are exposed to lower concentrations for longer periods of time - weeks to months.

In addition to the mortality tests several studies have addressed sublethal effects. For example, investigators have measured concentrations where changes in reproduction, growth rates and respiration occur.

In more sophisticated experiments, mud solids or mud components are either layered on or mixed with natural sediment and then unfiltered seawater passed through the aquaria. Comparisons are made between these and aquaria containing only natural sediment to learn how changes in the substrate can alter recruitment of settling planktonic larvae and the biological community that develops. These studies are of interest because subtle differences may be detected, however it is hard to distinguish toxic effects from physical effects and interpretation is difficult.

Estimates of drilling mud metals bioavailability are made by exposing organisms to various concentrations of mud or mud components for several days. After an appropriate gut depuration period the metals concentrations in the test organisms are determined and the results compared with concentrations in control organisms.

Detailed literature reviews of the laboratory research results are available[6,7]. Only a brief summary will presented here.

Table 4 shows typical 96 hour LC_{50} results for major mud components, and drilling mud[1]. Barite and bentonite are essentially non-toxic while lignite and lignosulfonate respectively would be classified as practically non-toxic and moderately to slightly toxic[8,9] (Table 5). Of course drilling muds, not components, are discharged and the toxicity of the mud itself is of primary importance. Clay -chrome lignosulfonate muds - the basic compositions of which is shown in Table 3 - are used in over 95% of the wells drilled in the OCS. Petrazzuolo has summarized test results from 40 different muds, primarily of this type, using 48 species of marine organisms representing several classes at various growth stages from the Gulf of Mexico, Atlantic, Pacific, Beaufort Sea and Cook Inlet[7]. Over 80% the muds tested have LC_{50}'s that fall into the practically non-toxic range - greater than 10,000 ppm. This is true even though many different species of test organisms in various life stages have been tested. Some species are more sensitive than others and juveniles are normally more sensitive than adults, however, these differences are normally too small to cause the LC_{50} results to fall outside the 10,000->100,000 ppm range. Test results are available on muds that produced LC_{50} values falling below this range, however, most of these muds contained significant amounts of diesel oil. Diesel oil is not an approved additive for muds discharged on Georges Bank.

Sublethal tests are more sensitive than acute toxicity tests. However, they are also more difficult to interpret. In many cases it is not clear if the observed effect is truly adverse (pathologic) or not (compensatory). Sublethal effects are usually noted at concentrations one to two orders of magnitude lower than the 96 hour LC_{50} values. That is, most investigators have not noted sublethal effects at concentrations below the 100-1,000 ppm range for muds not containing diesel oil as an additive.

Studies have shown that marine organisms can accumulate mud-associated metals; however, under realistic exposure conditions accumulation has not been shown to occur to a degree sufficient to cause a toxic effect in the accumulating organism[6,7,10]. Drilling mud metals have only limited bioavailability because of the form the metals are in (e.g. insoluble salts, chemically bound to high molecular weight organic molecules, or adsorbed on clays).

Another issue of concern is whether or not accumulated metals are bioconcentrated in prey organisms and a direct threat to human health. This is unlikely since studies of other pollutants indicate that organic mercury[11] and possibly organic selenium[12] (neither of which are present in drilling mud) are the only metals shown to have bioconcentration potential. An API research project is currently addressing this possible problem[13].

Field Studies

During the past five years major field studies have been conducted in the Beaufort Sea, the Lower Cook Inlet, Offshore California, the Gulf of Mexico and in the Atlantic. These studies addressed either one or both of these questions: What in the fate of the discharged material? That is, how rapidly is it dispersed to concentrations approaching back ground levels? What is the nature and extent of effects on the biological community?

Water Column Effects

When drilling mud is discharged to the ocean most of the solids settle rapidly in the vicinity of the well site[5]. Settling is much more rapid than one would predict from the particle size distribution in the mud system. These finely divided clay particles owe their stability in the mud system to the electrical charge between the particles and the presence of lignosulfonate which serves as a deflocculant. When the mud contacts seawater these particles are destablized by the decrease in lignosulfonate concentration and by the nigh concentration of electrolytes present in seawater. This leads to agglomeration of particles and rapid settling. Only a small fraction of the particles (less than 10%) escape extensive initial flocculation and remain in the water column for more than a few minutes.

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The rapid decrease in the concentration of suspended solids in the water column with distance is illustrated by the data shown in Table 6, taken from a Gulf of Mexico field test. Values shown are the maximum suspended solids concentration and minimum transmittance numbers measured at the noted distance during two high rate discharges. Suspended solids concentration dropped quickly with distance from the source due to settling and dispersion.

The greatest decrease in concentration occurred in the first 50 meters. Suspended solids concentrations approached background levels around 500 meters and 1000 meters for the 275 barrel per hour and 1000 barrel per hour test, respectively.

Transmittance was the only hydrographic variable affected by the discharge. All other hydrographic variables (temperature, salinity, dissolved oxygen) remained unchanged from ambient conditions within the monitored interval (40-1500 meters from the discharge point). Note that transmittance values did not approach background as quickly as suspended solids. Transmittance values take longer to reach background because of fine particles present in the plume continue to scatter light effectively even when present in concentrations too low to significantly contribute to the weight of suspended solids.

The transmittance and suspended solids data was used to estimate the maximum quantity of solids present in the water column during both discharges. This is the quantity present in the water column immediately

after discharge ceases. This was estimated to be 5% of the discharged solids during the 275 barrel per hour test and 7% during the 1000 barrel per hour test. The quantity of solids in the water column continues to decrease after discharge ceases since settling continues as the plume drifts.

In addition to the solid particles, drilling mud may contain low concentrations of soluble components. An estimate of the dilution ratio for any soluble materials present was made by using the ratio of the volume of the plume in the water column to the volume of liquid phase discharged. After a time of one hour this dispersion ratio for soluble components was estimated to be about two orders of magnitude less than the dispersion ratio for solids, presumably due to almost all of the solids having settled by this time.

In addition to the Gulf of Mexico study there have been several other similar tests conducted in other areas of the OCS[2,14,15,17]. Even though the tests have been conducted under a variety of environmental conditions using different muds and different sampling techniques the results have been similar in every case.

The following empirical equation based on several sets of field data has been proposed to calculate drilling mud dispersion in the water column during discharge[20]. The equation is expressed in terms of

transport time (distance traveled by a parcel of fluid/current velocity) to allow comparisons of discharges occurring under different current conditions.

The dispersion ratio, D, (suspended solids concentration in discharge/suspended concentration in water column) is given as a function of discharge rate, R, in barrels per hour, and transport time, T, in minutes.

$$D = \frac{(10^{4.45})\ (T^{1.1})}{(R^{0.36})}$$

Note that the dispersion ratio is only a weak function of discharge rate. For example, for a set transport time a doubling of the discharge rate only decreases the dispersion ratio by 22%.

Because of rapid settling and dilution it is clear that drilling discharges do not significantly affect open ocean water quality. Water column concentrations can approach the 96 hour LC_{50} values measured in laboratory tests but only for the short time that the discharge is actually occurring and only in the immediate vicinity of the discharge pipe.

Benthic Effects

The solid material that settles may adversely impact the benthos near the well. The degree of impact that can occur depends upon environmental factors (current regime, water depth, natural sedimentation rate) that dictate how long the settled material remains concentrated in the upper sediment layers near the well site. The type of impact that can occur is illustrated by the results obtained in a monitoring program conducted on the Mid-Atlantic Outer Continental Shelf[19].

The overall objective of the study was to determine what effect drilling discharges have on ambient water quality, bottom sediments, and benthic community during exploratory drilling in the Mid-Atlantic. The well site was located approximately 156 kilometers east of Atlantic City, New Jersey in an approximate water depth of 120 meters. Bottom currents here are weak and the sea floor can be characterized as a low energy environment. The study consisted of monitoring the environment around the well site before the rig moved on location (Pre-Drilling Phase) while the rig was on location (Drilling Phase), after rig moved off location (First Post-Drilling Phase), and one year after the rig was moved off location (Second Post-Drilling Phase).

The drilling discharges were found to have an effect on the benthic community. In the First Post-Drilling Survey a zone of visible drilling discharge accumulations, primarily formation clays, was observed in the immediate vicinity of the well site and elevated levels of clays were

detected as far as 800 meters southwest of the site. Megabenthos (demersal fish and crabs) increased substantially in the immediate vicinity of the well site and over the general study area south of the well site. The cuttings piles were still present near the well site in the Second Post-Drilling Survey. Megabenthic abundance was still elevated over pre-drilling level but reduced from those observed in the First Post-Drilling Survey.

The intermittant nature of the discharges were reflected in the patchy distribution of mud and cuttings piles on the sea floor near the well site. This resulted in a high variability in abundance levels of sessile macrobenthos in samples taken during the first post drilling survey. Burial effects were presumed to be the cause for the low abundance levels.

Area wide abundance levels of macrobenthic organisms decreased between the pre-drilling and first post-drilling surveys, but increased between the first and second post-drilling surveys. Similar changes were observed at far field stations which were likely to have been beyond the influence of drilling discharges. The gross taxonomic structure of the study area remained essentially unchanged in all three surveys despite changes in macrobenthic abundances.

Reductions in abundance of macrobenthos beyond the immediate vicinity of the well site occurred in those areas southwest of the site where elevated levels of clays were detected. The reduction was attrib-

uted in part to increased predation by fish and crabs and in part to diminished recruitment of larvae to the area due to substrate alteration. In the Second Post-Drilling Survey, macrobenthic abundance at the well site was no different from other sites in the study area with the exception of the brittle star Amphioplus macilentus which remained in low abundance within 90 meters of the well site.

Barium concentrations in the sediment were higher in both post-drilling surveys. Concentrations 10-30 times background were observed near the well site. All other metals and extractable hydrocarbons were unchanged from pre-drilling levels.

No relationships were detected between macrobenthic abundance and the barium content of sediments or the barium content in tissues of organisms. Elevated concentrations of barium were detected in polychaetes and brittle stars during the first post-drilling survey. One year later barium concentrations in these organisms had returned to background even though elevated concentrations of barium were still present in the sediments.

Because the discharged material on the sea floor was not quickly dispersed the type of impact observed in this study might be considered as a "worst case". In addition to being a low energy area, natural sedimentation rates are low and the area can be considered as both non-erosional and non-depositional.

Table 7 illustrates how environmental factors can affect the impact. Here we see results from three diverse areas where studies were conducted. The energy available for dispersion of settled material is indicated by the maximum bottom currents that were measured. In the Cook Inlet, an area subjected to strong diurnal tidal currents, bottom currents were 99 centimeters per second[15,16]. It is an extremely energetic area. The Tanner Bank is located offshore California. Here the maximum bottom currents measured were 36 centimeters per second[17,18]. The mid-Atlantic study was conducted in a relatively calm area where infrequent maximum bottom currents of 18 centimeters per second were observed[2,19]. Water depth is also a consideration since storm waves have a greater effect on resuspension and bottom transport of mud solids and sediment in shallow water depths. Notice that in the Cook Inlet and Tanner Bank the water depths were only 62 and 55 meters respectively, while in the mid-Atlantic the water depth was 120 meters.

Table 7 also shows some of the results that were noted in all of the studies that allows us to compare effects in these different areas. First, visual evidence of discharged material (as observed by bottom TV or submarines) at the rig site immediately after drilling. There was no visual evidence of drilling immediately after the rig was moved off location in either the Cook Inlet or Tanner Bank study. In the mid-Atlantic even one year after the rig had moved off location, cuttings piles were still visible in the well site area.

The second parameter shown is increased barium levels in the sediment surrounding the well site immediately after drilling. In the Cook Inlet there was no increase in barium levels in the sediment in the well site area because the barite particles were rapidly dispersed by the high currents. In the Tanner Bank study, barium concentrations in the sediment were moderately increased at the well site. In the low energy, mid-Atlantic area markedly increased barium levels were observed in the sediment around the well site even one year after drilling.

The third parameter addresses impacts on the benthic community. In the Cook Inlet there were no measurable impacts. Benthic effects were not studied at Tanner Bank so we cannot make a comparison here . We have already discussed the impacts observed in the Mid-Atlantic study. It is clear that the degree of impact and how long the impact persists depends on how dynamic the bottom environment is.

Conclusions

Based on the research results to date the following general conclusions may be drawn about the fate and effects of drilling discharges in the marine environment:

- Laboratory studies indicate that drilling mud toxicities are low. In the majority of cases 96 hour LC_{50}'s fall in the 10,000->100,000 ppm range. Susceptibility of test organisms

varies from species to species, however, the 96 hour LC_{50}'s normally vary less than one order of magnitude using the same mud. This is true for different classes of organisms and for organisms taken from different Outer Continental Shelf areas. Sublethal effects normally do not occur at concentrations below the 100-1,000 ppm range. When muds contain diesel oil as an additive both LC_{50} concenrations and concentration when sublethal effects occur are significantly lower.

- Upon discharge, most (greater than 90%) of the mud solids settle rapidly in the immediate vicinity of the well site. The remaining solids and soluble components form a plume in the water column. Drilling mud remaining in the water column is diluted to concentrations orders of magnitude less than the 96 hour LC_{50} values in minutes. Because of the rapid settling and dilution, drilling discharges have a negligible impact on open ocean water quality.

- Drilling discharges may have an effect on the benthic community in the near vicinity of the well site, depending on environmental factors. In highly erosional areas the impact of drilling discharges will be almost immeasurable. In low energy areas where natural sedimentation rates are also low, drilling discharges will have their greatest impact. Even in these cases however, the impact appears to be highly localized, temporary and minor.

Future Research Trends

Based on the research results to date and the decades of offshore operating experience it is difficult to conclude that drilling discharges are a significant threat to the offshore environment. Discharge of mud and cuttings should be allowed to continue however justification does exist for additional research in certain areas.

Most of the laboratory and field research to date have addressed short term impacts. These have been extensively studied and are fairly well understood. Today there is a definite trend toward studying long term fate and effects. The Department of Interior's Georges Bank Monitoring Program is a prime example of a field study concerned with this problem. Here the emphasis is on monitoring sediment and biota throughout a pristine area for several years during exploratory drilling activities to determine if any significant long term impacts occur. Laboratory studies are concentrating on sublethal effects assocaited with long exposure times to low concentrations of mud-sediment mixtures. One study of particular importance is an API project aimed at determining whether or not drilling fluid metals are bioaccumulated in lower trophic levels and if so, can these metals be passed up the food web and concentrated in higher trophic levels[13].

Another area of prime importance is the effort being directed toward developing improved predictive capability. A model which will satisfactorily predict the short-term fate of drilling discharges both in the water column and on the sea floor is being developed by the Offshore Operators Committee[21]. It will be available in early 1983. Attempts are also underway to develop models to predict long term fate however, this problem is more difficult and these models are only useful in a qualitative sense at present. The capability to predict both long term fate and effects would be of extreme benefit however it is unlikely that a quantitative model of this type will be developed anytime in the near future.

The last area that is receiving considerable attention deals with toxicity control of new products. While most ingredients used in drilling muds today have low toxicity there is a justified concern that in the future, toxic additives may be developed and discharged to the environment. Most EPA Regions concerned with discharges offshore are requiring the use of standard mud types that have been bioassayed using the EPA Region II procedure[22]. If new additives are used in the standard muds EPA is requiring toxicity data on these products. API is developing a standard bioassay procedure consistent with the EPA protocol that drilling mud service companies can use to test their new products prior to use[23].

TABLE 1

REPRESENTATIVE SHALE SHAKER DISCHARGE COMPOSITION

MINERAL	WT. % (DRY BASIS)
BARIUM SULFATE	3
MONTMORILLONITE	21
ILLITE	11
KAOLINITE	11
CHLORITE	6
MUSCOVITE	5
QUARTZ	23
FELDSPAR	8
CALCITE	5
PYRITE	2
SIDERITE	4
% SOLIDS (WT. %)	65
DENSITY	1.7

TABLE 2

REPRESENTATIVE MUD COMPOSITIONS

COMPONENT	CONCENTRATION (WT. %) LOW DENSITY	HIGH DENSITY
BARITE	15.0	62.0
LOW GRAVITY SOLIDS	6.5	5.9
CHROME LIGNOSULFONATE	1.0	0.9
LIGNITE	1.0	0.9
INORGANIC SALTS	0.7	0.5
WATER	75.8	29.8
DENSITY (G/CC)	1.19	2.09
pH	11.4	12.4

TABLE 3

REPRESENTATIVE METAL CONCENTRATIONS

METAL	CONCENTRATION, MG/KG SHALE SHAKER	MUD
BARIUM	3160	37400
CHROMIUM	44	191
CADMIUM	<2	<1
LEAD	10	3
MERCURY	<1	<1
NICKLE	15	4
VANADIUM	11	5
ZINC	80	50
SOLIDS IN MUD	77.1	21
DENSITY (G/CC)	1.9	1.16

TABLE 4

TYPICAL BIOASSAY RESULTS* ON
DRILLING FLUIDS AND MAJOR COMPONENTS

MATERIAL	96 HOUR LC_{50}, PPM
BARITE	>100,000
BENTONITE	>100,000
LIGNITE	25,000
CHROME LIGNOSULFONATE	500 - 10,000
CLAY-CHROME LIGNOSULFONATE MUD	10,000 - >100,000

*Sublethal effects usually noted at concentrations 1-2 order of magnitude less than LC_{50} value.

TABLE 5

CLASSIFICATION OF TOXICITY GRADES

TOXICANT CLASSIFICATION	LC_{50} VALUE
PRACTICALLY NON-TOXIC	ABOVE 10,000 MG/LITER
SLIGHTLY TOXIC	1,000 - 10,000 MG/LITER
MODERATELY TOXIC	100 - 1,000 MG/LITER
TOXIC	1 - 100 MG/LITER
VERY TOXIC	LESS THAN 1 MG/LITER

TABLE 6

SUSPENDED SOLIDS CONCENTRATION AND TRANSMITTANCE VS DISTANCE DURING HIGH RATE DISCHARGES

275 Barrel/Hour - 250 Barrels Discharged

Distance from Source, m	Solids Concentration, mg/l*	Transmittance, %*
0	1,430,000	-
6	14,800	-
45	34	2
138	8.5	56
250	7.0	48
364	1.2	37
625	0.9	71
Background	0.3 - 1.9	76 - 85

1000 Barrel/Hour - 389 Barrels Discharged

Distance from Source, m	Solids Concentration, mg/l	Transmittance, %*
0	1,430,000	-
45	855	0
51	727	0
152	50.5	2
375	24.1	4
498	8.6	23
777	4.1	21
878	1.2	71
1470	2.2	82
1550	1.1	82
Background	0.4 - 1.1	80 - 87

*Maximum concentration and minimum transmittance measured at noted distance.

TABLE 7

EFFECT OF ENVIRONMENTAL FACTORS ON STUDY RESULTS

	COOK INLET	TANNER BANK	MID-ATLANTIC
ENVIRONMENTAL FACTORS			
Maximum Bottom Current, cm/sec	99	36	18
Water Depth, meters	62	55	120
STUDY RESULTS			
Visual Evidence of Discharged Material Immediately After Drilling	NO	NO	YES
Increased Barium Levels in Sediment Immediately After Drilling	NO	YES	YES
Benthic Impacts in Study Area	NO	--	YES

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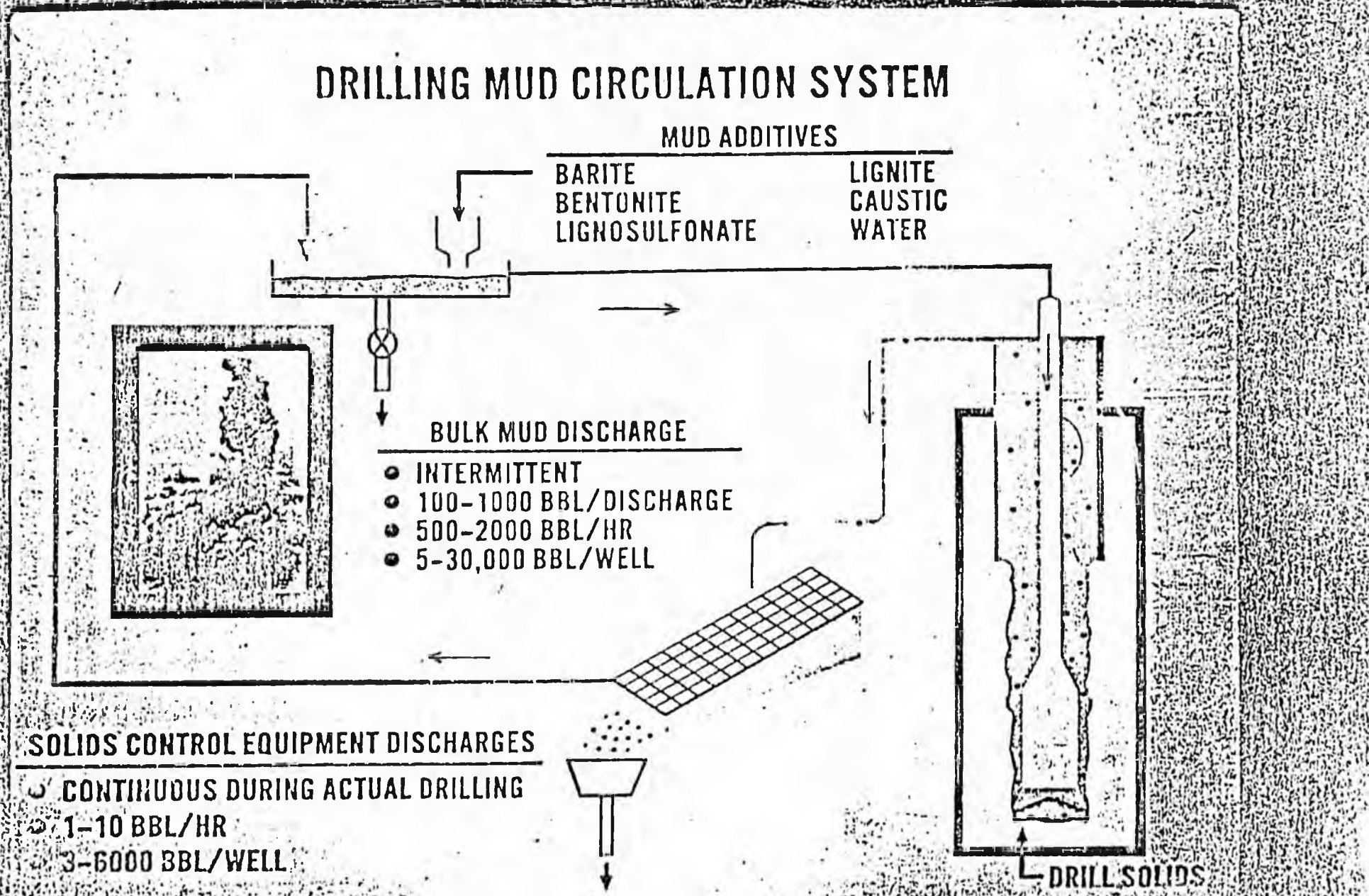

DRILLING MUD CIRCULATION SYSTEM
MUD ADDITIVES
BARITE
BENTONITE
LIGNOSULFONATE
LIGNITE
CAUSTIC
WATER
BULK MUD DISCHARGE
INTERMITTENT
100-1000 BBL/DISCHARGE
500-2000 BBL/HR
5-30,000 BBL/WELL
SOLIDS CONTROL EQUIPMENT DISCHARGES
CONTINUOUS DURING ACTUAL DRILLING
1-10 BBL/HR
3-6000 BBL/WELL
DRILL SOLIDS

Figure 1

AMERICAN INSURANCE ASSOCIATION

85 John Street
New York, N. Y. 10038
(212) 669-0400

January 18, 1984

Mr. David Hanline
Mail Stop 530
Region 10
U. S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101

Re: Alaska Proposed Regulations on Financial Responsibility for Hazardous Waste Operations - Article 6 of Title 18 Environmental Conservation, Chapter 62 Hazardous Waste - Corrected Draft 11/15/83

Dear Sir:

The American Insurance Association, an Association representing over 170 property and casualty insurers very much involved in the emerging pollution insurance market, understands that the State of Alaska has submitted for your review draft regulations covering hazardous waste facilities.

As insurers, the main concern which we have with these regulations is of course the financial regulations as contained in Title 18 Environmental Conservation Chapter 62 Hazardous Waste Article 6 Sections 600 to 680 of the proposed regulations.

The "Working Draft" as corrected November 15, 1983 is substantially different from the first draft we reviewed (dated May 13, 1982). Our Association, as well as our individual members have communicated since then with the Department of Environmental Conservation and with Mr. Ray Preston (the attorney who drafted the latest proposals) on frequent occasions in an effort to attain our common goal: i.e. that the final regulations will be reasonable and flexible so that qualified operators of hazardous waste facilities may assure their financial responsibility through insurance if they wish, and so that the insurance industry will be able to offer the coverage at a reasonable price.

WILLIAM O. BAILEY, CHAIRMAN PETER LARDNER, VICE CHAIRMAN EDWARD H. BUDD, VICE CHAIRMAN T. LAWRENCE JONES, PRESIDENT

Unfortunately, this aim is not met in the current working draft. These proposals mandate the terms and conditions of the coverage. They are not flexible at all considering the size and newness of the market for pollution coverage. They are detrimental to the encouragement of such a market. If enacted, these proposals would have the effect of precluding many applicants from obtaining a desired form of assurance of financial responsibility. This should be particularly troubling to those with the public's welfare in mind as it is our understanding that surety bonds and letters of credit are not readily available to cover liabilities from pollution incidents.

This is all the more reason why insurers who are desirous of offering this coverage, should be allowed to structure the terms and conditions of the contract in order to enhance the market's development, while at the same time assuring compensation for loss.

The American Insurance Association recognizes that your authority as Regional Administrator in reviewing these regulations is governed by the provisions of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq. That authority is limited to assuring that the state regulations are: (1) equivalent to the federal EPA regulations, (2) consistent with the federal program or state programs in other states, and (3) that they provide for adequate enforcement. 42 U.S.C. 6926(b)

The American Insurance Association urges you to consider carefully these proposals for the State of Alaska in view of the first two criteria. In our view, the proposed regulations on financial responsibility contained in Article 6 are not equivalent to nor consistent with the Federal EPA regulations contained in 40 CFR Parts 264, 265 Subparts H. Nor are they consistent with other state regulations. The overwhelming majority of states are adopting or seeking to adopt almost identical financial regulations to those of the Federal EPA.

The pollution market is accurately described as being in its infancy. Little information is in fact known by many state regulators about how this market functions. In our view, these draft regulations are not intentionally designed to discourage the market, but nevertheless do so because they impose rigid restrictions on a marketplace where conditions change daily. As the American Insurance Association has informed legislators and regulators in the many states, our industry is genuinely concerned that the market will not grow if hampered through restricting regulations or legislation.

As you are undoubtedly aware, the Federal EPA regulations were developed only after extensive discussion amongst many industries and governmental agencies. Those regulations do not dictate as to the type of policy. They allow for either a claims-made or occurrence based policy which can be written by a primary or excess/surplus

lines carrier. Minimum limits were set low so as to encourage insurers to write the coverage. Pollution insurance (particularly for pollution occurring over time) before the effective date of the federal regulations (July 1982) generally was written by the surplus/excess lines and the foreign markets. Coverages varied from carrier to carrier; risks were defined in the individual contracts. Understanding that the domestic market was only beginning to offer pollution coverage of the sort anticipated to cover pollution from both sudden accidents and accumulated releases of hazardous substances, the EPA regulators let the industry determine most of the terms, conditions and types of policy to offer. As a result, today there are numerous types of policies from which to choose. Since July 1982, some insurers have changed their forms to meet certain conditions.

The following points of differences between the federal regulations and the State of Alaska's constitute our reasons for believing that Alaska's proposals are not consistent with the aim of the Federal program. To reiterate, that aim is to assure compensation for losses and to encourage insurers in their role of providing compensation.

First, and most troubling of all, is the provision inserted in the latest draft 18 AAC 62.640(d)(3) stating that an insurance contract cannot be cancelled except for the reason that the insured has not paid the premium. Requiring an insurer to provide coverage regardless of the conduct of the insured is against the traditional nature of the insuring agreement and may be contrary to public policy (i.e. financing liability for unlawful and criminal acts). Many of the terms or conditions of the policy are designed to encourage responsible and safety-oriented behaviour by the insured. Government regulations should not have the effect of treating bad actors and good actors alike. Yet prohibiting an insurer from relying on the policy's terms will have this effect. For example, many policies contain an exclusion which voids coverage if the insured knowingly fails to comply with applicable laws or regulations. Alaska's regulations would disallow cancellation by an insurer in this instance to the unjust benefit of the violator.

Second, the draft regulations appear to require both sudden and non-sudden coverage in the same policy, 18 AAC 62.640(d)(1). This is a severe limitation on the recently emerging market, as most companies have offered sudden coverage under the traditional form (Comprehensive General Liability policy) and now are offering non-sudden under one of the newly developed policies (such as the Environmental Impairment Liability policy). It is true that the Insurance Services Office form combines both types but there is no reason why this form should be the required policy.

Third, these draft regulations have been changed from the earlier ones to allow a claims-made policy. As noted in the Federal Treasury report:

> "the 'claims made' approach to pollution insurance coverage has the advantages of (1) letting insurers gradually accumulate reserves which might be matched against potential claims resulting from gradual pollution incidents, and (2) giving the insurer the flexibility needed to keep current premiums reflective of current loss and expense experience." Department of Treasury, Report on Hazardous Substance Liability Insurance pp 71-72.

These two concerns, accumulation of reserves for potential claims and the need for some correlation between premiums and loss and expense, are the motivation behind some (but not all) companies' use of a retroactive date through which they can restrict their coverage.

The use of a retroactive date allows the insurer greater predictability and accuracy, two essentials of the insurance industry. Unfortunately, however, Alaska's draft regulations would not allow this. Instead, coverage would be mandated on a claims-made basis (which disallows CGL policies now providing sudden pollution coverage on an occurrence basis), and required to be provided for all claims made during the policy term "no matter when" the occurrences occurred, 18 AAC 62.640(d)(3). While it is not yet clear in the marketplace whether the presence or absence of a retroactive date is best for either or both insurers or insureds, the State of Alaska would disallow this limiting factor - limiting as to both exposure of the insurer and premium of the insured.

Fourth, our members are justly concerned by the provision which requires the insurer to agree that "any final judgment against the insured for liability...may be enforced or executed directly against the insurer." 18 AAC 640(d)(2) The American Insurance Association questions the need for this unusual provision. The purpose of insurance is not to be substituted as the defendant, but rather to provide coverage to the defendant as defined in the insurance contract. We are not aware of any problems in Alaska with enforcement of judgments or with coverage payments to an insured. In any case, insurers' contract is with an insured; there may be situations where the contract does not provide coverage even though the insured is liable to a third party. An example is the typical provision whereby the insurer is not obligated to pay if an insured refuses to cooperate in the defense of an action.

Finally, we support the federal regulations as they exist. The American Insurance Association submits that it has not yet been shown that the minimum limits of the federal regulations are insufficient, as Alaska would seem to believe. We support the federal certificate and endorsement both as to form and content. The Federal EPA regulations do not require both a policy endorsement and a certificate of insurance as Alaska would. The EPA understood the administrative

problems such a requirement would cause and allowed insurers instead to provide either a certificate of insurance or an endorsement while keeping the right of the EPA to view the entire policy at any time upon request. Also, the language of the federal certificate or federal endorsement was achieved only after a lengthy comment period and an educational process on all sides.

The American Insurance Association and the insurance industry are desirous of seeing a good regulatory program in Alaska. To the extent possible, we prefer to see states enact substantially similar to the federal requirements, in part because our industry worked so hard to assist the federal environmental agency in understanding o... capabilities and needs.

The American Insurance Association is very concerned that the current Alaska draft regulations will make current insurance unavailable; make the current policy forms unusable in that state; and will prove discouraging to both domestic and foreign insurance markets.

We appreciate your review of this matter and hope that you can help the Department of Environmental Conservation in Alaska to understand that their latest draft will in effect discourage financial responsibility, which effect is obviously inconsistent with the objectives of the Federal Resource Conservation and Recovery Act.

Very truly yours,

M. Patricia Casey

M. Patricia Casey
Associate Counsel

MPC/dt

cc: Ray C. Preston, Esq.
Ms. D. Elizabeth Cuadra, Robertson, Monagle, Eastaugh & Bradley
Mr. Richard A. Neve, Commissioner of Dept. of Environmental Conservation

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February 8, 1984

Mr. Jim Palmer
Office of Senator Fahrenkamp
Alaska Legislature
Pouch V
Juneau, Alaska 99811

Re: Alaska Proposed Regulations on Hazardous Waste

Dear Mr. Palmer:

On February 6 I attended a luncheon meeting where Senator Fahrenkamp was the speaker. During a wide-ranging talk on the many issues currently demanding her attention, Senator Fahrenkamp mentioned briefly her concern about the draft regulations on hazardous waste.

Afterward, we chatted briefly, and I mentioned that the American Insurance Association, a client of this law firm, has some remaining concerns about the financial responsibility section of the proposed regulations. Senator Fahrenkamp encouraged me to send you some information that might explain those concerns.

Therefore, I am enclosing a copy of the January 18, 1984 letter of Ms. M. Patricia Casey (Associate Counsel for the AIA) to the Regional Office of EPA. The explicit statement of substantive concerns begins at the first full paragraph on page 3 of that letter.

The AIA has, of course, previously submitted comment letters and background information to the Alaska Department of Environmental Conservation during the public comment period on the proposed regulations. We believe our concerns about the present draft, however, are best reflected in Ms. Casey's January 18, 1984 letter.

Sincerely,

D. Elizabeth Cuadra

D. Elizabeth Cuadra

DEC:sd
Enclosure
cc: M. Patricia Casey (AIA)

THANK YOU FOR THE OPPORTUNITY TO TESTIFY ON THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S PROPOSED REGULATIONS CONTROLLING HAZARDOUS WASTE. FOR THE RECORD, MY NAME IS JIM PALMER, AND I AM REPRESENTING SENATOR BETTYE FAHRENKAMP, WHO WAS CHAIRMAN OF THE SENATE RESOURCES COMMITTEE WHICH FIRST CONSIDERED AND PASSED SB 29 IN 1981. THIS BILL AUTHORIZED THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TO TAKE RESPONSIBILITY FOR CONTROLLING HAZARDOUS WASTES IN THE STATE OF ALASKA. SENATOR FAHRENKAMP WAS ALSO THE CHAIRMAN OF THE CONFERENCE COMMITTEE WHICH WORKED ON AND PRODUCED THE FINAL VERSION OF SB 29.

ALL OF US HERE AND THROUGHOUT ALASKA HAVE NO DESIRE TO SUBJECT OUR LAND AND HEALTH TO THE PERILS OF HAZARDOUS WASTES--THE EFFECTS OF WHICH WE CAN ALL TOO CLEARLY SEE IN OTHER PARTS OF THE COUNTRY. SENATOR FAHRENKAMP SHARES THE CONCERN. HOWEVER, THE SENATOR HAS SEVERE RESERVATIONS ABOUT THE DEPARTMENT'S REGULATIONS AS THEY ARE CURRENTLY DRAFTED.

THE SENATOR'S TWO MAIN CONCERNS ARE THE FAILURE OF THE REGULATIONS TO FOLLOW LEGISLATIVE INTENT AND, SECOND AND PERHAPS MOST IMPORTANT, THEIR POSSIBLE DIRE EFFECTS UPON SMALL BUSINESSES IN THE STATE.

IN 1976, THE RESOURCE CONSERVATION AND RECOVERY ACT WAS PASSED BY THE UNITED STATES CONGRESS, PLACING RESPONSIBILITY FOR CONTROLLING HAZARDOUS WASTES ON THE ENVIRONMENTAL PROTECTION AGENCY. INDIVIDUAL STATES COULD TAKE OVER THIS RESPONSIBILITY IF THEY ESTABLISHED AN APPROVED HAZARDOUS WASTE PROGRAM.

THE MAIN PURPOSE OF THE 1981 LEGISLATION PASSED BY THE ALASKA LEGISLATURE WAS TO ALLOW THE STATE OF ALASKA TO QUALIFY FOR INTERIM AUTHORIZATION TO REGULATE HAZARDOUS WASTES. THE LEGISLATURE AT THAT TIME APPROVED LANGUAGE STATING THAT THE STATE'S PROGRAM SHALL BE CONSISTENT WITH AND SUBSTANTIALLY EQUIVALENT TO THE FEDERAL REQUIREMENTS. THIS LANGUAGE WAS A SPECIFIC AMENDMENT ADOPTED TO INDICATE THE LEGISLATURE'S INTENT TO LIMIT THE STATE'S PROGRAM.

THIS LANGUAGE WAS ADOPTED IN ORDER TO ENSURE THAT THE STATE'S PROGRAM WOULD QUALIFY FOR INTERIM AUTHORIZATION FROM EPA AND TO MAKE SURE THAT THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DID NOT GO BEYOND THE INTENT OF THE FEDERAL LAW.

THE DEC PROPOSED REGULATIONS ARE NOT SUBSTANTIALLY EQUIVALENT TO THE FEDERAL REGULATIONS. HERE ARE SOME EXAMPLES OF HOW THE DIFFERENT REGULATIONS WOULD IMPACT A SMALL BUSINESS:

FEDERAL REGULATIONS HAVE A SMALL GENERATOR EXEMPTION OF 2200 POUNDS A MONTH WITHOUT QUALIFICATION. THE DEC PROPOSAL WOULD LOWER THAT TO 400 POUNDS A MONTH AND FURTHER QUALIFY THE 400 POUNDS A MONTH BY SPECIFYING THE PERCENTAGE OF EQUIVALENT CONCENTRATION. SHOULD WASTE CONTAIN 10% OF A LISTED SUBSTANCE, THE SMALL GENERATOR EXEMPTION WOULD FALL TO APPROXIMATELY 4 POUNDS A MONTH. IN FACT, TO QUALIFY FOR THE 400 POUNDS PER MONTH SMALL GENERATOR EXEMPTION, THE WASTE MATERIAL COULD CONTAIN NO MORE THAN .1% OF A LISTED SUBSTANCE.

DEC'S PROPOSED REGULATIONS RECLASSIFY 70% OF THE FEDERAL RCRA LISTINGS--OVER 300 SUBSTANCES--FROM A HAZARDOUS WASTE DESIGNATION TO AN ACUTELY HAZARDOUS WASTE DESIGNATION.

RCRA CLASSIFIES WASTE BY FOUR GENERAL CHARACTERISTICS: IGNITABILITY, CORROSIVENESS, REACTIVITY AND TOXICITY. DEC WOULD ADD CARCINOGENICITY AND PERSISTENCE TO THESE DESIGNATIONS.

THESE ARE JUST SOME OF THE MAJOR DIFFERENCES THAT EXIST BETWEEN THE FEDERAL RESOURCE CONSERVATION AND RECOVERY ACT OF 1976 AND THE PROPOSALS BEING PUT FORTH BY THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

SENATOR FAHRENKAMP BELIEVES THAT IF THE DEPARTMENT WISHES TO REGULATE HAZARDOUS WASTES IN A MANNER THAT IS NOT "CONSISTENT AND SUBSTANTIALLY EQUIVALENT" TO RECA, IT SHOULD PROPOSE APPROPRIATE LEGISLATION TO OBTAIN THE NECESSARY STATUTORY AUTHORITY.

IT IS NOT JUSTIFICATION FOR GOING BEYOND THE ORIGINAL LEGISLATIVE INTENT BECAUSE THE DEPARTMENT BELIEVES THAT RECA HAS SERIOUS DEFICITS, BELIEVES THAT RECA AS CURRENTLY ADMINISTERED IS NOT ADEQUATELY PROTECTING THE CITIZENS OF ALASKA, OR BELIEVES THAT THERE WILL BE FUTURE CHANGES TO RECA BY THE CONGRESS.

THE SECOND CONCERN OF SENATOR FAHRENKAMP IS OVER THE CONSEQUENCES OF THESE REGULATIONS ON THE SMALL BUSINESSES IN THE STATE.

AS PROPOSED, THESE REGULATIONS WOULD REGULATE INDUSTRIES AND COMPANIES NOT PRESENTLY COVERED BY RECA. SEVERAL EXAMPLES OF THIS ADDITIONAL JURISDICTION WOULD BE, FOR INSTANCE, INDUSTRIAL DRY CLEANERS AND AUTOMOBILE SERVICE STATIONS.

PERHAPS THE BEST EXAMPLE IS AN AUTOMOBILE SERVICE STATION WHICH GENERATES OVER 55 GALLONS OF WASTE LUBE OIL A MONTH. THIS AMOUNTS TO ABOUT 60 AUTOMOBILE OIL CHANGES. I WOULD IMAGINE THAT THERE ARE MANY GAS STATIONS, AUTOMOBILE SERVICE STATIONS, AND AUTOMOBILE DEALERS IN THE STATE WHO GENERATE THIS MUCH WASTE LUBE OIL MONTHLY. THEY WOULD BE COVERED BY THESE REGULATIONS. THEY ARE NOT CURRENTLY COVERED BY RECA.

WHAT WOULD BE THE CONSEQUENCES TO THE SERVICE STATIONS OR OTHER SMALL BUSINESSES COVERED BY THESE REGULATIONS? FIRST, THE WASTES MUST BE PROPERLY LABELED AND CONTAINERIZED ACCORDING TO THE FEDERAL DEPARTMENT OF TRANSPORTATION GUIDELINES. SECOND, AN IDENTIFICATION NUMBER MUST BE OBTAINED BEFORE TRANSPORTING THESE WASTES TO A DISPOSAL SITE. THIRD, A CRADLE TO GRAVE MANIFEST MUST BE KEPT. FOURTH, THE GENERATOR OF THE WASTES MUST MAINTAIN PROPER RECORDS ON THESE WASTES ON A LONG TERM BASIS. FIFTH, THE SMALL BUSINESS MAN MUST PREPARE ANNUAL REPORTS ON THESE WASTES FOR THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION. SIXTH, THE WASTES MUST BE TRANSPORTED TO AN APPROVED DISPOSAL SITE. THE CLOSEST DISPOSAL SITE TO ALASKA IS IN ARLINGTON, OREGON. AN ESTIMATE OF SHIPPING AND HANDLING COSTS FOR ONE 55 GALLON DRUM (ASSUMING NO CONSOLIDATION) IS ABOUT $3,000 PER DRUM.

SIXTH, IF A GENERATOR STORES THE WASTE MATERIAL FOR OVER 90 DAYS, THE GENERATOR BECOMES A STORER OF HAZARDOUS WASTE AND BECOMES SUBJECT TO EVEN MORE ONEROUS REQUIREMENTS.

THE SMALL BUSINESSMAN WILL BE SEVERELY IMPACTED BY THE REGULATIONS.

BEFORE THE DEPARTMENT ISSUES SUCH DETAILED REGULATIONS, IT IS SENATOR FAHRENKAMP'S BELIEF THAT ADEQUATE HAZARDOUS WASTE DISPOSAL SITES BE ESTABLISHED IN THE STATE, THAT A PUBLIC AWARENESS AND EDUCATION EFFORT BE DONE SO THAT THE PEOPLE ARE AWARE OF THE PROPERTIES AND IDENTIFICATION OF A HAZARDOUS WASTE, AND FINALLY THAT THE DEPARTMENT ESTABLISH SOME MECHANISM TO AID THE SMALL GENERATOR SO THAT HAZARDOUS WASTES CAN BE HANDLED AND DISPOSED OF PROPERLY.

IN CONCLUSION, SENATOR FAHRENKAMP URGES YOU TO TAKE BOTH LEGISLATIVE INTENT AND THE IMPACT OF THESE REGULATIONS ON SMALL BUSINESSES INTO ACCOUNT WHEN YOU FORMULATE THE FINAL REGULATIONS.

AS CHAIRMAN OF THE SENATE RESOURCES COMMITTEE, SHE HAS ASKED THE DEPARTMENT TO PRESENT THESE REGULATIONS TO THE FULL COMMITTEE AFTER FINAL REGULATIONS ARE DRAFTED. SHE LOOKS FORWARD TO WORKING WITH YOU TO ACHIEVE OUR COMMON OBJECTIVE--THE PROPER CONTROL OF HAZARDOUS WASTES IN THE STATE.

NOTE REGARDING THE FOLLOWING FRAME(S) ON MICROFILM:
COMPLETE DOCUMENT IS AVAILABLE IN ORIGINAL FILES.
TITLE PAGE ONLY HAS BEEN FILMED.

Federal Register

Thursday
August 6, 1981

Part III

Environmental Protection Agency

Hazardous Waste Management System; Identification and Listing of Hazardous Waste

FROM THE DESK OF

Senator Jalmar Kerttula

Attached are charts showing the locations, amounts and classification of both low level and high level radioactive waste disposal areas.....figures from the Department of Energy

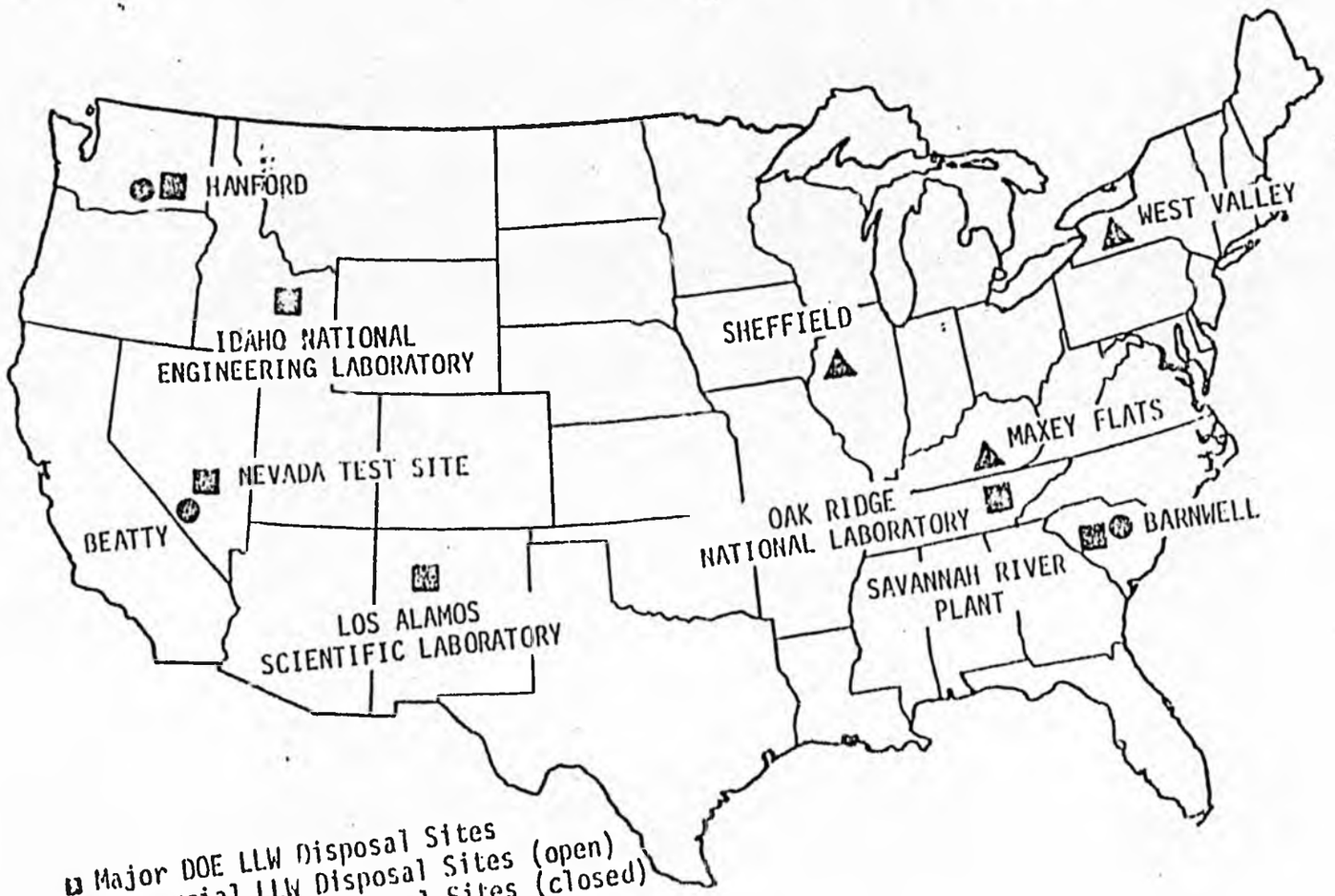


FIGURE 3-8

LOCATIONS OF MAJOR DOE AND COMMERCIAL LLW BURIAL SITES

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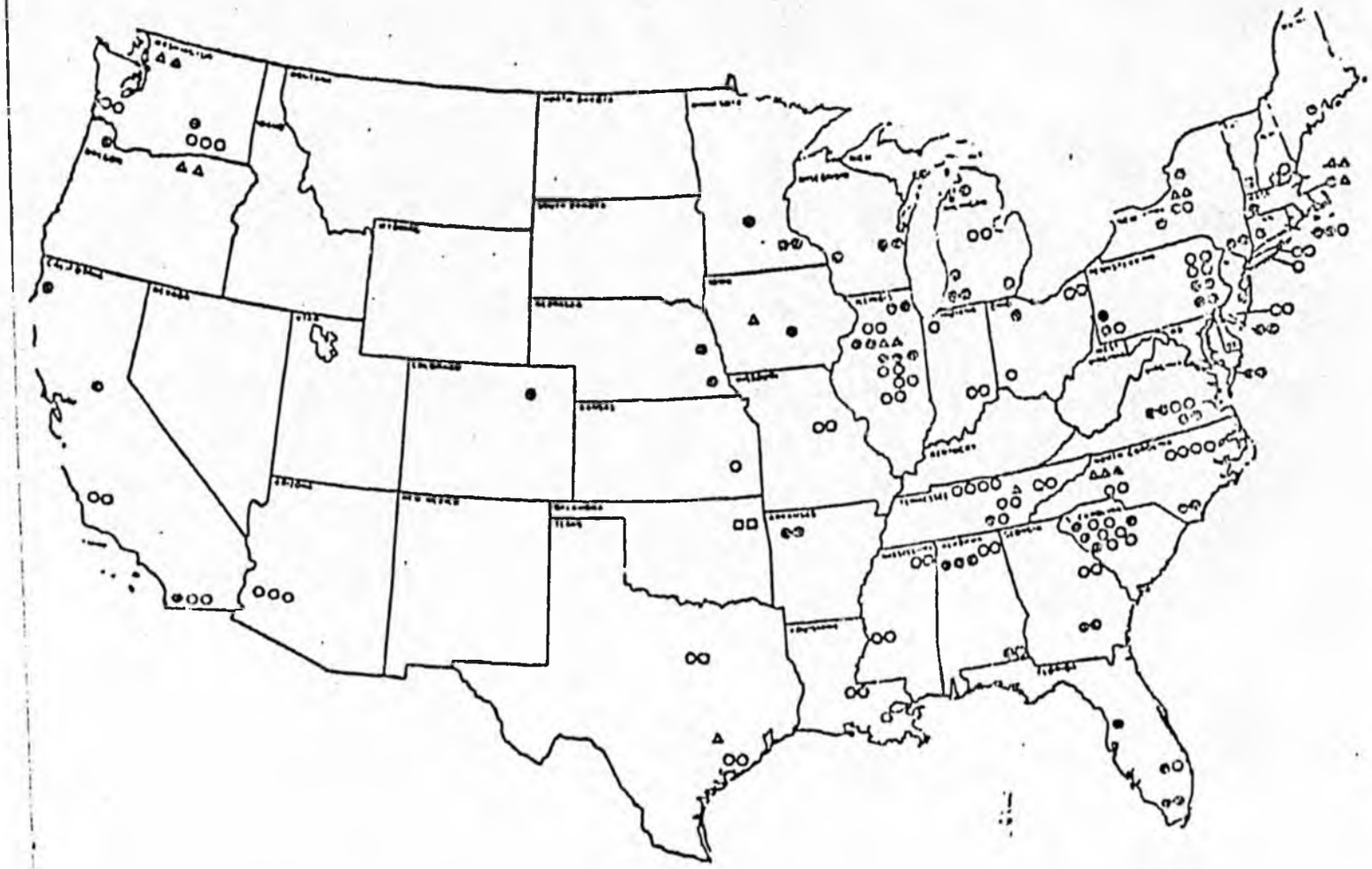
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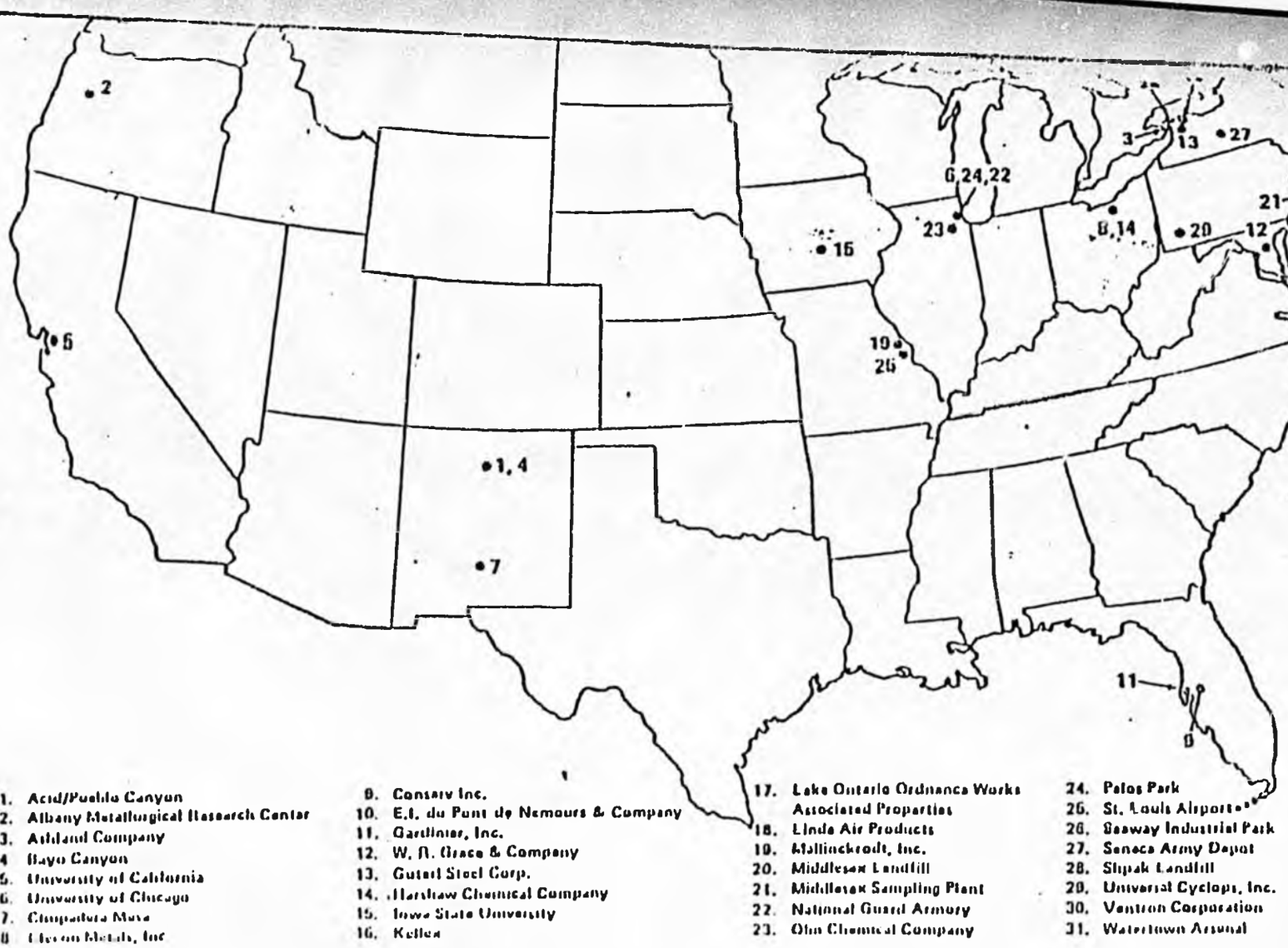


Key
- ● Operable
- o Under Construction
- o With Limited Work Authorizations
- ▲ On Order

74	Reactors with operating licenses	64,998 MWe
87	Reactors with construction permits	95,830 MWe
2	Reactors with limited work authorizations	2,300 MWe
19	Reactors on order (including 2 units not sited on map)	22,282 MWe
182	Total	175,409 MWe

1980

Source: Atomic Industrial Forum, 1980.



1. Acid/Pueblo Canyon
2. Albany Metallurgical Research Center
3. Ashland Company
4. Bayo Canyon
5. University of California
6. University of Chicago
7. Cimarron Mesa
8. Heron Metals, Inc
9. Conservinc.
10. E.I. du Pont de Nemours & Company
11. Gardinier, Inc.
12. W. R. Grace & Company
13. Gutari Steel Corp.
14. Harshaw Chemical Company
15. Iowa State University
16. Kellex
17. Lake Ontario Ordnance Works Associated Properties
18. Linde Air Products
19. Mallinckrodt, Inc.
20. Middlesex Landfill
21. Middlesex Sampling Plant
22. National Guard Armory
23. Olin Chemical Company
24. Palos Park
25. St. Louis Airport
26. Seaway Industrial Park
27. Seneca Army Depot
28. Shpak Landfill
29. Universal Cyclops, Inc.
30. Ventron Corporation
31. Watertown Arsenal

FIGURE 9-1

LOCATION OF SITES THAT REQUIRE OR MAY REQUIRE REMEDIAL ACTION

Source: U.S. Department of Energy. 1980. A Report to the Congress to Accompany the Proposed Residual Radioactive Material Control Act. ORNL/Sub 80 13329/1.

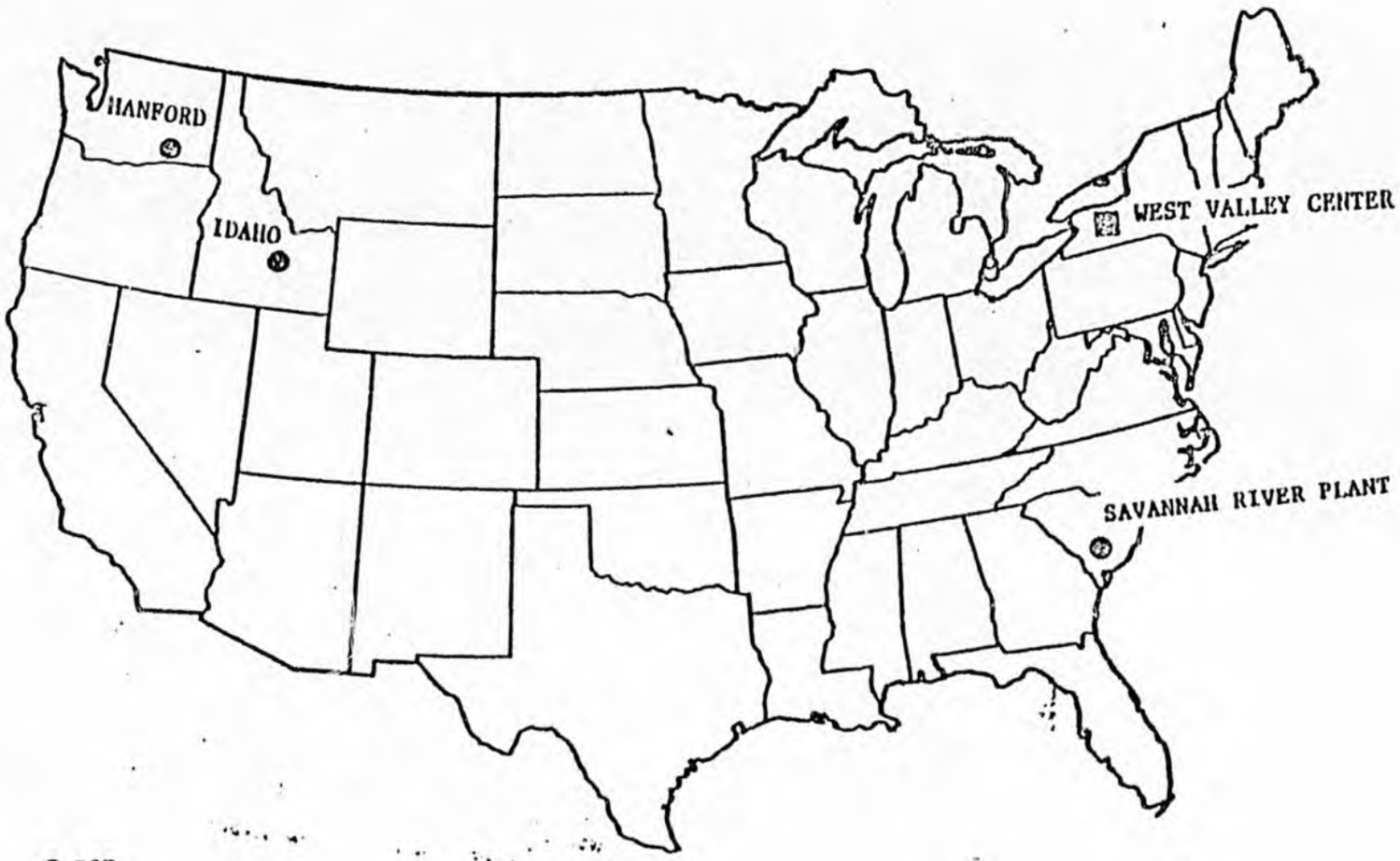


FIGURE 3-1

LOCATIONS OF HIGH-LEVEL WASTE
STORAGE SITES

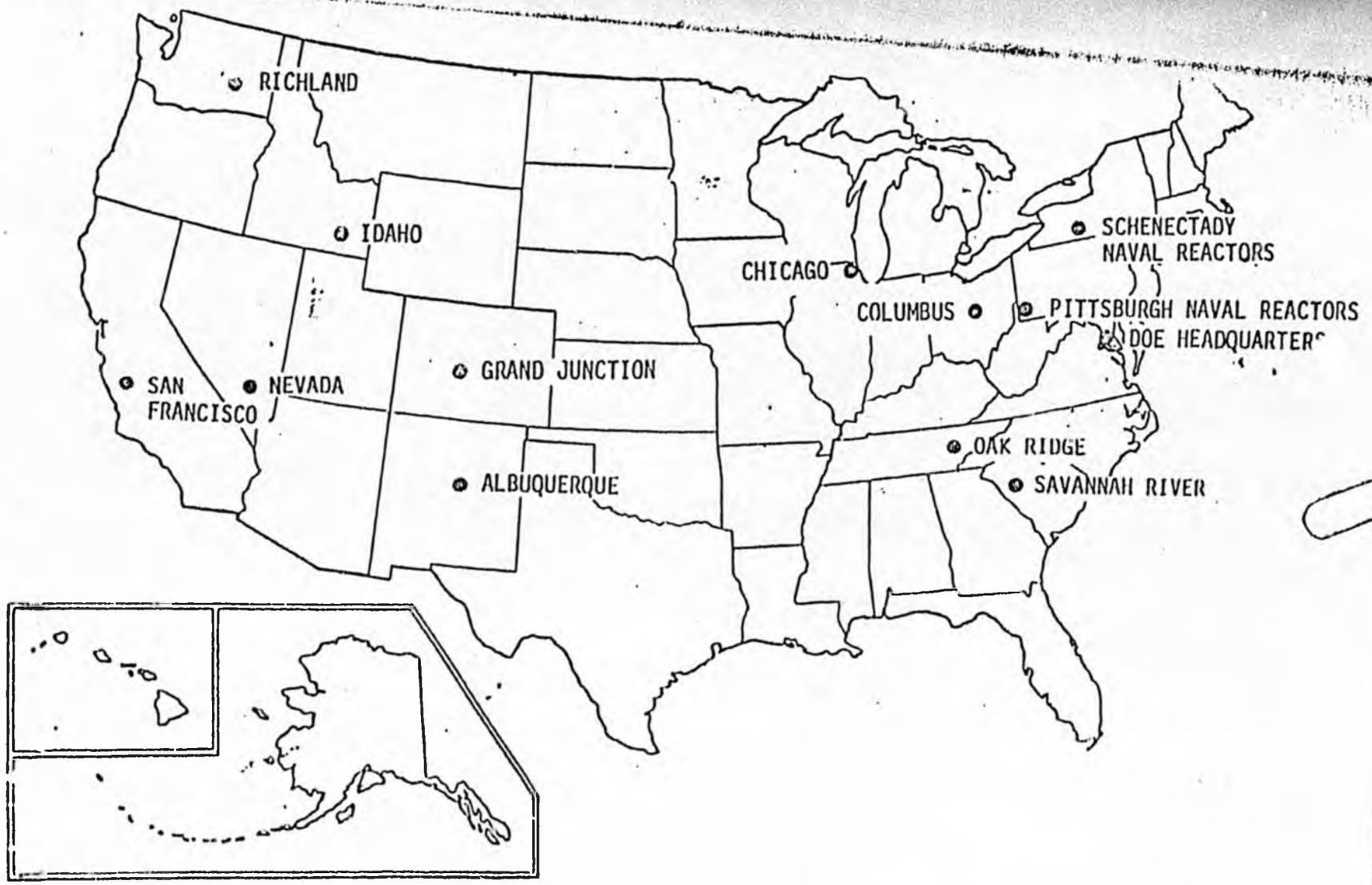


FIGURE F-3

DOE FIELD OFFICE LOCATIONS

The major classes of radioactive materials considered in this document are as follows:

- High-Level Wastes--These wastes are generated in reprocessing and contain virtually all of the fission products and most of the actinides not separated out during reprocessing. These wastes are being considered for disposal in geologic repositories or by other technical options designed to provide long-term isolation of the wastes from the biosphere.

- Transuranic Wastes--These wastes are produced primarily from the reprocessing of defense spent reactor fuels, the fabrication of plutonium to produce nuclear weapons and, if it should occur, plutonium fuel fabrication for use in nuclear power reactors. Transuranic wastes contain low levels of radioactivity but varying amounts of long-lived elements above uranium in the Periodic Table of Elements, mainly plutonium. This waste is currently defined as material containing more than 10 nanocuries of transuranic activity per gram of material.

- Spent Nuclear Fuel--These are the irradiated fuel assemblies that are removed from a nuclear reactor after having served their useful life. This material (if declared waste) is considered for disposal in geologic repositories.

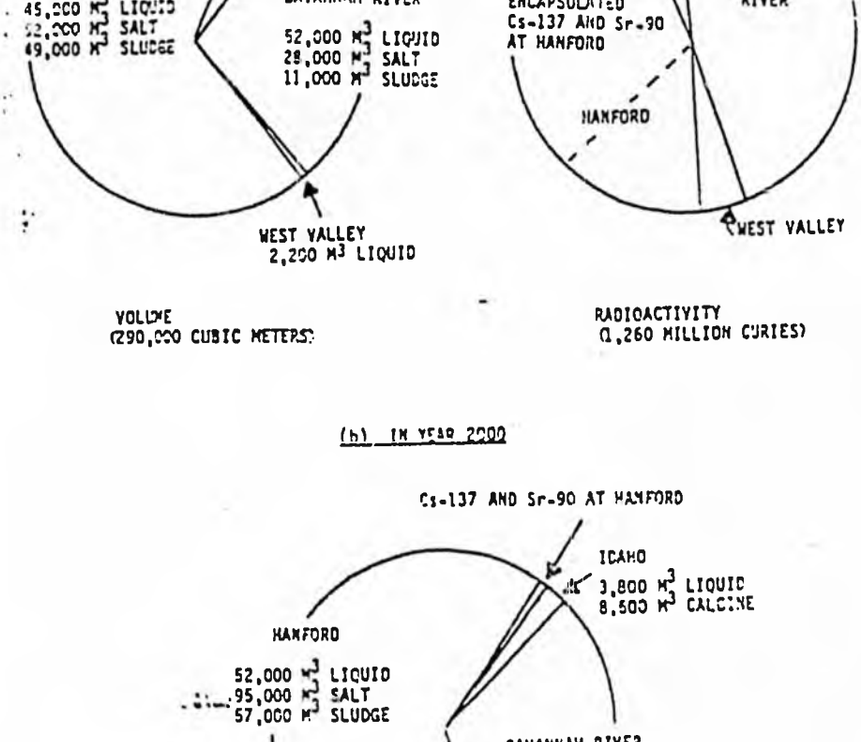
- Uranium Mine and Mill Tailings--These wastes are the residues from uranium mining and milling operations. They are hazardous because they contain low concentrations of radioactive materials which, although naturally occurring, contain long-lived radionuclides. The tailings, with a consistency similar to sand, are generated in large volumes--about 10 to 15 million tons annually--and are presently stored in waste piles at the site of mining and milling operations.

- Decontamination and Decommissioning Wastes--As defense and civilian reactors and other nuclear facilities reach the end of their productive lifetimes, parts of them will have to be handled as either transuranic or low-level wastes, and disposed of accordingly. Decontamination and decommissioning activities will generate significant quantities of wastes in the future.

- Low-Level Wastes--These wastes exclude HLW, spent fuel, transuranics, and uranium mill tailings as defined above. Low-level wastes are generated in almost all activities involving radioactive materials and are presently being disposed of by shallow land burial.

LOCATIONS OF HIGH-LEVEL WASTE STORAGE SITES

(a) IN YEAR 1980



(b) IN YEAR 2000

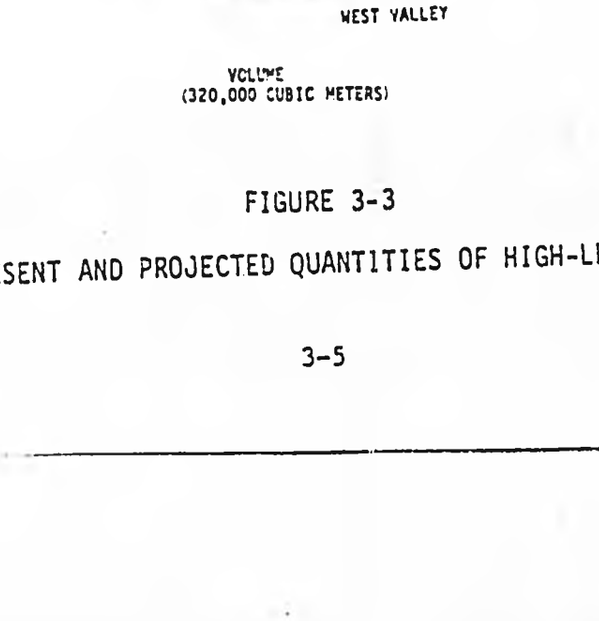


FIGURE 3-3

PRESENT AND PROJECTED QUANTITIES OF HIGH-LEVEL WASTE

Western Energy Update

Western Interstate Energy Board/WINB
2500 Stapleton Plaza • 3333 Quebec Street • Denver, CO 80207
303/837-5851 • FTS 327-5851

Staff Analysis 82-10
September 10, 1982

High-Level Radioactive Waste Bills: Comparisons and Contrasts

The 97th Congress has been wrestling with high-level radioactive waste legislation since early 1981, but despite strong impetus from industry and the Department of Energy, House floor action -- not to mention passage by Congress -- is far from assured. All three House committees with primary jurisdiction over the waste legislation have reported nuclear waste bills, and the bills now await House Rules Committee action. The Rules Committee not only must draft the rule for House floor action on the legislation, it also has jurisdiction over congressional veto provisions in each of the bills.

Several key members of the Rules Committee are vehemently opposed to federal away-from-reactor storage of spent fuel. Consequently, they are bent on blocking floor action on the legislation until they are assured that the legislation reaching the floor does not contain provision for federal AFR storage of spent fuel. One way to block the legislation is to hold hearings on the congressional veto provisions contained in the bill. Since the U.S. Supreme Court has agreed to review the constitutionality of one type of congressional veto provision, holding hearings on the provisions could be a convenient, legitimate way to stall floor action on the waste bill.

Even if the House does manage to pass waste legislation this year, prospects for full congressional passage are slim. It is unlikely that a conference committee could reach a compromise before the end of the session.

Failure to pass waste legislation this year would not be surprising in light of the controversial nature of the legislation and the history of past attempts to pass waste legislation. Congress has been entertaining high-level radioactive waste legislation for a number of years. During the 96th Congress, waste legislation was nearly passed, but disagreement among key congressional players over state veto of the location of a military waste repository within the state's borders thwarted passage of the legislation.

Interest in the waste legislation was quickly revived in the 97th Congress. Bills were introduced in both houses, and by November of 1981, the Senate Energy and Environment Committees both reported out waste bills, clearing the way for negotiation of a compromise bill for floor action. By December, the House

Science and Technology Committee reported out its version of the nuclear waste legislation (HR 5016).

In March 1982, the House Interior Committee passed its waste bill (HR 3809), and one month later, the Senate passed its bill (S 1662). House action slowed during the middle of 1982 as the House Energy and Commerce Committee, the last committee with jurisdiction over the full legislation, grappled with the nuclear waste issue and the Clean Air Act rewrite. While action in the Energy Committee was stalled, the Armed Services Committee which had jurisdiction over military wastes, approved the Interior bill with only one modification. Finally, on August 4, the Energy Committee passed a waste bill (HR 6598). This cleared the way for House Rules Committee action.

The balance of this report analyzes the House nuclear waste bills, comparing them to the Senate bill, and provides a historical background on the federal government's efforts in high-level waste.

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Historical Background

High-Level radioactive waste results from nuclear defense activities and reprocessing of spent fuel from nuclear reactors. In addition, spent fuel from nuclear reactors must be disposed of in the same way as high-level radioactive wastes if it is not reprocessed. High-level wastes from both defense and commercial activities are stored at several facilities around the country. Spent fuel from commercial nuclear power generating stations is currently being stored in pools at the reactor sites. At a number of the commercial reactors, available storage capacity is quickly being depleted, so there is significant pressure for the development of disposal capacity, and more immediately, interim storage capacity.

The federal government has been trying to develop permanent disposal capacity for high-level radioactive wastes and spent fuel since the 1950s. In 1957, pursuant to the recommendation of the National Academy of Sciences, the federal government began to concentrate on deep underground salt deposits as possible repository sites. In the early 1960s, Project Salt Vault began in Lyons, Kansas. Project Salt Vault took place in an abandoned salt mine. Experiments were conducted to evaluate salt's potential as a repository medium, to demonstrate waste emplacement equipment and techniques, to study the effect of heat and radiation on the rock and assess the overall feasibility and safety of handling radioactive wastes in an underground environment.

The results of Project Salt Vault were successful enough to prompt plans to use the mine as a pilot demonstration repository. Subsequently, geologists began questioning the suitability of the site because there were a large number of oil and gas exploratory boreholes in the vicinity of the mine. In 1972, information surfaced regarding the mysterious disappearance of nearly 200,000 gallons of water in a nearby salt mine. This event raised sufficient questions regarding the geologic integrity of the salt formation to warrant cancellation of the plans to construct a pilot repository.

In 1968, the federal government expanded its search for host rocks suitable for repository development by beginning to evaluate the Hanford basalt formation in Washington State. Concurrently, studies of salt formations in Kansas continued, and the investigations were expanded to New Mexico. In 1972, the United States Geological Survey began reconnaissance of Gulf Coast salt domes and bedded salt in the Paradox Basin of Utah and Colorado. In 1974, the Waste Isolation Pilot Project was proposed for New Mexico. This project is to be an underground salt repository for defense-related intermediate level radioactive wastes.

1976 heralded a significant development in the U.S. high-level nuclear waste disposal effort. In that year, the National Waste Terminal Storage program (NWTS) was announced. While the NWTS essentially was a continuation of the previous radioactive waste program, it was the first attempt to integrate the diverse projects that had been undertaken over the previous 20 years. Also in 1976, evaluation of tuff and granite formations at the Nevada Test Site began.

In 1979 and 1980, pursuant to a presidential directive, evaluation of nonsalt rock types was accelerated, and in 1981, development of a national geologic screening process began. The national screening process is not a part of the mainline program for identifying potential repository sites. The methodology for this screening process is currently being developed through its application to the Basin and Range Geological Province in the western U.S.

The key element to note about the development of the U.S. high-level radioactive waste disposal program is the fact that the program is the result of numerous incremental decisions rather than a comprehensive and coordinated program plan. As a result, the program has been met with suspicion and skepticism by the public and the states. Congress realized this problem with the program, when it determined that there was a need for a comprehensive nuclear waste policy act.

COMPARISON OF BILLS

Findings and Purposes

The Senate bill (S 1662) and the three House bills all contain similar Findings and Purposes sections. The bills all announce the finding that nuclear waste is a national problem, and with the exception of the House Science bill (HR 5016), all the bills specifically recognize that past waste disposal efforts have been inadequate. Finally, all of the bills find that state, public and tribal participation is essential to the waste disposal program. S 1662 and HR 5016 both include findings that nuclear power is important to the maintenance of a diversified energy base and that the lack of a clear program for the disposal of radioactive wastes unreasonably burdens the choice of nuclear power as an energy source. Those two bills also contain findings that technhnology exists to provide reasonable assurance that safe disposal of high level radioactive waste can be achieved. All of the bills, with the exception of HR 5016, contain statements recognizing the federal responsibility for developing disposal capacity for high-level wastes and the responsibility of waste generators for funding the development of waste disposal facilities.

All of the nuclear waste bills contain purposes sections that identify assumption of the federal responsibility and the establishment of a clear federal policy for the disposal of high-level radioactive wastes as basic purposes of the legislation. The bills also identify the purpose of establishing meaningful state and public participation. S 1662 and HR 5016 state that the purpose of the legislation is to authorize the Secretary of Energy to construct a waste repository, to establish a system of financing the waste program, and to provide for an integrated program.

The Interior and Energy bills, HR 3809 and HR 6598 respectively, include similar purposes and, in addition, include the purpose of establishing a schedule for the siting, construction and operation of a facility. In essence, all four of the bills do in fact establish such a schedule.

Definitions

Two definitions are of particular importance in S 1662. The definition of affected states is limited to states in which a waste disposal or storage facility is to be located. At least one state has expressed concern that this definition is too narrow. Two potential problems with this definition are immediately apparent. The first arises if a facility is close to, but not inside, the boundaries of a particular state. The bordering state could suffer socioeconomic and radiological problems that could be as severe as or more severe than those suffered by the host state. Second, the location of a site in one state could have significant transportation impacts on surrounding states. These transportation impacts could necessitate significant expenditures to upgrade roadways and upgrade emergency response plans, equipment and personnel. Consequently, it may be desirable to include other states, in addition to the host states, in the consultation and cooperation and impact assistance provisions.

A similar problem exists with respect to the definition of affected Indian tribes. While none of the House bills contain definitions of affected states and Indian tribes, the substantive provisions of all of the House bills limit consultation and cooperation provisions and impact assistance provisions to host states and Indian tribes.

Defense-Related Wastes

The House Science and Energy bills exempt facilities for defense wastes only from the requirements of the nuclear waste legislation, except for a provision requiring state consultation and concurrence and state veto with a one house override in the siting of defense facilities. The report accompanying the Science bill makes it clear that the provision exempting defense waste facilities is not intended to preclude the disposal of defense wastes in a repository with civilian wastes.

The Interior Committee bill does not exempt defense waste only facilities from the provisions of the nuclear waste bill. The Armed Services Committee, however, in its sequential referral action on the Interior bill, voted to exempt defense waste facilities from the bills provisions, while retaining a two house override for defense facilities.

The Senate bill includes language similar to that contained in the House Science and Energy bills, but with one major addition. The Senate bill requires the President to evaluate the disposal of defense wastes in the repositories developed for civilian wastes. The evaluation must take into consideration cost, efficiency, health and safety, regulatory, transportation, public acceptability and national security factors. Unless the President determines that separate defense and civilian facilities are needed, defense wastes will be disposed of in the repository constructed for civilian wastes.

Mission Plan

The requirement of a mission plan is unique to the House Science bill. HR 5016 requires that DOE develop a mission plan. The mission plan is intended to be a blueprint for all programs authorized under the nuclear waste legislation. The mission plan must identify all information that should be available before responsible decisions can be made regarding the siting and construction of a test and evaluation facility or a repository; all such information that is not currently available; all financial, legal political and institutional problems that might impede implementation of the waste legislation; guidelines for evaluating the suitability of sites; and the known sites at which siting research (site characterization) activities should be undertaken. States and Indian tribes would be provided with an opportunity to comment on the draft mission plan.

Programmatic Environmental Impact Statement

Only the House Science Committee bill requires the preparation of a programmatic EIS.

Identification and Recommendation of Sites for Site Characterization

Each of the bills requires DOE to set forth guidelines for the recommendation of sites for repositories. The guidelines must set forth criteria that would qualify or disqualify sites; including geologic factors, proximity to natural resources, population, hydrology, and seismicity. The Energy Committee bill also includes proximity to national parks as a criterion. (Note: None of the bills include transportation as a criterion.) All of the bills require that the guidelines mandate the consideration of various geological media and require that, to the extent practicable, DOE recommend sites in different geologic media. The

Interior and Energy bills also contain specific population guidelines. The Interior bill precludes the location of a repository in any city, county, or township if it has a population greater than 2500 and a population density of 1000 people or more per square mile. The Energy Committee bill precludes the location of a repository in a county, city or township that has a population of more than 2500 or in an area in which there are more than 1000 people within one square mile of the site. There is some concern that the Energy Committee language will eliminate all sites now under consideration.

The Science bill requires DOE to identify at least three sites for siting research activities (site characterization) within one year of enactment of the legislation. The identified sites must include at least two geologic media.

The Energy bill requires that three sites in two different geologic media be recommended to the President within 14 months of the enactment of the waste legislation. Prior to recommendation of the sites to the President, the recommendations must be reviewed by the Repository Advisory Review Commission, a commission made up of seven presidential appointees. DOE must recommend at least three additional sites by 1985.

The Interior bill requires DOE to recommend to the President three sites in three different geological media within one year of enactment of the legislation. By 1985, DOE must recommend at least two additional sites, one of which must be in granite.

Finally, the Senate bill requires DOE to recommend to the President three site for site characterization before 1984. Two of the sites must be in different geologic media. DOE is required to recommend three additional sites for site characterization by 1987. The three additional sites will be chosen after a national site screening. The Senate bill requires at least two repositories, and the three sites recommended in 1987 will be used for selection of the second repository only.

All of the bills require that public hearings be held in the vicinity of the site prior to the recommendation of the site. In addition, all of the bills require notification to the governor of the state in which the site is located of of the recommendation of the site for site characterization. The Secretary must include a detailed statement of the basis of the recommendation when it is submitted to the President and forwarded to the governor. The Energy and Interior bills require notification to the state legislature as well as the governor.

The House bills authorize additional recommendation of sites if the Secretary deems it necessary.

Presidential Review of Sites Recommended for Characterization

The Science bill does not require presidential approval for sites identified for siting research acitivities. The remaining bills provide for a 60 day review by the President, with an extension of up to six months. If the President does not approve or disapprove the recommendation within the 60 day or six month period, whichever is applicable, the site is automatically deemed approved. Governors or Indian tribes must be notified of approval or disapproval of a site by the President. (The Energy and Interior bills also requires notification of the state legislature.) Because only three sites will be characterized prior to selection

of the first repository pursuant to the Senate bill, that bill requires DOE to recommend an additional site within 60 days of disapproval of a site by the President.

All of the bills provide that none of the decisions made regarding the recommendation of sites for site characterization require NEPA compliance.

Site Characterization Activities

All of the waste bills require the preparation of an environmental assessment and the conducting of public hearings in the vicinity of the site prior to the sinking of a shaft for site characterization purposes. In addition, all of the bills except the Science bill require the preparation of a general plan for the site characterization activities. The general plan and the environmental assessment must both be submitted to the Nuclear Regulatory Commission and the governor (and legislature) or Indian tribe for comment, and DOE must take steps to minimize impacts identified by the environmental assessment or the comments.

The Energy Committee and Senate bills require consideration in the general plan of the suitability of the site for a repository. The Senate bill also states that DOE may not conduct activities not considered in the general plan, unless any requirement for an environmental impact statement under NEPA has been met.

The Energy Committee bill contains a provision authorizing site characterization activities for sites at which the location of the principal borehole was identified prior to August 1, 1981. This authorization is valid whether or not an environmental assessment or general plan has been prepared. The general plan and environmental assessment provisions must then be satisfied within two years of the enactment of the legislation. The provision is designed to prevent delay of site characterization activities already underway at sites such as the Hanford Reservation in Washington State.

All of the bills severely restrict the use of radioactive materials during site characterization activities.

With the exception of the limited provision in the Senate bill, site characterization activities are not subject to NEPA compliance.

Site Approval and Construction Authorization

The House Interior and Science bills contain virtually identical provisions governing the approval of a site for the final repository and the issuance of construction authorization for the repository. Under these two bills, DOE must hold hearings in the vicinity of all sites under consideration for the repository. Hearings must be held following site characterization at at least three sites before DOE can make a site recommendation to the President. Once DOE makes a decision, the agency must notify the governor and the legislature of the state in which the site is located, or if the site is located on an Indian reservation, DOE must notify the tribe. DOE must wait 30 days from the date of this notification before recommending the site to the President. The recommendation to the President must include a comprehensive statement of the basis for the recommendation. This statement shall consist of, among other things, an environmental impact statement that evaluates at least three sites and the comments of the governor and the legislature or the Indian tribe.

The President must recommend a site to Congress by March 30, 1987, and if the state or Indian tribe does not object to the recommendation, it becomes effective 60 days after submission of the President's recommendation to Congress. DOE must submit an application for construction authorization to the Nuclear Regulatory Commission (NRC) within 90 days after the recommendation becomes effective. The NRC must make a final decision on the construction authorization application by 1989 or three years after submission of the application, whichever is later.

The Science Committee bill contains an expedited presidential review and construction authorization provision when compared to that of the Energy and Interior bills. (It is also important to note that the Science bill only requires that three sites be recommended for site characterization; the Interior bill requires that five sites be recommended, and the Energy bill requires that six sites be recommended. The fact also contributes to the expedited nature of the Science bill's repository development schedule.)

Under the Science bill, DOE must hold public hearings only in the vicinity of the site DOE plans to recommend. After DOE decides to recommend the site for a final repository, it must notify the governor or the Indian tribe. DOE then submits the recommendation to the President, together with a repository development report. The repository development report must include an environmental impact statement, the views of the governor or tribe of the state or reservation in which the site is located, and the views of any other state that is directly affected by the repository siting decision.

The President has 30 days to approve the site, with automatic approval if the President does not make a decision. Unless the state or tribe objects to the siting decision, approval is effective 30 days after it is submitted to Congress. Within 30 days of the time that the approval becomes effective, DOE must file an application for construction authorization. The NRC must make a final decision on the construction authorization within two years of submittal of the application. The two year deadline can be extended for an additional year under certain circumstances.

Finally, the Science bill requires that construction of the repository be completed within six years of construction authorization. None of the other bills contain a similar construction deadline, but they do require DOE to develop a project decision schedule.

The Senate bill schedule also differs from the schedule contained in the Interior and Energy bills. This is primarily because the Senate bill provides for at least two repositories. Under the Senate bill, DOE, by 1986, must recommend a site to the President from the three sites that were initially characterized. By 1989, a second site must be recommended. Both recommendations to the President must be accompanied by an environmental impact statement. The EIS for the first recommendation need only consider the three sites that were initially characterized. The EIS for the second recommendation must consider all sites that have been characterized with the exception of the first site chosen. The second repository site recommendation must take into account the need for regional sites and the need to minimize transportation distances.

The President has 60 days to approve or disapprove a site. If the President disapproves a site, DOE has 60 days to recommend another site. Assuming that the state or Indian tribe does not object, DOE must submit an application for construction authorization within 120 days of presidential approval. A final decision

on construction authorization for the first repository must be made by 1989, and the final decision on construction authorization for the second repository must be made by 1992.

In order to ensure that at least two repositories will be built, the Senate bill limits the capacity of the first repository to 70,000 metric tons of spent fuel or its equivalent in high-level waste. Only the Senate bill requires more than one repository.

State Veto Over Repository Siting Decisions

The Senate bill and the House Energy Committee and Science Committee bills all contain similar provisions for state veto of the approval of a repository within that state's borders and a congressional override of that veto. Under the bills, a state may object to the approval of a repository site within its borders and a tribe may similarly object to the location of a repository within the tribe's reservation, so long as the objection is submitted before the site approval becomes effective. If an objection is submitted to Congress, at least one house of Congress must pass a resolution upholding the state objection or the site is deemed approved. Under the Science bill, Congress has 40 days of continuous session to pass such a resolution; under the Senate bill, Congress has 60 days; and under the Energy bill, Congress has 90 days.

The Interior bill also provides for state or tribal veto of a repository siting decision, but under this bill, both Houses of Congress must disapprove of the state veto by resolution or the state veto is valid. This type of congressional override, which gives the states far more power, is supported by the National Governor's Association.

State Consultation

At certain milestones in the repository siting process, DOE must notify the states of key decisions and submit reports to the states. These notification requirements are discussed in other portions of this analysis.

In addition to the notification requirements, DOE must engage in a process of consultation and concurrence, or alternatively consultation and cooperation, with states and Indian tribes that have potential repository sites within their borders. This includes all sites subject to site characterization activities. The House Science bill and the Senate bill require consultation and concurrence, while the Energy and Interior bills require consultation and cooperation. The distinction between concurrence and cooperation could be important in determining the extent to which DOE must seek to reach a resolution with the states over state concerns. The Energy and Interior bills and the Senate bill all require that the process of consultation be embodied in written agreement between DOE and the state or tribe, but only the Energy bill specifically requires that the written agreement be binding. The Science bill provides that DOE may enter into written agreements.

Financial Assistance to the States

All of the bills provide for financial assistance to the states. The Senate bill provides for payments to state and local governments to cover the cost of state involvement in consultation and concurrence and to mitigate socioeconomic and environmental impacts of a repository. No federal/state-cost sharing is required by the Senate bill.

The Energy bill provides for financial assistance to the states in which site characterization activities have been undertaken. Funds will be provided for review, testing and monitoring, and information gathering and dissemination with respect to siting and construction activities. Such funds will be available on a 90 percent/10 percent cost-sharing basis. Funds will also be available for mitigation of socioeconomic and environmental effects of a repository. No cost sharing is required for this form of financial assistance.

The Interior Committee bill contains provisions similar to the Energy bill, except that cost-sharing for the review and monitoring type of financial assistance is on a 75 percent/25 percent basis.

The Science bill also provides for 75 percent/25 percent cost-sharing for review and monitoring assistance, and in addition, the bill limits this type of assistance to $3 million per year until a repository is approved for the site. The Science bill is also unique in that it provides for a flat rate of impact assistance for states once the site is approved for a repository. Under this provision, states will receive $10 million per year until the repository is filled to capacity.

Test and Evaluation Facilities

The Senate bill and the House Science Committee bill both provide for the development of a test and evaluation facility. The Senate bill requires that DOE draw up a plan for the development of at least one test and evaluation facility. The express purpose of the facility is to demonstrate packaging, handling and emplacement technology and to further the demonstration of disposal of high-level waste and spent fuel. Congress must approve the plan before the facility can be constructed. The test and evaluation facility cannot be physically integrated with the first repository. State consultation and cooperation provisions apply to the test and evaluation facility, but there is no provision for state or tribal veto.

The Science bill requires that DOE begin development of a test and evaluation facility five years and four months after enactment of the bill at a site that has been characterized. The purposes of the facility are to focus repository siting research activities at the most promising site; to provide for integration of technological components in a functioning repository-like system; to provide for resolution of potential repository licensing issues; and to supplement siting data. Contrary to the Senate version, the Science Committee test and evaluation facility clearly can be expanded into a final repository.

A number of commentors believe the development of a test and evaluation facility is either unnecessary or a subterfuge for the development of the final repository without initially needing construction authorization. Those objecting to such a facility argue that many of the facility's purposes have already been fulfilled by other DOE programs.

Monitored Retrievable Storage

The House Interior and Energy bills and the Senate bill, all contain virtually identical provisions requiring DOE to submit to Congress a plan for the development of one or more monitored retrievable storage facilities. Submission of the proposal is to be accompanied by an environmental assessment. A limited environmental impact statement is required only if construction of the facility is authorized. DOE is authorized to make impact assistance payments to state and local governments to mitigate the social and economic impact of the construction of the facility. A monitored retrievable storage facility must be licensed by the NRC.

There is considerable disagreement over the need for monitored retrievable storage. Proponents of such a facility argue that significant technological breakthroughs are likely in the next several decades, so it would be foolish to commit the waste program exclusively to mined geological repositories. In addition, they note that monitored retrievable storage provides safeguards that are not associated with permanent repositories and allows for retrievability of spent fuel if reprocessing becomes attractive.

Opponents of monitored retrievable storage argue that development of such a facility would be an abdication of our responsibility to future generations because we would be passing on to them the wastes from our electrical generation. They also note that monitored retrievable storage would relieve the pressure on the Department of Energy to find a permanent solution to the nuclear waste problem.

Interim Storage of Spent Nuclear Reactor Fuel

All of the waste bills contain provisions relating to the interim storage of spent fuel. These provisions have sparked heated debate in Congress. Industry has been supporting federal away-from-reactor storage of spent fuel because many commercial reactors are reaching their onsite storage capacity. Industry argues that this problem was caused by the federal government's ban on fuel reprocessing and also the federal government's inability to develop permanent disposal facilities in a timely fashion. Opponents of federal away-from-reactor storage counter that interim storage of spent fuel is the utilities' problem and that dry cask storage is technically feasible and economically preferrable to federal away-from-reactor storage.

The Energy, Interior and Senate bills all provide for research and expedited generic licensing for dry cask storage. They also provide for expedited approval of transshipments of spent fuel between reactors and reracking of fuel rods in storage ponds as ways to increase capacity. Finally, all three of the bills provide for limited, last resort federal away-from-reactor storage.

The Science bill provides for a DOE program to demonstrate dry cask storage of spent fuel at commercial reactors. The program will be undertaken in cooperation with industry, and the costs of the program will be shared, with DOE picking up 25 percent of the costs.

Financial Arrangements

All of the bills provide for a nuclear waste fund to finance the waste management program. This fund will be financed by nuclear utilities.

Effect of Legislation on Other Statutory or Legal Requirements

The Senate bill contains a provision that states that passage of the bill shall be construed to satisfy any legal or statutory requirement for the existence of or federal approval of a demonstrated technology for the disposal of spent fuel and high-level radioactive waste. This provision would have the effects of eliminating the need for the Nuclear Regulatory Commission's waste confidence rulemaking and legislatively overruling a Californ'a state statute that bans the construction of additional nuclear facilities in the state until a demonstrated

waste disposal technology exists. This provision of the Senate bill has been opposed by many states. None of the House bills contain a similar provision.

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Executive Director
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TO: Legislators and Staff interested in Hazardous Waste Site Clean-up

FROM: Donna Wise, NCSL Staff Director for DW Natural Resources and Environment Committee

SUBJECT: Hazardous Waste Management: Requirements for State Participation in Site Clean-up under "Superfund"

DATE: August 27, 1981

The following information is intended to provide you with an update on the most recent actions taken by U.S. EPA to implement Superfund. This particular package is limited to U.S. EPA procedures and requirements to clean up the top 400 inactive hazardous waste sites in the country. While EPA may make minor revisions to this document, it will serve as the basis for all site clean ups to be executed during the coming year.

While that portion of the Superfund which is aimed at hazardous waste site clean-up is voluntary, states choosing to avail themselves of federal funds will be required to provide a financial matching share. Thus beginning with fall special sessions, state legislatures may be asked to appropriate the state contribution to site clean-up.

For instance, if a site, which was privately owned at the time of waste disposal, appears on the National Priority list of 400 sites, the federal fund will pay 90% of clean-up costs and future maintenance and operation - the State must assure 10% of the clean-up costs and long term maintenance and operation. If a site appears on the National Priority list and was publically owned at the time of disposal, the State will be required to pay at least 50% of the response costs and long term maintenance and operation.

Should a state choose to participate in this federal site clean up program, a cooperative agreement must be executed with U.S. EPA. The following draft document describes the Cooperation Agreement process.

Should you have any questions on the following information, please don't hesitate to contact me at (202) 624-5431.

NCSL Staff has selected the following sections of the EPA document on State Cooperative Agreements which may be of particular interest to state legislators.

I. Purpose of the EPA/State Cooperative Agreement
for states wishing to undertake management responsibility for site clean up.

III. State Cooperative Agreement
procedures for executing a cooperative agreement including those state financial assurances (state match) which must be provided.

IV. State Costs eligible for payment by the federal fund

V. State Agreements
for those states which choose to rely solely on EPA for the management of site clean up.

VII. Glossary of terms

NCSL Contact: Donna Wise (202) 624-5431

SELECTED PORTIONS OF

INTERIM GUIDANCE

COOPERATIVE AGREEMENTS WITH STATES UNDER THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (P.L. 96-510)

U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF EMERGENCY AND REMEDIAL RESPONSE

AUGUST 3, 1981

U.S. EPA Contact: Mr. Sam Morekas (202) 382-2456

I. PURPOSE

Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (P.L. 96-510) authorizes the President to enter into a Cooperative Agreement or a Contract with a State to allow appropriate response -- removal or remedial action -- to a release within that State consistent with the National Contingency Plan (NCP). By Executive Order, the President has delegated this authority to the Environmental Protection Agency (EPA).

This document instructs the Regional Offices in how to use Cooperative Agreements with the States for planning and implementing planned removals and remedial actions under CERCLA (commonly called "Superfund"). It does not address emergency actions (i.e., immediate removals). Guidance on this type of response will be provided at a later date. This document also provides guidance on agreements with States when EPA has the lead responsibility for the response action.

A Cooperative Agreement may be site-specific or may cover response at more than one site; however, careful fiscal reporting will be necessary to distinguish costs by site. This guidance covers procedures for site-specific Cooperative Agreements only, but procedures for multiple-site Cooperative Agreements will be basically the same.

The Cooperative Agreement assigns to the State and EPA precise and clear responsibilities for each phase of the response action. It must describe the State's plan for the response action and EPA's involvement in the action.

Under a Cooperative Agreement, funds are generally transferred to a State through a letter of credit. (See Section II-G.) For Superfund Cooperative Agreements, the letter of credit will be used for projects budgeted at $1 million or less. To ensure accurate fiscal management of the Trust Fund, EPA is seeking an exception from the Office of Management and Budget to switch from letter of credit to the advanced method of payment or cost reimbusement method of payment for projects greater than $1 million.

III. SUPERFUND COOPERATIVE AGREEMENTS

A. General

Superfund Cooperative Agreements may be negotiated with States that are willing and able to assume a management role for response actions.

B. Preapplication Procedures

1. Initial Clearinghouse Review

When the Interim List of Priority Sites is published, potential applicants should notify each clearinghouse of their intent to seek Superfund assistance. Since EPA and the States will develop plans for responses at these sites, States should notify clearinghouses of the response actions. Clearinghouse review is required at the time an application is formally submitted to EPA. Review is usually not required when changes are made to an existing Cooperative Agreement if such changes do not substantially alter the scope and purpose of the proposed action.

2. Preapplication Assistance

The Regional Offices and the States must work together to reach a mutually acceptable Superfund Cooperative Agreement delineating Federal, State, and joint responsibilities. The more issues that can be settled in the preapplication stage, the smoother the later stages will be. Preliminary work to develop detailed Statements of Work, refine costs estimates, and assign responsibilities should commence as soon as possible.

The following paragraphs discuss briefly the requirements that should be addressed during preapplication assistance with the State. The States and EPA must agree mutually upon the activities to be funded. Responsibilities that cannot be scoped out in the work plan (see attached sample work plans) should be addressed by Special Conditions.

3. National Contingency Plan

The activities covered by Superfund Cooperative Agreements must be consistent with the existing NCP, dated March 19, 1980, and the changes required by the provisions of Section 105 of CERCLA as interpreted by interim guidance.

4. Cost Recovery

EPA will use State documentation in its cost recovery actions. Therefore, the State must have procedures in place to assure the legal chain of custody of samples and materials taken from the site. In addition, the State must have a system that will document, with great deatil, those costs incurred at the site. Additional guidance on cost recovery is bein developed by the Policy and Planning Unit, Office of Waste Programs Enforcement.

Does State have flexibility in

SAMPLE

SAMPLE WORK PLAN: REMEDIAL INVESTIGATION
(Sample work plans for all remedial/removal activities are under development.)

Activity: REMEDIAL INVESTIGATION Project(s): (Name of Site) Activity Number: 1

Workyears: _____ Funds(x10^3): _____

Task No.	Description of Planned Tasks (examples)	Output	Schedule
	Comprehensively determine the nature and extent of the problem and gather data to support conceptual designs and cost estimates of alternative remedial actions.	Report	Target Date:
1-1.	Develop safety manual for Remedial Investigation tasks.	Manual	By:(date)
1-2.	Conduct appropriate community relations activities.	Several	By:(date)
1-3.	Conduct geophysical investigations.	Survey	By:(date)
1-4.	Conduct geological and hydrogeological investigations.	Investigations	By:(date)
1-5.	Conduct soil sampling and analysis.	Results of analysis	By:(date)
1-6.	Conduct hazardous waste characterization.	Survey	By:(date)
1-7.	Conduct ground water monitoring, sampling and analysis.	Results of analysis	By:(date)
1-8.	Conduct surface water monitoring, sampling and analysis.	Results of analysis	By:(date)
1-9.	Conduct air monitoring, sampling, and analysis (stability and security of site).	Results of analysis	By:(date)
1-10.	Identify physical site condition (stability and security).	Report	By:(date)
1-11.	Identify critical environmental area (flood plain, etc.).	Report	By:(date)
1-12.	Determine pathways of contamination.	Report	By:(date)
1-13.	Submit draft report to EPA for review and approval.	Draft Report	By:(date)
1-14.	Submit final report (incorporating all comments) to EPA for approval.	Final Report	By:(date)

reimbursement?

who does work?

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SAMPLE WORK PLAN: COMMUNITY RELATIONS
(Sample work plans for all remedial/removal activities are under development.)

Activity: Community Relations Project(s): (Name of Site) Activity Number: II

Workyears: _____ Funds($\times 10^3$): _____

Task No.	Description of Planned Tasks (examples)	Output	Schedule
II.	Conduct community relations activities to ensure that actions taken at (site) are undertaken with the support of the local public	Plan	Target Date:
II-1.	Analyze level of citizen concern and identify constituency	Report & mailing list	By:(date)
II-1-a	Interviews		
II-1-b	Review previous press coverage		
II-1-c	Review information on history of site		
II-2.	Develop fact sheets about the site	Fact sheets	By:(date)
II-3.	Conduct citizen's advisory committee meetings to coincide with major activities at the site	Meetings	By:(date)
II-4.	Prepare newsletters on progress and results to coincide with major activities at the site	Newsletters	By:(date)
II-5.	Press conferences	Press conferences	By:(date)
II-6.	Workshops for concerned citizens	Workshop materials	By:(date)
II-7.	Public meetings	Meetings	Before remedy is selected and before construction begins.
II-8.	Responsiveness summaries for all meetings/hearings	Report	At conclusion of remedial action.

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5. Access to the Site and Permits

The State must secure the necessary rights-of-way, easements, or other authorities necessary to allow project activities to be carried out at the site as specified by the Statement of Work, and all permits required by State or Federal statutes to conduct project activities at the site.

6. Off-Site Treatment, Storage, or Disposal Facilities

The State must when EPA determines it to be necessary, assure the availability of an off-site treatment, storage, or disposal facility acceptable to EPA and in compliance with the requirements of Subtitle C of the Solid Waste Disposal Act, as amended.

7. Safety Plans

The State needs safety plans for each work plan activity (e.g., field investigation, feasibility study, design, and construction) to protect the health and safety of personnel involved in response actions. The State safety plan must be consistent with:

- Section 111(c)(6) of CERCLA.
- EPA Order 1440.2 -- Health and Safety Requirements for Employees Engaged in Field Activities.
- EPA Order 1440.1 -- Respiratory Protection.
- EPA Occupational Health and Safety Manual.
- Other EPA guidance as provided.

8. National Environmental Policy Act (NEPA)

The requirements of NEPA must be addressed through project activities described in the Statement of Work. Interim guidance and compliance with NEPA dated May 18, 1981, should be followed.

9. Community Relations Plan

A Community Relations Plan should be developed for and conducted concurrently with the response action. Plans should be consistent with interim program guidance on Community Relations Plans.

10. Laboratory Quality Assurance

States choosing to assume full responsibility for sample analysis must assure EPA that they can provide high quality in-house analytical services, capable of producing scientifically and legally defensible results. Except in cases where enforcement actions are not contemplated because a financially viable, responsible party cannot be identified, the following areas should be covered in preapplication negotiations:

- Intact chain of custody procedures;
- Adequacy of laboratory facilities to perform the work;
- An existing quality assurance/quality control (QA/QC) program;
- Participation in EPA laboratory intercomparison study and data audits;
- Adequate use of blanks, duplicates, spikes, and surrogates; and
- Use of "in process" controls to alert laboratory personnel to internal problems.

EPA's Hazardous Response Support Division, in cooperation with the Environmental Monitoring System Laboratory in Las Vegas, is developing alternative approaches to obtaining good analytical results. Guidance on using these approaches is forthcoming.

States lacking adequate analytical expertise or laboratory equipment may use EPA's existing National Analytical Contract through their Regional Project Officers. If this option is used, details for obtaining such services should be included in the Cooperative Agreement. (Regional Surveillance and Analysis Divisions are responsible for coordinating the use of the National Analytical Contract.)

11. Evaluation of Potential for Response by Others

Identifying and evaluating a potential for response by others are activities that the State and/or EPA may conduct. Interim guidance on this issue is being prepared by the Policy and Planning Unite of the Office of Waste Programs Enforcement.

12. Cost-Sharing Assurances

As part of the Cooperative Agreement the State must provide the cost-sharing assurances required in Section 104(c)(3) of CERCLA. The State should specify how it intends to satisfy these requirements and provide a schedule of actions that need to be accomplished. These assurances may be written as a Special Condition in the Superfund Cooperative Agreement.

The State must provide a firm commitment to contribute, or make available when needed, its share of the cost of the project (10% or 50%) before the final design activity begins. However, the State's requirement to contribute begins at the time of construction. This commitment should be made to the awarding official by the official who has the authority to guarantee that the State's contribution (including costs for all future operation and maintenance) will be provided before construction begins. Regional counsel should be consulted to determine what constitutes a firm commitment (for example, a letter from the Governor, State Attorney General, or other appropriate official). Timing of agreements, assurances, and commitments is

displayed in the table at the end of Section V.

The methods the State use to meet the cost-sharing commitments will vary. Acceptable methods may include "up front" cash payments, certain in-kind services, the credit from Section 104(c)(3)(C)(ii), or a firm intent (with schedule and milestones) to seek funds. (See Section IV.)

a. Privately Owned Sites

When the site was privately owned at the time of disposal of hazardous substances and the Statement of Work includes final design and construction activities, the State must assure the following cost-sharing provisions of Section 104(c)(3) to EPA before the design activity commences:

- The State must agree to contribute (10%) of the cost of remedial action, including operation and maintenance (O&M) at the site.

- The State must agree to operate and maintain the response action for the expected life of that action as designated in the Statement of Work.

b. Publicly Owned Sites

When the site was publicly owned at the time of disposal of hazardous substance, the state must assure the following cost-sharing provisions of Section 104(c)(3) to EPA before EPA can approve any response actions.

- The State must agree to contribute at least (50%) of the cost of all response actions, including O&M, at the site.

- The State must agree to operate and maintain the response for the expected life of that response as designated in the Statement of Work.

13. Operation and Maintenance (O&M)

The Cooperative Agreement should specify if possible the terms and conditions for annual funding of)&M costs by the EPA and the State. The State and EPA should mutually agree on the minimum administrative and operational mechanisms that will be required during O&M. The Cooperative Agreement should include a schedule of milestone dates for implementation of the O&M process, and assurances for the following State requirements:

- Identification of the State's financial mechanism for annual funding O&M activities (for example, from special user fess, State or local taxes, court judgments, general revenues, bonds, special appropriations, or legislative authority).

- Identification of the organizational unit responsible for administering O&M activities. This may be an existing State or local agency or a special authority set up for this purpose (sewer or water districts, for example).

Interim guidance on how to caluculate annual estimates of O&M costs will be provided at a later date.

D. Completing the Assistance Application

In addition to EPA form 5700-33, the applicant must include a Statement of Work comprised of a work plan narrative and the work plan itself. As many of the major Superfund issues (described in C above) as possible should be incorporated in the Statement of Work; the rest should be included as Special Conditions.

E. Submitting the Completed Application

The State must submit the completed application simultaneously to the clearinghouses and the Regional Office for review. If the State notified the clearinghouses of its intent to seek assistance from the EPA, final clearinghouse reviews can be facilitated.

F. EPA Review of the Application

The Regional staff reviews the application for technical quality and completeness, and submits it to the award offical with a recommendation for funding.

G. Executing the Cooperative Agreement

The award official will execute a Superfund Cooperative Agreement if:

- The Cooperative Agreement is complete and technically satisfactory.
- The award official determines that the State is capable of accomplishing the activities specifiфed in the application.
- Fund monies are available.

Requirements for transferring funds to the State via letter of credit are applicable to Superfund Cooperative Agreements.

H. Special Conditions

For each State, depending on the problems at the site, some programmatic special conditions may also be required. As stated in this Section, Superfund issues that are not incorporated into the work plan may be included as Special Conditions.

1. Interim Progress Reports

Quarterly progress reports should include the following information for each site activity covered by the Cooperative Agreement:

- Expenditures to date and expenditures since the previous report.
- Estimates of work completed (as a percentage of the total work to be done on that activity), with a description of the basis for the estimates.
- Estimated variance (cost and time) expected at project completion, based on current project status.

2. Expenditures

Section II-H discusses expenditures. However, the exigencies of Fund management may require a review of all Superfund Cooperative Agreements more frequently than quarterly. To ensure consistency in reporting, the state should report quarterly its total expenditures incurred at each site. Expenditures against each Cooperative Agreement should be itemized within the categories identified on the Federal Cash Transactions Report (form SF-272) which is used by States operating on a letter of credit. In addition, the quarterly report should itemize the following expenditures:

- Personnel
- Fringe Benefits
- Travel
- Equipment
- Supplies
- Contracts
- Construction
- Direct Charges
- Indirect Charges
- Total Charges

Between the required performance reporting dates, the State shall promptly notify the Project Officer of any events, such as project overruns and underruns, having significant impact on the project.

I. Amendments

Administrative or formal amendments are likely to be required as each activity is completed and more is learned about conditions on the site. For example, if the initial activity covered by the Cooperative Agreement is the feasibility study, amendments typically will be needed prior to design and prior to construction. The procedures described in Section II-H should be followed when amending Superfund Cooperative Agreements.

J. Conclusion

The following figure displays the Superfund Cooperative Agreement process discussed in this section.

(actual Timeline)

APPLICATION APPROVAL PROCESS FOR
SUPERFUND COOPERATIVE AGREEMENTS

Sequence of Events	Actions Required By		
	EPA	STATE	EPA/STATE
Preapplication Phase			
1 - EPA ranks sites: o Interim priority list o National priority list	X		
2 - STATE notifies Clearinghouse(s) of intent to seek assistance: o Form 5700-30 o Summary description of project		X	
3 - EPA allocates funds for response actions at ranked sites.	X		
4 - EPA/STATE negotiate Statement of Work (including Superfund requirements): o Work plan narrative o Work plan o Schedules o Budgets o Use of State employees and equipment or o Subagreement/contract.			X
Review Phase			
5 - STATE: o Prepares assistance application package - Form 5700-33 - Statement of Work o Designates project manager.		X	

	EPA	STATE	EPA/STATE
Review Phase (con't)			
6 - STATE forwards completed application package to EPA and Clearinghouses.		X	
7 - EPA: o Reviews State assistance application for - Technical quality - Completeness o Evaluates State's capability to award and direct contracts.	X		
8 - STATE forwards Clearinghouse review(s) to EPA.		X	
9 - EPA decides: o To fund (must have clearinghouse review) or o Not to fund - STOP-	X		
10 - EPA prepares (if project to be funded): o Grant Funding Order o Commitment notice o Special conditions	X		
Award Phase			
11 - EPA: o Executes award -- Form 5700-20A -- Special Conditions o Designates project officer o Sends award to State	X		
12 - STATE: o Accepts terms and conditions o Signs agreement (Form 5700-20A) o Sends signed agreement to EPA		X	
13 - EPA transfers funds to State via letter-of-credit	X		

	EPA	STATE	EPA/STATE
Action Phase			
14 - STATE: o Negotiates subagreements o Lets contracts o Begins activities authorized in Statement of Work		X	
15 - EPA/STATE review, concur, approve outputs in work plan through completion of project.			X
16 - STATE submits quarterly reports: o Progress at site o Expenditures		X	
17 - EPA reviews quarterly reports to ensure consistency with Statement of Work.	X		
18 - STATE submits final report for budget period.		X	
19 - EPA reviews and accepts final report.	X		
20 - EPA/STATE: o Closeout or o Amend Cooperative Agreement			X

IV. STATE COSTS ELIGIBLE FOR PAYMENT BY THE FUND

A. Eligible State Costs

Eligible State costs are those that are authorized by Section 111 of CERCLA.

State costs paid from the Fund must also be:

- Directly allocable to a particular response;
- Reasonable;
- Within the scope of the response action and necessary for the accomplishment of the response; and
- Allowable in accordance with OMB Circular A-87 and EPA Policy.

Cost incurred by a State in carrying out the following activities may be paid by the fund if authorized in a Cooperative Agreement. For example, under a Cooperative Agreement, activities that have been mutually agreed upon would be eligible under CERCLA, but not all costs incurred in executing the Cooperative Agreement would be allowable. The technical preparation of a contract scope of work and the technical management of that contract would be allowable for the following eligible activities:

- Remedial Investigation
- Feasibility Study
- Final Remedial Design
- Remedial Implementation
- Operation and Maintenance
- Enforcement/Litigation
- Planned Removal

B. Direct Costs

Costs incurred in carrying out an activity at a site approved via a Cooperative Agreement are listed below. In all cases, costs must be eligible according to CERCLA and allowable, allocable, and reasonable in accordance with OMB Circular A-87 and EPA general policy.

1. Contract Services

When a State is managing a response action using subagreements, the Cooperative Agreement may cover the costs of the time (including base salary) a State employee devotes to functioning as Project Officer conducting technical review and managing a contract. The Cooperative Agreement may include necessry travel associated with carrying out a response action, as well as the costs the Project Officer incurs in preparing technical contract specifications in the Request for Proposal (RFP) or directive of work. Other costs

not directly part of preparing the technical contract specification or of directing, reviewing, and managing the contract -- such as the costs of nontechnical aspects of procurement, maintenance of the State accounting system, and costs of staff supervising the Project Officer -- are covered as indirect costs subject to the requirements of OMB Circular A-87. These costs may not be charged as direct costs.

2. Response by State Employees

Where a State is taking a response action using State employees, the Cooperative Agreement may cover the costs of the time State employees devote to working directly on the response action and the portion of the time their first-level supervisor devotes on the scene to managing their work. The Cooperative Agreement may include necessary travel of the Project Officer. Other costs, such as second-level supervisory time, payroll, and accounting, are covered as indirect costs and are subject to the requirements of OMB Circular A-87 and may not be charged as direct costs.

3. Enforcement

Where a State is providing enforcement actions, the Cooperative Agreement may cover the time a State attorney or technical staff member devotes directly to the case and any litigation costs directly allocable to the enforcement case. This includes expert witnesses and court costs. The Cooperative Agreement may also include all necessary travel costs of staff working directly on the case. Supervisory time, accounting, etc. are covered as indirect costs subject to the requirements of OMB Circular A-87.

4. Materials and Supplies

Where a State is providing material and supplies, the Cooperative Agreement may cover the direct cost and materials and supplies necessary for carrying out the response action.

5. Equipment

Where the State is providing equipment, the Cooperative Agreement may cover the direct costs of equipment (subtracted from its residual value) necessary for carrying out the response action.

C. Indirect Costs

Indirect costs are those costs:

- Incurred for a common or joint purpose benefiting more than one cost objective; and
- Not readily assignable to the cost objective specifically benefited, without effort disproportionate to the results achieved.

The Fund will pay indirect State costs computed according to the principles in OMB Circular A-87 for determining the allowable indirect costs of

programs administered by State or local governments. The principles are designed to provide that Federally assisted programs bear their fair share of direct and indirect costs.

As part of negotiating the Cooperative Agreement, EPA and the State will develop a fixed rate for computing indirect costs relative to the direct cost base consistent with the requirements of OMB Circular A-87.

D. Documentation of Direct Costs

For all direct costs, various logs, records, and files should be maintained by the State to establish an audit trail. The trail should begin with the site-specific financial documents such as contractor vouchers, lead to standard quarterly reports to EPA, and continue up to and through the project period of the Cooperative Agreement. Such documentation (for example, project logs, purchasing and contracting files, methods of equipment useage and/or depreciation, and periodic reconciliation of such records) should cover expenses incurred at the site from January 1978, to enactment of CERCLA (December 11, 1980). The following paragraphs describe in more detail the documentation required for different categories of costs.

1. Personnel

Compensation for employees directly employed on a response action or enforcement case may be included as a direct cost. Compensation includes all remuneration, paid currently or accrued, for services rendered during the period of performance under the Cooperative Agreement. Compensation includes wages and salaries.

State employees assigned to Superfund projects should be classified and paid according to the prescribed State personnel structure and procedures. Similarly, time records or other project documentation prepared at the time of the actual work and verified by the supervisor should establish clearly that the employees claimed under the project actually worked on the project for this time. Furthermore, the State payroll system should be capable of tracking the amount of employee's time spent on activities covered by the Cooperative Agreement, as well as on other projects, thus separating allowable personnel costs.

2. Contract Services

To properly document costs of contract service, a State agency should maintain a file of procurement requests and proposals to show that it properly procured the services at reasonable prices. For example, records should be available to show that procurement was made in accordance with established State procedures, that costs were claimed in accordance with contract provisions, and that contractors were paid.

In addition, contractor vouchers or similar documents should identify the specific site-by-site work performed and should enumerate personnel hours and travel incurred, materials and supplies consumed, and equipment used site-by-site.

3. Travel

Allowable travel and per diem of State employees directly employed on a response action should be recorded by site or by enforcement case on the document enabling the travel. Such documents include, for example, car rental receipts, preauthorized travel vouchers, per diem requests for State employees, requests for reimbursement of car mileage, and out-of-pocket expenses such as tolls or lodging.

4. Materials

The State should maintain inventory logs indicating when the materials were ordered and procured, and project logs recording when the materials were delivered and used on the site. Purchasing records should justify that the costs were charged based on actual prices less all discounts, rebates, and allowances. Withdrawals from general stores or stockrooms should be charged according to recognized methods of transfer pricing or inventory accounting -- such as first in first out (FIFO) or average cost -- if the cost is different from actual procurement cost.

5. Equipment

To properly document equipment costs, State purchasing logs must record when the equipment was procured and the cost paid in accordance with State procurement standards. The project logs should indicate when the equipment was used on the project. If equipment costs are based on usage rates, the State should use a standard depreciation or usage method and document the initial costs, expected life, and residual value of the equipment. (See OMB Circular A-102, Attachment N).

6. Reconciliation

The State should have an overall accounting method and system for reconciling the records noted above. Such a method should reconcile tracking of payroll and travel; purchasing of equipment and materials and supplies; and reporting of contract-related costs (including requests for funds from the EPA). Such an accounting system should meet the specifications included in the requirements for approval of the letter-of-credit financing mechanism.

7. Project Close-Out

Close-out should be consistent with instructions in EPA Letter of Credit Users Manual, which require a final report on expenditures and disposition of equipment.

V. STATE AGREEMENTS

A State agreement is developed when EPA has the lead responsibility for managing a response action. This type of agreement is a tool to exchange information, coordinate decision-making with key State and local officals, and integrate Federal and State programs to the maximum extent possible. The goal is to facilitate eventual delegation of Superfund responsibilities to the States.

A State agreement is appropriate when:

- There is no Cooperative Agreement.
- The State does not have the technical, legal, or administrative capabilities to manage Superfund activities.
- The State prefers not to assume site management responsibilities.

A. EPA Responsibilities in a State Agreement

When EPA has the lead responsibility for managing a response action, it will provide overall management and direction for activities at a site usually via one of its architectural and engineering (A&E) zone contracts. At the minimum, EPA will:

- Ensure that the proper contracting mechanism is put into effect and can be responsible for coordinating all contractual matters relating to the project.
- Desingate a Regional Project Officer who will provide overall coordination and management of the activities covered by the agreement.
- Coordinate the development and implementation of the Statement of Work and associated schedule.
- Develop necessary cost estimates.
- Develop and implement a Community Relations Plan.
- Coordinate enforcement efforts and issue demand letters when appropriate.
- Manage daily operations to the extent necessary and seek advice of the Regional Response Team (RRT) and State at key decision points.
- Obtain any Federal permits that may be required to facilitate the response action.

B. State Responsibilities in a State Agreement

A State agreement may be used to cover EPA activities up to and including conceptual design of a response action. The State must enter into a Cooperative Agreement when it is required to contribute a share of the costs of the response action and desires to use in-kind services as part of its contribution.

Activities covered by the State agreement must be consistent with the NCP, and the State should participate fully in deliberations of the RRT. At the minimum, the State should agree to:

- Designate a State Project Coordinator who will serve as the State's representative throughout the project and provide the coordination and direction desired by the State.

- Participate in the development and implementation of Statements of Work and project schedules.

- Review progress at the site with EPA as activities are performed.

- Participate in development and implementation of the Community Relations Plan and assist in coordinating the activities covered by the plan with other State and local officials.

- Provide access to necessary file information.

- Ensure inter-departmental coordination.

- Provide legal capabilities necessary to ensure site access and acquire any necessary State permits.

These requirements apply to all sites. Some requirements vary according to ownership of the site. When:

- A site was <u>privately</u> owned at the time of disposal of hazardous substances, the State Agreement must describe how the State will assure that it will contribute the required 10% of the cost of remedial action, including O&M.

- A site was <u>publicly</u> owned at the time of disposal of hazardous substances, the State agreement must describe how the State will assure that it will contribute the required 50% of all response actions, including O&M.

See the attached chart for timing of agreements and assurances.

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STATE AGREEMENTS AND ASSURANCES

SITE RESPONSE PHASES	STATE LEAD		EPA LEAD	
	Privately Owned Sites	Publicly Owned Sites	Privately Owned Sites	Publicly Owned Sites
Requirements before RESPONSE ACTIONS Other Than Planned Removals (e.g., Remedial Investigation, Feasibility Study)	o Must have Cooperative Agreement o State assures: - 10% share of remedial costs including O&M - off-site disposal.	o Must have Cooperative Agreement o State assures: -50% share of all response costs and O&M -off-site disposal. -State contributes annual share of response cost	o Must have State Agreement o State assures: - 10% share of remedial costs including O&M. - off-site disposal.	o Must have State Agreement o State assures: -50% share of costs including O&M -off-site disposal -State contributes annual share of response cost
Requirements before Starting FINAL DESIGN	o State provides firm commitment of 10% share of remedial costs and O&M for operable units.	o State provides firm commitment of 50% share of remedial cost and O&M for operable units o State contributes 50% share of all response costs (design)	o State provides firm commitment of 10% share of remedial costs and O&M for operable units	o State provides firm commitment of 50% share of remedial cost and O&M for operable units o State contributes 50% share of all response cos
Requirements before Starting CONSTRUCTION	o State contributes annual share of implementation cost for operable units	o State contributes annual share of all remedial costs for operable units	o State contributes annual share of implementation costs for operable units.	o State contributes annual share of all remedial costs for operable units

(State acknowledges Requirement)

(State makes firm commitment)

i.e. letter from Gov, AG, Legislative Comm

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Requirements before Starting O&M	o State contributes annual share of O&M costs.	o State contributes annual share of O&M costs.	o Must have Cooperative Agreement. o State contributes annual share of O&M costs.	o Must have Cooperative Agreement. o State contributes annual share of O&M costs.
Requirements before Starting PLANNED REMOVAL (when applicable)	o Must have Cooperative Agreement when: -$1 million or 6 months expires and -there is O&M (State contributes 10% share) (Planned removal action must be consistent with remedial action)	o Must have Cooperative Agreement. o State contributes 50% share of all response costs; including O&M. (Planned removal action must be consistent with remedial action)	o May have State Agreement. o Must have Cooperative Agreement when: -$1 million or 6 months expires and -there is O&M (State contributes 10% share) (Planned removal action must be consistent with remedial action)	o May have State Agreement. o Must have Cooperative Agreement if there is O&M. o State contributes 50% share of cost of all response costs, including O&M. (Planned removal action must be consistent with remedial action)

VII GLOSSARY OF TERMS

To assist users of this guidance document, some terms are defined here. The definitions may differ slightly from those used in other guidance documents issued by the Office of Emergency and Remedial Response. These differences will be resolved as implementation of CERCLA proceeds and the revised National Contingency Plan is published.

Response action: A broad term covering immediate removal, planned removal, and remedial actions taken under CERCLA in response to a release. Restoration or rehabilitation of natural resources is not covered.

Immediate removal: An emergency response required within hours or days to deal with an actual or potential significant threat to human health, the environment, or real or personal off-site property. An immediate removal is meant to stablize the situation and to avert the threat of immediate harm.

Planned removal: A response that may allow several days or weeks for planning but still requires expeditious attention to reduce imminent and substantial dangers to public health or the environment. Planned removals may involve complete cleanup or measures that may be part of a subsequent remedial action.

Remedial action: An action intended to provide a permanent resolution to the release. The action probably will require a longer time and possibly more expensive efforts to implement. A remedial action seeks to prevent or minimize the release or threatened release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health, welfare, and the environment.

Remedial planning: An early phase of a remedial response action, which may include remedial investigations, feasibility studies, and final remedial design.

Remedial investigation: An investigation intended to gather the data necessary to 1) determine the nature and extent of problems at the site; 2) establish cleanup criteria for the site; 3) identify preliminary alternative remedial actions; and 4) support the technical and cost analyses of the alternatives.

Feasibility study: A study intended to 1) evaluate alternative remedial actions from a technical, environmental, and cost-effectiveness prespective; 2) recommend the cost-effective remedial action; and 3) prepare a conceptual design, cost estimate for budgetary purposes, and a preliminary construction schedule.

Final Remedial Design: A phase of a remedial action where the selected remedy is clearly defined (that is, site cleanup plan, relocation plan, or engineering drawings and specificactions) in a bid package so that the remedy can be implemented in the field.

OCT 30 1981

MEMORANDUM

TO: Legislators and staff interested in Hazardous Waste Management

FROM: Donna Wise, Staff Director for the NCSL Natural Resources and Environment Committee

DATE: October 28, 1981

SUBJECT: Announcement by U.S. EPA, of the 114 top priority hazardous waste sites to be addressed with SUPERFUND monies

The attached EPA announcement, lists those 114 hazardous wastes sites in the nation which will receive attention under SUPERFUND. By law EPA must develop list of 400 priority sites, with at least one site per state falling within the top 100 to the extent practicable. The final list of 400 sites is expected to be released early in 1982.

When clean up efforts are initiated at a site, the state will be given a choice to either assume the lead responsibility for the clean up efforts, or to allow U.S. EPA to assume the major responsibility. No matter who assumes the primary responsibility, before any work can commence at a site, a state must assure EPA that it will provide 10% of the clean up and long term operation and maintenance costs if the site is privately owned, and 50% of the clean up and long term operation and maintenance costs if the site was publically owned at the time of disposal. These assurances and division of responsibility between the state and U.S. EPA will be formalized by the signing of a state/EPA cooperative agreement.

At the next NCSL State/Federal Assembly meeting in Washington, D.C. on December 9-11, members of the Natural Resources and Environment Committee will receive a briefing by U.S. EPA officials on their plans for hazardous waste site clean up under SUPERFUND.

United States
Environmental Protection
Agency

Press Office (A-184)
Washington DC 20460

To: Donna Lisa
NCSL

EPA Environmental News

FOR RELEASE FRIDAY, OCTOBER 23, 1981

EPA ANNCUNCES FIRST 114
TOP-PRIORITY SUPERFUND SITES

Woods (202) 755-0344

The U.S. Environmental Protection Agency today announced 114 top-priority hazardous waste sites targeted for action under Superfund, a five-year, $1.6 billion federal cleanup program.

"This is a milestone in the development and implementation of Superfund," said EPA Administrator Anne M. Gorsuch. "The list we have developed represents a program to which we have given the highest priority, and one we are determined to make successful."

Mrs. Gorsuch said the Reagan Administration is "committed to the cleanup of hazardous waste sites as quickly and effectively as possible."

Superfund is the name given to the Comprehensive Environmental Response, Compensation, and Liability Act that was passed by Congress in December 1980.

It provides funds from industry and the federal government to clean up hazardous waste sites where responsible parties cannot be determined or cannot afford to pay for cleanup.

(more)

The ranking of sites was based on a hazard-scoring system developed by EPA and one of its contractors, with extensive input from states and industry. The greatest emphasis was on potential threat to public health, but the threat to the environment was also taken into account.

Pollution via three "pathways' -- air, groundwater and surface water -- was measured for potential impacts. Fire, explosions, and the possibility of direct contact received separate evaluation as more appropriate for emergency action.

In some cases, EPA authorized an emergency removal action based on information uncovered during the hazard-scoring process.

The list of 114 sites was developed from an initial list of 282 sites evaluated by the states and EPA's 10 regional offices this summer. The final quality-assurance phase of the process was conducted by EPA headquarters over the past 1-1/2 months.

The sites announced today will be candidates for inclusion on the list of 400 national priority "response targets" that the Superfund law required EPA to identify.

That list will be made final after public participation and after the results of further study and data collection are incorporated into the hazard scoring.

Under Superfund, states must contribute at least 10 percent of the actual long-term costs of cleanup per

(more)

site, unless the site is publicly owned. On publicly owned sites, the state is required to pay or assure at least 50 percent of the costs.

Detailed plans for cleanup will be worked out in conjunction with the states. Cleanup can occur through three mechanisms: direct federal contracts; cooperative agreements under which the state takes the lead in directing cleanup, and private cleanup through voluntary or court-ordered action.

"The Agency will continue to press responsible parties -- through legal action, if necessary -- to clean up sites threatening public health or the environment," Mrs. Gorsuch said. "Where this cannot be done, or if it cannot be accomplished in a timely manner, EPA and the states will finance remedial action under Superfund."

To date, EPA has spent some $13 million in Superfund money on emergency action for 34 sites in 18 states. It has also awarded $17 million for design and engineering studies on 25 other sites in 19 states, almost all of which appear on the list announced today.

# # #

Priority List Facts

- 44 States and territories have sites on the list.
- 11 States and territories do not have a site on the list.
- The State with the most sites on the list is Florida with 16; next is New Jersey with 12.
- Other States with more than 1 site are:

  New York(8)
  Pennsylvania (8)
  Minnesota (5)
  Massachusetts, Texas, Arkansas, Ohio (4)
  California, New Mexico, New Hampshire, Rhode Island, Delaware (3)
  Virginia, Oklahoma, Indiana, Missouri (2)

- 26 States or territories have just 1 site on the list.
- 37 States designated a site on the list as their highest priority list.
- 18 of the 20 pre-Superfund sites are on the priority list.
- EPA is currently spending Superfund and other dollars for remedial planning and design at 25 sites, 21 of which are on the priority list.
- Of 31 sites at which EPA has conducted emergency removals, 8 are on the priority list.

State	Site Name
WA	Commencement Bay
NH	Keefe Environmental Services
NJ	Lipari Landfill
MA	Mark Phillip Trust (Woburn)
PA	McAdoo Associates
MA	Nyanza Chemical Waste Dump
NY	Pollution Abatement Services
NJ	Price Landfill
OK	Tar Creek
DE	Tybouts Corners
FL	Biscayne Aquifer (Northwest 58th Street Landfill, Miami Drum, Varsol Spill)
PA	Bruin Lagoon
NJ	Burnt Fly Bog
DE	Delaware Sand and Gravel - Llangollen Army Creek Landfill
NJ	Goose Farm
NJ	Lone Pine Landfill
TX	Motco
NJ	Pijack Farm
NJ	Spence Farm
AR	Vertac, Inc.
NJ	Bridgeport Rental and Oil Services
NJ	D'Imperio Property
TX	French Limited Disposal Site
NY	Love Canal
NY	Old Bethpage Landfill
FL	Picketville Road Landfill
FL	Reeves Southeastern Corporation
IN	Seymour Recycling Corporation
TX	Sikes Disposal Pits
SC	South Carolina Recycling and Disposal Co. (Bluff Road)
CA	Aerojet/General Corporation
FL	American Creosote Works
MA	Charles George Land Reclamation Trust
CA	Iron Mountain Mines, Inc.
NJ	Kin Buc Landfill
MN	Oakdale Dump Sites
NY	Olean Well Fields
RI	Picillo Farm Site
DE	Stauffer Chemical
FL	Taylor Road Landfill

State	Site Name
MN	Andover Sites
FL	Broward County Solid Waste Disposal Facility
PA	Butler Tunnel
NY	Facet Enterprises, Inc.
MO	Fulbright Landfill
NH	Ottati & Goss/Kingston Steel Drum
FL	Pioneer Sand Company
FL	Timber Lake Battery Disposal
FL	Whitehouse Waste Oil Pits
SD	Whitewood Creek
OH	Chem-Dyne Corporation
NJ	Chemical Control
FL	Coleman-Evans Wood Preserving Company
RI	Davis Liquid Chemical Waste Disposal Site
AR	Fritt Industries
FL	Hollingsworth Solderless Terminal Company
CT	Laurel Park Landfill
MA	Re-Solve, Inc.
MN	Reilly Tar and Chemical Corp.
CA	Stringfellow Acid Pits
AR	Allen Transformer
FL	Alpha Chemical Corp.
OH	Fields Brook
MN	Koppers Gas and Coke Plant
AR	Mid-South Wood Products
IN	Neal's Landfill
NM	United Nuclear Corporation
NJ	Upper Freehold
FL	Zellwood Ground Water Contamination Site
AZ	19th Avenue Landfill
KY	A.L. Taylor Site ("Valley of the Drums")
NY	Batavia Landfill
FL	Gold Coast Oil Corporation
NM	Homestake Mining
PA	Hranica Landfill
PA	Lord-Shope Landfill
MN	National Lead-Tara Corp Site
IL	Outboard Marine Corporation
FL	Sapp Battery Salvage
FL	Tower Chemical Company

State	Site Name
PA	ABM-Wade
MO	Ellisville Area Sites
OH	Chemicals and Minerals Reclamation
MI	Gratiot County Landfill
PA	Lehigh Electric and Engineering Company
NY	Marathon Battery Corporation
VA	Mathews Electroplating
NH	Sylvester's
WV	West Virginia Ordnance Site
RI	Western Sand and Gravel Site
NM	AT&SF Railroad (Clovis)
TX	Bioecology Systems, Inc.
VA	Chisman Creek Disposal
OK	Criner Waste Disposal Site
CO	Denver Radium Sites
PA	Lindane Dump
NY	Niagara County Refuse Site
OH	Summit National Liquid Disposal Services
AL	Triana (Redstone Arsenal)
ME	Winthrop Town Landfill
IA	Aidex Corporation
KS	Arkansas City Dump Site
ND	Arsenic Trioxide Disposal Site
MD	Chemical Metals Industries, Inc.
DC	Fort Lincoln Barrel Site
GA	Luminous Processes, Inc.
TN	North Hollywood Dump
GU	Ordot Landfill
TTP	PCB Disposal
NC	PCB Spills in North Carolina
NMI	PCB Warehouse
UT	Rose Park
AS	Taputimu Farm
MS	Walcotte Chemical Company

National Conference of State Legislatures

Office of State Federal Relations

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President
William F. Passannante,
Speaker Pro Tempore,
New York Assembly

Executive Director
Earl S. Mackey

NATURAL RESOURCES & ENVIRONMENT COMMITTEE

LEGISLATIVE UPDATE

APRIL 15, 1983

(Revised April 22, 1983)

SUPERFUND

Congressional committees in both the House and the Senate are continuing investigations of U.S. EPA's administration of the Superfund Program. In a recent hearing before the Senate Environment and Public Works Committee, EPA personnel admitted that Mrs. Burford repeatedly refused to allow EPA to undertake emergency response actions due to budgetary concerns. EPA officials told committee members that recommendations would be made to Mr. Ruckleshaus for changes in program implementation.

Mr. William Hedeman, director of EPA's Superfund Program, told legislators and staff participating in a recent NCSL teleconference call, that EPA staff would recommend a number of policy changes to the new Administrator, including:

- abandoning the requirement that States provide 10% match for the feasibility and remedial investigation stage of site clean up. Thus states would only be required to match 10% of the site design and construction. EPA will also consider whether or not to provide a credit to those states which have already paid 10% of the first two stages.

- review the practicality of requiring states to pay 100% of the long term operation and maintenance costs at a site

- reviewing the lack of clean up standards in the National Contingency Plan --the "how clean is clean" issue

- reviewing the need for a more agressive EPA enforcement program

- reviewing the need for additional resources at EPA to implement the program in a timely and comprehensive fashion.

Mr. Hedeman also told teleconference participants that EPA will be publishing a handbook on alternative financing methods for states' 10% match. This handbook will be the subject of regional public meetings in the fall. (Watch for an announcement in a fall issue of Capitol to Capitol.)

Finally, Congress is likely to continue hearings this summer on the need for specific amendments to the Superfund Program and on the need for a victim's compensation fund. However, action on these measures is not expected until 1984.

CLEAN AIR ACT

After months of hearings last year in both Senate and House Committees on amendments to the Clean Air Act, to date in this session both houses have been silent. While it is unclear when and if hearings will be scheduled, proposals have been introduced in both the House and the Senate addressing acid rain.

These proposals range in nature from S.454 (Senator Byrd) and S.766 (Senator Randolph) which call for accelerated acid rain research to S.145 emmissions within a 31 state region east of the Mississippi over the next 10 years. Other proposals call for 8 million and 12 million ton reductions. Although not yet introduced, Representative Waxman is working on a bill which would mandate reduction nationwide thereby allocation cost equitably. As of this writing, no specific hearings have been scheduled on acid rain.

OIL SPILL LIABILITY FUND

For the fourth consecutive Congress, legislation has been introduced to create an oil spill liability and compensation fund. This central federal fund would pay for damages caused by oil spills and would establish one set of federal liability laws. The fund would be financed by a 1.3 per cent barrel tax on crude oil and petroleum products. Of major import to states is the fact the state oil spill funds would be preempted as would individual state liability schemes. States which took action to clean up oil spills would have to seek reimbursement from the federal fund. Three measures introduced in the House were the subject of hearings before the House Merchant Marine and Fisheries Committee's Subcommittee on Coast Guard and Navigation on Wednesday, April 12th. A similar measure was introduced in the Senate by Senator Chafee (RI) and referred to the Finance Committee.

U.S. DEPARTMENT OF INTERIOR'S COST SHARING PROPOSAL FOR WATER PROJECTS

While as of this writing the Administration has yet to announce a cost sharing policy for water resources projects, Gary Curruthers, Assistant Secretary for Land and Water Resources, U.S. DOT, recently told a group of state water resource personnel, that "future water resource projects will be viewed as business partnerships between the federal government and state and local sponsors. Within certain parameters (yet to be announced) water project cost sharing will be negotiated on a case by case basis. If state and local sponsors can meet the conditions of the contract, the business venture will proceed."

In late February of this year Gary Curruthers solicited comments on the cost sharing from legislative leaders, governors and the general public. To date approximately 18 responses have been received from legislatures and approximately and equal number from governors. A summary of those comments should be available in the near future.

CLEAN WATER ACT

The Senate Environment and Public Works in proceeding with hearings on the reauthorization of the Clean Water Act this week. A final hearing will be scheduled to allow Mr. Ruckleshaus to testify after he is confirmed as EPA Administrator. The measure under consideration is S.431 sponsored by Senator Chafee (RI). While maintaining the basic tenets of the Act, S.431 addresses a number of provisions in need of refinement. The deadlines by which industry would have to meet "best available technology" would be extended from July 1, 1984 to "three years from the date that BAT requirements were promulgated". Municipal sewage treatment works would be eligible for variance from federal pretreatment requirements if they could meet certain tests. S.431 would provide for administrative assessment of civil penalties for minor violation of the Act. Additionally the Chafee bill would extend the life of an NPDES permit from 5 years to 10 years with a reopener clause. The measure would also allow for partial delegation of the NPDES program to states. These amendments are in line with NCSL policy adopted in July 1982. To date a bill has not been introduced in the House, however, the House Public Works Committee has deemed reauthorization of the Clean Water Act a high priority.

TRANSPORTATION OF HAZARDOUS MATERIALS

On April 20th Senator Danforth (MO), Chairman of the Surface Transportation Subcommittee of the Senate Commerce Committee introduced the "Highway Safety Act of 1983" which includes as Title IV, "Hazardous Materials Transportation Act Amendments of 1983". Provisions of this title are generally in keeping with NCSL Policy adopted at the April 1983 State/Federal Assembly.

Specifically the legislation provides for: 1) DOT assistance in establishing regional training centers for enforcement and emergency response presonnel; 2) grants to states for the development and implementation of state programs to enforce hazardous materials regulations; 3) FEMA grants to state and local agencies for the development of hazardous materials emergency response programs.

Senate hearings will be held in Mid May. A companion bill HR 2693 has been introduced in the House by Congressman Lantos (D-CA).

RESOURCE CONSERVATION & RECOVERY ACT REAUTHORIZATION (Hazardous Waste Management)

The Resource Conservation & Recovery Act (RCRA) is the nations basic authority to assure the proper management of solid and hazardous waste. The Act authorizes U.S. EPA to regulate hazardous waste from its generation through its disposal. States are encouraged to seek program delegation from EPA based on state regulations and authority being as least astringent as federal regulations. States receive federal grants to administer their programs ($44 million in FY83).

Both the House and Senate are considering measures which reauthorize RCRA and would "close the loopholes" present in the current Act.

S.757 sponsored by Senator Chafee (RI) was referred to the Senate Environment and Public Works Committee. Hearing dates have not yet been scheduled. HR 2478 sponsored by Representative Florio (NJ) was referred to the House Energy and Commerce Committee on April 27th, the Subcommittee in Commerce, Transportation and Tourism favorably reported the bill to the full committee.

FY1984 BUDGET FOR U.S. EPA AND THE DEPARTMENT OF THE INTERIOR

While Congress has not completed its work to set spending levels for FY84, figures provide some assurance that environmental spending for FY84 will at least be held at the FY83 levels if not increased. Thus far the Senate Budget Committee has allocated $12 million in budget authority for natural resources and environment. This represents the $11.7 billion FY1983 level after inflation plus $300 million to accomodate an administration request for more money for the Superfund Program. While the Senate Budget committee may review this figure, it is expected to remain in a range between $11.7 - 12 billion. The House passed the first concurrent budget resolution with an FY84 level of 12.1 billion for natural resources and envrionment programs.

House appropriations hearings for both U.S. EPA and Interior are expected to continue through the end of this month, as are Senate appropriations hearings for U.S. Interior. EPA appropriations hearings in the Senate have been postponed until Mr. Ruckleshaus is confirmed.

STATE GRANTS FOR COASTAL RESOURCES MANAGEMENT

On the heals of the Administration's request to elimate funding for state coastal zone management programs and sea grant colleges, and with Administration plans to accelerate offshore oil and gas leasing, Congress has accelerated its consideration of measures to create a state block grant program for coastal resources management.

Such a program would provide coastal states, including Great Lake States, with funding derived from royalities from Outer Continental Shelf Oil and Gas leases. States could use these funds for coastal zone management activities, assessment and mitigation of OCS development impacts, and management and enhancement of natural and marine resources.

In the House HR 5, sponsored by Representatives Jones (NC) and D'Amours (NH) along with 100 co-sponsors, was reported favorably on April 27th by the full committee on Merchant Marine and Fisheries. Following action by the House Rules Committee a floor vote will be scheduled for May or June.

The Senate Commerce Committee on April 2[illegible] favorably reported S. 800 sponsored by Senators Stevens (AS), Packwood (OR), Hollings (SC), Johnston (LA), Murkowski (AS), Gorton (NA) and Lautenberg (NJ). Floor action may occur in May or June.

(for comparison of both measures see enclosed Action Alert.)

Municipality of Anchorage

POUCH 6-650
ANCHORAGE, ALASKA 99502-0650
(907) 264-4111

TONY KNOWLES, MAYOR

DEPARTMENT OF PLANNING

January 31, 1984

The Honorable William Sheffield
State of Alaska
Pouch A
Juneau, Aalaska 99811

Dear Governor Sheffield:

The Anchorage Municipal Health Commission, at its regular meeting January 25, 1984, adopted the following resolution:

WHEREAS, the Federal Hazardous Waste Act known as the Resource Conservation Recovery Act (RCRA) does not assure constant nationwide protection of human health from the potential effect of massive annual accumulation of hazardous waste, and

WHEREAS, any Waste produced in a quantity less than 2200 lbs. (1 each metric ton) is not regulated under the federal Resource Conservation Recovery Act (RCRA) (except wastes that are specifically listed as accutely hazardous), and

WHEREAS, without strict regulations and a comprehensive management plan, the creation of a hazardous waste problem is a reality now, and

WHEREAS, the State of Alaska has completed the public participation period and found overwhelming public support for the Alaska Department of Conservation's proposed regulations, and

WHEREAS, the degree of hazard approach used in the State Department of Environmental Conservation's proposed hazardous waste regulations is very effective in determining the potential danger of a substance with a greater degree of accuracy that the Resource Conservation Recovery Act (RCRA).

BE IT RESOLVED THAT, the Municipal Health Commission supports the proposed Alaska Department of Conservation's regulation, and all future, local State and Federal efforts to control hazardous and toxic materials from their point of generation to their final disposal;

FEB 6 1984

BE IT FURTHER RESOLVED THAT, this Resolution be sent to the Honorable Governor William Sheffield, the Honorable Commissioner of the Department of Environmental Conservation, Richard Neve, and members of the Legislature.

If you have any questions concerning the Commission's action you may contact the Human Resources Planning Office at (907) 264-4261.

Sincerely,

Peter T. Gallagher, Chairman
Municipal Health Commission

cc: Members of the State House of Representatives
Members of the State Senate

mb2/nl2

Alaska Oil and Gas Association

505 W. Northern Lights Boulevard
Suite 219
Anchorage, Alaska 99503
(907) 272-1481

HAND DELIVERED
To be Telecopied to Governor's Office in Juneau from Anchorage Office.

December 5, 1983

John Shively
Chief of Staff
Office of the Governor
Pouch A
Juneau, AK 99811

AOGA Materials Regarding
Hazardous Waste Discussion
With Commissioners

Dear John:

Enclosed, as we promised in our telephone conference today with you and Commissioners Neve', Wunnicke and Lyon, are materials prepared for today's meeting. We understand you will have copies made and distributed to the Commissioners from there. Please also have a copy delivered to Attorney General Norman Gorsuch.

Our Executive Committee appreciated the opportunity to discuss our concerns with you and the Commissioners even though the weather prevented us from getting into Juneau. We look forward to meeting again in person as soon as a mutually practicable date can be arranged. We will be in touch soon with our suggestions regarding a date.

Thanks for your help.

Sincerely,

Bill

WILLIAM W. HOPKINS
Executive Director

WWH:mk

Enclosures

Information given to Administration 12/5/83

AOGA EXECUTIVE COMMITTEE BRIEFING DOCUMENT
ADEC HAZARDOUS WASTE MANAGEMENT PROGRAM
December 5, 1983

I. AOGA POSITION PAPER

II. ANTICIPATED IMPACTS OF REGULATIONS

A. Oil and Gas Industry

- "And other wastes"
- Drill Fluids, cuttings and washwater

B. Examples of Impacts on Other Industries

- Asphalt-based roadmix
- Treated timbers
- Brine Solution
- Other

III. CONCERNS WITH SPECIFIC PROVISIONS OF THE REGULATIONS

A. Exclusions

B. Characteristic Tests

C. 62.050(d) Discarded Chemical Products

D. HWI/HWII Chart (Persistence, Toxicity)

E. Article 5 (62.500-590) Management of Moderate Risk Waste

IV. RECOMMENDATIONS

A. General

B. Specific

AOGA POSITION PAPER
ADEC HAZARDOUS WASTE MANAGEMENT REGULATIONS
DECEMBER, 1983

EXECUTIVE SUMMARY

AOGA has supported the State and has participated in planning meetings and does not object to a program which regulates truly hazardous wastes. However, AOGA does object to a program which greatly expands what previously has not been classified as "hazardous waste" without showing need or technical justification for such an expansion. The proposed regulations could add extremely costly handling and disposal costs for additional wastes not currently classified as hazardous. A person or business should not be subjected to these regulations without carefully weighing the benefit vs. the costs.

Based on the attached analysis, the State's proposed regulations have the potential for adding up to 2 billion dollars in statewide disposal costs for the oil and gas industry.

Due to the complexity of a set of regulations in which seemingly minor wording changes translate into millions of dollars and hundreds of thousands of barrels of waste inappropriately classified as hazardous, AOGA urges the state to conduct a thorough review of the AOGA oral and written comments.

It is our opinion that the proposed State regulations would:

1) fail to recognize in full the Congress' rationale for the exemptions found in the RCRA regulations, such as "other wastes associated" with the exploration, development or production of crude oil.

2) classify a waste as hazardous based upon questionable and disputed testing criteria. It is felt there is a significant possibility that the federally excluded wastes may not pass the state's proposed characteristic testing criteria and therefore drilling waste and produced waters and "other wastes associated with exploration and production" most likely would be considered hazardous upon promulgation and two years after promulgation.

3) require complex and expensive laboratory tests to determine if materials are hazardous or not; tests not intended for such a "go-no-go" determination.

4) include expansive lists of compounds and materials, which are not intended to classify materials as hazardous waste.

5) would possibly include relatively innocuous materials such as table salt, baking soda, vitamin A, nutmeg oil, cinnamon, citric acid and many other common items as hazardous by virtue of the proposed tests.

BACKGROUND

FEDERAL

When Hazardous Waste Regulations were originally enacted, Congress made no special provisions in the Resource Conservation and Recovery Act of 1976 (RCRA) for several major industries (including oil and gas exploration and production) that generated large volume, low hazard wastes. In 1978 EPA proposed regulations and designated several categories of "special wastes" including utility wastes, mining wastes and drilling muds and produced waters (43 Fed. Reg. 59, 015-16, 18 Dec. 1978). Subsequently, the industry demonstrated that no scientific justification existed for regulating drilling and production wastes as hazardous waste materials and estimated it would cost some $5.2 billion annually (with the first year costs of $14 billion) to comply. Congress agreed the EPA regulations had not been justified and the 1980 Solid Waste Disposal Act Amendments suspended RCRA hazardous regulation of "drilling muds, produced water, and other wastes associated with the exploration or production of crude oil or natural gas...". Congress then instructed EPA to study the issues within two years, and conditioned any subsequent hazardous waste regulation of these wastes on the approval of Congress.

STATE

In 1981 the State legislature passed AS 46.03, charging the Alaska Department of Environmental Conservation with the task of developing Hazardous Waste Management regulations which are "consistent with and substantially equivalent to" federal regulations. AOGA was informed on November 24, 1981 that the Department would begin preparation of a "plan" for the State's Hazardous Waste Program. Between May 1982 and June 1983 AOGA has reviewed and voiced its specific concerns with three sets of draft regulations. We believe the proposed rules continue to 1) lack basic scientific justification, 2) ignore the scientific expertise offered by members of the Hazardous Waste Advisory Work Group (HWAWG) and 3) provide

little or no incremental environmental benefit over RCRA. Further, we strongly believe that the proposed regulations are in serious conflict with the enabling legislation for the proposed rules. (A recent Attorney General's opinion disagrees with industry on this issue.)

AOGA, through its membership and participation on the Hazardous Waste Advisory Work Group, provided extensive technical and conceptual input on the proposed regulations. Between March 1982 and January 1983, AOGA provided assistance to ADEC through the work group regarding a continuously changing draft of the regulations. On February 7, 1983, Mr. Stan Hungerford transmitted a copy of the January 1983 draft regulations to AOGA. On March 3, 1983 AOGA informed Mr. Hungerford that the proposed rules were in need of in-depth technical review and notified him of forthcoming technical comments. On April 6, 1983 AOGA provided ADEC an in-depth technical review of the regulations. These comments were the culmination of extensive efforts by many engineers, marine biologists, toxicologists, attorneys and corporate management level individuals. The Department informed AOGA's representative on the Advisory Group that the ADEC could not expend the money or the manpower to consider AOGA's comments prior to release of a public hearing draft. On April 11, 1983, AOGA strongly requested that the regulations not be released until AOGA's comments could be reviewed and considered.

On April 19, 1983, the regulations were moved to public notice, with no apparent review or consideration of the technical comments provided to ADEC by AOGA. On April 25, 1983 Commissioner Neve' wrote AOGA indicating that the "comments of every member of the work group... were reviewed seriously and did help significantly in the preparation of these draft regulations." On May 25, 1983 at the Public Hearing AOGA stated that we felt that there was a lack of consideration of our industry's expertise and input in the development of the April 11, 1983 draft regulations.

By June 8, 1983, AOGA had provided ADEC with extensive oral and written testimony which was developed by the Environmental Committee in conjunction with the following Industry experts:

- Joan DiNal, Senior Counsel, Environmental Affairs for Atlantic Richfield Company.
- Michael Hulse, Environmental Analyst, IMCO Services.
- James P. Ray PH.D., Manager of Environmental Sciences Support, Shell Oil Company.
- Robert E. Abbott PH.D., Coordinator of Environmental Affairs, Conoco, Inc.
- Philip Dorn PH.D., Shell Development Company.
- Ilene Danse M.D., Senior Advisor, Environmental Health Protection, Chevron Environmental Health Center, Inc.

The Department issued its latest draft in October 1983, and send a copy to EPA, which has failed again to address significant concerns which have been repeatedly expressed by our Industry. In summary, the Department has accepted AOGA's comments on three sets of draft regulations and has yet to adequately address the problem.

The following items have been provided for purposes of discussion:

- a discussion of the State's proposed Oil and Gas Exclusion
- a summary of the potential economic impacts on Industry

OIL AND GAS EXCLUSION

The proposed Oil and Gas exclusion has failed to retain the wording "other wastes associated" from the Federal exclusion. In addition, the State's proposed exemption is of little value since the basis by which an operator must evaluate the hazardous nature of a waste would be technically unsound characteristic testing. The State is rapidly approaching the regulation of wastes which were identified by Congress as being of minimal risk to human health and the environment and were exempted from Federal RCRA regulation. ADEC has provided no justification or rationale for not including "other wastes associated" in their exclusion. Possibly the Department feels this wording offers Industry a blanket exemption for all wastes generated in conjunction with exploration, development, or production of crude oil or natural gas. This is not the case as shown in the Conference Report, H. R. Rep, No. 96-1444, 96th Congress., 2nd Session. 32 (1980) which briefly explains:

> "waste materials intrinsically derived from the primary field operations associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy. It would cover such substances as: Hydrocarbon bearing soil in and around the related facilities; drill cuttings, materials (such as hydrocarbons, water, sand and emulsion) produced from a well in conjunction with crude oil, natural gas, or geothermal energy, and the accumulated material (such as hydrocarbon, water, sand and emulsion) from production separators, fluid treating vessels, and production impoundments.
>
> The phrase 'intrinsically derived from the primary field operations...' is intended to differentiate exploration, development and production operations from transportation (from the point of custody transfer or of production separation and dehydration) and manufacturing operations."

The Conference Report has specifically referenced wastes which contain such natural constituents of the ground as soil, sand, water, hydrocarbons and emulsions. These wastes when handled with techniques generally employed by industry and approved by the Department should not be included within the scope of the Hazardous Waste Regulations.

Drilling associated wastes such as muds and produced waters have been provided a temporary exclusion by the Department until such time as Industry provides information to support a permanent exclusion. The Department has been provided extensive amounts of information which supports the conclusion that drilling effluents and produced waters should not be included in Hazardous Waste regulations. However, if the proposed regulations are adopted, the industry will be faced with applying existing data to criteria which has little technical merit, i.e. characteristic testing for toxicity, carcinogenicity, and persistence. This could cause these wastes to be classified as hazardous two years after promulgation.

AOGA recommends that the Department include "and other wastes associated" in its exclusion and provide language similar to the Conference Report as a definition of "other wastes". In addition, the Department should delete the characteristics of toxicity, carcinogenicity, and persistence.

POTENTIAL ECONOMIC IMPACTS ON INDUSTRY

A letter from the Executive Committee to the Governor dated September 12, 1983 stated that the impact on the oil industry would be in excess of $100 million per year.

Commissioner Neve' has been reported as saying he is skeptical regarding the 100 million dollar incremental cost estimate.

This estimate was based upon several individual operators summing their disposal cost for a portion of the wastes that would be regulated as hazardous should the State not apply the federal statutory exemption "other wastes associated". It should be emphasized that the 100 million dollar figure is not inclusive relative to the exemption i.e. does not include drilling associated wastes, and hydrocarbon bearing soil, etc.

Further, the 100 million dollar cost estimate does not include wastes which may ultimately be reclassified as hazardous based on the State's proposed regulations i.e. additional characteristic testing, etc.

Justification for the estimate is provided by way of example. Waste volume estimates were provided by one North Slope operator and one Cook Inlet operator. For this discussion, disposal costs will be those provided by Mr. DiTraglia (ADEC) at the January 31, 1983 Hazardous Waste Advisory Work Group (HWAWG) meeting and disposal costs developed by the respective operators.

North Slope:

Wastes:

- materials produced from a well such as sand and emulsions

° accumulated material from production separators, fluid treating vessels, storage vessels and production impoundments

Waste Volume: The referenced waste (includes Prudhoe Bay and Kuparuk) is generated at a current rate of approximately 262,000 bbls/yr

Disposal Costs:

° State's estimate of $271 per bbl (analysis included)

Cost = 262,000 bbls/yr X $271/bbl = 71 million dollars

° Operators' estimate of $350 per bbl (analysis not included)

Cost = 262,000 bbls/yr X $350/bbl = 92 million dollars

° Operators' estimate with $100 (JRB report) analysis fee included

Cost = 262,000 bbl/yr X $450/bbl = 118 million dollars

Cook Inlet:

Waste:

° materials produced from a well such as sand and emulsions

Waste Volume:

° The reference waste is generated at a rate of approximately 20,000 bbls/yr

Disposal Costs:

° JRB's estimated disposal cost of $271 per bbl (includes analysis)

Cost = 20,000 bbls/yr X $271/bbl = $5 million per year

° Operators' estimated disposal cost of $350 per bbl (analysis not included)

Cost = 20,000 bbls/yr X $350/bbl = $7 million per year

° Operators' estimate with $100 (JRB report) analysis fee included

Cost = 20,000 bbls/yr X $450/bbl = $9 million per year

Summary

	JRB Estimated Disposal Cost With Analysis	Operators Estimated Disposal Cost Without Analysis	Operators Estimated Disposal Cost Costs with Analysis
North Slope	$71 million	$92 million	$118 million
Cook Inlet	$5 million	$7 million	$9 million
TOTAL	$76 million	$99 million	$127 million

As was previously stated, drilling muds and cuttings were not included in the aforementioned economic impact analysis.

At this time AOGA offers the following example as a range by which to estimate additional potential economic impacts. AOGA is uncertain as to the percentage of drilling wastes which may ultimately be reclassified as hazardous based upon the proposed characteristic tests for toxicity, carcinogenicity, and persistence. However, AOGA is certain that the proposed characteristic criteria and tests have technical flaws and are overly restrictive.

Waste:

° Drilling muds and cuttings and washwater

Waste Volume: a typical well will generate about 36,000 barrels of muds and cuttings and washwater. In 1982, 203 wells were drilled in Alaska (API Basic Petroleum Data Book Vol. III, No. 3, Sept. 83). Waste volume (estimate) = 36,000 bbls X 203 wells

= 7.3 million bbls in 1982

Disposal Costs:

° JRB's estimated disposal cost of $271 per bbl (includes analysis)

Cost = 7.3 million bbls X $271/bbl = $2 billion in 1982

AOGA does not anticipate the total volume of drilling muds and cuttings to be classified as hazardous. However, based on the preceding analysis, the State's proposed regulations have the potential for adding up to 2 billion dollars in statewide disposal costs for drilling muds and cuttings.

MM3:901

COMMENTS:

ADEC HAZARDOUS WASTE MANAGEMENT PROGRAM

DECEMBER 5, 1983

The information contained herein is provided as a supplement for AOGA's Position Paper of December, 1983, and addresses the following topics:

I. ANTICIPATED IMPACTS OF REGULATIONS

II. CONCERNS WITH SPECIFIC PROVISIONS OF THE REGULATIONS

III. AOGA RECOMMENDATIONS

ADEC HAZARDOUS WASTE MANAGEMENT PROGRAM
DECEMBER 5, 1983

I. ANTICIPATED IMPACTS OF REGULATIONS

A. Oil and Gas Industry (support-industry waste disposal costs not included)

° "And other wastes" (materials produced from a well such as sand and emulsion, accumulated materials from production separators, fluid treating vessels, etc.)

- $100,000,000/yr. in disposal costs

° Drill fluids, cuttings and washwater

- Estimated volume 7.3 million bbls. based on 1982 drilling activities

- Potential of up to $2 billion/yr. cost to Industry

B. Examples of Impacts on Other Industries

° Asphalt-based roadmix

- Asphalt-based roadmix would be classified as a Class II hazardous waste under the characteristic of persistence.

- Generation of 400 lbs. or more of hazardous waste per month would require a generator to comply with the proposed Hazardous Waste Regulations.

- All waste asphalt (including discarded pavement) must be transported to a permitted hazardous waste disposal facility.

° Treated timbers (railroad ties, power poles, etc.)

- Treated timber would be classified as a Class II hazardous waste by the characteristic of toxicity (equivalent concentration/creosote).

- More than 10,000 used railroad ties alone are generated in this state per year and would be subject to these regulations.

- Used railroad ties are currently sold at approximately $10 each to the public. Would the generator still be able to sell these to the public?

° Brine Solution (fish processing industry)

- More than 45 gallons of a brine solution containing 10% or greater of salt (NaCl) would be a Class I Hazardous Waste subject to the requirements of these regulations.

-Crab processors, using brine freezers, generate from 2,000 to 9,400 gallons per month per processor of used brine containing greater than 10% salt.

-Would EPA continue to allow a state-designated hazardous waste to be discharged under an NPDES permit?

C. Other Industries with Concerns

° Large volume, low hazard waste

-Lumber and Pulp Industry

° Small quantity generators

-independent gas and service stations
-dry cleaning

° Previously-regulated industries with additional impacts

-Paint Manufacturers
-Pest Control

NOTE: These examples are not meant to draw attention to a specific industry or provide the basis for another permanent exclusion. Rather, they point to examples of why the additional characteristic tests are inappropriate.

II. CONCERNS WITH SPECIFIC PROVISIONS OF THE REGULATIONS

The following comments are only shown as specific examples of major concerns. Please refer to the extensive AOGA written comments and testimony for further details.

A. Exclusions

The regulations fail to recognize in full the exemptions found in the RCRA regulations, such as "other wastes associated" with the exploration, development or production of crude oil as envisioned by Congress.

° 62.140 (b) Temporary Exclusion

The proposed regulations reverse the roles of the regulating agency and permittee. The permittee will have to prove that certain wastes are not hazardous, rather than the State having to prove that they are. Further the testing criteria in the regulations are inadequate to provide such proof, not because the wastes are hazardous but rather because the testing procedures are too stringent to identify truly hazardous waste.

B. Characteristic Tests

The proposed testing procedures either are inappropriately applied or have not been verified by the scientific community, do not give reproducible results and are subject to inherent errors. Some of the tests have no relevance to the true hazardous nature of the compounds.

° 62.060 Toxicity

This system proposes on overly simplistic scheme whose validity has not been established. For example, the oral (rat) LD_{50} criteria is 100 times more stringent than RCRA. What is state's justification or rationale?

° 62.070 Persistence

Classifies as hazardous many stable products which are not a hazard to people or the environment. The state has not provided the rationale used in proposing this test.

° 62.080 Carcinogenicity

The regulations provide no guidance of how to approach the problem of determining the cancer-producing agents other than the International Agency for Research on Cancer (IARC) list. How does one demonstrate that a waste sample contains less than 1% of all known or suspected carcinogens? What is the basis for classifying as hazardous, 1% concentration of these listed substances when contained within a waste? Why not 0.1% or 10%? What is the rationale for making less than 1% of various carcinogens additive?

° 62.120 Waste Extraction Procedure (WEP) Test

The list has been expanded and maximum concentrations levels changed from that which is listed in RCRA without justification. ADEC has therefore "listed" wastes as hazardous without following requirements in enabling legislation (AS 46.03.299(b)(2)).

C. 62.050(d) Discarded Chemical Products

This regulation should not regulate the use or intended use of a chemical material prior to its intended disposal. This section currently discourages recycling and reuse as was the intent of RCRA. The proposed regulation would classify a waste as hazardous if it contained any of the listed generic names regardless of their concentration or intended use whereas 40 CFR 261.33 only deals with formulations with listed chemical as their "sole active ingredients."

D. HWI/HWII Chart (Persistence, Toxicity)

What is the documented source on which the hazardous waste graphs were based?

E. Article 5 (62.500-590) Management of Moderate Risk Waste

This is a new article on which the public has not had an opportunity to comment. Classification of a designated hazardous waste as a Class I (moderate risk waste) vs. a Class II hazardous waste is irrelevant. Once a waste is labeled as hazardous, landfill operators may not accept the (designated hazardous) waste and EPA and the public will likely require disposal only at approved hazardous waste disposal sites.

Summary:

Hazardous waste programs by nature are complex and minor wording changes can translate into millions of dollars and hundreds of thousands of barrels of waste inappropriately classified as hazardous. According to current and past surveys, the management of hazardous waste within the state is appropriately regulated under the federal program and is not a problem in the State of Alaska. Therefore, it is more appropriate to implement regulations which address hazardous wastes (as defined by RCRA) that are similar to the currently enforced regulations. If expansions are needed, ADEC should take the time to properly research and document the problem and evaluate the financial impact vs. the benefit to the people and the environment of the State of Alaska. This could be accomplished by deleting controversial provisions now and scheduling further review along with other provisions such as recycling in the years following final authorization of the basic RCRA program.

III. RECOMMENDATIONS

A. General

° The state must conduct and document an objective interagency review of all comments received to date. Verify why after extensive, well-documented comments prior to and during the public comment period, the final draft regulations presently submitted to EPA remain substantially the same as previous drafts.

° We suggest a nationally-recognized scientific body, such as the National Academy of Sciences or Batelle, review the technical merits and cost/benefit implications associated with the proposed hazardous waste management program.

° That a multi-year phased program must be developed whereby various concerns could be addressed and implemented. Such a program may be as follows: (1) Phase 1 would utilize a basic RCRA program (drop the additional characteristic tests, include RCRA exclusions, drop Section 5, etc.); (2) Phase 2 would address in appropriate detail reuse and recycling programs suitable for Alaska; and (3) Phase 3--Based upon first-hand experience, would review additional measures that may be necessary to deal with wastes improperly identified as hazardous. This approach would allow the State to gain regulatory experience in implementing a well thought out and manageable program.

B. SPECIFIC

° Temporary exemption--adopt RCRA exemption and include definition of "and other wastes" as found in the Congressional Conference Report.

° Delete characteristics of carcinogenicity, persistence and toxicity until scientific justification can be provided for appropriate hazard classification.

° Delete additional items which have been added to the WEP test from the federal EP toxicity test until such time as proper justification is provided.

° Section 62.050(d) should not regulate the intended use or reuse of a chemical material and should reflect the footnote contained in 40 CFR 261.33.

° The addition of a new Article 5 is a major revision which should be subject to public review and comment. Suggest deletion of the section until it can be shown that it is necessary to regulate moderate risk wastes as hazardous.

MM3:900

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I. INTRODUCTION: Narrative of ADEC Tests for Criteria Covering Persistent Classes of Chemical Compounds

There are two classes of chemical compounds that present a long-term threat because they tend to persist, bioaccumulate and present a chronic threat to human health and the environment. These classes are halogenated hydrocarbons and polycyclic aromatic hydrocarbons.

It is important for the reader to understand that analysis for these compound classes is intentionally broad and inclusive rather than a compound-by-compound analysis. As such, the analysis should be viewed as a screening test which alerts the analyst to the presence of potentially hazardous materials. At threshold concentrations of such persistent materials, further analysis for the presence of genetically active chemicals or the use of short-term bioassays for mutagenicity is adivsed. The Department of Environmental Conservation Hazardous Waste Section should be consulted before any such tests are undertaken. In addition, these methods are designed to determine semivolatile materials. Therefore, if the presence of solvents such as benzene or methylene chloride is suspected, the Department of Environmental Conservation may require a volatile analysis by GC or GC/MS.

A. Sample Extraction for Halogenated and Polycyclic Aromatic Hydrocarbon Analysis

This method is applicable to nearly all types of samples, regardless of water content, including aqueous sludges, caustic liquors, acid liquors, waste solvents, oily wastes, tars, fibrous wastes, polymeric emulsions, filter cakes, spent carbons, spent catalysts, soils, and sediments. The extraction procedure involves sonification of the sample with methylene chloride, neutralization to pH 7, and the addition of anhydrous sodium sulfate to remove the water. The amount of acid or base required for the neutralization is determined by titration of the sample. For halogenated hydrocarbon analysis, the methylene chloride extraction solvent is exchanged to hexane. For polycyclic aromatic hydrocarbon analysis, the methylene chloride extraction solvent is exchanged to cyclohexane. Specific procedures for a sample extraction are contained in Section III.

B. Halogenated Hydrocarbon Analysis

Halogenated hydrocarbons can be determined in the final extract by a "Parr" bomb analysis followed by a titrimetric determination of chloride ion, or by analysis with a Dohrmann MCTS 20 Microcoulometric analyzer, or by an equivalent method.

The Parr bomb analysis consists of combusting the extract in a "Parr" bomb to convert the organic compounds to simpler chemical forms. Halogenated (i.e., contains chlorine, fluorine, iodine or bromine) compounds break down to form the respective ion forms (i.e., chlorides, fluorides, iodides and bromides). These are water soluble. The Parr bomb residue is then rinsed with water and the solution analyzed for

the respective halide. Since the most common halogen is chlorine, these procedures include a colorimetric test for the chloride ion in water, commonly used in water quality analyses. Similar tests for the iodide, fluoride and bromide ions are available upon request from the department and taken from similar analytical sources. The Parr bomb and colorimetric test procedure for the chloride ion is described in Attachment 1.

When the analyst knows what particular halogenated compounds are present, chromatographic methods may be used to determine threshold concentrations. An example of such a method is described in the EPA Method 612 for chlorinated hydrocarbons.

C. Polycyclic Aromatic Hydrocarbon Analysis

Polycyclic aromatic hydrocarbons (PAHs) with 4 or more fused rings are of interest because of their persistence, bioaccumulation, and chronic disease-causing properties. Following the procedures of EPA Method 610 (Attachment 2), the methylene chloride extract is exchanged to cyclohexane and a silica gel cleanup is employed to separate PAHs from coextracted interferences. The PAHs with 4 or more rings are then identified and quantitated by HPLC.

II. Crude Sample Extraction for Halogenated and Polycyclic Aromatic Hydrocarbon Analysis

The crude sample may be in several physical forms and mixtures of these forms as follows:

1. Dry granular solid.
2. Solid with liquid organic phase.
3. Solid with water phase.
4. Large chunks of a tar-like solid material.
5. Liquid organic phase only.
6. Mixed aqueous and organic phases.
7. Solid granular phase that is damp with water.
8. Combinations of the above.

Each of these physical forms may require different extraction procedures. Therefore, in many instances the extraction procedure or combination of extraction procedures that will be used are the chemist's best judgment when he receives the sample.

The extractions of single phase sample systems are covered in the following written discussion. The multiple phase systems would be separated by decantation, filtration or centrifuging and each phase then treated as a single phase system.

This method is applicable to nearly all types of samples, regardless of water content, including aqueous sludges, caustic liquors, acid liquors, waste solvents, oily wastes, mousses, tars, fibrous wastes, polymeric emulsions, filter cakes, spent carbons, spent catalysts, soils, and sediments. It is presumed that reactivity and corrosivity have been tested prior to this analysis. DO NOT PROCEED WITH THIS EXTRACTION PROCEDURE IF CYANIDE, SULFIDE, EXPLOSIVES, OR OTHER SUCH HAZARDOUS MATERIALS ARE PRESENT UNLESS PROPER PRECAUTIONS ARE TAKEN.

The extraction procedure involves sonification of the sample with methylene chloride, neutralization to pH 7, and the addition of anhydrous sodium sulfate to remove the water. The amount of acid or base required for the neutralization is determined by titration of the sample. The particle size of all samples, except those comprised of nonporous inorganic particles (e.g. soils and sediments), should be reduced to less than 0.1 mm diameter before extraction if possible. A glass mortar and pestle is recommended for grinding the sample.

Extraction Procedure:

1. Thoroughly mix the sample to enable a representative sample to be obtained. Weigh 3.0 g (wet weight) of sample into a 200 ml centrifuge tube. Add 15 ml methylene chloride and 15 ml of water.

2. Sonify the mixture for two minutes by inserting the sonifier horn 0.5-1.0 cm below the surface and using a power setting of 5 and a 50% pulsed duty cycle.

3. Transfer the contents of the centrifuge tube to a 400 ml beaker using 50 ml of methylene chloride followed by 150 ml of water as rinses.

4. Adjust the pH of the mixture to 7.0 $\pm$ 0.2 by titration with 0.4 M H_3PO_4 or 0.4 M K_3PO_4 using a pH meter to measure the pH. Record the volume of acid or base required.

5. The extraction with methylene chloride is performed using a fresh portion of the sample. Weigh 3.0 g (wet weight) of sample into a 200 ml centrifuge tube. Add 15 ml of methylene chloride. Add 1.0 ml of 4 M phosphate buffer pH 7.0, and an amount of 4 M H_3PO_4 or 4 M K_3PO_4 equal to one tenth of the pH 7 acid or base volume requirement determined in Section 4. For example, if the acid requirement in Section 4 was 2.0 ml of 0.4 M H_3PO_4, the amount of 4 M H_3PO_4 needed would be 0.2 ml.

6. Sonify the mixture for 1 minute by inserting the sonifier horn 0.5-1.0 cm below the surface and using a power setting of 5 and a 50% pulsed duty cycle. Cool the mixture in an ice bath or cold water bath, if necessary, to maintain a temperature of 20-30°C. Add 135 ml of methylene chloride, adjust the position of the sonifier horn to

0.5-1.0 cm below the surface and repeat the sonification for 1 minute. Some samples, especially those that contain much water, may not disperse well in this step but will disperse after sodium sulfate is added. Add all at once an amount of anhydrous sodium sulfate powder equal to 15.0 g plus 3.0 g/ml of the 4 M H_3PO_4 or 4 M K_3PO_4 added in Section 5. Immediately cap the centrifuge tube and shake it vigorously for 1 minute. Insert the sonifier horn 0.5-1.0 cm below the surface and sonify for 2 minutes as descried above. Allow the mixture to stand until a clear supernatant is obtained. Centrifuge if necessary to facilitate the phase separation.

7. Transfer the supernatant to a K-D flask fitted into a 25 ml concentrator tube. Add two boiling chips, attach a three-ball macro Snyder column to the K-D flask, and concentrate the extract using a water bath at 60 to 65°C. Place the K-D apparatus in the water bath so that the concentrator tube is about half immersed in the water and the entire rounded surface of the flask is bathed with water vapor. Adjust the vertical position of the apparatus and the water temperature as required to complete the concentration in 15 to 20 minutes. At the proper rate of distillation the balls of the column actively chatter but the chambers do not flood. When the liquid has reached an apparent volume of 5 to 6 ml, remove the K-D apparatus from the water bath and allow the solvent to drain for at least 5 minutes while cooling. Remove the Snyder column and rinse the flask and the lower joint of the flask into the concentrator tube with 1-2 ml of methylene chloride.

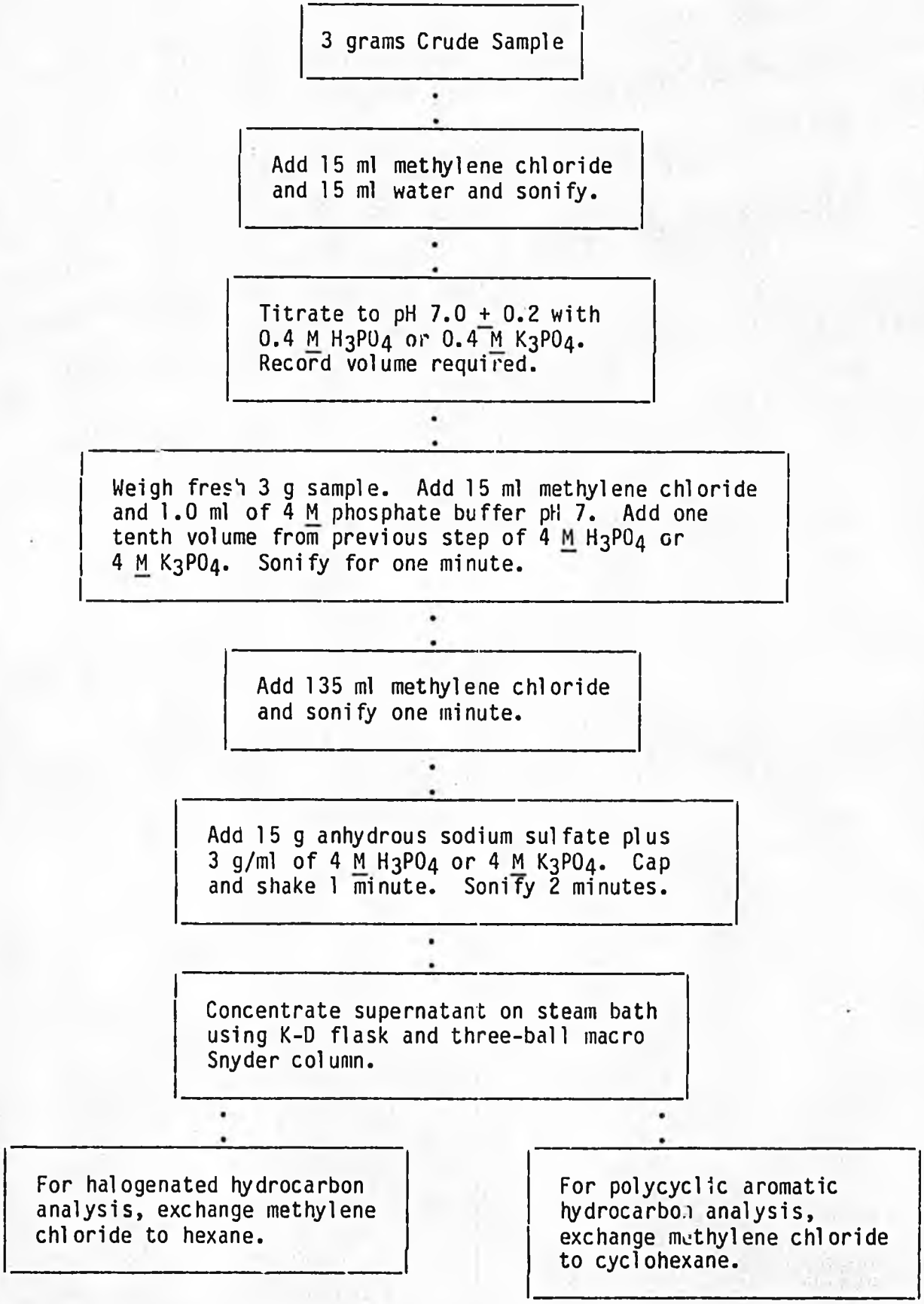
8. For analysis of polycyclic aromatic hydrocarbons, proceed to Section 10 of EPA Method 610, Polynuclear Aromatic Hydrocarbons (Attachment 2).

9. For analysis of halogenated hydrocarbons, the methylene chloride extraction solvent must be exchanged to hexane. Add 5 ml of hexane to the extract in the concentrator tube. Evaporate the extract to 1.0 ml with a gentle stream of nitrogen with the concentrator tube placed in a water bath maintained at 40°C.

10. Total halogenated hydrocarbons may be determined by using a Parr bomb analysis followed by a titrimetric determination of chlorine (Attachment 1) or by analysis with a Dohrmann MCTS 20 Microcoulometric Analyzer, or by equivalent method.

Reference: EPA, EMSL-Las Vegas Procedure No. 2 for analysis of hazardous waste for semivolatile organic compounds.

HAZARDOUS WASTE EXTRACTION PROCEDURE
for ANALYSIS of HALOGENATED HYDROCARBONS
and POLYCYCLIC AROMATIC HYDROCARBONS



ATTACHMENT 1

PARR BOMB ANALYSIS

ANSI/ASTM D808-63 (REAPPROVED 1976)

American Society for Testing and Materials Standards are protected by copyright. Copies of ASTM standards can be obtained by writing to the following address:

ASTM
1916 Race Street
Philadelphia, PA 19103

Steps 6.5, 6.6 and 7 in the above referenced method are replaced by the chloride determination described in Appendix F, Attachment 1a.

ATTACHMENT 1a

CHLORIDE

Method 325.3 (Titrimetric, Mercuric Nitrate)

STORET NO. 00940

1. Scope and Application
   - 1.1 This method is applicable to drinking, surface, and saline waters, domestic and industrial wastes.
   - 1.2 The method is suitable for all concentration ranges of chloride content; however, in order to avoid large titration volume, a sample aliquot containing not more than 10 to 20 mg Cl per 50 ml is used.
   - 1.3 Automated titration may be used.
2. Summary of Method
   - 2.1 An acidified sample is titrated with mercuric nitrate in the presence of mixed diphenylcarbazone-bromophenol blue indicator. The end point of the titration is the formation of the blue-violet mercury diphenylcarbazone complex.
3. Comments
   - 3.1 Anions and cations at concentrations normally found in surface waters do not interfere.
   - 3.2 Sulfite interference can be eliminated by oxidizing the 50 ml of sample solution with 0.5 to 1 ml of H_2O_2.
4. Apparatus
   - 4.1 Standard laboratory titrimetric equipment including a 1 ml or 5 ml microburet with 0.01 ml graduations.
5. Reagents
   - 5.1 Standard sodium chloride, 0.025 N: Dissolve 1.4613 ±0.0002 g (dried at 600°C for 1 hour) in chloride-free water in a 1 liter volumetric flask and dilute to the mark.
   - 5.2 Nitric acid, HNO_3 solution (3 + 997)
   - 5.3 Sodium hydroxide solution, NaOH, (10 g/l)
   - 5.4 Hydrogen peroxide (30%), H_2O_2
   - 5.5 Hydroquinone solution (10 g/liter): Dissolve 1 g of purified hydroquinone in water in a 100 ml volumetric and dilute to the mark.
   - 5.6 Mercuric nitrate titrant (0.141 N): Dissolve 25 g $Hg(NO_3)_2 \cdot H_2O$ in 900 ml of distilled water acidified with 5.0 ml conc. HNO_3 in a 1 liter volumetric flask and dilute to the mark with distilled water. Filter if necessary. Standardize against standard sodium chloride solution (5.1) using procedure 6. Adjust to exactly 0.141 N and check. Store in a dark bottle. A 1.00 ml aliquot is equivalent to 5.00 mg of chloride.
   - 5.7 Mercuric nitrate titrant (0.025 N): Dissolve 4.2830 g $Hg(NO_3)_2 \cdot H_2O$ in 50 ml of distilled water acidified with 0.5 ml conc. HNO_3 (sp. gr. 1.42) in a 1 liter volumetric flask and dilute to the mark with distilled water. Filter if necessary. Standardize against standard

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sodium chloride solution (5.1) using procedure 6. Adjust to exactly 0.025 N and check. Store in a dark bottle.

5.8 Mercuric nitrate titrant (0.0141 N): Dissolve 2.4200 g $Hg(NO_3)_2 \cdot H_2O$ in 25 ml of distilled water acidified with 0.25 ml of conc. HNO_3 (sp. gr. 1.42) in a 1 liter volumetric flask and dilute to the mark with distilled water. Filter if necessary. Standardize against standard sodium chloride solution (5.1) using procedure 6. Adjust to exactly 0.0141 N and check. Store in a dark bottle. A 1 ml aliquot is equivalent to 500 ug of chloride.

5.9 Mixed indicator reagent: Dissolve 0.5 g crystalline diphenylcarbazone and 0.05 g bromophenol blue powder in 75 ml 95% ethanol in a 100 ml volumetric flask and dilute to the mark with 95% ethanol. Store in brown bottle and discard after 6 months.

5.10 Alphazurine indicator solution: Dissolve 0.005 g of alphazurine blue-green dye in 95% ethanol or isopropanol in a 100 ml volumetric and dilute to the mark with 95% ethanol or isopropanol.

6. Procedure

6.1 Place 50 ml of sample in a vessel for titration. If the concentration is greater than 20 mg/l chloride, use 0.141 N mercuric nitrate titrant (5.6) in step 6.6 or dilute. If the concentration is less than 2.5 mg/l of chloride, use 0.0141 N mercuric nitrate titrant (5.8) in step 6.6, a 1 ml or 5 ml microburet, and determine an indicator blank on 50 ml chloride-free water using procedure 6.6. If the concentration is less than 0.1 mg/l of chloride concentrate an appropriate volume to 50 ml.

6.2 Add 5 to 10 drops of mixed indicator reagent (5.9), shake or swirl solution.

6.3 If a blue-violet or red color appears add HNO_3 solution (5.2) dropwise until the color changes to yellow.

6.4 If a yellow or orange color forms immediately on addition of the mixed indicator, add NaOH solution (5.3) dropwise until the color changes to blue-violet; then add HNO_3 solution (5.2) dropwise until the color changes to yellow.

6.5 Add 1 ml excess HNO_3 solution (5.2).

6.6 Titrate with 0.025 N mercuric nitrate titrant (5.7) until a blue-violet color persists throughout the solution. See 6.1 for choice of titrant normality. Alphazurine indicator solution (5.10) may be added with the indicator to sharpen the end point. This will change color shades. Practice runs should be made.

6.7 Additional steps to eliminate particular interferences:

6.7.1 If chromate is present at < 100 mg/l and iron is not present, add some alphazurine indicator solution (5.10) and acidify to pH 3 (indicating paper). End point will then be an olive-purple color.

6.7.2 If chromate is present at > 100 mg/l and iron is not present, add 2 ml of fresh hydroquinone solution (5.5).

6.7.3 If ferric ion is present use volume containing no more than 2.5 mg of ferric ion or ferric ion plus chromate ion. Add 2 ml fresh hydroquinone solution (5.5).

6.7.4 If sulfite ion is present, add 0.5 ml of H_2O_2 solution (5.4) to 50 ml sample and mix for 1 minute.

7. Calculation

$$\text{mg chloride/l} = \frac{(A - B)N \times 35{,}450}{\text{ml of sample}}$$

where:
A = ml titrant for sample
B = ml titrant for blank
N = normality mercuric nitrate titrant

mg NaCl/l = mg chloride/l x 1.65

8. Precision and Accuracy

8.1 Forty two analysts in eighteen laboratories analyzed synthetic water samples containing exact increments of chloride, with the following results:

Increment as Chloride mg/liter	Precision as Standard Deviation mg/liter	Accuracy as Bias, %	Accuracy as Bias, mg/liter
17	1.54	+2.16	+0.4
18	1.32	+3.50	+0.6
91	2.92	+0.11	+0.1
97	3.16	-0.51	-0.5
382	11.70	-0.61	-2.3
398	11.80	-1.19	-4.7

(FWPCA Method Study 1, Mineral and Physical Analyses)

8.2 In a single laboratory (EMSL), using surface water samples at an average concentration of 34 mg Cl/l, the standard deviation was ±1.0.

8.3 A synthetic unknown sample containing 241 mg/l chloride, 108 mg/l Ca, 82 mg/l Mg, 3.1 mg/l K, 19.9 mg/l Na, 1.1 mg/l nitrate N, 0.25 mg/l nitrite N, 259 mg/l sulfate and 42.5 mg/l total alkalinity (contributed by $NaHCO_3$) in distilled water was analyzed in 10 laboratories by the mercurimetric method, with a relative standard deviation of 3.3% and a relative error of 2.9%.

Bibliography

1. Annual Book of ASTM Standards, Part 31, "Water", Standard D512-67, Method A, p 270 (1976).

ATTACHMENT 2

United States
Environmental Protection
Agency

Environmental Monitoring and
Support Laboratory
Cincinnati OH 45268

Research and Development

Test Method

Polynuclear Aromatic Hydrocarbons — Method 610

1. Scope and Application

1.1 This method covers the determination of certain polynuclear aromatic hydrocarbons (PAH). The following parameters may be determined by this method:

Parameter	STORET No.	CAS No.
Acenaphthene	34205	83-32-9
Acenaphthylene	34200	208-96-8
Anthracene	34220	120-12-7
Benzo (a) anthracene	34526	56-55-3
Benzo (a) pyrene	34247	50-32-8
Benzo (b) fluoranthene	34230	205-99-2
Benzo (ghi) perylene	34521	191-24-2
Benzo (k) fluoranthene	34242	207-08-9
Chrysene	34320	218-01-9
Dibenzo (a, h) anthracene	34556	53-70-3
Fluoranthene	34376	206-44-0
Fluorene	34381	86-73-7
Indeno (1, 2, 3-cd) pyrene	34403	193-39-5
Naphthalene	34696	91-20-3
Phenanthrene	34461	85-01-8
Pyrene	34469	129-00-0

1.2 This is a chromatographic method applicable to the determination of the compounds listed above in municipal and industrial discharges as provided under 40 CFR 136.1. When this method is used to analyze unfamiliar samples for any or all of the compounds above, compound identifications should be supported by at least one additional qualitative technique. Method 625 provides gas chromatograph/mass spectrometer (GC/MS) conditions appropriate for the qualitative and quantitative confirmation of results for many of the parameters listed in Section 1.1, using the extract produced by this method.

1.3 This method provides for both high performance liquid chromatographic (HPLC) and gas chromatographic (GC) approaches to the determination of PAHs. The gas chromatographic procedure does not adequately resolve the following four pairs of compounds: anthracene and phenanthrene; chrysene and benzo (a) anthracene; benzo (b) fluoranthene and benzo (k) fluoranthene; and dibenzo (a, h) anthracene and indeno (1, 2, 3-cd) pyrene. Unless the purpose for the analysis can be served by reporting the sum of an unresolved pair, the liquid chromatographic approach must be used for these compounds. The liquid

chromatographic method does resolve all 16 of the PAHs listed.

1.4 The method detection limit (MDL, defined in Section 15)[11] for each parameter is listed in Table 1. The MDL for a specific wastewater may differ depending upon the nature of interferences in the sample matrix.

1.5 The sample extraction and concentration steps in this method are essentially the same as in methods 606, 608, 609, 611 and 612. Therefore, a single sample may be extracted to measure the parameters included in the scope of each of these methods, provided the concentration is high enough to permit selecting aliquots of the extract for cleanup, when required. Selection of the aliquots must be made prior to the solvent exchange steps of this method. The analyst is allowed the latitude, under Gas Chromatography (Section 13), to select chromatographic conditions appropriate for the simultaneous measurement of combinations of these parameters.

1.6 Any modification of this method, beyond those expressly permitted, shall be considered as major modifications subject to application and approval of alternate test procedures under 40 CFR 136.4 and 136.5.

1.7 This method is restricted to use by or under the supervision of analysts experienced in the use of HPLC and GC and in the interpretation of liquid and gas chromatograms. Each analyst must demonstrate the ability to generate acceptable results with this method using the procedure described in Section 8.2.

2. Summary of Method

2.1 A measured volume of sample, approximately one-liter, is solvent extracted with methylene chloride using a separatory funnel. The methylene chloride extract is dried and concentrated to a volume of 10 mL or less. The solvent is exchanged to cyclohexane prior to cleanup. Following cleanup, when using HPLC for determination of the PAHs, the solvent is exchanged to acetonitrile. Ultraviolet (UV) and fluorescence detectors are used with HPLC. When cleanup is not required and when flame ionization detector GC is used for determination, the methylene chloride extract may be analyzed directly. When cleanup is required, the cyclohexane exchange is made. Instrumental conditions are described which permit the separation and measurement of the PAH compounds[12].

2.2 A silica gel column cleanup procedure is provided to aid in the elimination of interferences that may be encountered.

3. Interferences

3.1 Method interferences may be caused by contaminants in solvents, reagents, glassware, and other sample processing hardware that lead to discrete artifacts and/or elevated baselines in the chromatograms. All of these materials must be routinely demonstrated to be free from interferences under the conditions of the analysis by running laboratory reagent blanks as described in Section 8.5.

3.1.1 Glassware must be scrupulously cleaned[13]. Clean all glassware as soon as possible after use by rinsing with the last solvent used in it. This should be followed by detergent washing with hot water, and rinses with tap water and distilled water. It should then be drained dry, and heated in a muffle furnace at 400°C for 15 to 30 minutes. Some thermally stable materials, such as PCBs, may not be eliminated by this treatment. Solvent rinses with acetone and pesticide quality hexane may be substituted for the muffle furnace heating. Volumetric ware should not be heated in a muffle furnace. After drying and cooling, glassware should be sealed and stored in a clean environment to prevent any accumulation of dust or other contaminants. Store inverted or capped with aluminum foil.

3.1.2 The use of high purity reagents and solvents helps to minimize interference problems. Purification of solvents by distillation in all-glass systems may be required.

3.2 Matrix interferences may be caused by contaminants that are coextracted from the sample. The extent of matrix interferences will vary considerably from source to source, depending upon the nature and diversity of the industrial complex or municipality being sampled. The cleanup procedure in Section 11 can be used to overcome many of these interferences, but unique samples may require additional cleanup approaches to achieve the MDL listed in Table 1.

3.3 The extent of interferences that may be encountered using liquid chromatographic techniques has not been fully assessed. Although the HPLC conditions described allow for a unique resolution of the specific PAH compounds covered by this method, other PAH compounds may interfere.

4. Safety

4.1 The toxicity or carcinogenicity of each reagent used in this method has not been precisely defined; however, each chemical compound should be treated as a potential health hazard. From this viewpoint, exposure to these chemicals must be reduced to the lowest possible level by whatever means available. The laboratory is responsible for maintaining a current awareness file of OSHA regulations regarding the safe handling of the chemicals specified in this method. A reference file of material data handling sheets should also be made available to all personnel involved in the chemical analysis. Additional references to laboratory safety are available and have been identified[4-6] for the information of the analyst.

4.2 The following paramenters covered by this method have been tentatively classified as known or suspected, human or mammalian carcinogens; benzo (a) anthracene, benzo (a) pyrene and dibenzo (a, h) anthracene.

5. Apparatus and Materials

5.1 Sampling equipment, for discrete or composite sampling.

5.1.1 Grab sample bottle - Amber glass, one-liter or one-quart volume, fitted with screw caps lined with Teflon. Foil may be substituted for Teflon if the sample is not corrosive. If amber bottles are not available, protect samples from light. The container must be washed, rinsed with acetone or methylene chloride, and dried before use to minimize contamination.

5.1.2 Automatic sampler (optional) - Must incorporate glass sample containers for the collection of a minimum of 250 mL. Sample containers must be kept refrigerated at 4°C and protected from light during compositing. If the sampler uses a peristaltic pump, a minimum length of compressible silicone rubber tubing may be used. Before use, however, the compressible tubing should be thoroughly rinsed with methanol, followed by repeated rinsings with distilled water to minimize the potential for contamination of the sample. An integrating flow meter is required to collect flow proportional composites.

5.2 Glassware (All specifications are suggested. Catalog numbers are included for illustration only).

5.2.1 Separatory funnel - 2000-mL, with Teflon stopcock.

5.2.2 Drying column - Chromatographic column 400 mm long x 19 mm ID with coarse frit.

5.2.3 Concentrator tube, Kuderna-Danish - 10-mL, graduated (Kontes K-570050-1025 or equivalent). Calibration must be checked at the volumes employed in the test. Ground glass stopper is used to prevent evaporation of extracts.

5.2.4 Evaporative flask, Kuderna-Danish - 500-mL (Kontes K-570001-0500 or equivalent). Attach to concentrator tube with springs.

5.2.5 Snyder column, Kuderna-Danish - three-ball macro (Kontes K-503000-0121 or equivalent).

5.2.6 Snyder column, Kuderna-Danish - two-ball micro (Kontes K-569001-0219 or equivalent).

5.2.7 Vials - Amber glass, 10- to 15- mL capacity, with Teflon-lined screwcap.

5.2.8 Chromatographic column - 250 mm long x 10 mm ID with coarse fritted disc at bottom and Teflon stopcock.

5.3 Boiling chips - approximately 10/40 mesh. Heat to 400°C for 30 minutes or Soxhlet extract with methylene chloride.

5.4 Water bath - Heated, with concentric ring cover, capable of temperature control (±2°C). The bath should be used in a hood.

5.5 Balance — Analytical, capable of accurately weighing 0.0001g.

5.6 High performance liquid chromatographic apparatus (modular):

5.6.1 Gradient pumping system, constant flow.

5.6.2 Reverse phase column, 5 micron HC-ODS Sil-X, 250 mm x 2.6 mm ID (Perkin-Elmer No. 089-0716 or equivalent).

5.6.3 Fluorescence detector, for excitation at 280 nm and emission greater than 389 nm cutoff (Corning 3-75 or equivalent). Fluorometers should have dispersive optics for excitation and can utilize either filter or dispersive optics at the emission detector.

5.6.4 UV detector, 254 nm, coupled to fluorescence detector.

5.6.5 Strip-chart recorder compatible with detectors. Use of a data system for measuring peak areas and retention times is recommended.

5.7 Gas chromatograph - An analytical system complete with temperature programmable gas chromatograph suitable for on-column injection or splitless injection and all required accessories including syringes, analytical columns, gases, detector, and strip-chart recorder. A data system is recommended for measuring peak areas.

5.7.1 Column - 1.8 m long x 2 mm ID pyrex glass packed with 3% OV-17 on Chromosorb W-AW-DCMS (100/120 mesh) or equivalent. This column was used to develop the retention time data in Table 2. Guidelines for the use of alternate column packings are provided in Section 13.

5.7.2 Detector - Flame ionization. This detector has proven effective in the analysis of wastewaters for the compounds listed in the scope excluding the four pairs of unresolved compounds listed in Section 1.3. Guidelines for the use of alternate detectors are provided in Section 12.2.

6. Reagents

6.1 Reagent water - Reagent water is defined as a water in which an interferent is not observed at the MDL of each parameter of interest.

6.2 Sodium thiosulfate - (ACS) Granular.

6.3 Cyclohexane, methanol, acetone, methylene chloride, and pentane - Pesticide quality or equivalent.

6.4 Acetonitrile, high purity HPLC quality, distilled in glass.

6.5 Sodium sulfate - (ACS) Granular, anhydrous. Purify by heating at 400°C for four hours in a shallow tray.

6.6 Silica gel - Grade 923 (100/200 mesh) dessicant (Davison Chemical or equivalent). Before use, activate for at least 16 hours at 130°C in a shallow glass tray, loosely covered with foil.

6.7 Stock standard solutions (1.00 µg/µL) - Stock standard solutions can be prepared from pure standard materials or purchased as certified solutions.

6.7.1 Prepare stock standard solutions by accurately weighing about 0.0100 g of pure material. Dissolve the material in HPLC quality acetonitrile, dilute to volume in a 10-mL volumetric flask. Larger volumes can be used at the convenience of the analyst. If compound purity is certified at 96% or greater, the weight can be used without correction to calculate the concentration of the stock standard. Commercially prepared stock standards can be used at any concentration if they are certified by the manufacturer or by an independent source.

6.7.2 Transfer the stock standard solutions into Teflon-sealed screw-cap bottles. Store at 4°C and protect from light. Stock standard solutions should be checked frequently for signs of degradation or evaporation, especially just prior to preparing calibration standards from them. Quality control check standards that can be used to determine the accuracy of calibration standards will be available from the U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

6.7.3 Stock standard solutions must be replaced after six months, or sooner if comparison with check standards indicate a problem.

7. Calibration

7.1 Establish liquid or gas chromatographic operating parameters to produce resolution of the parameters equivalent to that indicated in Tables 1 or 2. The chromatographic system can be calibrated using the external standard technique (Section 7.2) or the internal standard technique (Section 7.3).

7.2 External standard calibration procedure:

7.2.1 Prepare calibration standards at a minimum of three concentration levels for each parameter of interest by adding volumes of one or more stock standards to a volumetric flask and diluting to volume with acetonitrile. One of the external standards should be at a concentration near, but above, the MDL and the other concentrations should correspond to the expected range of concentrations found in real samples or should define the working range of the detector.

7.2.2 Analyze each calibration standard (5 to 25 µL for HPLC and 2 to 5 µL for GC), and tabulate peak height or area responses against the mass injected. The results may be used to prepare a calibration curve for each compound. Alternatively, if the ratio of response to amount injected (calibration factor) is a constant over the working range (< 10% relative

standard deviation, RSD), linearity through the origin can be assumed and the average ratio or calibration factor can be used in place of a calibration curve.

7.2.3 The working calibration curve or calibration factor must be verified on each working day by the measurement of one or more calibration standards. If the response for any parameter varies from the predicted response by more than ±10%, the test must be repeated using a fresh calibration standard. Alternatively, a new calibration curve or calibration factor must be prepared for that compound.

7.3 Internal standard calibration procedure. To use this approach, the analyst must select one or more internal standards that are similar in analytical behavior to the compounds of interest. The analyst must further demonstrate that the measurement of the internal standard is not affected by method or matrix interferences. Because of these limitations, no internal standard can be suggested that is applicable to all samples.

7.3.1 Prepare calibration standards at a minimum of three concentration levels for each parameter of interest by adding volumes of one or more stock standards to a volumetric flask. To each calibration standard, add a known constant amount of one or more internal standards, and dilute to volume with acetonitrile. One of the standards should be at a concentration near, but above, the MDL and the other concentrations should correspond to the expected range of concentrations found in real samples or should define the working range of the detector.

7.3.2 Analyze each calibration standard (5 to 25 µL for HPLC and 2 to 5 µL for GC) and tabulate peak height or area responses against concentration for each compound and internal standard, and calculate response factors (RF) for each compound using Equation 1.

$$\text{Eq. 1} \quad RF = (A_s C_{is})/(A_{is} C_s)$$

where:

A_s = Response for the parameter to be measured.
A_{is} = Response for the internal standard.
C_{is} = Concentration of the internal standard, (µg/L).
C_s = Concentration of the parameter to be measured, (µg/L).

If the RF value over the working range is a constant (< 10% RSD), the RF can be assumed to be invariant and the average RF can be used for calculations. Alternatively, the results can be used to plot a calibration curve of response ratios, A_s/A_{is}, vs. RF.

7.3.3 The working calibration curve or RF must be verified on each working day by the measurement of one or more calibration standards. If the response for any parameter varies from the predicted response by more than 10%, the test must be repeated using a fresh calibration standard. Alternatively, a new calibration curve must be prepared for that compound.

7.4 Before using any cleanup procedure, the analyst must process a series of calibration standards through the procedure to validate elution patterns and the absence of interferences from the reagents.

8. Quality Control

8.1 Each laboratory that uses this method is required to operate a formal quality control program. The minimum requirements of this program consist of an initial demonstration of laboratory capability and the analysis of spiked samples as a continuing check on performance. The laboratory is required to maintain performance records to define the quality of data that is generated. Ongoing performance checks must be compared with established performance criteria to determine if the results of analyses are within accuracy and precision limits expected of the method.

8.1.1 Before performing any analyses, the analyst must demonstrate the ability to generate acceptable accuracy and precision with this method. This ability is established as described in Section 8.2.

8.1.2 In recognition of the rapid advances that are occurring in chromatography, the analyst is permitted certain options to improve the separations or lower the cost of measurements. Each time such modifications are made to the method, the analyst is required to repeat the procedure in Section 8.2.

8.1.3 The laboratory must spike and analyze a minimum of 10% of all samples to monitor continuing laboratory performance. This procedure is described in Section 8.4.

8.2 To establish the ability to generate acceptable accuracy and precision, the analyst must perform the following operations.

8.2.1 Select a representative spike concentration for each compound to be measured. Using stock standards, prepare a quality control check sample concentrate in acetronitrile 1000 times more concentrated than the selected concentrations. Quality control check sample concentrates, appropriate for use with this method, will be available from the U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

8.2.2 Using a pipet, add 1.00 mL of the check sample concentrate to each of a minimum of four 1000-mL aliquots of reagent water. A representative wastewater may be used in place of the reagent water, but one or more additional aliquots must be analyzed to determine background levels, and the spike level must exceed twice the background level for the test to be valid. Analyze the aliquots according to the method beginning in Section 10.

8.2.3 Calculate the average percent recovery, (R), and the standard deviation of the percent recovery (s), for the results. Wastewater background corrections must be made before R and s calculations are performed.

8.2.4 Using Table 3, note the average recovery (X) and standard deviation (p) expected for each method parameter. Compare these to the calculated values for R and s. If $s > 2p$ or $|X-R| > 2p$, review potential problem areas and repeat the test.

8.2.5 The U.S. Environmental Protection Agency plans to establish performance criteria for R and s based upon the results of interlaboratory testing. When they become available, these criteria must be met before any samples may be analyzed.

8.3 The analyst must calculate method performance criteria and define the performance of the laboratory for each spike concentration and parameter being measured.

8.3.1 Calculate upper and lower control limits for method performance:

Upper Control Limit (UCL) = R + 3 s
Lower Control Limit (LCL) = R — 3 s

where R and s are calculated as in Section 8.2.3.

The UCL and LCL can be used to construct control charts[17] that are useful in observing trends in perfor-

mance. The control limits above must be replaced by method performance criteria as they become available from the U.S. Environmental Protection Agency.

8.3.2 The laboratory must develop and maintain separate accuracy statements of laboratory performance for wastewater samples. An accuracy statement for the method is defined as R ± s. The accuracy statement should be developed by the analysis of four aliquots of wastewater as described in Section 8.2.2, followed by the calculation of R and s. Alternately, the analyst may use four wastewater data points gathered through the requirement for continuing quality control in Section 8.4. The accuracy statements should be updated regularly[7].

8.4 The laboratory is required to collect a portion of their samples in duplicate to monitor spike recoveries. The frequency of spiked sample analysis must be at least 10% of all samples or one sample per month, whichever is greater. One aliquot of the sample must be spiked and analyzed as described in Section 8.2. If the recovery for a particular parameter does not fall within the control limits for method performance, the results reported for that parameter in all samples processed as part of the same set must be qualified as described in Section 14.3. The laboratory should monitor the frequency of data so qualified to ensure that it remains at or below 5%.

8.5 Before processing any samples, the analyst should demonstrate through the analysis of a one-liter aliquot of reagent water, that all glassware and reagents interferences are under control. Each time a set of samples is extracted or there is a change in reagents, a laboratory reagent blank should be processed as a safeguard against laboratory contamination.

8.6 It is recommended that the laboratory adopt additional quality assurance practices for use with this method. The specific practices that are most productive depend upon the needs of the laboratory and the nature of the samples. Field duplicates may be analyzed to monitor the precision of the sampling technique. When doubt exists over the identification of a peak on the chromatogram, confirmatory techniques such as chromatography with a dissimilar column or detector must be used. This may include the use of a mass spectrometer. Whenever possible, the laboratory should perform analysis of standard reference materials and participate in relevant performance evaluation studies.

9. Sample Collection, Preservation, and Handling

9.1 Grab samples must be collected in glass containers. Conventional sampling practices[8] should be followed, except that the bottle must not be prewashed with sample before collection. Composite samples should be collected in refrigerated glass containers in accordance with the requirements of the program. Automatic sampling equipment must be as free as possible of Tygon tubing and other potential sources of contamination.

9.2 The samples must be iced or refrigerated at 4°C from the time of collection until extraction. PAHs are known to be light sensitive, therefore, samples, extracts and standards should be stored in amber or foil wrapped bottles in order to minimize photolytic decomposition. Fill the sample bottle and, if residual chlorine is present, add 80 mg of sodium thiosulfate per liter of sample. U.S. Environmental Protection Agency methods 330.4 and 330.5 may be used for measurement of residual chlorine[9]. Field test kits are available for this purpose.

9.3 All samples must be extracted within 7 days, and analysis completed within 40 days of extraction[2].

10. Sample Extraction

10.1 Mark the water meniscus on the side of the sample bottle for later determination of sample volume. Pour the entire sample into a two liter separatory funnel.

10.2 Add 60 mL methylene chloride to the sample bottle, seal, and shake 30 seconds to rinse the inner surface. Transfer the solvent to the separatory funnel and extract the sample by shaking the funnel for two minutes with periodic venting to release excess pressure. Allow the organic layer to separate from the water phase for a minimum of ten minutes. If the emulsion interface between layers is more than one-third the volume of the solvent layer, the analyst must employ mechanical techniques to complete the phase separation. The optimum technique depends upon the sample, but may include stirring, filtration of the emulsion through glass wool, centrifugation, or other physical methods. Collect the methylene chloride extract in a 250-mL Erlenmeyer flask.

10.3 Add a second 60-mL volume of methylene chloride to the sample bottle, rinse and repeat the extraction procedure a second time, combining the extracts in the Erlenmeyer flask. Perform a third extraction in the same manner.

10.4 Assemble a Kuderna-Danish (K-D) concentrator by attaching a 10-mL concentrator tube to a 500-mL evaporative flask. Other concentration devices or techniques may be used in place of the K-D if the requirements of Section 8.2 are met.

10.5 Pour the combined extract through a drying column containing about 10 cm of anhydrous sodium sulfate, and collect the extract in the K-D concentrator. Rinse the Erlenmeyer flask and column with 20 to 30 mL of methylene chloride to complete the quantitative transfer.

10.6 Add one or two clean boiling chips to the evaporative flask and attach a three-ball Snyder column. Prewet the Snyder column by adding about 1 mL methylene chloride to the top. Place the K-D apparatus on a hot water bath (60 to 65°C) so that the concentrator tube is partially immersed in the hot water, and the entire lower rounded surface of the flask is bathed with hot vapor. Adjust the vertical position of the apparatus and the water temperature as required to complete the concentration in 15 to 20 minutes. At the proper rate of distillation the balls of the column will actively chatter but the chambers will not flood with condensed solvent. When the apparent volume of liquid reaches 1 mL, remove the K-D apparatus and allow it to drain and cool for at least 10 minutes. Remove the Snyder column and rinse the flask and its lower joint into the concentrator tube with 1 to 2 mL of methylene chloride. A 5 mL syringe is recommended for this operation. Stopper the concentrator tube and store refrigerated if further processing will not be performed immediately. If the extracts will be stored longer than two days, they should be transferred to Teflon-sealed screw-cap bottles and protected from light.

10.7 Determine the original sample volume by refilling the sample bottle to the mark and transferring the water to a 1000-mL graduated cylinder. Record the sample volume to the nearest 5 mL.

11. Cleanup and Separation

11.1 Cleanup procedures may not be necessary for a relatively clean sample matrix. The cleanup procedures recommended in this method have been used for the analysis of various clean waters and industrial effluents. If particular circumstances demand the use of an alternative cleanup procedure, the analyst must determine the elution profile and demonstrate that the recovery of each compound of interest is no less than 85%.

11.2 Before the silica gel cleanup technique can be utilized, the extract solvent must be exchanged to cyclohexane. Add a 1- to 10- mL aliquot of sample extract (in methylene chloride) and a boiling chip to a clean K-D concentrator tube. Add 4 mL cyclohexane and attach a micro-Snyder column. Prewet the micro-Snyder column by adding 0.5 mL methylene chloride to the top. Place the micro-K-D apparatus on a boiling (100 C) water bath so that the concentrator tube is partially immersed in the hot water. Adjust the vertical position of the apparatus and the water temperature as required to complete concentration in 5 to 10 minutes. At the proper rate of distillation the balls of the column will actively chatter but the chambers will not flood. When the apparent volume of the liquid reaches 0.5 mL, remove the K-D apparatus and allow it to drain for at least 10 minutes while cooling. Remove the micro-Snyder column and rinse its lower joint into the concentrator tube with a minimum of cyclohexane. Adjust the extract volume to about 2 mL.

11.3 Silica gel column cleanup for PAHs.

11.3.1 Prepare a slurry of 10g activated silica gel in methylene chloride and place this in a 10-mm ID chromatography column. Gently tap the column to settle the silica gel and elute the methylene chloride. Add 1 to 2 cm of anhydrous sodium sulfate to the top of the silica gel.

11.3.2 Preelute the column with 40 mL of pentane. Discard the eluate and just prior to exposure of the sodium sulfate layer to the air, transfer the 2 mL of cyclohexane sample extract onto the column, using an additional 2 mL of cyclohexane to complete the transfer.

11.3.3 Just prior to exposure of the sodium sulfate layer to the air, add 25 mL pentane and continue elution of the column. Discard the pentane eluate.

11.3.4 Elute the column with 25 mL of methylene chloride/pentane (4 + 6) (V/V) and collect the eluate in a 500-mL K-D flask equipped with a 10-mL concentrator tube. Elution of the column should be at a rate of about 2 mL/min.

11.3.5 Concentrate the collected fraction to less than 10 mL by K-D techniques as in Section 10.6, using pentane to rinse the walls of the glassware. Proceed with HPLC or GC analysis.

12. High Performance Liquid Chromatography (HPLC)

12.1 To the extract in the concentrator tube, add 4 mL of acetonitrile and a new boiling chip, then attach a micro-Snyder column. Increase the temperature of the hot water bath to 95 to 100°C. Concentrate the solvent as in Section 10. After cooling, remove the micro-Snyder column and rinse its lower joint into the concentrator tube with about 0.2 mL acetonitrile. Adjust the extract volume to 1.0 mL.

12.2 Table 1 summarizes the recommended HPLC column materials and operating conditions for the instrument. This table includes retention times, capacity factors, and MDL that were obtained under these conditions. The UV detector is recommended for the determination of naphthalene, acenaphthylene, acenapthene, and fluorene, and the fluorescence detector is recommended for the remaining PAHs. Examples of the parameter separations achieved by this HPLC column are shown in Figures 1 and 2. Other HPLC columns, chromatrograpic conditions or detectors may be used if the requirements of Section 8.2 are met.

12.3 Calibrate the system daily as described in Section 7.

12.4 If the internal standard approach is being used, the internal standard must be added to sample extract and mixed thoroughly, immediately, before injection into the instrument.

12.5 Inject 5 to 25 µL of the sample extract using a high pressure syringe or a constant volume sample injection loop. Record the volume injected to the nearest 0.1 µL, and the resulting peak size in height or area units. Re-equilibrate the liquid chromatographic column at the initial gradient conditions for at least 10 minutes between injections.

12.6 The width of the retention time window used to make identifications should be based upon measurements of actual retention time variations of standards over the course of a day. Three times the standard deviation of a retention time for a compound can be used to calculate a suggested window size; however, the experience of the analyst should weigh heavily in the interpretation of chromatograms.

12.7 If the peak height or area exceeds the linear range of the system, dilute the extract with acetonitrile and reanalyze.

12.8 If the peak area measurement is prevented by the presence of interferences, further cleanup is required.

13. Gas Chromatography

13.1 The packed column GC procedure will not resolve certain isomeric pairs as indicated in Section 1.3 and Table 2. The liquid chromatographic procedure (Section 12) must be used for these materials. Capillary (open-tubular) columns may be used if the relative standard deviations of responses for replicate injections are demonstrated to be less than 6% and the requirements of Section 8.2 are met.

13.2 To achieve maximum sensitivity with this method, the extract must be concentrated to 1.0 mL. Add a clean boiling chip to the methylene chloride extract in the concentrator tube. Attach a two-ball micro-Snyder column. Prewet the micro-Snyder column by adding about 0.5 mL of methylene chloride to the top. Place the micro K-D apparatus on a hot water bath (60 to 65°C) so that the concentrator tube is partially immersed in the hot water. Adjust the vertical position of the apparatus and the water temperature as required to complete the concentration in 5 to 10 minutes. At the proper rate of distillation the balls will actively chatter but the chambers will not flood. When the apparent volume of liquid reaches 0.5 mL, remove the K-D apparatus. Drain and cool for at least 10 minutes. Remove the micro-Snyder column and rinse its lower joint into the concentrator tube with a small volume of methylene chloride. Adjust the final volume to 1.0 mL and stopper the concentrator tube.

13.3 Table 2 describes the recommended GC column and operating conditions for the instrument. This table includes

retention times that were obtained under these conditions. An example of the parameter separations achieved by this column is shown in Figure 3. Other packed columns, chromatographic conditions, or detectors may be used if the requirements of Section 8.2 are met. Capillary (open-tubular) columns may also be used if the relative standard deviations of responses for replicate injections are demonstrated to be less than 6% and the requirements of Section 8.2 are met.

13.4 Calibrate the GC system daily as described in Section 7.

13.5 If the internal standard approach is being used, add the internal standard to sample extract and mix thoroughly, immediately, before injection into the instrument.

13.6 Inject 2 to 5 μL of the sample extract using the solvent-flush technique[10]. Smaller (1.0 μL) volumes may be injected if automatic devices are employed. Record the volume injected to the nearest 0.05 μL, and the resulting peak size in area or peak height units.

13.7 The width of the retention time window used to make identifications should be based upon measurements of actual retention time variations of standards over the course of a day. Three times the standard deviation of a retention time for a compound can be used to calculate a suggested window size; however, the experience of the analyst should weigh heavily in the interpretation of chromatograms.

13.8 If the response for the peak exceeds the working range of the system, dilute the extract and reanalyze.

13.9 If the measurement of the peak response is prevented by the presence of interferences, further cleanup is required.

14. Calculations

14.1 Determine the concentration of individual parameters in the sample.

14.1.1 If the external standard calibration procedure is used, calculate the amount of material injected from the peak response using the calibration curve or calibration factor in Section 7.2.2. The concentration in the sample can be calculated from Equation 2.

Eq. 2. Concentration, $\mu g/L = \frac{(A)(V_t)}{(V_i)(V_s)}$

where:

A = Amount of material injected, in nanograms.
V_t = Volume of extract injected (μL).
V_t = Volume of total extract (μL).
V_s = Volume of water extracted (mL).

14.1.2 If the internal standard calibration procedure was used, calculate the concentration in the sample using the response factor (RF) determined in Section 7.3.2 and Equation 3.

Eq. 3. Concentration, $\mu g/L = \frac{(A_s)(I_s)}{(A_{is})(RF)(V_o)}$

where:

A_s = Response for the parameter to be measured.
A_{is} = Response for the internal standard.
I_s = Amount of internal standard added to each extract (μg).
V_o = Volume of water extracted, in liters.

14.2 Report results in micrograms per liter without correction for recovery data. When duplicate and spiked samples are analyzed, report all data obtained with the sample results.

14.3 For samples processed as part of a set where the laboratory spiked sample recovery falls outside of the control limits established in Section 8.4, data for the affected parameters must be labeled as suspect.

15. Method Performance

15.1 Method detection limits - The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero[11]. The MDL concentrations listed in Table 1 were obtained using reagent water[11]. Similar results were achieved using representative wastewaters. MDL for the GC approach were not determined.

15.2 This method has been tested for linearity of recovery from spiked reagent water and has been demonstrated to be applicable over the concentration range from 8 x MDL to 800 x MDL[11], with the following exception: benzo(ghi)perylene recovery at 80 x and 800 x MDL were low (35% and 45% respectively).

15.3 In a single laboratory (Battelle Columbus Laboratories), using spiked wastewater samples, the average recoveries presented in Table 3 were obtained[12]. Each spiked sample was analyzed in triplicate on two separate days. The standard deviation of the precent recovery is also included in Table 3.

15.4 The U.S. Environmental Protection Agency is in the process of conducting an interlaboratory method study to fully define the performance of this method.

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Table 1. High Performance Liquid Chromatography Conditions and Method Detection Limits

Parameter	Retention Time (min)	Capacity Factor (k')	Method Detection Limit (µg/L)[a]
Naphthalene	16.6	12.2	1.8
Acenaphthylene	18.5	13.7	2.3
Acenaphthene	20.5	15.2	1.8
Fluorene	21.2	15.8	0.21
Phenanthrene	22.1	16.6	0.64
Anthracene	23.4	17.6	0.66
Fluoranthene	24.5	18.5	0.21
Pyrene	25	19.1	0.27
Benzo(a)anthracene	[illegible]	21.6	0.013
Chrysene	29.3	22.2	0.15
Benzo(b)fluoranthene	31.6	24.0	0.018
Benzo(k)flouranthene	32.9	25.1	0.017
Benzo(a)pyrene	33.9	25.9	0.023
Dibenzo(a,h)anthracene	35.7	27.4	0.030
Benzo(ghi)perylene	36.3	27.8	0.076
Indeno(1,2,3-cd)pyrene	37.4	28.7	0.043

HPLC conditions: Reverse phase HC-ODS Sil-X 2.6 mm x 250 mm Perkin-Elmer column; isocratic elution for 5 min using acetonitrile/water (4 + 6), then linear gradient elution to 100% acetonitrile over 25 minutes; flow rate is 0.5 mL/min. If columns having other internal diameters are used, the flow rate should be adjusted to maintain a linear velocity of 2 mm/sec.

[a]The method detection limit for naphthalene, acenaphthylene, acenaphthene, and fluorene were determined using a UV detector. All others were determined using a fluorescence detector.

Table 2. Gas Chromatographic Operating Conditions and Retention Times

Parameter	Retention Time (min)
Naphthalene	4.5
Acenaphthylene	10.4
Acenaphthene	10.8
Fluorene	12.6
Phenanthrene	15.9
Anthracene	15.9
Fluoranthene	19.8
Pyrene	20.6
Benzo(a)anthracene	20.6
Chrysene	24.7
Benzo(b)fluoranthene	28.0
Benzo(k)fluoranthene	28.0
Benzo(a)pyrene	29.4
Dibenzo(a,h)anthracene	36.2
Indeno(1,2,3-cd)pyrene	36.2
Benzo(ghi)perylene	38.6

GC conditions: Chromosorb W-AW-DCMS (100/120 mesh) coated with 3% OV-17, packed in a 1.8 m long x 2 mm ID glass column, with nitrogen carrier gas at a flow rate of 40 mL/min. Column temperature was held at 100°C for 4 min, then programmed at 8°/minute to a final hold at 280°C.

Table 3 Single Operator Accuracy and Precision

Parameter	Average Percent Recovery	Standard Deviation %	Spike Range (µg/L)	Number of Analyses	Matrix Types
Acenaphthene	88	5.7	11.6-25	24	4
Acenaphthylene	93	6.4	250-450	24	4
Anthracene	93	6.3	7.9-11.3	24	4
Benzo(a)anthracene	89	6.9	0.64-0.66	24	4
Benzo(a)pyrene	94	7.4	0.21-0.30	24	4
Benzo(b)fluoranthene	97	12.9	0.24-0.30	24	4
Benzo(ghi)perylene	86	7.3	0.42-3.4	24	4
Benzo(k)fluoranthene	94	9.5	0.14-6.2	24	4
Chrysene	88	9.0	2.0-6.8	24	4
Dibenzo(a,h)anthracene	87	5.8	0.4-1.7	24	4
Fluoranthene	116	9.7	0.3-2.2	24	4
Fluorene	90	7.9	6.1-23	24	4
Indeno(1,2,3-cd)pyrene	94	6.4	0.96-1.4	24	4
Naphthalene	78	8.3	20-70	24	4
Phenanthrene	98	8.4	3.8-5.0	24	4
Pyrene	96	8.5	2.3-6.9	24	4

Column: HC-ODS SIL-X
Mobile phase: 40% to 100% Acetonitrile in water
Detector: Ultra violet at 254nm

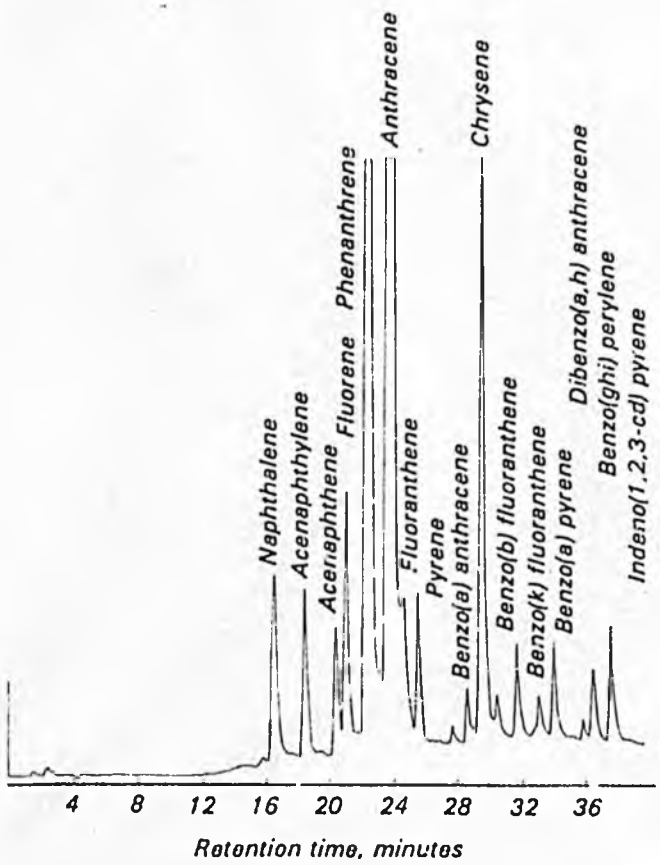


Figure 1. *Liquid chromatogram of polynuclear aromatic hydrocarbons.*

Column: HC-ODS SIL-X
Mobile phase: 40% to 100% Acetonitrile in water
Detector: Fluorescence

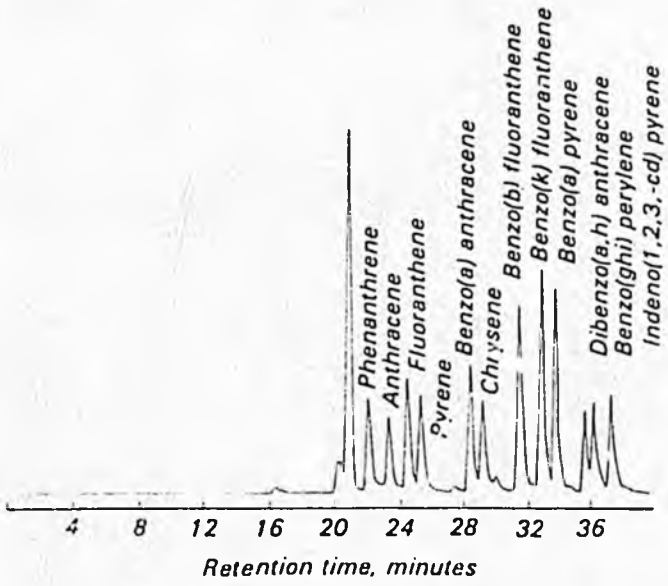


Figure 2. *Liquid chromatogram of polynuclear aromatic hydrocarbons.*

Column: 3% OV-17 on Chromosorb W-AW-DCMS
Program: 100°C. 4 min. 8° per min. to 280°C.
Detector: Flame ionization

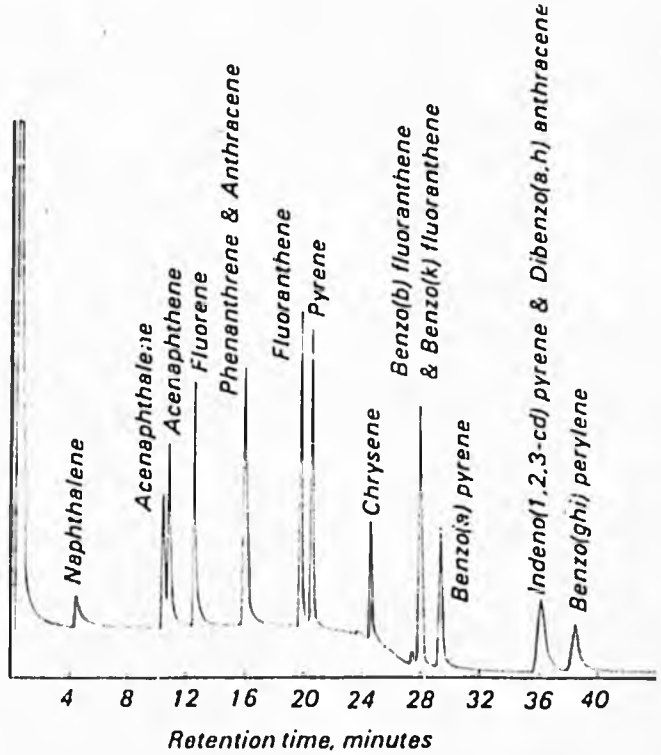
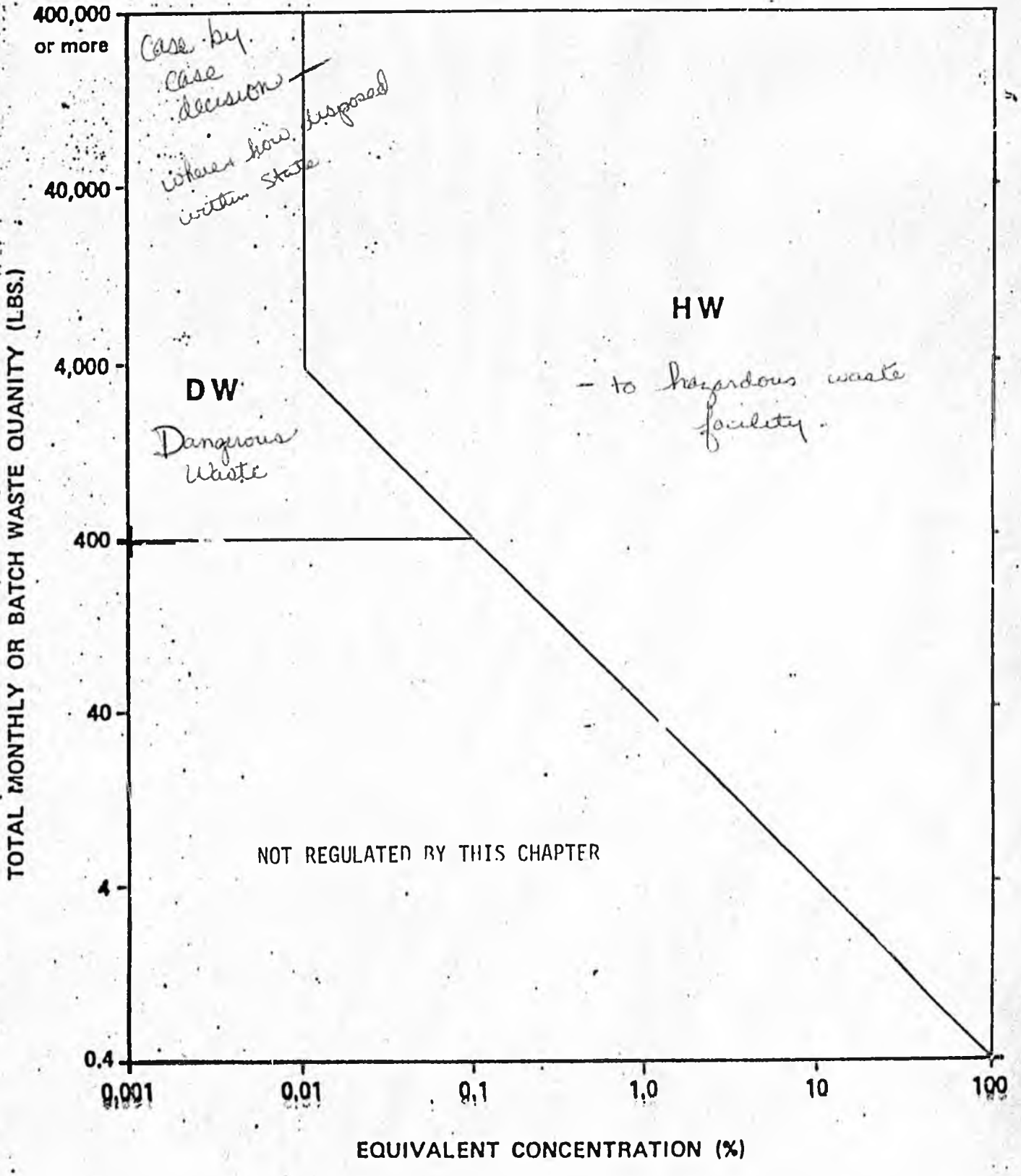


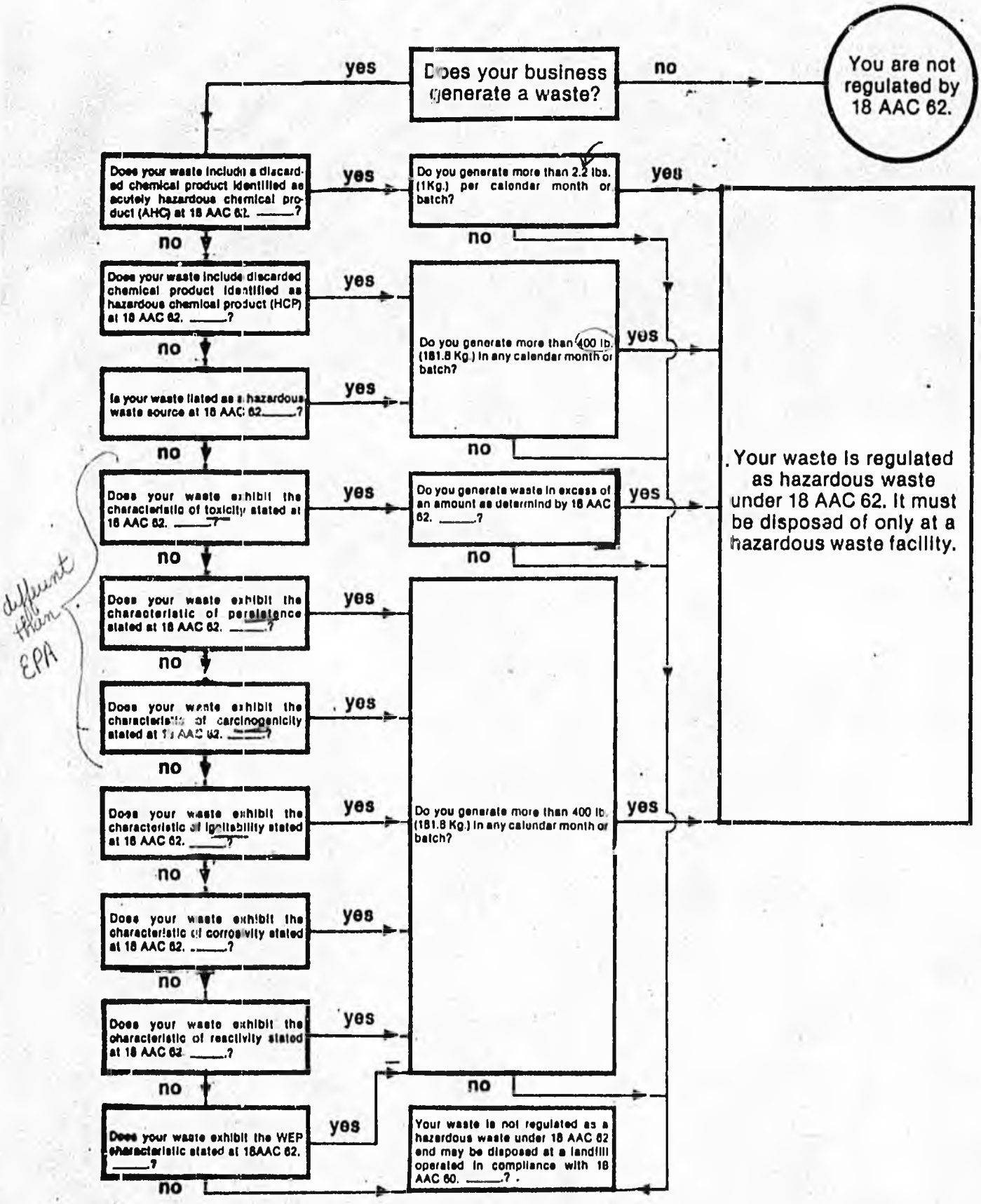
Figure 3. *Gas chromatogram of polynuclear aromatic hydrocarbons.*

TOXIC WASTE MIXTURES GRAPH.

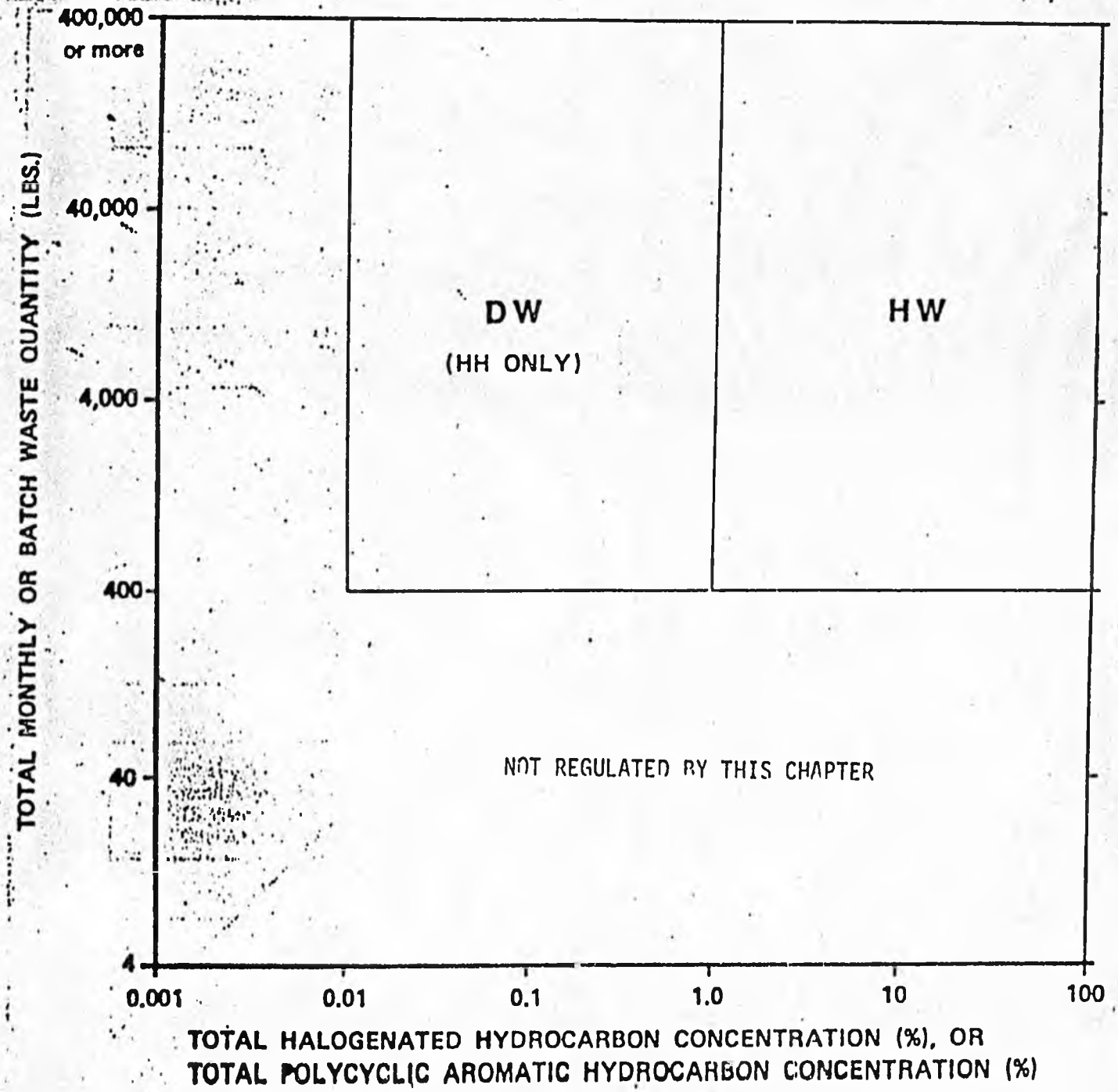


CHAPTER 62 HAZARDOUS WASTE

APPENDIX III *FLOW CHART FOR DETERMINING WHETHER WASTE IS HAZARDOUS.*



PERSISTENT WASTE MIXTURES GRAPH.



STATE OF ALASKA
DEPT. OF ENVIRONMENTAL CONSERVATION

BILL SHEFFIELD, GOVERNOR

POUCH O
JUNEAU, ALASKA 99811
PHONE:

465-2600

March 30, 1983

Mr. James A. Palmer
Joint Committee on Oil & Gas
Pouch V
Juneau, Alaska 99811

Dear Mr. Palmer:

Upon the request of several Hazardous Waste Advisory Work Group (HWAWG) members, we are scheduling our next meeting for April 11, 1983. Looking at the enclosed RCRA Authorization milestone dates submitted to the U.S. EPA, you will see it would be very difficult to accommodate any future delays without jeopardizing our proposed authorization schedule.

Our April 11, 1983, meeting will focus on the HWAWG members' comments to the January 28, 1983, draft hazardous waste regulations. Since the department is planning to publish notice of the draft regulations in mid-April, your comments are important at this time for possible inclusion into our final draft.

The meeting is scheduled to begin at 9:00 a.m. at the Community Center Building, Sixth and G Streets, Anchorage. We are appreciative of your past cooperation and assistance and look forward to a productive April 11, 1983, HWAWG meeting.

Sincerely,

Richard A. Nevé

Richard A. Nevé
Commissioner

Enclosure

18-010LH

Jac

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

BILL SHEFFIELD, GOVERNOR

465-2640

POUCH O — JUNEAU 99811

February 28, 1983

Mr. Ron Kreizenbeck
Director, Alaska Operations Office
U.S. Environmental Protection Agency
Pouch O
Juneau, Alaska 99811

Dear Mr. R.K Kreizenbeck:

As we discussed in our February 23, 1983, meeting, the department would appreciate the services of the U.S. EPA contractor in developing Alaska's Resource Conservation and Recovery Act (RCRA) Authorization application. We will be working with your office through March 1983 to specify the contractor's scope of work. In addition to the above discussion, we outlined the RCRA authorization milestones to be as follows:

1.	U.S. EPA contractor to begin assisting ADEC in developing authorization application	April 1, 1983
2.	Next Hazardous Waste Advisory Work Group meeting to discuss the group's draft regulation comments	April 8, 1983
3.	Draft Hazardous Waste Regulations Public Notice	April 15, 1983
4.	Public hearings	May 16-20, 1983
5.	Evaluate public hearing comments and revise regulations	June 17, 1983
6.	Department regulation adoption order	July 15, 1983
7.	Send RCRA authorization package to U.S. EPA	July 15, 1983

If you have any questions, please call me or David DiTraglia of my staff.

Sincerely,

Joe Cladouhos
Director, EQM

Commissioner Neve'
Stan Hungerford

EXXON COMPANY, U.S.A.
POUCH 6601 • ANCHORAGE, ALASKA 99502 (907) 276-4552

ALASKA OPERATIONS
WESTERN DIVISION

RICHARD H. WEAVER
OPERATIONS MANAGER

March 9, 1983

Mr. Richard Neve, Commissioner
Alaska Department of
Environmental Conservation
Pouch O
Juneau, AK 99811

Dear Mr. Neve:

As you are probably aware, the recent newspaper article relating to the toxicity of drilling muds (Anchorage Daily News, March 5, 1983) concerns me a great deal. We understand that you were unfortunately misquoted in this article. Regrettably, the implication of the article is that all drilling muds "are very toxic", including those that may be used for exploratory drilling in the St. George Basin lease sale area.

The drilling muds which Exxon uses in offshore operations may be classified in the eight "generic mud" types developed in conjunction with the Environmental Protection Agency administered National Pollutant Discharge Elimination System (NPDES) permitting process. These "generic muds" have been extensively tested and shown to have very low toxicity, even though some of the minor components may be more toxic than the whole mud. Discharges of "generic muds" are rapidly dispersed and have only a minor and temporary local effect. No significant impact on open ocean water quality has ever been noted.

Studies of the effects of drilling mud discharge have produced a large body of knowledge about the nature of these discharges and their environmental impact. It is, of course, an ongoing process and Exxon as well as others in the petroleum industry and government are continually adding to the available information. This information is available to the public, as well as to state and federal agencies. Our affiliate, Exxon Production Research Company, has senior research personnel who are experts in this field. If you, your staff, and any others desire, I would be pleased to arrange for a discussion with our technical experts on the environmental effects of drilling related discharges. For your information, I have attached a paper by Dr. R. C. Ayers, Jr., Senior Research Associate of Exxon Production Research Company, entitled "The Fate and Effects of Drilling Discharge in the Marine Environment." This paper was presented at the American Society for Environmental Education's "Technical Conference on Georges Bank Hydrocarbon Exploration and Development." I have also attached another recent paper by Dr. Ayers entitled "The Generic Mud Concept of Offshore Drilling for NPDES Permitting" which provides additional pertinent information regarding the toxicity of the "generic muds."

I believe that a meeting to discuss the fates and effects of drilling fluids has great potential for the exchange of information on this important topic. I will be in touch with you to discuss your desire for this exchange.

R. H. Weaver

RHW:jlp
CMR:ENGR039

Attachment

xc: Senator Bettye Fahrenkamp
Senate Resource Committee

IADC/SPE

IADC/SPE 11399

The Generic Mud Concept for Offshore Drilling for NPDES Permitting

by R.C. Ayers Jr. and T.C. Sauer Jr., *Exxon Production Research Co.*, and P.W. Anderson. *U.S. Environmental Protection Agency*

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This paper was presented at the IADC/SPE 1983 Drilling Conference held in New Orleans, Louisiana, February 20-23, 1983. The material is subject to correction by the author. Permission to copy is restricted to an abstract of not more than 300 words. Write SPE, 6200 North Central Expressway, Drawer 64706, Dallas, Texas 75206.

ABSTRACT

U. S. Environmental Protection Agency (EPA), Region II granted the first offshore drilling NPDES permits to the mid-Atlantic Operators in 1978. The generic or standard mud concept was developed by the Offshore Operators Committee with EPA Region II in order to provide the agency with an understanding of and control over mud components and discharges without requiring the operators to perform redundant bioassay and chemical tests every time mud was discharged. The generic mud concept has subsquently been incorporated into permits issued by EPA Regions I and IX. Regions III and X are considering the use of generic muds in future permits.

Eight basic mud types were defined which encompassed virtually all water base muds used on the Outer Continental Shelf (OCS). A bioassay test procedure, adapted from the EPA/Corp of Engineers' Proccdure for dredged material, was developed and a test program conducted on samples of field muds, representative of each of the eight basic types. Operators were then allowed to discharge muds of the eight types without conducting additional bioassays. Results of the test program indicate that all eight generic muds demonstrated low toxicity.

The eight generic muds contain primarily major components and do not consider specialty chemicals sometimes required to remedy special drilling problems (i.e., lost returns materials, lubricants, defoamers, etc.). This situation is being handled by the use of an "approved additive list" naming additives for use which do not significantly affect mud toxicity.

The API is developing a standard bioassay procedure based on the Region II protocol for testing of specialty chemicals in standard muds, and service companies are already using parts of this procedure to gain approval for use of their products.

References and illustrations at end of paper.

INTRODUCTION

In 1978 the U.S. Environmental Protection Agency (EPA), Region II granted the first offshore drilling NPDES permits to operators drilling on leases in the Baltimore Canyon. As a permit condition, the operators were required to perform a jointly funded drilling mud bioassay program.

Prior to initiating the test program, the Offshore Operator Committee Task Force on Environmental Science with EPA Region II developed an acceptable drilling mud bioassay procedure and a spectrum of eight general mud types that included essentially all water base compositions.[1] Previously, the agency had not recognized differences in water base mud systems and had classified all muds in only two categories, oil or water based. The generic mud concept and the EPA Region II bioassay procedure evolved from this effort.

The approach has proven to be practical and the generic mud concept, supported by the Region II bioassay results, has subsequently been incorporated into permits issued by EPA Regions I and IX. EPA Regions III and X are considering the use of generic muds in future permits.

The Mid-Atlantic Bioassay Program was funded by the Mid-Atlantic Operators. The bioassay tests were conducted by Energy Resources Company and Normandeau Associates under the supervision of Exxon Production Research Company.

GENERIC MUD CONCEPT

The generic muds were identified by reviewing the permit requests and selecting the minimum number of mud systems which would cover all those named by the prospective permittees. Eight different mud systems were identified which encompass virtually all water based muds used on the OCS (Table 1). As opposed to naming a set concentration for each component in each mud system, concentration ranges were specified to allow the operators sufficient flexibility to drill safely.

In the eight generic mud systems, only major components are specified. Specialty additives (e.g. lost circulation materials, lubricity agents, etc.) needed for special drilling situations are not named. If an unanticipated need for an additive of this type arose, the operator was required to submit to the agency chemical composition, usage rates, and toxicity data on the additive prior to its use. Based on this information, the EPA Regional Administrator would either approve or disapprove discharge of mud containing the additive on a case by case basis. If there was a continuing need for the additive, the operator could then submit bioassay data on mud containing the additive. Discharge would be allowed if the additive did not greatly increase mud toxicity. Once an additive became "approved" in this way, future discharge of muds containing the additive would be allowed without conducting additional bioassays. It should be noted that any of the generic muds may contain one or more specialty additives; however, the presence of an approved specialty additive in a generic mud does not change the generic mud type.

BIOASSAY TESTS

Ninety-six hour bioassay tests are a standard method for determining acute toxicity. In these tests, sets of test organisms are subjected to different concentrations of toxicant for 96 hours and the number of organisms surviving at each concentration within the 96-hour time frame is noted. A plot of mortality as a function of toxicant concentration is prepared and the concentration required to kill 50% of the test organisms is taken off the plot (Figure 1). This is called the 96-hour LC_{50}. Bioassay tests are useful because they are comparatively rapid and inexpensive, and produce a single value to help make a judgement on toxicity.

Note that a high LC_{50} implies low toxicity because a high concentration is required to kill 50% of the test organisms. On the other hand, a low LC_{50} implies high toxicity because a small concentration of the toxicant is needed to kill 50% of the test organisms. Table 2 presents a classification of toxicity grades that is commonly used.[3,4] LC_{50} values in excess of 10,000 ppm are considered practically nontoxic.

Bioassay data provides an estimate of toxic concentrations; however, this information alone is insufficient to predict environmental impact. It is equally important to know what concentrations actually exist in the marine environment.

EPA REGION II BIOASSAY PROCEDURE

The vast majority of bioassays on marine organisms have been conducted on toxicants that are soluble in seawater. Because drilling mud contains solid particles, a special procedure had to be developed. The EPA Region II test procedure[1] was adapted from the U.S. Army Corps of Engineers/EPA Bioassay procedure[5] for determining the toxicity of dredged materials and compliance with the ocean dumping criteria.

The test divides the drilling fluid into three phases: the liquid phase, the suspended particulate phase, and the solid phase. These phases are designed to represent the anticipated conditions that organisms would be exposed to when drilling mud is discharged into the ocean. Certain drilling fluid components are water soluble and will dissolve in the water column, others are fine particulates which would stay suspended, and still other material would settle rapidly to the bottom.

The procedure for phase separation follows the schematic in Figure 2. To prepare the three test phases, a 1:4 ratio by volume of mud to seawater is mixed for 30 minutes. The pH is adjusted to that near seawater (pH=7.8-9.0) by the addition of acetic acid. The slurry is allowed to settle for one hour. A portion of the supernatant is filtered through a 0.45-micron filter. The filtrate is designated as the "liquid phase". The remaining unfiltered supernatant of the slurry is the "suspended particulate phase", while the "solid phase" is the settled solid material at the bottom of the mixing vessel.

Two species of test organisms are used in the bioassays. The mysid shrimp, Mysidopsis bahia, is the test organism for the liquid and suspended particulate phases. This species has been shown to be exceptionally sensitive to toxic substances and is considered to be a representative marine organism for bioassay testing by EPA.[6] An LC_{50} is determined in both the liquid and suspended particulate phase bioassay tests. The solid phase test organism is the hard shell clam, Mercenaria mercenaria. No LC_{50} is determined in the solid phase test. In these tests, clams are exposed to a 15 mm layer of drilling mud solids (solid phase) placed on top of a reference sediment. After 10 days of exposure, percent survival is determined, and the results are statistically compared with those obtained from the same test with no mud solids present.

BIOASSAY TEST RESULTS

The composition, properties, metals analyses, and oil and grease analyses of representative samples of the eight generic muds tested are shown in Table 3. The corresponding bioassay test results are shown in Table 4.[7,8] During the bioassay program, only two muds (mud #2 and mud #7) were used in wells drilled in the Baltimore Canyon. The other mud samples were obtained from wells drilled in the Gulf of Mexico, Utah, Texas, Mississippi, Wyoming, and Louisiana. In some of the muds tested (Table 1), a few of the component concentrations fall slightly outside the range of those listed in the eight generic muds. Also in some of the test muds, low concentrations of specialty additives were present.

In Table 4 the LC_{50}s for the liquid and suspended particulate phases are expressed as a function of concentration of the phase tested. Two different laboratories (Energy Resources Company and Normandeau Associates) were used to perform the tests. The differences in the LC_{50} results between the laboratories are typical of what one might expect from two independent laboratories and are an indication of the precision of this type of test. In the solid phase tests only mud #2 demonstrated any statistically significant toxicity. In general, the suspended particulate phase of each mud is somewhat more toxic than the liquid phase.

The LC_{50} values expressed in Table 4 are shown as parts per million of phase tested. The phases were prepared by diluting the mud with seawater in a 1:4 ratio prior to testing. To determine a measure of whole mud toxicity for a particular phase, the LC_{50} values shown in Table 4 need to be divided by five. This is perhaps a more realistic indication of mud toxicity. According to the toxicity grade classification (Table 2), all the muds fall in the slightly toxic to practically non-toxic range.

IMPLICATIONS OF BIOASSAY TEST RESULTS

A comparison of liquid and suspended particulate phase bioassay results with results from field dispersion studies permits an estimate of possible toxic effects of mud on pelagic organisms in the open ocean. Figure 3 is a plot of steady state suspended solids concentration versus transport time during a high rate (1,000 bbl per hour) mud discharge study conducted in the Gulf of Mexico.[9] Transport time (distance where concentration was measured/current velocity) represents the time required for a parcel of fluid to travel from the discharge source to a point where the concentration was measured. This type of curve indicates how water column solids concentration decreases with time due to settling and dilution. Also plotted on Figure 3 are the lowest 96-hour LC_{50} values for the suspended particulate phase shown in Table 4, corrected to whole mud values (LC_{50}/ 5). In addition to the values, we have indicated the lowest 96-hour LC_{50} values for drilling muds presented in a recent literature review.[10]

To be a threat to biota in the water column, the LC_{50}s should fall at or below the curve at a time of 96 hours. Note that even the lowest mud 96-hour LC_{50} value (100 ppm) is more than two orders of magnitude above the curve. The only concentrations that exceed even this value are those at low transport times (<20 minutes) which are representative of concentrations near the discharge source. These concentrations exist only for a short time while the discharge is actually occurring. The implication is clear that even the more toxic muds will not cause significant biological effects in the water column.

Field studies[9,11] have shown that most of the solid material settles rapidly near the well site. Concentrations in the sediment at the well site may remain elevated for some time depending on environmental factors (storm frequency, water depth, bottom current velocity) that govern resuspension and bottom transport. Of the three phases tested the solid phase bioassay is the best indicator of impact on benthos; however, the solid phase test does not yield an LC_{50} and interpretation of the results is difficult. There is some concern over the test species used for the solid phase test. The hard shell clam Mercenaria used in the solid phase test is considerably less sensitive than the mysid shrimp used in the liquid or suspended particulate test. Both API and EPA are investigating ways to improve the solid phase test for water base muds.

OIL BASE MUD AND CUTTINGS BIOASSAY

Discharge of oil base muds on the OCS is prohibited; however, discharge of cuttings generated while using oil base muds is allowed provided the cuttings are washed and do not cause a sheen. In recent years service companies have developed so called "nontoxic" oil base muds. These are paraffinic oil base formulations that show considerably less toxicity in liquid and suspended phase bioassays than oil muds containing diesel. Some companies are suggesting that it may be safe to discharge cuttings generated using these mud systems, even without washing. Since cuttings discharges primarily impact the benthos, a solid phase bioassay would be the most appropriate laboratory test to estimate potential harm. At this time, however, no solid phase bioassay test acceptable to EPA and the operators is available which will accurately measure toxicity of this type of discharge. There is a strong need to develop a solid phase bioassay test that will assist regulators in making accurate judgements regarding the discharge of oily cuttings.

CONCLUSIONS

- The use of generic muds along with approved specialty additives has proved to be a useful concept for both regulators and operators. Regulators have control over toxicity of discharged mud and operators have sufficient flexibility to drill safely.
- The liquid and suspended particulate phase bioassay tests are adequate to evaluate mud toxicity in the water column. Improvements in the procedure can be made, but they are expected to be minor.
- Because of rapid settling and dispersion along with the relatively high 96-hour LC_{50}s observed in the liquid and suspended particulate phase bioassays, it is clear that drilling mud discharges do not cause acute water column biological effects in the open ocean. This in true even for the more toxic muds.
- An improved solid phase bioassay test is needed for water base muds. The test should employ a more sensitive test organism and yield an LC_{50}.
- A bioassay test for oily cuttings generated while drilling with oil muds needs to be developed. This is especially important today due to the rapid development of the 'low toxicity' oil muds.

ACKNOWLEDGEMENTS

The Offshore Operators Committee Task Force on Environmental Science made a major contribution to this entire effort. We also wish to recognize the contribution of Messrs. O. C. Rath and C. L. Prokop of Exxon U.S.A. who were instrumental in developing the generic mud concept, Dr. Royal Naudau of EPA who helped develop the bioassay procedure, of Drs. Curt Rose and Tim Ward of ERCO and Ken Simon of Normandeau Associates who performed the bioassay tests, and Mike Foster of SCR Inc., Houston who conducted the metals analyses. We are also indebted to Dr. Maurice Jones of IMCO and Bill Salins of the Petroleum Equipment Suppliers Association who provided most of the mud samples for testing.

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11. EG&G. 1982. A study of environmental effects of exploratory drilling on the Mid-Atlantic Outer Continental Shelf - final report of the Block 684 monitoring program. Prepared for the Offshore Operators Committee under the supervision of Exxon Production Research Company, Houston. EG&G, Environmental Consultants, Boston, Massachusetts.

Table 1. Generic Mud Systems for EPA, Region II, Mid-Atlantic Operators Bioassay Program

1. Potassium/Polymer Mud

Components	lbs/bbl
KCl	5-50
Starch	2-12
Cellulose Polymer	0.25-5
XC Polymer	0.25-2
Drilled Solids	20-100
Caustic	0.5-3
Barite	0-450
Seawater or Freshwater	As needed

2. Seawater/Lignosulfonate Mud

Components	lbs/bbl
Attapulgite or Bentonite	10-50
Lignosulfonate	2-15
Lignite	1-10
Caustic	1-5
Barite	25-450
Drilled Solids	20-100
Soda Ash/Sodium Bicarbonate	0-2
Cellulose Polymer	0.25-5
Seawater	As needed

3. Lime Mud

Components	lbs/bbl
Lime	2-20
Bentonite	10-50
Lignosulfonate	2-15
Lignite	0-10
Barite	25-180
Caustic	1-5
Drilled Solids	20-100
Soda Ash/Sodium Bicarbonate	0-2
Freshwater or Seawater	As needed

4. Non-dispersed Mud

Components	lbs/bbl
Bentonite	5-15
Acrylic Polymer	0.5-2
Barite	25-180
Drilled Solids	20-70
Freshwater or Seawater	As needed

5. Spud Mud (slugged intermittently with seawater)

Components	lbs/bbl
Attapulgite or Bentonite	10-50
Lime	0.5-1
Soda Ash/Sodium Bicarbonate	0-2
Caustic	0-2
Barite	0-50
Seawater	As needed

6. Seawater/Freshwater Gel Mud

Components	lbs/bbl
Attapulgite or Bentonite	10-50
Caustic	0.5-3
Cellulose Polymer	0-2
Drilled Solids	20-100
Barite	0-50
Soda Ash/Sodium Bicarbonate	0-2
Lime	0-2
Seawater or Freshwater	As needed

7. Lightly Treated Lignosulfonate Freshwater/Seawater Mud

Components	lbs/bbl
Bentonite	10-50
Barite	0-180
Caustic	1-3
Lignosulfonate	2-6
Lignite	0-4
Cellulose Polymer	0-2
Drilled Solids	20-100
Soda Ash/Sodium Bicarbonate	0-2
Lime	0-2
Seawater to Freshwater Ratio	1:1appx

8. Lignosulfonate Freshwater Mud

Components	lbs/bbl
Bentonite	10-50
Barite	0-450
Caustic	2-5
Lignosulfonate	4-15
Lignite	2-10
Drilled Solids	20-100
Cellulose Polymer	0-2
Soda Ash/Sodium Bicarbonate	0-2
Lime	0-2
Freshwater	As needed

Table 2. Classification of Toxicity Grades.[3,4]

Toxicant Classification	LC_{50} Value (ppm)
Practically Nontoxic	>10,000
Slightly Toxic	1,000-10,000
Moderately Toxic	100-1,000
Toxic	1-100
Very Toxic	<1

Table 3. Components, Properties, Metals, and Oil Content in Field Drilling Fluids Used in Mid-Atlantic Bioassay Program

	Generic Mud Types							
	#1 KCl/Polymer	#2 SW Lignosulfonate	#3 Lime	#4 Non-dispersed	#5 SW Spud	#6 SW/FW Gel	#7 LT Lignosulfonate SW/FW	#8 Lignosulfonate FW
Components (lbs/bbl)								
Barite	18.0	176	64.0	10.8*	2	21.2	9.0	15.1
Bentonite/Drill Solids	18.0	32.1	20.0/30.0	20.0*/49.0	22.0/52.0	9.7*/14.1*	25.0/48.0	15.1/28.1
Chrome Lignosulfonate	0	1.8*(2.8)[3]	3.5	0	0	0	4.0	1.7*
Lignite	0	0.9*	1.8	0.1	0	0	5.0*	2.8
Polyanionic cellulose	1.0	0.2*	0	1.0	0	0.5	0.5	0
Caustic	2.0	0.9*	1.5	n.m.	n.m.	0.4*	n.m.	1.2*
Other	KCl (10.0) XC Polymer (12.0)[1]	Salt (10.0)	Lime (1.5)*			CMC (0.1)		Lime (<0.1)
Properties								
Mud Density (lbs/gal)	9.3	12.1	10.4	9.4	9.2	9.1	9.6	9.3
Percent Solids (wt%)	18.1	43.5	27.8	21.0	21.7	11.6	24.1	16.4
pH	11.5	n.m.	10.0	n.m.	n.m.	n.m.	10.8	9.0
Chlorides (mg/l)	38,000	n.m.	n.m.	1,200	n.m.	250	7,500	1,800
Calcium (mg/l)	n.m.[2]	650	lime	n.m.	n.m.	40	n.m.	40
O/G (ppm-whole mud)[4]	2,200	1,800	180	290	70	40	50	80
Metals (ppm-whole mud)[4]								
Arsenic	1	2	3	2	3	2	<1	3
Barium	24,800	141,000	76,200	13,300	2,800	25,600	11,500	14,000
Cadmium	<1	<1	<1	<1	<1	<1	<1	<1
Chromium	14	227	192	10	16	2	265	48
Copper	2	11	8	7	5	2	26	4
Lead	2	<1	4	2	4	<1	24	9
Mercury	<1	<1	<1	<1	<1	<1	<1	<1
Nickel	6	8	3	4	6	1	6	8
Vanadium	9	18	27	22	35	6	30	18
Zinc	20	181	58	16	21	12	82	15

1 - Other components in KCl mud; - Soda Ash (4.0), Aluminum Stearate (0.5), Sawdust (<.1), Lime (<.1), Surfactant (<.01), no paraformaldehyde.
2 - n. m. - not measured
3 - Chrome lignosulfonate concentration estimate from chromium content calculation (3% Cr in chrome lignosulfonate)
4 - Oil and grease analyses conducted by Energy Resources Co., Cambridge; Metals analyses conducted by SCR Inc., Houston
* Estimated concentration outside range designated in generic mud systems (Table 1)

Table 4. Summary of Bioassay Results from Mid-Atlantic Bioassay Program[a]

Type of Drilling Mud	96-hr LC_{50} in ppm for Mysid Shrimp[b] Liquid Phase	Susp. Partic. Phase	Percent Survival of Hard Shell Clams Solid Phase (Controls)
1. Potassium/Polymer Mud	66,000[c] 58,000[d]	25,000[c] 70,900[d]	90(99)[c] 88(100)[d]
2. Lignosulfonate Seawater Mud	283,500 880,000	53,200 870,000	83(100)[e] 70(94)[e]
3. Lime Mud	393,000 >1,000,000	66,000 860,000	100(100) 94(100)
4. Non-dispersed Mud	>1,000,000 >1,000,000	>1,000,000 >1,000,000	100(100) 100(100)
5. Seawater Spud Mud	>1,000,000 >1,000,000	>1,000,000 >1,000,000	100(100) 100(100)
6. Seawater/Freshwater Gel Mud	>1,000,000 >1,000,000	>1,000,000 >1,000,000	100(100) 100(100)
7. Lightly Treated Lignosulfonate Freshwater/Seawater Mud	>1,000,000 >1,000,000	>1,000,000 >1,000,000	97(98) 100(100)
8. Lignosulfonate Freshwater Mud	>1,000,000 >1,000,000	506,000 >1,000,000	99(100) 99(100)

a-- Physical phases of drilling muds were extracted from a 1:4 mixture by volume of mud and syntnetic or natural seawater. Test organism for the liquid and suspended particulate phases was the mysid shrimp (Mysidopsis bahia), and for the solid phase was the hard shell clam (Mercenaria mercenaria). Protocol for testing was established by EPA Region II in conjunction with the Mid-Atlantic Operators.

b-- LC_{50} values are expressed as ppm and must be multiplied by 0.20 to obtained values for drilling mud used to formulate phases.

c-- These values were determined by Energy Resources Co., Cambridge, Massachusetts, 02138.

d-- These values were determined by Normandeau Associates, Inc., Bedford, New Hampshire.

e-- Statistically significant differences ($\alpha = 0.05$) in survival between clams exposed to the solids phase of mud and control sediment.

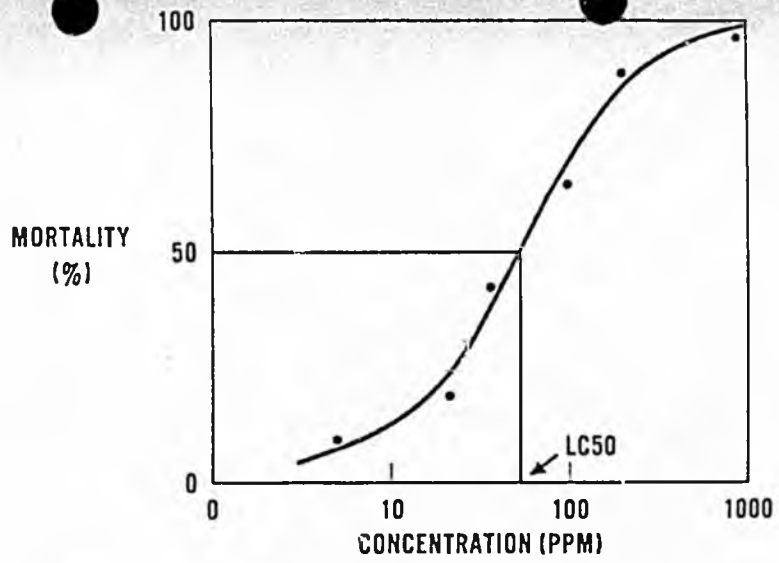


Fig. 1— MORTALITY (%) VS. CONCENTRATION (PPM)

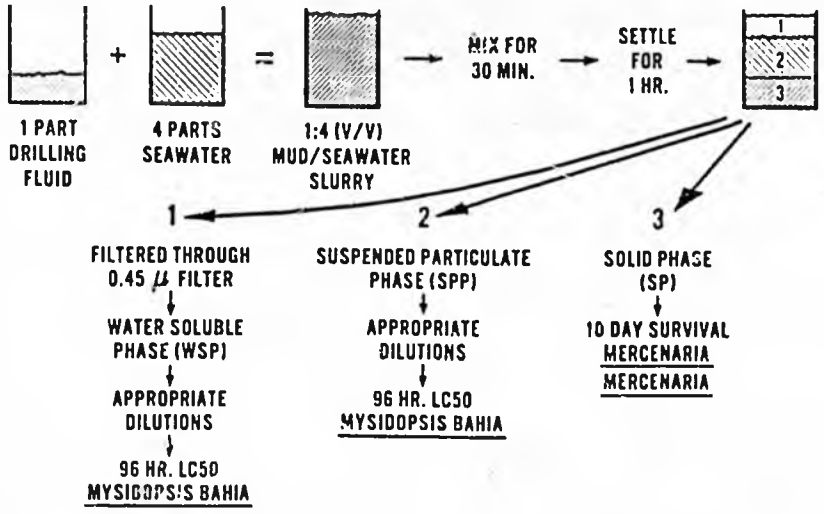


Fig 2— SCHEMATIC OF THREE PHASE BIOASSAY FOR DRILLING FLUIDS

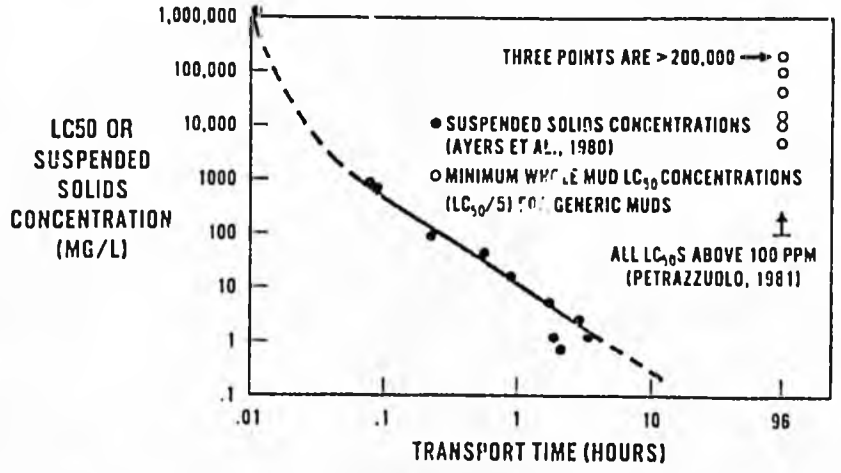


Fig 3— COMPARISON OF SUSPENDED SOLIDS CONCENTRATIONS (MEASURED DURING A HIGH RATE DISCHARGE STUDY - 1000 BBL/HR) AND 96-HOUR LC_{50}S

MAY 24 1982

News Release

National Conference of State Legislatures

FOR IMMEDIATE RELEASE
April 26, 1982

CONTACT: Andrea Kailo
202/737-7004

EPA DELAYS IN WRITING REGS HAMPER STATE HAZARDOUS WASTE MANAGEMENT

Washington, D.C. -- State legislators today told members of a Senate panel that delays and modifications by the Environmental Protection Agency (EPA) in the promulgation of hazardous waste regulations are beginning to have major impacts on state hazardous waste management programs.

Testifying on behalf of the National Conference of State Legislatures (NCSL), Colorado Senate President Fred Anderson and Massachusetts Senator Carol Amick urged members of the Subcommittee on Environmental Pollution, now considering reauthorization of the Resource Conservation and Recovery Act (RCRA), to ensure that EPA develops a strong and technically sound federal program.

"While NCSL firmly believes that states should continue to have primary responsibility for hazardous waste management," Anderson said, "states find themselves highly dependent upon the federal government to complete technical studies and to promulgate hazardous waste management regulations which they are expected to use to frame state programs."

Although the states have responded to RCRA's requirements by enacting legislation consistent with the Act's objectives, the Colorado lawmaker observed that "EPA's delays and, of late, change of mind about promulgating regulations has prompted a 'wait and see' attitude among many state officials."

Citing problems encountered in his own state, Anderson explained that the Colorado legislature in 1980 updated existing solid waste siting legislation to include hazardous waste. "One of our main premises," the Senator observed, "was that an effective and comprehensive federal program existed." Since then, however

-more-

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EPA's delays and changes have not only raised questions about the state's autho. to enact rules, but have also altered parts of the federal program so that they no longer adequate to meet Colorado's goals.

Besides the effect on establishing waste management programs, "the states' success in siting new facilities will be in large part dependent on the extent to which the federal government aggressively implements the provisions of RCRA and the 'Superfund,'" Amick pointed out.

Noting that 25 states have enacted new siting statutes, the Massachusetts legislator asserted that "without a strong federal presence, state efforts to site new facilities may be severely hampered."

Amick suggested three areas in which to reinforce "the appropriate federal role in hazardous waste facility siting:

- Assessment of waste generation - "While states are devoting their dwindling staff and financial resources to conducting such assessments," the lawmaker said, "EPA has actually taken actions which will impede the states' work by not requiring hazardous waste generators to submit annual reports."
- Federal assistance for hazardous waste siting - States not only face the possible curtailment of funds for solid waste programs and a reduced funding level for hazardous waste management, but also an EPA decision to prohibit use of the remaining hazardous waste grants for solid waste management and facility siting, Amick explained.
- Implementation of RCRA - "Without a strong federal hazardous waste management program, states will experience serious problems in attempting to site new hazardous waste facilities, for the federal program serves in every instance as the underpinning for state programs," the Senator concluded.

The National Conference of State Legislatures is headquartered in Denver, Colorado, and has an Office of State-Federal Relations in Washington, D.C. As the official representative of the country's 7,500 state lawmakers and their staffs, it works to improve the quality and effectiveness of state legislatures, lobbies on their behalf at the federal level and fosters interstate communication and cooperation.

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11/19

HAZARDOUS WASTE UPDATE

Presented to the National Conference of State Legislatures
Science & Technology Committee, AOL
Oklahoma City
November 18 and 19, 1982

Recently, federal and state governments have been actively addressing the issue of hazardous waste. Presented below is a summary of recent activity on the federal and state level.

Federal Activity

The implementation of the Resources Conservation and Recovery Act of 1976 (RCRA) has been the subject of federal activity for the last six years. On July 26, 1982 (47 Fed. Reg. 32273) the U.S. Environmental Protection Agency (EPA) issued standards applicable to owners and operators of hazardous waste, treatment, storage and disposal facilities. These regulations contained the long-awaited permitting standards for land disposal facilities. These regulations apply to all (existing and new) landfills, surface impoundments, waste piles and land treatment units. The regulations consist primarily of two sets of performance standards. One is a set of design and operating standards for each of the four types of units mentioned above. The second is a single set of groundwater monitoring and response requirements.

The design and operating standards require use of liners to prevent leaching of contaminants. Landfills and piles are also required to have leachate collection and removal systems. Existing units are exempt from liner requirements.

The groundwater protection requirements establish a three-stage program to detect, evaluate, and if necessary, correct groundwater contamination during the active life of the unit plus a compliance period designated in the permit.

The first stage of the groundwater monitoring and response program is a detection monitoring program that requires installation of a monitoring system. The second stage is a compliance monitoring program that tracks the migration of hazardous constituents. The results of this monitoring system are compared against a groundwater protection standard. The third stage is a remedial program that is activated if the groundwater protection standard is violated.

These permit standards were the final component of the federal program necessary to start issuing states final authorization to operate

a federally approved RCRA program. Because a state may have interim authorization for two years after the effective date of these regulations, all states that intend to assume primacy must have received final authorization by January, 1985.

RCRA is currently up for reauthorization. A version of this bill passed the U.S. House of Representatives in September. (Cong. Rec. Vol. 128 No. 117 H. 6745, September 8, 1982). The Senate will consider their version of the bill during the lameduck session.

H.R. 6307, which has passed the House, amends RCRA by establishing a number of requirements that are stricter than current law. These amendments:

- Expand RCRA coverage by significantly reducing the "small generator" exemption from 1000/kilograms/month to 100 kilograms/month. This amendment would allow EPA to establish special regulations for those generators who produce between 100 and 1000 kgs/month. 65-70% produced by small generators

- Restrict the disposal of hazardous waste liquids in landfills and the injection of hazardous wastes into groundwater. cumulative effect

- Requires EPA to regulate industrial boilers that burn hazardous waste for energy recovery. ½ of haz. waste $16,000 annually cost per facility

- Requires permits for facility expansions of more than 10%. new permit or modified permit

- Requires EPA to study the types and quantities of hazardous waste now being discharged into public sewer systems. Also requires study of those types of hazardous wastes that are not suitable for disposal in landfills.

- Establishes a National Groundwater Commission to assess the impact of hazardous and solid waste on groundwater and determine the need for a national policy.

Amendments being considered by the Senate Environment and Public Works Committee include:

30 states have incentives for alternatives

- Prohibition of the land disposal of certain wastes if land disposal is not protective of human health and environment.

- The EPA must submit to Congress within two years a study characterizing the generators of hazardous waste in quantities less than 1000 kg/month. Within three years the EPA must set standards for wastes generated in quantities less than 1000 kg/month.

- Establish a program requiring mandatory inspection of hazardous waste facilities.

- Notification to EPA by facilities that blend hazardous waste to be used as a fuel as well as facilities that burn hazardous waste. The EPA must set standards for these facilities.

moving very slow

Another federal hazardous waste issue is implementation of the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA). Actual cleanup of hazardous waste sites has begun in some states and negotiations between federal and state governments for the cleanup of sites is underway in numerous states. Additionally, the CERCLA mandated list of 400 priority sites is scheduled to be released in December 1982.

$1.6 billion

CERCLA, among other things, requires that a study group be established to examine injuries and damages from hazardous waste as well as analyze and make recommendations on the legal remedies for these damages. The group's recommendations have great impact upon the states. The study group found that the present system for helping toxic pollution victims is inadequate. The group found that because of the complex nature of toxics litigation and the small dollar sums involved, many victims would not be compensated. Three major barriers to recovery that the group found were statutes of limitations, proof of causation, and apportionment of damages among multiple defendants. The group recommended a two-tiered approach to compensation. The first would be an administrative compensation remedy much like Workmen's Compensation boards that does not require a showing of fault. The second would keep intact existing state tort law, while incorporating recommendations to remove the barriers mentioned above. These recommendations include: establishing statutory strict liability for hazardous waste activities; changing statutes of limitations; and establish joint and several liability.

A number of criticisms of the report have surfaced. They include:

Clean up moving very slow

- o problems inherent in complex litigation involving small sums are not unique to toxics litigation and therefore there is no need for special rules for this type of case;

- o a two-tiered approach that allows a party to recover in both an administrative proceeding and a tort action may lead to abuses;

- o liberalization of the rules of evidence to aid in recovery would be unfair to all parties;

- o the lack of justification for financing a compensation fund through fees; and

- o the unnecessary creation of large transaction costs and additional bureaucracy on the state and federal levels.

State Activity

A recent survey by NCSL indicates that there was a large amount of hazardous waste activity during the 1981 and 1982 state legislative sessions. State legislation prior to 1981 had focused on creating basic enabling legislation for a hazardous waste program. These programs often enabled the state agency to assume primacy to operate the federal hazardous waste program. Since 1980, however, many states have refined their legislation to respond to specific problems that have arisen during implementation of the basic hazardous waste program.

One area that has received attention is development of comprehensive procedures for siting new hazardous waste treatment, storage and disposal facilities. Recognizing that public opposition to the creation of new facilities may stymie efforts to develop safe hazardous waste management options, twenty-eight states have developed siting procedures. These procedures emphasize public involvement and acceptance of new facilities rather than overriding public concerns.

Another area of legislative concern is how to address past inadequate disposal practices. Discovery of abandoned hazardous waste sites or inactive sites has drawn attention to the dangers they pose to human health and the environment. CERCLA, which was discussed earlier, provides some money to remedy the most dangerous of these sites. In testimony before Congress, EPA officials have said that CERCLA funds

will address only 170 sites. At these sites CERCLA requires that states provide a share of the cleanup cost as well as the entire cost of long-term operation and maintenance. The state share ranges from 10 percent at privately owned sites to at least 50 percent at publicly owned sites. Thus, states face political and financial demands to share in the costs of cleaning up CERCLA sites as well as cleaning up sites not addressed by CERCLA.

The NCSL survey found that states are financing this effort in a variety of ways. Possible financing techniques include general fund appropriations, bond issues, and taxing systems. Of the 31 states with some type of funding mechanism for cleanup, 19 are funded in part through fees on either the generator of hazardous waste or the owner/operator of the disposal facility, or both.

One potential problem with state fee systems is a preemption provision in Section 114(c) of CERCLA. This section prohibits the states from requiring any person "to contribute to any fund, the purpose of which is to pay compensation for claims for any costs of response or damages or claims which may be compensated" under CERCLA. Despite a favorable decision in the New Jersey Tax Court regarding the New Jersey Spill Compensation and Control Act (Exxon Corp. et al. v. Hunt et al., Docket Nos. SC303A-81, SC319A-81TC; Appealed May 7, 1982 N.J. Super. Ct. App. Div. A-3913-81T1), the legality of other states' funds are still in question. States have responded by simply requiring the state fund to be used in a manner not inconsistent with CERCLA. Another approach is to limit state funds to those uses not actually compensated for by CERCLA and/or for the cost-sharing requirements set up by CERCLA.

Other areas that have received legislative attention recently, are policies that encourage alternatives to land disposal of hazardous waste, laws that protect employees from dangerous substances in the workplace, and statutes that promote the safe handling and transport of hazardous materials.

At a recent workshop co-sponsored by NCSL, a number of hazardous materials transportation issues were identified by workshop participants. These issues include:

- lack of coordinated and effective emergency response planning and execution;
- lack of effective education and training for all parties involved in transporting hazardous materials;
- failure to adequately fund federal, state and local programs;

- poor compliance and enforcement procedures; and

- inability to coordinate state, federal and local hazardous materials regulations due to their number, complexity and format.

It is likely that during the next legislative session transportation issues as well as the others described above will undergo legislative consideration. For more information on this subject, contact Jon Steeler in the Denver office.

Kentucky 300 incidents past year
50% of trucks have some sort of safety defect.

MEMO

TO: [illegible]tye

FROM: Jim

RE: Hazardous Waste Regulations

DATE: March 3, 1983

BASIC ISSUE: Whether or not the Department of Environmental Conservation's regulations on hazardous waste are in accord with the statutes and intent of the Legislature.

BACKGROUND: In 1976, the Resource Conservation and Recovery Act (RCRA) was passed by the United States Congress. It places responsibility for controlling hazardous wastes on the Environmental Protection Agency. Individual states may take over this responsibility if they establish an approved hazardous waste program.

In order for the state to administer this program, the state must establish a hazardous waste program that equals or exceeds requirements established by EPA.

The main purpose of the 1980 legislation passed by the Alaska State Legislature was to allow the State of Alaska to qualify for interim authorization to regulate hazardous wastes.

A specific amendment was proposed and accepted by the Legislature which stated that the State's program shall be consistent with and substantially ecuivalent to the Federal Conservation and Recovery Act of 1976.

This language was inserted for two reasons: (1) to insure that the State's program would qualify for interim authorization from EPA and (2) to make sure the Department of Environmental Conservation did not go beyond the intent of the federal law.

Federal regulations take the approach of listing various substances. The State has taken the approach of controlling substances by their degree of toxicity, persistence and cancer causing potential. The department's rational for this approach was the mere listing of substances did not apply to the Alaskan situation.

In May, 1979, the U.S. Senate's Committee on Environment and Public Works issued a report to accompany legislation amending the Resource Conservation and Recovery Act. The committee report clearly stated that an "extensive regulatory program proposed by the Agency (EPA) could have a significant

economic impact on domestic oil and gas exploration and production activities. Therefore, regulations on these materials should not be promulgated until further information is developed to determine whether a sufficient degree of hazard exists to warrant additional regulations and whether existing State and Federal programs adequately control such hazards."

By trying to include drilling muds and fluids under the scope of the DEC regulations, they are violating the intent of the legislature when they stated that the regulations should be "consistent with and substantially equivalent to the Federal Conservation and Recovery Act of 1976."

Questions:

1. How do you interpret the language in the statute, "the state's program shall be consistent with and substantially equivalent to the Federal Conservation and Recovery Act of 1976?"

2. Are you familiar with the amendments to the Federal Conservation and Recovery Act done by the Senate Environment and Public Works Committee? Will these amendments affect your efforts in writing state regulations on hazardous waste?

3. Has your staff investigated the legislative intent of the Hazardous Waste statutes as enacted in 1981?

4. Would additional legislation clarifying the intent of the legislature be helpful to the Department?

5. What is the rational of the Department in possibly including drilling muds and fluids when the federal law explicitly excludes them until further information is gathered on their properties?

AMENDING THE SOLID WASTE DISPOSAL ACT

MAY 15 (legislative day, APRIL 9), 1979.—Ordered to be printed

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Mr. RANDOLPH, from the Committee on Environment and Public Works, submitted the following

REPORT

[To accompany S. 1156]

The Committee on Environment and Public Works, reports on original bill (S. 1156), to amend and reauthorize the Solid Waste Disposal Act and recommends that the bill do pass.

GENERAL STATEMENT

The disposal of wastes, especially hazardous wastes, is a worsening national problem. This is becoming only too apparent as the Love Canal story, and others like it, unfold. But the disposal of highly toxic waste is by no means the only serious waste disposal problem facing the Nation. As our population grows, so does the volume of solid waste. But this same growth in population is using land once distant from populated areas, making it increasingly difficult to find appropriate disposal sites.

The Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, requires the Environmental Protection Agency to issue and enforce regulations governing the disposal of various solid wastes and hazardous wastes. In addition, the Act provides assistance to States, municipalities, and regional authorities to aid them in planning and managing disposal facilities which meet the standards of the Act.

Further, the Act sets standards for government procurement to encourage the purchase of recycled materials in order to decrease the volumes of waste streams and to make maximum use of recycled materials. In addition, the Act gives the Commerce Department authority to develop specifications and to promote markets for recycled materials and for exchange of valued materials which might otherwise be discarded as waste.

The reported bill, the "Solid Waste Disposal Act Amendments of 1979", authorized appropriations for the Environmental Protection Agency and the Department of Commerce to carry out the purposes of the Solid Waste Disposal Act. In addition, the bill as reported contains several amendments which constitute refinements or minor modifications of the statute or are perfecting in nature. The legislation essentially reauthorizes the existing program conducted by the Environmental Protection Agency. There are no new program directions other than increased authorizations for hazardous waste control.

Several amendments with significant policy implications are included in the bill, however, to bring the implementation of the Act closer to the original intent of the Congress.

Section-by-Section Summary

SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1979

Section 2 amends two definitions. Paragraph (14) is amended to eliminate the existence of two definitions for the term "open dump" in the act by making use of the definition in section 4005(a). Paragraph (19 is amended to exclude those materials known as "home scrap" from the definition of recovered materials. Because this type of scrap is generated during the manufacturing process and normally is returned to the process during production, there is no need to establish incentives to recycle.

Section 3 amends section 2002(a) to allow the Administrator to delegate to other agencies the power to enforce solid waste disposal act regulations. This avoids duplication of compliance efforts.

Section 4 revises section 2006(b) and (c) to provide greater administrative flexibility in allocating funds while retaining and emphasis on technical assistance to States and local governments, and on funding for hazardous waste control.

Section 4(b) adds a new section 2006(d) requiring a minimum of 25 percent of the funds appropriated under the Solid Waste Disposal Act, up to the authorization limits in section 4008(a)(1), to be used for support of State and local solid waste planning and management activities in accordance with subtitle D. This, together with the annual increases in authorizations under section 4008(a)(1), manifests the Committee's strong intention that adequate support be provided for the foreseeable future for the local and State agencies that must carry out this Act. In addition, it is important that a significant portion of these funds be available to local governments and regional authorities. The so-called urban resource recovery program under section 4008 (a)(2) is not sufficient to meet the solid waste management planning needs of local governments.

Section 5 amends section 3001(b) to suspend subtitle C regulation with respect to drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas. This provision is discussed in detail later in this report.

tains a companion amendment requiring that court action on individual permits or on approval of State programs be held in the Federal circuit court for the circuit in which the affected party lives or does business or the State is located.

Section 17 gives the Administrator authority to subpoena records and compel testimony of witnesses in enforcement actions under the Solid Waste Disposal Act. This is drawn from similar authority in the Clean Air and Clean Water Acts.

Section 18 adds to section 8002 a special study of the degree of hazard and adequacy of existing regulatory programs associated with drilling fluids produced waters and other oil and gas exploration and production wastes. This study is discussed in detail later in this report.

Section 19 corrects a flaw in a reference in section 3(b) of the resource Conservation and Recovery Act.

Section 20 contains the authorizations for the Solid Waste Disposal Act.

EPA AUTHORIZATIONS

Section	Approved 1979 authorization level	Recommended level 1980	1981	1982
3011; Grants to States for implementation of hazardous waste program	25	30	35	40
4008 (a)(1); Grants for development and implementation of subtitle D solid waste management plans	40	20	25	30
4003 (a)(2); Grants to States and local governments for solid and hazardous waste management, resource recovery, resource conservation	15	13.95	15	15
4008 (e)(2); Grants to special communities	2.5	0	0	0
4009; Grants to rural communities	25	15	15	15
8002 (j)(5); Resource Conservation Committee	2	[1] 0	0	0
8002 (m); Special studies	8	[2] 0	0	0
2006; General authorization	42	[3] 80	80	80
Total	160.25	158.95	170	180
Department of Commerce authorization (under sec. 5002)		5	5	5
Total (DOC and EPA)		163.95	175	185

[1] Funds to support this committee have been taken from other categories.
[2] EPA indicates that all studies complete or currently under contract.
[3] The figure reflects budget amendment under review at OMB. Amendment includes $50,000,000 for 1st phase of abandoned/inactive site "discovery" and "investigation" activity and $10,000,000 for studies on "degree of hazard" in waste classification.

Drilling Fluids, Produced Waters, and Other Wastes Associated with the Exploration, Development and Production of Crude Oil or Natural Gas

The Committee considered recently proposed Environmental Protection Agency regulations for drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas implementing the Resource Conservation and Recovery Act. The Committee determined that the extensive regulatory program proposed by the Agency could have a significant economic impact on domestic oil and gas exploration and production activities. Therefore, regulations on these materials should not be promulgated until further information is developed to determine whether a sufficient degree of hazard exists to warrant additional regulations and whether existing State or Federal programs adequately control such hazards. The Act was amended accordingly.

Under the amendment, drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil or natural gas are subjected only to existing State or Federal regulatory programs in lieu of Subtitle C of the Resource Conservation and Recovery Act. This suspension of Subtitle C is applicable provided that existing State or Federal programs—for waste disposal sites that are to be closed—provide for the following information:

1. A mechanism to establish the location of such disposal sites, using surveying, platting, or other measures so as to assure that the site can be located in the future. For disposal sites for drilling fluids and associated wastes that are less than 200 lineal feet from the associated well, this requirement will not apply. The Committee's intent with this provision is that only those disposal sites which are not in close proximity to the associated well need to be specifically identified or located.

2. A chemical and physical analysis of a produced water and a composition of a drilling fluid suspected to contain a hazardous material with such information to be required prior to closure. For drilling fluids this composition could be obtained by determining the material used in the drilling operation from operating records. These two items will become part of the public record as specified in the applicable State or Federal program. These two items were included in the event corrective action would be necessary if the study, mandated in the amendment, recommended such action and Congress agreed that such action was needed. In the event that existing State or Federal programs do not contain or cannot be modified to include these two items, the Environmental Protection Agency should implement only the abovedescribed minimal requirements to obtain this information. However, the Committee expects the Environmental Protection Agency to fully utilize the existing State or Federal programs before developing its own program. Further, the Committee expects that existing State or Federal programs will be given a sufficient period of time to be modified in order to incorporate these requirements before the Environmental Protection Agency develops its own program.

The suspension of Subtitle C applies for at least 24 months and until the Congress acts affirmatively to endorse any proposed Environmental Protection Agency regulations. The Committee envisions the following process. The Environmental Protection Agency will conduct a 24 month study. Upon completion of the study the Environmental Protection Agency will submit the study and its findings to the jurisdictional Committees of Congress and begin a six month public involvement process under which the study and its conclusions will be analyzed. At the conclusion of this period the Administrator will decide whether hazardous waste regulations appear necessary, basing his decision on the study and the public involvement process. His decision, his justification, and any proposed regulations, if necessary, will be submitted to both Houses of Congress. The regulations will become effective only if each House acts, within 120 calendar days of continuous session of Congress, by passing a resolution favoring such regulations.

The Act is also amended to define the study that the Environmental Protection Agency is mandated to execute. The thrust of the study is to determine the degree of hazard associated with these wastes, the adequacy of existing State and Federal regulatory programs to control and mitigate any hazards, potential changes to regulatory programs to improve control and mitigation of hazards; and the cost and impact of those changes on the exploration, development, and production of crude oil and natural gas. The Committee expects the Environmental Protection Agency to cooperate with and utilize the expertise of industry and State and Federal regulatory agencies, such as the Texas Railroad Commission and the United States Geological Survey, in executing this study. The Committee is requiring this study in order to assure that it will have an effective and sufficient factual basis upon which Congress can make any necessary decisions.

Rollcall Votes

Section 133 of the Legislative Reorganization Act of 1970 and the rules of the Committee on Environment and Public Works require that any rollcall votes taken during consideration of this bill be announced in this report.

There were two rollcall votes during the Committee's consideration of the bill. The results were announced at the time of the votes. The Committee ordered the bill reported by unanimous voice vote.

Evaluation of Regulatory Impacts

In compliance with paragraph 5 of Rule XXIX of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact of the reported bill:

The reported bill reduces the regulatory authority provided by existing law by suspending implementation of hazardous waste regulations for certain wastes, as discussed earlier in this report.

The bill has no impact on the personal privacy of individuals.

Cost of Legislation

Section 252(a)(1) of the Legislative Reorganization Act of 1970 requires publication in the report of the Committee's estimate of the costs of the reported legislation, together with estimates prepared by any Federal agency. The President's request for the programs under this legislation includes $62.146 million in the President's request to Congress, plus an additional sum of $92.0 million which was anticipated as this report was filed, for a total of $154.1 million.

This bill provides authorizations of $158.95 million for fiscal year 1980, $170 million for fiscal year 1981, and $180 million for fiscal year 1982.

Section 403 of the Congressional Budget and Impoundment requires each bill to contain a statement of the cost of such bill prepared by the Congressional Budget Office. That report follows:

Alaska State Legislature

BETTYE FAHRENKAMP
CHAIRMAN
ROBERT H. ZIEGLER, SR.
VICE-CHAIRMAN
DICK ELIASON - PAUL FISCHER
VIC FISCHER - BOB MULCAHY
ARLISS STURGULEWSKI

POUCH V
STATE CAPITOL
JUNEAU, ALASKA 99811
(907) 465-3834
(907) 465-3835

Senate

Committee on Resources

February 15, 1983

Mr. Richard Neve, Commissioner
Department of Environmental Conservation
Pouch O
Juneau, Alaska 99811

Dear Dick:

I just wanted to reiterate some of the points which we discussed at our meeting on February 3 regarding the Department's draft hazardous waste regulations.

As I stated in the meeting, I am most concerned about the treatment of drilling muds in the regulations. I again want to let you know that the Committee is very interested in exercising its authorities under AS 44.62.190 and 24.37.010 to review the proposed regulations at least 30 days before adoption.

Please continue to keep posted on your Department's plans or intended actions on this and other pertinant matters.

With warm regards.

Sincerely,

Bettye Fahrenkamp
Chairman

BF:rg

STATE OF ALASKA
THE LEGISLATURE

LEGISLATIVE AFFAIRS AGENCY

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

M E M O R A N D U M

June 22, 1981

SUBJECT: FCCSSB 29 -- Second draft

TO: Senator Bettye Fahrenkamp
Attn: Jim Palmer

FROM: John B. Chenoweth
Legislative Counsel

For the record, I want to observe that the handling of the definition and classification of "hazardous waste" in this version seems muddled. In AS 46.03.299(b), I wonder what "substantially equivalent to" the federal act adds; it certainly is incorrect gramatically. More significantly, a state hazardous waste has to meet the requirement of AS 46.-03.299(b)(2) (that is, it must appear on the federal list or meet the definition of hazardous waste under AS 46.03.900(31)). Accordingly, in AS 46.03.299(b)(2) it might be clearer if "(within the meaning of AS 46.03.900(31))" were omitted and the phrase added at the end of that paragraph such as ". . . waste is defined by the commissioner as hazardous under AS 46.03.900(31)."

JBC:ljb

Enclosure

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

POSITION STATEMENT ON HAZARDOUS WASTES AND THE NEED FOR ITS CONTROL IN ALASKA

May, 1981

For much of this legislative session, there have been discussions and hearings on the need for hazardous waste control in the state. Several bills are being considered at this time, and the outcome of these bills may have a profound effect on Alaska's future and well being of its environmental quality. The Department of Environmental Conservation strongly supports the passage of a hazardous waste bill this session, which is necessary if hazardous wastes are to be kept as a minimal environmental problem in the state.

PRESENT SITUATION

1. Up to now there has been little state effort in the control of hazardous wastes in Alaska. Until last year, the Department had no one working full time in this area. However, concerns from the Alaskan public and from industry have been raised over special waste disposal sites, military wastes, PCB disposal, and varying amounts of a wide variety of hazardous substances in common use. This trend is expected to accelerate as the Alaskan public becomes more aware of hazardous waste problems.

   As examples, a recent inventory completed by the department indicates that there are over 520,000 gallons of PCB's (polychlorinated-biphenols) awaiting disposal. This is a highly toxic substance which is prohibitively expensive to ship out of state for disposal. In addition, there are indications that over 3,900 tons of other hazardous wastes may be generated per year in Alaska. However, only 2-4 tons (or 23 shipments) over the past two years have been disposed of in the closest approved disposal site in Oregon. Also, there may be as much as 21,000 tons of military wastes generated per year, in addition to a wide variety of wastes being stored and awaiting disposal by the military (3,700 tons) and unknown amounts by industry and the Alaskan public. Finally, there are several disposal sites which have been used in previous years which need further evaluation, to assure that they are not creating undesirable environmental effects from the hazardous wastes desposited there.

2. There is no facility available in the state which can adequately dispose of hazardous wastes, nor are there any storage facilities in which small quantities of wastes may be stored prior to shipment for out-of-state disposal.

3. The federal Resource Conservation and Recovery Act, passed in 1976, is now in effect but applies only to some 50 industrial sources and 10 transporters in the state. It will not provide for technical assistance to the public and industry, field surveillance, or development of practical storage and disposal capability. It also will not provide coverage of generators of smaller quantities of wastes which may, combined, cause public health problems, nor will it allow for creating site-specific or innovative control methods geared to the particular difficulties of doing business in Alaska.

4. While at this time there is not a large amount of hazardous wastes generated in Alaska compared to other states, future development such as refinery construction, petrochemical development and smelting will likely result in a substantial increase of these wastes and the increased potential for environmental problems.

5. At present there are no safeguards, and no agency is directly involved, in assuring the safe storage of hazardous materials, particularly long-term storage. It is suspected that there are substantial quantities of hazardous materials which are stored throughout the state, principally because there is no economical or practical way of disposal.

6. There is no legal or practical way available in which the general public may dispose of small quantities of hazardous wastes, nor at present is there widespread understanding or information available on how to handle these substances safely.

7. There will be a federal presence in the state to enforce the federal Resource Conservation and Recovery Act on large sources of hazardous wastes, but only if the state does not take an active involvement. Any federal program will not, however, provide solutions to the special small-user problems of the state, nor will it not provide any realistic solutions for handling or disposing of hazardous waste appropriate for Alaska.

RECOMMENDATIONS

1. Passage of a hazardous waste control bill is a must, so that

   A. Authority is available to establish an effective statewide effort in the control and safe handling of hazardous substances.

B. Resources are available so that the Alaskan public can find out and be provided assistance in how to handle and dispose of hazardous wastes safely. The establishment of practical and effective standards is a first necessary step for controlling hazardous substances in Alaska.

C. Public awareness on the safe methods of handling and disposing of hazardous substances is needed. This could be accomplished through widespread distribution of public information and the availability of technical assistance for the resolving of problems as they arise.

2. The first steps must be started now: (1) to determine what is needed for the safe handling and disposing of Alaska's hazardous wastes, and (2) to begin the design of a storage/transportation/disposal system which will keep this potentially serious environmental concern from becoming a problem.

RECOMMENDATIONS: POSITION STATEMENT ON HCS CSSB-29

In its working draft form, the bill is close to providing the needed authorities for the department to establish a comprehensive and practical approach to hazardous waste control in the state. The Department's review and recommendations on this bill are as follows:

1. NUCLEAR FACILITIES, RADIOACTIVE MATERIAL DISPOSAL

There is currently strong statutory authority on the permitting of facilities using or disposing of high level nuclear substances. What is needed is a delineation of that authority to allow disposal of low level wastes generated in hospitals, research and industry, and to adapt existing law to the ALIVE decision. Senator Kerttula's bill, CSSB-29, would have dealt with these problems most effectively. The draft of the current bill, HCS CSSB-29, has incorporated a section which prohibits outright the construction of any nuclear facility in the state. It would prohibit any facility handling high level nuclear substances. This provision has backup sections, however, if the outright prohibition section is ruled unconstitutional which, according to the Attorney General, is likely. These backup sections are very similar to Senator Kerttula's bill which would place very stringent conditions on any nuclear facility.

The Department views any facility which would use high level radioactive substances with the utmost concern, and the safeguards presented in the alternative sections of the bill should adequately safeguard the public as well as the environmental quality of the state. It would require prior legislative approval of any lands to be used for these facilities, plus local government approval, plus approval by the Governor. It has the added benefit of likely surviving a challenge on constitutional grounds.

As a consequence, the Department recommends deletion of the outright prohibition on nuclear facilities, because it is not likely to be constitutional and adds unnecessary complication to the bill's structure. The legislature, of course, will have to decide how it wants to deal with this aspect of the legislation.

The provisions of the bill relating to low level radioactive waste disposal are appropriate to protect the public against unsafe practices in the handling and disposal of these substances. The Department concurs in these provisions. The provisions clearly allow for the safe disposal within state of these materials, which in the long run will be needed to support the current beneficial users of these substances in the medical, research and industrial communities. The amount of low level radioactive substances in Alaska is extremely small, probably less than one cubic meter and generated mostly from the medical uses. As of last year, there were 36 licenses of the Nuclear Regulatory Commission in Alaska. Only nine used unsealed materials which could result in low level wastes for disposal.

2. HAZARDOUS WASTES

The last portion of the proposed bill would provide the department with the needed authority to control the generation, handling, transportation, storage, treatment and disposal of hazardous materials. This clear authority is lacking in current statutes. While some modifications are recommended to make this portion of the bill truly effective to respond to the state's hazardous waste concerns, the Department strongly supports the provisions included in the May 4, 1981 working draft of the House Judiciary Committee.

The approach mandated by the bill is to establish a statewide hazardous waste control program consistent with the provisions of the federal Resource Conservation and Recovery Act, and which will enable the Department to assume administration of the federal program. The Department is in favor of this approach, which will enable the state to eliminate the presence of the federal U.S. Environmental Protection Agency in directly controlling hazardous waste practices in Alaska. Not only will the Department be able to ensure that federal safeguards are carried out, but also industry and the general public will be provided the availability of state assistance in solving and handling their problems as they become identified. This will not be the case with a federally run program.

The Department is strongly in support of the federal approach to the control of hazardous wastes and intends to use it in developing its criteria and standards, most of which are applicable to Alaska. However, there are areas in which Alaska's own unique problems may require additional efforts:

A. The quantity of hazardous wastes subject to regulation may likely be smaller than the 1,000 kg/month cutoff set by the federal government. This will undergo a very careful evaluation by the Department, in cooperation with the public including industry, in establishing effective quantity limits.

B. Public awareness and technical assistance, which are not provided for by the U.S. Environmental Protection Agency, will be necessities in Alaska to effect practical disposal.

C. Instate disposal at storage least of some volumes and levels of wastes may be necessary in Alaska, but no adequate facilities exist at present. This is particularly important if Alaska industry and the economy are to have orderly and environmentally safe development. Current prohibitively expensive transportation costs may preclude effective disposal as long as no instate disposal capability is present.

D. Establishment of proper handling and storage of hazardous materials, which at the present time is not being regulated or safeguarded by any agency.

The May 4, 1981 working draft of HCS CSSB 29 will provide for these approaches, and the Department will provide recommendations to the House Judiciary Committee to modify the bill, to enable effective control programs to be established which will be appropriate to Alaska's specific conditions.

Section 3

RECOMMENDED STATE PROGRAM FOR HAZARDOUS WASTE CONTROL

As can be seen by the inventory, there are hazardous wastes being generated and disposed of in Alaska. However, there is not widespread understanding or appreciation of how these wastes need to be handled, and what precautions need to be taken to assure their proper disposal in an environmentally sound and safe manner.

A state hazardous waste control program is therefore necessary for insuring a safe and proper handling of hazardous waste: Such a program would:

1. Rely on out-of-state faculties for final disposal storage, with establishment of instate transfer stations (central collection facilities) at various locations throughout the state. Safeguards for proper storage and transportation of hazardous waste would be developed.

2. Develop and maintain a manifest (cradle to grave) system which would track all hazardous waste shipments from the point of generation through transportation to final storage, treatment, or disposal site. This tracking system is needed to protect the public from illegal dumping and to control hazardous waste management in our state.

3. Prohibit disposal of even small quantities of hazardous waste into landfills, unless the landfills meet the necessary design requirements and incorporate adequate safeguards, and the waste is properly contained.

4. Provide technical assistance to:

   A. Business on:

      a. disposal of hazardous waste.

      b. methods to reduce the amount of waste generated at the source and recycling the waste that is produced whenever feasible.

      c. best available technology treatment and processes and on labeling, placarding and manifest requirements.

   B. General Public on:

      a. what a hazardous waste is and how to handle, transport, store or dispose of hazardous waste.

   C. All Interested Parties on:

      a. all cleanup and response operations

      b. any questions on hazardous waste, and all information or disclosures on improper management, through a toll-free telephone number throughout the Stae.

5. Locate and investigate all suspected abandoned and current disposal sites for the presence of hazardous waste.

6. Develop a monitoring program to mitigate and detect inappropriate disposal and contamination, including field inspections and surveillance.

7. Implement immediate clean-up programs at those sites which are identified as posing imminent danger to the public health and environment.

8. Establish guidelines for storage/transfer stations.

9. Encourage intermediate storage of waste at transfer stations until shipment can be made or recycling can be performed.

10. Develop and implement regulations for the safe transport of hazardous waste which would include a manifest system, placarding, and labeling all hazardous waste shipments. Also require all transporters to be responsible for cleaning up hazardous waste spills from their shipments and contact ADEC or USCG immediately when such spills occur.

11. Develop a hazardous waste safety course for transporters. Successful completion would be required before transport or hazardous waste.

12. Reinforce DOT regulations on shipments of hazardous waste.

13. Require all hazardous waste handlers to notify the state on each waste transaction. This would include all generators, transporters, and treatment, storage, transfer, and disposal facility operators. Perform field inspections and technical assistance to help individuals in notification.

14. Establish criteria for management and for treatment, storage, and disposal in permitted facilities.

15. Establish a public awareness and education program, to promote a better understanding of hazardous waste and its disposal, and encourage reporting of suspected improper hazardous waste disposal. Encourage the public to use the Department of Environmental Conservation for any questions on home use and disposal of hazardous waste.

16. Obtain adequate safety equipment and develop programs and procedures for emergency response and cleanup, establish a toll free number for information and reporting, and train DEC personnel in hazardous waste handling.

17. Promote incentives for recycling of hazardous waste and provide technical assistance to businesses on waste reduction, exchange and recycling.

18. Develop guidelines for storage of hazardous material similar to those for hazardous waste.

To establish and maintain this recommended program, one full-time person in each Department's three regional field offices will be needed. In addition, two full-time technical personnel are required in the central office, to develop regulations, guidelines, procedures, training programs, and provide a technical resource to the regions as well as industry and the general public. Because the central office positions are already accounted for in the Department's FY-82 Budget request, the only additional resources needed would be for the three field officers.

secretaries ?

SECTION 4

RESOURCES NEEDED TO ESTABLISH A RESPONSIVE STATE HAZARDOUS WASTE CONTROL PROGRAM

TO BE ADDED LATER.

SECTION 5

EFFECT OF THE FEDERAL HAZARDOUS WASTE CONTROL PROGRAM

The 1976 Resource Conservation and Recovery Act (RCRA) places the primary responsibility for controlling hazardous wastes on the states. If the states relinquish this responsibility, then EPA is mandated to take over the States program. State programs and guidelines must equal or exceed those established by EPA. EPA has already established their regulations (summarized in Appendix IX) which:

1. Affect all hazardous waste disposal facilities. However, there are none in Alaska at the present.

2. Only cover facilities which generate, treat, or store over 2,200 pounds of wastes per month, and the transporters which handle those wastes. However, most Alaskan facilities do not generate or handle this large an amount of material, and only about 50 of the largest industrial facilities and 10 transporters are likely to be regulated. There are also an unknown amount of military and federal facilities.

Because EPA does not, have any personnel in the state to carry out the federal program, and may not in the future, it is likely to be operated in the following manner:

1. Most if not all questions, decisions and paperwork concerning the program will be handled by the EPA Region X office in Seattle.

2. Virtually no technical assistance or direction for those being regulated will be available from EPA, particularly because there is only one person assigned to the two states of Alaska and Oregon. This is likely to lead to inadequate disposal practices, fragmented information on how to properly treat, transport, store or dispose of hazardous substances, and general misunderstanding of hazardous waste requirements.

3. The affected facilities and transporters will be required to submit their compliance documents to Seattle using national forms and guidelines, which often are not applicable to specific conditions and usually result in an undue reporting burden.

ADVANTAGES TO ASSUMING CONTROL OF FEDERAL REQUIREMENTS:

As described above and discussed in previous sections, most of Alaska's hazardous waste users and handlers will not be covered by the federal program. Consequently the federal program by itself will not assure adequate control or provide the safeguards needed to assure that proper disposal means are used. If the state established the recommended program, including the necessary resources as described in the previous section, then the federal program controls could also be carried out without the need for any additional resources. This would eliminate the direct presence of EPA in the program, at the same time enable the state to simplify the federal requirements and make them more understandable to the regulated industry, and to set standards more applicable to Alaskan conditions.

There also are federal grant funds available to the state if portions of the federal program are taken over by the state. A total of $258,000 was allocated for Alaska for FY-81, and more is likely available pending justification of need.

DISADVANTAGES TO ASSUMING CONTROL OF FEDERAL REQUIREMENTS:

The major disadvantage to assuming control of the federal requirements is that the state's hazardous waste control effort will then come under EPA's review, guidance and grant conditions. This will be no problem as long as EPA is realistic and practical in their requirements. As has been shown in many of the other federal environmental programs, EPA has not always been reasonable.

EPA has indicated that there will be some flexibility in establishing many of the requirements within each state, particularly in the manifest system for transporters. Consequently, there is a strong likelihood that federal requirements can be made more meaningful and less burdensome through a state-operated program. Care would have to be taken, however, to only become involved with the federal program portions which can be made responsive to Alaska's needs. All other portions of the federal program should otherwise remain with EPA.

Another disadvantage is if the state established a hazardous waste control program to only cover the federal requirements. This would not accomplish control of the real hazardous waste problems in the state, would make the state program too vulnerable to carrying out inappropriate requirements of EPA, and would be a very limited and ineffective means for trying to establish meaningful control. While even in this instance the state would be able to offer more responsive assistance to the regulatd sources, there would be very little else accomplished that would not otherwise be covered by an EPA-run program.

RECOMMENDATION:

Provided that the state establishes a responsive hazardous waste control program as recommended in the previous sections, then the needed statutory authority as well as the resources will be available to also carry out the federal requirements. It is recommended that under this circumstance the state proceed to integrate the federal requirements into its program as it is developed. This should be done in a careful, step-by-step manner, to make certain that the federal requirements are made responsive to Alaskan needs.

It is very probable that not all of the federal requirements will be appropriate for state assumption. Those which are not should be left with EPA. Also, if at any time it becomes apparent that the state is not being allowed the needed flexibility by EPA to run a responsive program, then at that time the state should back out of conducting the federal program and fund its own program effort.

SECTION 6

REVIEW OF LEGISLATION

The Department has general overall authority for the "control, prevention and abatement of air, water, or land or subsurface land pollution," but does not have any specific authority concerning hazardous waste control. The Department of Law recently indicated that the general authority would enable the Department to establish a comprehensive hazardous waste control program. However, the Department of Law also indicated that it may be advisable to obtain specific legislative authority so that there is no mistaking of the legislature's intent in the control of hazardous wastes. Because of the importance of this program, and because the Department has not had much previous involvement in the control of hazardous wastes, specific legislation is recommended.

RECOMMENDED LEGISLATION (Appendix VIII)

A. Hazardous Waste Control:

Specific authority, as drafted by the Department of Law last Legislative session as a substitute for HB-511 is recommended so that all facets of hazardous waste generation, transportation and disposal are covered. This authority would also provide the Department with necessary authority for assuming responsibility for the federal requirements under the Resource Conservation and Recovery Act. Example: AS 46.03.020(10)(H) would be added to read; "operation, handling, transportation,treatment,storage and disposal of hazardous waste; and safe handling and storage of hazardous material."

B. Permitting: High-Level Radioactive Facilities

AS 18.45.025 provides authority for the department to issue permits for the disposal of radioactive wastes, provided that certain conditions were met. However, several of these conditions have been found unconstitutional under the terms of a recent state supreme court decision and are therefore recommended to be deleted. In addition, this statute is recommended to apply only to high level radioactive wastes, since low level wastes are covered under AS 46.03.250-260 as discussed below.

C. Permitting: Low-level Radioactive wastes

AS 46.03.250-260 prohibits the disposal of any radioactive wastes in the state, unless the department has issued a permit allowing the activity. Because AS 18.45.025 already covers high level wastes, AS 46.03.250-260 are recommended to be changed to only apply to low level radioactive wastes so as to avoid duplication.

Amendment

Page 9, line 1

Sec. 46.03.299. CONTROL OF HAZARDOUS WASTES. The department shall, by regulations adopted under the Administrative Procedure Act (AS 44.62), establish a state hazardous waste program; the state hazardous waste program shall

(1) consistent with and substantially equivilent to the Federal Conservation and Recovery Act of 1976 (P.L. 94-580, 42 U.S.A. § 6901-6987),

(A) establish criteria to identify the characteristics of hazardous wastes;

(B) enumerate specific hazardous wastes (within the meaning of AS 46.03.900(31) subject to the provisions of AS 46.03.302 and 46.03.305; however, the department may not list as hazardous a waste that has not been listed as a hazardous waste by the United States Environmental Protection Agency under 42 U.S.C. 6921, unless the commissioner first determines that the waste poses a substantial threat to the public health and welfare; and

(C) etc.

SOHIO

SUGGESTED AMENDMENTS, CSSB-29

1. Hazardous materials deletion

Page 7, line 25, delete "and safe handling and storage of hazardous materials."

2. Reference to landfill.

Page 7, line 29, amend section to read:

Sec. 46.03.296. DISPOSAL OF HAZARDOUS WASTES. (a) It is unlawful to dispose of hazardous wastes in any landfill in the state unless:

3. Defining universe of hazardous wastes.

Option 1: Page 8, line 20 through 25, delete subsections (3), (4) and (5), replacing with:

(3) adopt Part 261, Identification and Listing of Hazardous Wastes, as contained in regulations published under the Resource Conservation and Recovery Act of 1976.

Option 2: Same lines, add the words, "consistent with the Federal Resource Conservation and Recovery Act of 1976 (P.L. 94-580, 42 U.S.C. 6901-6987)." to each item, (3), (4) and (5).

4. Page 9, line 1: substitute words "generates" for "produces" and "treats" for "processes".

This makes wording consistent with RCRA. Same word changes should be made in following sections, elsewhere in bill.

5. Page 10, line 9: Definitions should be made consistent with RCRA.

ATLANTIC RICHFIELD COMPANY COMMENTS ON

THE HAZARDOUS WASTE PROVISIONS OF

HCS CS SB 29

The purpose of this legislation is to enable the Alaska Department of Environmental Conservation to develop a State hazardous waste program which will be approvable by EPA, thereby permitting the State of Alaska to administer its own program in lieu of the Federal program.

Atlantic Richfield supports State administration of Federal environmental programs. We have opposed this particular legislation, however, because:

1. The program it establishes does not meet the Federal statutory requirements for approval.

2. This legislation will need significant amendments in the future to meet such Federal requirements.

3. Since in our opinion, this program will not be Federally approvable, this legislation will impose duplicate and overlapping requirements on all those who generate and handle hazardous wastes and create another bureaucracy for the regulated community.

There are hazardous waste regulations in effect in Alaska at this time administered by EPA, effective on November 19, 1980. We do not want another program unless it will qualify as a replacement for the Federal program now in effect.

Rather than continue to oppose this bill, we would like to recommend that the regulatory provisions of this legislation not go into effect until interim or final EPA authorization has been granted to the State Department of Environmental Conservation. That would allow the ADEC to begin to establish a program without placing an undue burden on those who will be regulated.

A simple statement such as the following might be appropriate:

The regulatory provisions of this program will not go into effect until interim or final EPA authorization has been obtained by the ADEC.

Marathon

In its present form HCS CSSB 29 could apply to many oil field wastes. One such waste would be excess drilling fluid. Another example would be the water which is produced from the formation along with the oil. Discharge of both of these materials is already controlled under permits issued by either the state or federal government.

Regulations to implement the Resource Conservation and Recovery Act (RCRA) were promulgated by the United States Environmental Protection Agency in May of 1980. During development of these regulations there was some question as to their applicability to drilling fluids and produced waters associated with the exploration and production of oil and gas. To clarify the matter, in the Solid Waste Disposal Act Amendments of 1980, Congress directed the Environmental Protection Agency to specfically exclude these materials. Congress also directed the EPA to conduct research to determine if drilling fluids and produced waters do present any hazard to the environment. The results of this study will be reported back to Congress, at which time it will be determined what hazardous material regulations, if any, should apply to these wastes. Since this information is not yet available, and in order to be consistent with the federal hazardous waste program, HCS CSSB 29 should contain the exclusions provided for in the federal legislation and regulations. These exclusions could be inserted in Section 16 of the proposed bill under the definition of "hazardous material." The wording specifically for the exemption of produced waters, and drilling fluids should be as follows:

"The following wastes are not hazardous materials: drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy."

Attached is page 33120 of the Federal Register Vol. 45, No. 98 which contains the "Exclusions" section of the federal RCRA regulations.

in Subpart D is first added to the solid waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C.

(c) Unless and until it meets the criteria of paragraph (d):

(1) A hazardous waste will remain a hazardous waste.

(2) Any solid waste generated from the treatment, storage or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate (but not including precipitation run-off), is a hazardous waste.

(d) Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C.

(2) In the case of a waste which is a listed waste under Subpart D, contains a waste listed under Subpart D or is derived from a waste listed in Subpart D, it also has been excluded from paragraph (c) under §§ 260.20 and 260.22 of this Chapter.

§ 261.4 Exclusions.

(a) *Materials which are not solid wastes.* The following materials are not solid wastes for the purpose of this Part:

(1) (i) Domestic sewage; and

(ii) Any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under Section 402 of the Clean Water Act, as amended. [Comment: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.]

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 *et seq.*

(5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

(b) *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any waste material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels.)

(2) Solid wastes generated by any of the following and which are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

§ 261.5 Special requirements for hazardous waste generated by small quantity generators.

(a) Except as otherwise provided in this section, if a person generates, in a calendar month, a total of less than 1000 kilograms of hazardous wastes (those) wastes are not subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA.

(b) If a person whose waste has been excluded from regulation under paragraph (a) of this Section accumulates hazardous wastes in quantities greater than [illegible]000 kilograms, those accumulated wastes are subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA.

(c) If a person generates in a calendar month or accumulates at any time any of the following hazardous wastes in quantities greater than set forth below, those wastes are subject to regulation under Parts 262 through 265 and Parts 122 through 124 of this Chapter, and the notification requirements of Section 3010 of RCRA:

(1) One kilogram of any commercial product or manufacturing chemical intermediate having the generic name listed in § 261.33(e).

(2) One kilogram of any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in § 261.33(e).

(3) Any containers identified in § 261.33(c) that are larger than 20 liters in capacity.

(4) 10 kilograms of inner liners from containers identified under § 261.33(c).

(5) 100 kilograms of any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in § 261.33(e).

(d) In order for hazardous waste to be excluded from regulation under this section, the generator must comply with § 262.11 of this Chapter. He must also either treat or dispose of the waste in an on-site facility, or ensure delivery to an off-site treatment, storage or disposal facility, either of which is:

(1) Permitted by EPA under Part 122 of this Chapter, or by a State with a hazardous waste management program authorized under Part 123 of this Chapter;

(2) In interim status under Parts 122 and 265 of this Chapter; or,

(3) Permitted, licensed, or registered by a State to manage municipal or industrial solid waste.

(e) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in Subpart C.

§ 261.6 Special requirements for hazardous waste which is used, re-used, recycled or reclaimed.

(a) Except as otherwise provided in paragraph (b) of this section, a hazardous waste which meets either of the following criteria is not subject to regulation under Parts 262 through 265 or Parts 122 through 124 of this Chapter and is not subject to the notification requirements of Section 3010 of RCRA until such time as the Administrator promulgates regulations to the contrary:

(1) It is being beneficially used or re-used or legitimately recycled or reclaimed.

(2) It is being accumulated, stored or physically, chemically or biologically treated prior to beneficial use or re-use or legitimate recycling or reclamation.

(b) A hazardous waste which is a sludge, or which is listed in Subpart D, or which contains one or more hazardous wastes listed in Subpart D, and which is transported or stored prior

Marathon

In its present form, HCS CSSB 29 provides that the department may exempt from permitting requirements a person who generates or handles small quantities of hazardous waste. A set, small generator exclusion should be established in the bill for the following reasons:

1. a permitting and transportation manifesting system for small generators could affect many small businesses and individuals and would thus be impossible to enforce,

2. such a system could place an unnecessary paper work burden on small businesses and individuals solely at the discretion of the department,

3. regulations could be established for disposal, transportation, etc. of small quantities of hazardous wastes without the need for a permit or manifest system, and

4. the department could better serve the needs of the public by concentrating upon educating the small generator on hazardous waste handling and disposal rather than imposing a cumbersome manifest and permit system on them.

To be consistent with federal regulations on transportation, storage, and disposal of hazardous wastes, the small generator exclusion should be set at 1,000 kilograms (approximately five 55 gallon drums) per month. This exclusion could be placed in HCS CSSB 29 as follows:

Sec. 46.03.350. HAZARDOUS WASTE PERMITS. (a) No person may generate, process, transport, store, or dispose of a hazardous waste listed by the department under AS 46.03. 340 (2) without a permit and without preparing and providing reports, including manifests which may be required by the department.

(b) A person who generates, processes, transports, stores, or disposes of less than 1,000 kilograms of hazardous wastes per calendar month shall be exempted from the permitting, reporting, and manifesting requirements established in (a) of this section. Such person shall comply with regulations established by the department under AS 46.03.020 (10)(H) so as to not present a hazard to the public health, or to the livestock, fish, wildlife, or environment of the state.

2,200 LBS

Marathon Oil Company Testimony on House Committee Substitute for Committee Substitute for Senate Bill 29

Recently, concern has been expressed over possible hazardous waste problems resulting from development of an in-state petrochemical industry. Concern has also been voiced that nuclear wastes from the "Lower 48" may be disposed in Alaska. In response to these concerns, legislation has been introduced in both the House and Senate. Apparently, HCS CSSB 29 represents an attempt by the House Resources Committee to combine three bills dealing with control of hazardous materials (SB 239); transportation, storage, and disposal of hazardous wastes and nuclear materials (HB 72); and control of nuclear materials (SB 29).

Management of hazardous wastes and control of nuclear materials involve two entirely different areas of expertise and, in our opinion, should not be addressed in the same bill. For this reason, our specific comments on the proposed legislation will be presented in two sections.

Nuclear Materials

Section 18.45.130 (b) of HCS CSSB 29 would require a transporter of low level nuclear wastes to obtain a permit and comply with a manifest/record keeping system implemented by the Department of Environmental Conservation. An example of how this would apply to oil industry operations would be in the transportation of radioactive scale which forms naturally in well tubing and oil field separation equipment. This material must occasionally be removed and is often sent to a laboratory for analysis. Transportation of radioactive materials, such as this scale, is already strictly regulated under the hazardous materials transportation regulations of the federal Department of Transportation. These regulations establish specific packing, labeling, manifesting, and transportation requirements for all hazardous materials. Under the federal regulations, materials with a specific activity of 2 nanocuries per gram or less are not classed as radioactive material. However, under the proposed bill, transportation of the same material would require the permit and extensive record keeping mentioned above.

Section 46.03.260 of the proposed bill would require a person who conducts an operation resulting in any discharge of low level radiation to obtain a permit before commencing the discharge. Two of the oil field operations which would be affected by this section are well logging operations and radioactive tracer surveys in production and water injection wells.

In well logging operations, instruments are lowered into the well to obtain information about the producing formation and other geological zones. Some common logging instruments utilize sealed gamma ray or neutron sources. When in use these devices emit radiation into the geological formations, but do not release any radioactive material. Since the source is completely sealed, no radiation remains in the formation when the

instrument is removed from the well. Radioactive tracer surveys involve the injection of radioactive materials into the well to determine the flow rate into the formation and the variation of flowrates between the zones. Common elements used in these surveys include Iridium 192 and Iodine. Both of these elements are extremely low level radiation sources and have half-lives of 75 days and 8 days, respectively. Use of both of these materials is controlled and permitted under a license issued by the United States Nuclear Regulatory Commission. The license specifies terms and conditions for storage, transportation, and leak testing of radioactive materials and equipment, and establishes training requirements for personnel. HCS CSSB 29 would require the operator to obtain an additional permit each time this equipment is used.

This bill would have a pervasive effect upon the oil industry, and many other industries as well, because of the all inclusive definition of low level nuclear wastes. According to section 18.45.170 and section 11. AS 46.03.900 a low level nuclear waste would be any radioactive waste which emits less than 10 nanocuries per gram. The definition establishes no lower limit for radioactive activity and therefore would include all radioactive wastes no matter how innocuous. Under the present definition disposal of a smoke detector or a wrist watch with a luminous dial would be considered low level nuclear waste disposal. It would also follow that use of an ultraviolet lamp would be an operation which results in the discharge of low level radiation.

It would seem obvious that the definition of low level nuclear waste should contain a lower limit. For consistency with the federal transportation regulations a value of 2 nanocuries per gram of material should be set as the lower limit in this definition.

Despite the fact that each of the previously mentioned areas is already adequately controlled by federal regulations, section 46.03.250 of the proposed bill gives authority to the Department of Environmental Conservation to govern these activities. This section also gives the Deparment of Environmental Conservation the discretion to determine what levels of radioactivity would constitute a threat to public health. It is difficult to understand how the Department of Environmental Conservation would have a greater level of expertise in nuclear science and nuclear waste management than both the U.S. Nuclear Regulatory Commission and the Department of Transportation Hazardous Materials Office. How would the department be more qualified than these other agencies to define the levels of radioactivity which would constitute a threat to public health? If, on the other hand, the Department of Environmental Conservation simply adopts the present federal regulations, what is the need for establishing a state permitting and regulatory system?

Hazardous Wastes

The second portion of HCS CSSB 29 would add a new chapter to AS 46 which would apply to transportation and disposal of extremely hazardous and hazardous wastes. Normally, Marathon Oil Company would not be directly

affected by legislation concerning extremely hazardous wastes. For this reason we will confine our comments to only those sections dealing with hazardous wastes.

A specific point of concern with the proposed legislation is the definition of hazardous wastes contained in section 46.32.070. Without changing the meaning of the definition, we will extract a portion of it to demonstrate why it causes us concern. "Hazardous waste means a waste...which...may pose a...potential hazard to human health, livestock, wildlife, property, or the environment when improperly disposed of." We submit that the definition is entirely too broad and, based upon characteristics which "...may pose a potential hazard...", almost any waste could be classified as hazardous.

In its present form the legislation could apply to many oil field wastes. One such waste would be excess drilling fluid. Another example would be the water which is produced from the formation along with the oil. Discharge of both of these materials is already controlled under permits issued by either the state or federal government.

Regulations to implement the Resource Conservation and Recovery Act (RCRA) were promulgated by the United States Environmental Protection Agency in May of 1980. During development of these regulations there was some question as to their applicability to drilling fluids and produced waters. To clarify the matter, a provision was placed in the regulations to specifically exclude these materials. Congress has directed the Environmental Protection Agency to conduct research to determine if drilling fluids and produced waters do present any hazard to the environment. The results of this study will be reported back to Congress, at which time it will be determined what hazardous material regulations, if any, should apply to these wastes. Since this information is not yet available, HCS CSSB 29 should include a provision requiring that the resulting state regulations not be more stringent than the federal regulations. Failing that, the bill should contain the exact exclusion as the federal regulations. This exclusion reads:

> "The following solid wastes are not hazardous wastes:
> drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy."

Section 46.32.020 of the proposed chapter provides the Department of Environmental Conservation with the authority to adopt regulations for the disposal of hazardous wastes. Presumably these regulations would be similar to the Resource Conservation and Recovery Act (RCRA) regulations which were promulgated after more than five years of intensive research and study by the EPA. Identification and classification of hazardous wastes alone required years of research, vast resources of man power, and millions and millions of dollars. Yet the authority for just such a massive program is granted to the Department of Environmental Conservation by a mere five lines in section 46.32.050 of the proposed bill. Additionally, section 46.32.040 requires the department to establish and implement a system to

record by manifest the movement of hazardous waste in excess of 1,000 kilograms per month within the state. This program would be identical to the manifest and record keeping requirements established by the federal RCRA regulations.

The federal hazardous waste (RCRA) regulations promulated in May of 1980 consist of more than 500 pages which are constantly being revised and supplemented. The Department of Transportation's hazardous material transportation regulations promulgated in September of 1978 contain 1,050 pages which are also being revised regularly. Is this the type of system you would want to establish in Alaska? Hazardous waste regulation is an extremely complex area that, to accomplish the stated goals, would require extensive expertise, research, and funding. A state hazardous waste program, to be nearly as effective as the federal program, would require a huge increase in the staff and budget requirements of the Department of Environmental Conservation. If the objective of this legislation is only to allow the department to adopt the program established by EPA, we fail to see the need or benefit to the state. In addition, such action definitely would not be in keeping with the philosophy of eliminating duplicative and burdensome regulations and permits.

The proponents of this bill would have you believe that all sorts of hazardous waste "nightmares" may result in Alaska if this bill is not passed. That is just not true. The lack of this bill and state hazardous waste regulations does not mean hazardous waste disposal will be unregulated. In fact, hazardous wastes are regulated quite stringently. The recent RCRA regulations are some of the most comprehensive regulations ever promulgated by a federal agency. They will provide more than adequate protection from hazardous waste storage, transporation, and disposal in Alaska.

GII
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ATLANTIC RICHFIELD COMPANY COMMENTS ON THE HAZARDOUS WASTE PORTION OF THE HOUSE COMMITTEE SUBSTITUTE FOR COMMITTEE SUBSTITUTE FOR SENATE BILL 29

May 29, 1981

The purpose of proposed provisions on hazardous wastes is apparently to enable the Alaska Department of Environmental Conservation to develop a state hazardous waste program which will be approvable by EPA, thereby permitting the State of Alaska to administer its own program in lieu of the Federal program.

Atlantic Richfield supports state administration of Federal environmental programs.

Atlantic Richfield opposes the May 28 revision of the hazardous waste portion of this bill, however, because:

1. The program it establishes does not meet the Federal statutory requirements for approval.

2. This legislation will need significant amendments in the future to meet such Federal requirements.

3. Because this program will not be Federally approvable, this legislation will impose duplicate and overlapping requirements on all those who generate and handle hazardous wastes and create another bureaucracy for the regulated community.

I would like to point out that hazardous waste regulations apply to virtually all industrial, commercial and community

activities - for example, tanning and electroplating operations, boat yards, dry cleaners, laboratories at schools and hospitals, service stations.

The program this bill would establish does not meet the four prerequisites for "final" authorization under the Federal Resource Conservation and Recovery Act ("RCRA"). The four prerequisites are:

1. It must be equivalent to the Federal program (§ 3006(b)).

2. It must be consistent with the programs applicable in other states (§ 3006 (b)).

3. It must provide for adequate enforcement. (§ 3006 (b)).

4. It must insure public participation in all aspects of the state hazardous waste program, including enforcement (§ 7004 (b)).

The state enabling legislation must provide legal authority:

- to list at least the same wastes as EPA and to establish criteria for identifying wastes,

- to implement the Federally mandated manifest system,

- to require permits for treatment, storage or disposal facilities,

- to require reporting and/or recordkeeping by generators and transporters,

- to establish permit conditions, schedules of compliance, permits by rule, emergency permits,

- to require monitoring at treament, storage or disposal facilities,

- to modify or terminate permits,

- to protect confidential information,

- to provide for public participation in the development, implementation and enforcement of the state program,

- to enter, inspect, copy records and take samples at all facilities which handle hazardous wastes,

- to restrain unauthorized activity by administrative cease and desist order or by seeking injunctive relief in state court,

- to establish criminal penalties for the same violations subject to criminal sanction under RCRA,

- to provide civil penalties for each day of violation.

These are merely broad categories of requirements. The details are contained in the massive and complicated Federal regulations. This legislation addresses some of these requirements adequately, some inadequately, and some are not addressed at all.

There are hazardous waste regulations in effect for Alaska at this time. They are administered by EPA and became effective on November 19, 1980. We do not want another program unless it will qualify as a replacement for the Federal program now in effect.

There is no urgent need to pass enabling legislation during this session of the legislature. The ADEC cannot effectively develop an approvable state program until the complete Federal program is finalized. No one knows what the final Federal program will look like for several reasons:

1. EPA has not promulgated all parts of the program. For example, the regulations respecting landfills, land farming and surface impoundments were proposed on February 5, 1981. EPA will accept comments up until August 1981. Final regulations will not be promulgated until next year. The State cannot apply for final authorization to administer this important aspect of the program until those regulations are promulgated. As a practical matter, it will take the ADEC many months following promulgation to develop consistent and equivalent state regulations. Only then can it apply to EPA for authorizaton.

2. The Federal program is on Vice President Bush's regulatory reform "hit" list, and the OMB is reviewing the Federal hazardous waste regulations. The Administration has stated that the program will be amended to recognize the varying degrees of risk posed by different wastes.

3. The Federal program is being litigated and judicial resolution of the issues before the court will change the Federal program which the state program must be equivalent to and consistent with.

Finally, this bill does not address the most critical aspect of hazardous waste management - the availability of permitted facilities to handle the wastes which will be identified as hazardous. The ADEC should assess the need for new hazardous

waste facilities in the state and identify those areas of the state where such facilities should be located. The hazardous waste management program will fail if there are inadequate treatment and disposal facilties in the State.

Therefore, Atlantic Richfield urges the legislature to develop legislation which will provide the statutory framework for an EPA approvable program. This bill, it its present form, does not meet the major criteria. We have commented on various drafts of this bill. Some changes have been made but the changes are not adequate.

We will continue to provide assistance in drafting adequate enabling legislation.

SOHIO

SOHIO ALASKA PETROLEUM COMPANY

OFFICE CORRESPONDENCE

TO: Tim Bradner

DATE: May 28, 1981

FROM: Debra Borah

CC NO: 32,377

SUBJECT: Phone Discussion with Joan DiNal, Arco, Legal Department, L.A.

YOUR REF:

This memo summarizes most of Joan DiNal's comments from our May 27, 1981 phone conversation.

* Her assessement of the situation was:

  1. This piece of legislation will not qualify the State for Federal Authorization ("It's a disaster"). Although the term "consistent" has been added to the legislation, "substantially equivalent" should be added as well.

  2. There is no need to rush the Alaska Program because EPA is not delegating authority for permits for probably another year and a half.

  3. The State should consider planning and siting of facilities, and determine where the needs are and where the best locations would be. This is not mentioned in the legislation.

  4. If the State is still intent on this, some changes will have to be made.

* It was her impression that Legislative Services does not want to give ADEC "carte blanche" in their handling of this issue.

* We discussed why the State did not just amend existing Chapter 3, instead of creating a new Chapter 32. Apparently, Mike Ford had some confusion on the best way to accomplish this. He thought it would interfere with existing hazardous substances language. This goes back to the need to clearly distinguish between hazardous wastes, materials and substances. They are not the same thing and should not be used interchangeably.

* We both agree that the present legislation on the books is sufficient for the State to apply for "Interim" Authorization. Note that Tom Hanna has stated that the Attorney General's Office had arrived at the same determination. Tom however wanted to draft more specific legislation.

* Sec. 46.03.020. (10) is from existing statute, Chapter 3, and reads:

  "The Department may
  (10) Adopt regulations necessary to effectuate the purposes of this chapter, including, by way of example and not limitation, regulations providing for...(lettered topics from A through H)."

This legislation proposes to add an (I) for hazardous wastes and materials. Joan suggested alternative wording something similar to the following to take advantage of Chapter 3 and streamline the legislation:

> "(I) identification and listing of hazardous wastes establishment of requirements for hazardous waste generators, transporters and owner/operators of treatment, storage and disposal facilities, establishment of performance standards for hazardous waste facilities-provided that these are created to be substantially equivalent to and consistent with Subtitle C of the Resource Conservation and Recovery Act, as amended".

I like this approach. It gives enough guidance and yet allows the State considerable flexibility for writing regulations.

* Sohio currently has "Interim Status" as a hazardous waste storage facility. When and if the State takes over the program, anything we already have received under the Federal Program should be honored. Joan made this point and it is a valid concern. However, I felt it could be adequately addressed when the regulations are drafted.

* By way of retaining this legislation in Chapter 3, Joan suggested creating Article 3A to follow the water regulations. I agree with this approach. I understand more recently however from Tom Hanna that the Commissioner does not like letters, therefore, Tom is recommending adding hazardous wastes to "Article 5, Radiation". I prefer Joan's idea, but I don't know how important an issue this is.

* Joan made the case to Kertulla that the Federal Program 1) is in a state of flux 2) is under litigation 3) is not complete because the regulations are not all written and 4) is undergoing scrutiny for possible regulatory reform. She therefore suggested that the State wait until all these wrinkles are ironed out before attempting to develop a program of their own. And again, the State can not yet receive permitting authority for land disposal.

* Joan would like to take Sections 3001-5 of RCRA, drop out some words and scissor the language into Chapter 3 someplace.

* To provide more specifically for excluding drilling muds, Joan wanted to add somewhere; the State may not identify as a hazardous waste any waste which has been specifically suspended from regulation by EPA until such time as EPA changes the regulation.

We ended our discussion with the following list of options in the order of decreasing priority:

1. Get this legislation scrapped and work with ADEC to introduce polished legislation next session that will facilitate the State receiving Federal approval.

2. Attempt to introduce substitute legislation probably if the bill goes to Free Conference Committee and

3. Fix this bill up as much as possible just in case the above 2 items do not occur.

I have been working on item 3 while endorsing item 1. From my discussion with Tom Hanna, I understand that ADEC is pushing for this bill to pass this session because of funding considerations for this fiscal year. I personally do not feel this is adequate considering all the details yet to be worked out in the bill. If hazardous wastes are a major concern of the State they should be granted the manpower required to research the existing Federal program and draft acceptable legislation and regulations.

Please call if you have any questions regarding the above.

DeB

Deb Borah
Environmental Scientist

DB/kg

cc: RVShafer
A Prezyna
File 453

SOHIO

SOHIO ALASKA PETROLEUM COMPANY

Law Department

OFFICE CORRESPONDENCE

TO: Debra Borah
Environment Scientist

DATE: May 28, 1981

FROM: Ann E. Prezyna
Attorney

CC NO:

SUBJECT: Proposed AS 46.32.050

YOUR REF:

In accordance with your verbal request of 5/27/81, I have reviewed the wording of proposed AS 46.32.050 (HCS CSSB 29, Judiciary draft dated 5/21/81, beginning at page 9, line 22). As presently drafted, the state's version of the public records requirement differs from that contained in RCRA. I will explain the differences below, but leave it to your and Tim's judgment to decide whether these differences warrant our taking a position on the subject at tomorrow's legislative hearing on the state's hazardous waste bill.

The federal provisions are limited to records, reports, documents, and information. 42 U.S.C. 6927(b). The state provisions also cover permit applications and permits. AS 46.32.050(a). Therefore, to the extent that the state legislation permits the confidential treatment of permit applications and permits, it is broader than its federal counterpart.

Page 9, line 26 of the Judiciary Committee draft authorizes the confidential treatment of permit applications, permits, records, and information. Therefore, to the extent that the state legislation does not authorize the confidential treatment of documents, it is narrower than the federal legislation.

Before a record, etc. may be afforded confidentiality, the state legislation requires a showing that its release to the public would disclose methods or processes entitled to protection as trade secrets. Page 9, lines 25 - 29. The federal legislation is broader than the state's in this regard; it affords confidential treatment to all or part of a record, etc. if its release would disclose information entitled to protection under 18 U.S.C. 1905. 18 U.S.C. 1905 protects information concerned or related to the trade secrets, processes, operations, style of work, or apparatus of any person, firm, partnership, corporation, or association.

The provisions of the federal law relating to the disclosure of confidential information are narrower than the provisions of proposed AS 46.32.050(b) and (c). Subsection (b) provides that confidential information may be disclosed to other officers, employees, and authorized representatives of the state or of the United States. The federal law limits disclosure to other officers, employees, or authorized representatives of the United States concerned with carrying out RCRA and to Congressional committees. The federal

law also authorizes disclosure in any proceeding under RCRA when relevant. AS 46.32.050(c) enables DEC to release confidential information in emergency situations, presumably without other restrictions (unless other restrictions are imposed by some other law).

AEP:clw

cc: Tim Bradner

SOHIO

SOHIO ALASKA PETROLEUM COMPANY

ATTACHMENT 2
IS NOT READY
yet
Deb

OFFICE CORRESPONDENCE

TO: Tim Bradner

DATE: May 22, 1981

FROM: Deb Borah

CC NO: 32,367

SUBJECT: Progress Report:
State Hazardous Waste Legislation

YOUR REF:

This report summarizes the current status of items pertaining to the Judiciary Committee's Work Draft of proposed State Hazardous Waste Legislation: HCS CSSB 29. There are several assumptions that have been made as follows:

1. The State has developed a strong interest in regulating hazardous wastes. Therefore, in spite of industry opposition, some type of legislation will eventually be passed which will allow ADEC to develop appropriate regulations. In other words, it will be very difficult to dissuade the State from passing hazardous waste legislation.

2. Since there is no State hazardous waste program in existence, the State is unbelievably optimistic regarding receiving Federal approval in the near future. Considerable work will be required to write regulations that will meet Federal approval guidelines. Industry's most valuable contribution will be in terms of the detailed drafting of the regulations.

3. Although Federal approval may be a long way off, the State has every right to regulate hazardous waste, and even more stingently than the Federal program. This could put industry in the very undesirable position of having to comply with two sets of regulations.

4. This proposed legislation is providing a vehicle for educating lawmakers, regulators, industry and the general public about hazardous waste regulation. The result of this effort will hopefully be apparent when the State regulations are drafted. There are numerous misconceptions being clarified as work on this legislation progresses. By taking advantage of this opportunity to increase the awareness of the Federal program, the regulation making effort at the State level should be enhanced.

5. Since the legislation will provide guidance for developing regulations, every reasonable effort should be made to make this legislation palatable to industry. Actually, a major goal of working on this legislation is to develop a strong rapport with the ADEC so that our contribution to drafting regulations is solicited.

Regarding the legislation directly, there are two major concerns that have been sufficiently resolved to be acceptable. The first is with the "universe of hazardous wastes" that the ADEC intends to regulate. Under Federal regulations, drilling muds and produced waters are presently exempted from consideration as hazardous wastes. Otherwise, the mud pits and produced water wells would be subject to exhaustive paperwork requirements, including the need for permits. These are excellent reasons for desiring the same exclusion under the State program. In response to this particular concern, ADEC has stated that it fully intends to regulate the same universe of hazardous wastes as the Federal program. The only deviation would be perhaps reducing the small quantity exemption from the current Federal limit. The main point is that ADEC has verbally stated that it will not identify as a hazardous waste what the Federal program does not identify as hazardous. This was a major breakthrough for industry.

The second major concern is fairly close to the first and pertains to the State program being "consistent" enough with the Federal program to receive approval. Otherwise, industry will be faced with the cumbersome task of complying with dual agency regulations. ADEC has indicated their desire to basically adopt and administer the Federal program with the option of regulating smaller quantities. The appropriate wording regarding "consistency" and "qualification" has been incorporated under Sec. 46.32.020. (1) and (2), pages 8 and 9, Work Draft-HCS CSSB 29. The inclusion of this wording has eased the concern over this issue.

The above two issues were paramount in making this legislation acceptable to industry. Further clarity and definition should definitely be attempted later at the regulation making level.

There are several remaining areas of the proposed legislation that are somewhat ambiguous or misleading. These are not major issues, but if reworded would make industry more comfortable with the legislation. Any gains in these areas with minimal effort should at least be attempted. These changes make the legislation more technically correct in terms of what ADEC intends to do. At the informal verbal level there exists a good working relationship with ADEC. However, since changing personnel have a large impact on this type of arrangement, it is better to have the legislation delineated clearly up front to reflect exactly what ADEC wants to do.

It is in this area that recent effort has been concentrated. Several discussions have been held with Tom Hanna, ADEC, and a lot of progress has been made. The changes in the most recent Work Draft reflect this effort and several other changes are still being contemplated. Attachment I is a summary of the information exchanged during discussions with Tom Hanna.

As you and I discussed, we will continue to refine HCS CSSB 29 and prepare comments to introduce at whatever point is appropriate, up to and including the free conference committee. Some of these comments may not appear to change the legislation to any great extent. However, considerable feedback is being provided to ADEC and all of this work will be valuable when the regulations are drafted.

I hope this information has been beneficial for your purposes. I will continue to discuss items with Tom Hanna and hopefully the result will be legislation that is at least somewhat more acceptable than what was originally proposed. Your effort in this area has been greatly appreciated, not only by myself, but also by Tom Hanna. If I can provide additional assistance, please let me know.

Debra Borah
Environmental Scientist

cc: R. V. Shafer
A. Prezyna

DB/kg

SUMMARY OF HCS CSSB-29 WORKING DRAFT

PROPOSED ACT RELATING TO THE DISPOSAL OF

RADIOACTIVE AND HAZARDOUS WASTE

May 11, 1981

HCS CSSB-29 is being considered in the current legislative session, to provide for the control of radioactive and hazardous waste. The Bill also includes provisions relating to construction of nuclear facilities. The following presents a section-by-section summary of the Bill as follows:

I. HIGH LEVEL FACILITIES AND WASTES

Section 1: As 18.45.100 prohibits construction of high level nuclear facilities.

Section 2: AS 18.45.110 modifies currently existing preconstruction review statutes for any high level radioactive waste facility; includes the requirement for the Legislature to designate by law any land to be used for this purpose, and defines financial responsibilities for long term effects from a disposal facility

Section 3: AS 18.45.110 (a) is presented as an alternative, if Section 1 of the Bill is found unconstitutional. This alternate section would require that nuclear facilities obtain a department permit prior to any construction.

Section 4: AS 18.45.110 (b) is presented as an alternative, if Section 1 of the Bill is found unconstitutional. This section would require the Legislature to designate by law any lands to be used for nuclear facilities.

Section 5: AS 18.45.120(a) is presented as an alternative, if Section 1 of the Bill is found to be unconstitutional. This section would require operators of nuclear facilities to show long term financial responsibility for any adverse environmental effects caused by their facility.

Section 6:

A. AS 18.45 130 allows the transportation of radioactive waste only for disposal out-of-state, or for disposal in an approved in-state facility.

B. AS 18.45.140 requires the storage and disposal of high level wastes to be done in a safe manner.

C. AS 18.45.150 places long term financial responsibility on the operator for waste disposal.

D. AS 18.45.160 provides for high level radioactive waste violations to be treated as a Class C felony, with penalties of up to $50,000 for each offense.

E. AS 18.45.170 includes the definitions by which high level wastes and low level wastes are defined.

II. LOW LEVEL WASTES

Section 7: Includes modification to the existing AS 46.03.250, to have this section relate to only low level radioactive waste.

Section 8: Includes modification to the existing AS 46.03.260, to have the section apply to only low level radioactive wastes.

Section 9: Includes the definitions applicable to AS 46.03.250-260 for high level and low level radioactive waste.

III. HAZARDOUS WASTES

Section 10: An additional subparagraph is added to AS 46.03.020(10) to provide regulatory authority for the handling, transportation, treatment, storage and disposal of hazardous wastes, as well as the safe handling and storage of hazardous materials.

Section 11:

A. AS 46.32.010 requires that hazardous wastes be processed to remove their harmful properties by the best available technology, with the remainder disposed of in a safe manner as defined by regulation.

B. AS 46.32.020 provides the department authority to establish criteria for identifying characteristics of hazardous wastes, and to list those hazardous wastes to be subject to regulations. It also requires that the department develop a program which is consistent with and assumes responsibility for federal programs under the Resource Conservation and Recovery Act.

C. AS 46.32.030 would require those persons generating, processing, transporting, storing or disposing of hazardous wastes to obtain a permit, and to provide reports which may be required by the department.

D. AS 46.32.020 specifies penalities associated with hazardous waste violations.

E. AS 46.32.050 specifies the definitions for the hazardous waste portion of the bill.

Section 12: Repeals AS 18.45.010 - 18.45.080.

Section 13: Identifies all sections of the bill as going into effect immediately except for Sections 3-5 and 10-11.

Section 14: Makes Section 3-5 effective if Section 1 is ruled invalid by court decision.

Section 15: Sections 10-11 go into effect as of July 1, 1981.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: M/S 533

Tom Hanna, Chief
Air and Solid Waste Management
Alaska Department of Environmental Conservation
State of Alaska
Pouch O
Juneau, Alaska 99801

Dear Mr. Hanna:

Pursuant to your inquiry, Section 3006 of the Resource Conservation and Recovery Act establishes the statutory requirements for interim authorization. In order for a state to receive interim authorization, it must submit to EPA evidence that shows the States' program is in existance and that the existing state program is substantially equivalent to the Federal Program. If the States' enabling legislation were to include a condition that it does not become effective until EPA grants interim authorization, it is difficult to imagine how this statutory requirement would be met. Additionally, it would be difficult for the State to demonstrate that their hazardous waste program would be adequately staffed and enforced unless the enabling legislation and the implementing rules and regulations were in effect at the time of application. We would further question whether State law would allow the adoption of rules and regulations if the enabling legislation were not in effect.

Sincerely,

Kenneth D. Feigner, Chief
Waste Management Branch

cc: Dave Hanline

1 of 1

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Testimony on SB-29
Relating to the Disposal of Radioactive Wastes

January 28, 1981

The Department of Environmental Conservation welcomes the opportunity to review and comment on SB-29, relating to the disposal of radioactive wastes in Alaska. We support this bill, and would like to request your consideration of several additions which would clarify portions of other statutes which have overlapping and conflicting requirements on disposal of radioactive wastes.

As written, SB-29 will accomplish two things. First, it will eliminate certain aspects of the currently existing Alaska Statute 18.45.025 which would be found to be unconstitutional under the terms of a recent state supreme court decision. These changes would take the legislature out of the formal process of reviewing and approving regulations and permits relating to the disposal of nuclear wastes. However, the Department would still have to obtain local government and governor approval to either activity. These conditions are retained from the present AS 18.45.025, and are supported by the Department as desirable preconditions for issuing permits for high level nuclear activities.

The second thing accomplished by the bill will be to prohibit the disposal of high level wastes. The Committee should be aware that this is probably pre-empted by federal law, but it would not hurt anything to retain this provision. It would clearly state the legislature's intent that these highly toxic wastes should not be disposed of in Alaska.

While the Department is supporting of the current provisions of the bill, the Committee should be aware that AS 46.03.250 and AS 46.03.260 also cover the adoption of regulations and issuance of permits for disposal of radioactive wastes. In an effort to clarify the jurisdiction of each statute, the Department recommends that a slight housekeeping amendment be added to these two statutes to make them apply only to low level radioactive wastes. These statutes would then read as follows:

AS 46.03.250 is amended to read:

Sec. 46.03.250. AUTHORITY. The department shall adopt regulations establishing standards governing the discharge of <u>low level radiation</u> [RADIONUCLIDES] to the air, water, land, and subsurface of the state.

AS 46.03.260 is amended to read:

Sec. 46.03.260. USE OF ATOMIC RADIATION. A person who conducts an operation which results in the discharge of <u>low level radiation</u> [RADIONUCLIDES] to the air, water, land or subsurface land of the state must obtain a permit from the department before commencing the discharge.

With these changes, the Alaska Statutes relating to radioactive waste disposal will be made compatible with recent court decisions, and portions of present statutes which overlap in their jurisdiction will be corrected.

The Department thanks the Committee for consideration of our comments, and we would be glad to respond to any questions or provide any additional information which might be requested.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

REVIEW OF HAZARDOUS WASTE DISPOSAL AND CONTROL IN ALASKA JANUARY , 1981

SUMMARY

Up to now there have been no detailed hazardous waste controls defined or put into effect in Alaska. Such wastes have been treated as a special category of solid wastes, and have come under only general review guidelines during the review and issuance of Solid Waste Disposal permits, and periodically have come under field surveillance by Department regional personnel as spills are detected. In the past few years, however, hazardous waste disposal and handling have come under much public scrutiny because of the adverse and often long-term nature of the substances. This report evaluates the extent of hazardous wastes in the state, the options and need for control measures to be established, and the effect that federal legislation may have in Alaska.

The report is organized in the following sections:

		PAGE NO.
1.	INVENTORY	3-4
2.	HAZARDOUS WASTE PROBLEMS AND CONTROL OPTIONS	5-8
3.	RECOMMENDED STATE PROGRAM	9
4.	RESOURCES NEEDED	11
5.	EFFECTS OF THE FEDERAL HAZARDOUS WASTE CONTROL PROGRAM	12-13
6.	REVIEW OF LEGISLATION	14
7.	APPENDICES	15-

Section 1

INVENTORY

Three preliminary inventories of hazardous wastes in Alaska have been started:

1. Environmental Protection Agency-under RCRA
2. Environmental Protection Agency-done by Field Inves'igation Team
3. Department of Environmental Conservation Inventory

THE EPA inventory under RCRA

Several months ago, EPA contacted 329 organizations and companies in Alaska which may be producers of hazardous wastes. Of those only 45 responded back to EPA (see "Notifiers", Appendix I).

Although EPA did not collect information in volumes of waste generated, disposed, transported, treated or stored at each facility, they did identify the types of wastes handled. The following is a brief sumary of that information. More details are given in Appendix III.:

Of the 45 companies which responded:

36 are involved with generation

28 with treatment, storage and disposal (TSD)

13 with transportation

(there are some overlaps because 36 companies are involved in more than one of these activities)

Seventy-five different types of waste streams were identified:

Five are associated with petroleum refining

8 are acute hazardous wastes

53 are toxic hazardous wastes

9 are nonspecific hazardous wastes

Of the remaining organizations and companies contacted, EPA "suspects" that approximately 59 may be major producers of hazardous wastes (see "Non-notifiers" Appendix II), and the status of the other 225 is unknown.

EPA - Field Investigation Team

July through September, 1980, a field investigation team from EPA visited 17 sites in Alaska which were suspected of improper management of hazardous wastes (Appendix IV). A visual inspection was performed at all sites. Twelve of these were not thought to be of "imminent danger" to the public or environment. The other 5 underwent an extensive sampling program by EPA. The final results and comments about the whole investigation of these sites will not be available until the end of February.

Department of Environmental Conservation

The Department of Environmental Conservation inventory was started this year. Approximately 75 sites were evaluated: 13 were landfill storage sites, 33 were generators, and 29 sites contained PCBs. (Appendix V) Although there are no legal sites for the disposal of hazardous waste in the state, it is suspected that a large number of facilities may be disposing of hazardous wastes into the environment. An example is the Tesoro Refinery (Kenai) which was discovered to be dispersing approximately 70,000 gallons of heavy oily tank bottoms onto the land without adequate safeguards.

Several of the sites evaluated by DEC are classified as abandoned disposal sites. a. Chichikof (mine)

1. Sodium cyanide (20#) 30 gal. drum

b. North Beaver Falls (mine)

1. Potassium Amylxanthate (1#) 30 gal. drum
2. Sodium Ethylxanthate (#) 30 gal. drum
3. Ferrous Sulfate (#1) 30 gal. block

c. Big Hurrah River (mine)

1. Sodium cyanide (20#) 30 gal. drum

There are a number of suspected sites throughout the state which have not yet been located or investigated. Likely sites include: old military installations, oil exploration sites, cannerie and mining sites.

Summary

These inventories are not complete; however, efforts are continuing to gather more information. There has been some difficulty in obtaining this information because of the uncooperative attitudes that small businesses, industry and the military have had towards releasing this type of information, and because of the lack of understanding by industry and the military of RCRA guidelines and of the meaning or definition of hazardous wastes. The information gathered thus far indicates that perhaps 75-100 sites are suspected of containing hazardous wastes, and that further investigations are warranted.

Hazardous wastes are those wastes having characteristics of toxicity, ignitability, corrosivity, and reactivity. The list and more explicit definitions of these characteristics are given in Appendix VI.

Of concern to the Department of Environmental Conservation is that only 22 shipments of hazardous waste have been received by the closest secure landfill (Chem-Security in Oregon) in the past two years. Some of these shipments, for example, are: 10 drums of PCB sent by Sohio; some drums of toxic Phenol sent by Alaska Fish & Game; and some lead oxide waste sent by Mare Enterprises. It is assumed that this is a small percentage of the hazardous waste in this state requiring disposal.

HAZARDOUS WASTE

PROBLEMS AND CONTROL OPTIONS

A. DISPOSAL AND CONTROL OPTIONS

1. There are presently no adequate disposal facilities in the state. The options we have are:

   a. Establish a secure landfill and solid waste incinerator solely for the in-state disposal of hazardous waste. These facilities would likely cause some public controversy, but such facilities would provide for state-of-the-art disposal, cheaper and more convenient dumping, decrease in unwanted dumping, and a safer environment for all.

   b. Establish suitable sanitary landfills capable of handling hazardous wastes, as well as their usual variety of municipal refuse. It is not yet possible to accomodate both solid and large quantities of hazardous wastes in one facility in Alaska.

   c. Rely on out-of-state disposal, with establishment of in-state transfer stations (central collection storage facility) at various locations within the state and sufficient safegards for storage and transportation.

   Recommendation: Item c. Item a, if industry will underwrite the operation.

2. There are a number of small businesses producing limited quantities of waste materials. These quantities are too small to be regulated under RCRA. However, because of the number of businesses and the potential accumulation of large quantities of waste, this area needs to be specifically addressed. A spill or disposal of even small amounts of some hazardous wastes may be very dangerous.

   a. Prohibit disposal of even small quantities of hazardous wastes into landfills, unless landfills meet the necessary requirements for adequate safeguards.

   b. Provide technical assistance to small businesses to help them correctly dispose of their wastes.

   c. Have levels of hazardous waste discharge into sanitary landfills set at 1 kg/month per generator, and for acute toxic waste set at 50 grams/month per generator.

   Recommendation: Items a, b, and c.

3. Improper disposal of hazardous waste, past and present.

   a. Investigate and locate all old and current disposal sites for presence of hazardous wastes.

   b. Develop monitoring programs to detect inappropriate disposal and/or contamination.

c. Implement clean up programs.

d. Enforcement.

Recommendation: Items a, b, c, d.

B. STORAGE OF HAZARDOUS WASTE

1. There are currently no control guidelines on storage of hazardous wastes in the state.

a. Establish guidelines for storage/transfer stations.

Recommendation: Item a.

2. Not enough storage facilities to handle all the hazardous wastes generated.

a. Encourage intermediate storage of waste at transfer stations until they can be shipped outside.

b. Technical assistance to reduce waste at the source where possible.

Recommendation: Item a. and b.

C. TRANSPORTATION

1. No control over the transport or liability of transporters for spills or improper management of hazardous wastes.

a. Develop and implement regulations for the safe transport of hazardous wastes.

b. Develop and implement a manifest system which would track the material from generator through transportation to final disposal (cradle to grave, system, see Appendix VII).

c. Require transporter to be responsible for clean-up of spills and notification to DEC or USCG in the event of spills. Setup effective statewide telecommunication system and require cleanup of wastes from spills.

d. Safety course for transporters- successful completion required for registration to carry hazardous wastes.

e. Placarding and labeling of hazardous wastes shipments.

Recommendation: Items a,b,c,d and e.

2. There is a higher liability to transport hazardous wastes in liquid state.

a. Require recycling of hazardous liquid waste whenever feasible. This will be accomplished through a Waste Exchange newsletter and various incentives to promote recycling.

b. Require that acute hazardous liquid waste be solidified prior to transpo[illegible] unless it can be recycled as [illegible]iquid.

c. Reinforce DOT regulations on shipment of hazardous liquids.

Recommendation: Item a, b, and c.

D. GENERATORS

1. Identify hazardous waste generators in the state.

a. Mandatory notification

b. Perform field inspections and technical assistance

Recommendation: Item a. and b.

2. Control disposal and storage locations used by hazardous waste generators.

a. Manifest system

b. Perform field inspections and technical assistance

Recommendation: Item a. and b.

3. Control improperly managed on-site disposal

a. Establish criteria for correct on-site disposal

b. Provide technical assistance on proper methods of on-site disposal

Recommendation: items a. and b.

E. TREATMENT

1. There is no control over disposal methods and no requirement that best available technology be used. Therefore, there are no assurances that after treatment the waste will no longer be hazardous.

a. Set required standards for hazardous waste treatment methods & facility operations

b. Provide technical assistance to facilities upgrading to the required best available technology

c. Enforce required standards, if necessary

Recommendation: Items a, b, and c.

F. PUBLIC EDUCATION

1. The general public doesn't understand what hazardous wastes are, why or how they are produced, or the problems they cause when improperly managed or disposed.

a. Set up public awareness and education program.

b. Encourage reporting of suspected improper management and disposal.

c. Develop statewide communication system for spills and general information.

Recommendation: Items a, b, and c.

G. EMERGENCY RESPONSE/SAFETY

1. We do not have a program adequately respondirg to emergency spills or problems associated with hazardous waste clean up.

a. Develop guidelines and procedures for emergency response and clean-up.

b. Train state and federal personnel on emergency preparedness.

c. Obtain adequate safety equipment.

d. Provide technical assistance to regional offices and industries relating to emergency preparedness.

e. Promote private response programs

Recommendation: Items a, b, c, d, and e.

H. RESOURCE RECOVERY

1. A large number of recyclable hazardous wastes are probably not being recycled.

a. Develop waste exchange newsletter.

b. Provide technical assistance to both generators and recyclers.

c. Investigate incentives for recycling of hazardous wastes.

Recommendation: Items a, b and c.

I. HAZARDOUS MATERIAL

1. There are no regulations on the storage of hazardous materials. — definition

Note: If hazardous material discharge from containers because of improper handling, storage or transportation then resulting material becomes a hazardous wste and can cause detrimental health problems an environmental effects.

a. Set up guidelines similar to those for hazardous waste.

b. Provide technical assistance.

c. Require spill contingency plans & diking requirements

Recommendation: Items a,b, and c.

MEMORANDUM State of Alaska

TO: Ernst W. Mueller, Commissioner
Department of Environmental
Conservation

DATE: November 19, 1980

FILE NO: J-66-128-81

TELEPHONE NO: 465-3680

FROM: WILSON L. CONDON
ATTORNEY GENERAL

By: Ann E. Prezyna
Ann E. Prezyna
Assistant Attorney General

SUBJECT: Review of legal authority for meeting federal solid waste control requirements

By memorandum date July 2, 1980, you have asked this office to review the applicable law to determine whether or not your department has the legal authority to carry out the requirements of the federal Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. 6901 et seq. In particular, you have asked whether your department has the authority to (1) prohibit the establishment of new open dumps and require that existing open dumps be closed or upgraded (citing 40 CFR 256.20) and (2) meet the federal requirements for interim authorization for hazardous waste management (citing 40 CFR 260 and 261).

My conclusion regarding your first question is that the department has the authority to prohibit establishment of new open dumps and to require that existing open dumps be closed or upgraded. My analysis follows.

AS 46.30.710 provides that:
No person may pollute or add to the pollution of the air, land, subsurface land or water of the state.

AS 46.03.900 defines pollution to mean:

> the contamination or altering of waters, land or subsurface land of the state in a manner which creates a nuisance or makes waters, land or subsurface land unclean, or noxious, or impure, or unfit so that they are actually or potentially harmful or detrimental or injurious to public health, safety or welfare, to domestic, commercial, industrial, or recreational use, or to livestock, wild animals, bird, fish, or other aquatic life.

Under the provisions of AS 46.03.020, the commission may adopt regulations necessary to effectuate the policy set forth in AS 46.03.710. AS 46.03.020 provides, in part, that the department may:

> (10) adopt regulations necessary to effectuate the purposes of this chapter, including, by way of example and not limitation, regulations providing for

(A) control, prevention and abatement of air, water, or land or subsurface land pollution: . . .

(E) collection and disposal of garbage, refuse, and other discarded solid materials from industrial, commercial, agricultural and community activities or operations: . . .

(H) such other purposes as may be required for the implementation of the policy declared in § 10 of this chapter.

It is my opinion that under this broad grant of authority, the commissioner may promulgate regulations prohibiting the establishment of new open dumps.

It is also my opinion that the department currently has the authority to require that existing open dumps be closed or upgraded. Indeed, acting under the authority of AS 46.03.760 and 18 AAC 60, the department has previously succeeded in closing existing open dumps or getting them upgraded. A more detailed analysis describing the applicable investigatory and enforcement powers available to the department in this regard is set forth below in response to your question on the authority of the department to meet the federal requirements for interim authorization.

Based on the following analysis, my conclusion regarding the second question is that the department has the authority to meet the federal requirements for interim authorization for hazardous waste management. Some of the federal requirements are already conferred by existing legislation, such as the requirement that the department have the authority to assess or bring suit for civil and criminal penalties of at least $1,000 per day for any solid waste control program violation. Other federal requirements -- such as the requirement that the department institute a manifest system for tracking hazardous wastes -- can be met only by the promulgation of regulations which specifically address these requirements. However, even though it is my opinion that the existing broad grant of authority given to DEC by statute enables you to promulgate regulations creating a sweeping hazardous waste and solid waste disposal program, I would caution you to first sound out the legislature to determine whether it is politically preferable to secure specific legislation creating such a state program.

The regulatory requirements for interim authorization for Phase I of the federal program are set forth at 40 CFR 123(f).

In my analysis of these requirements, I have followed the guidelines provided by the U.S. Environmental Protection Agency in its RCRA State Interim Authorization Guidance Manual (dated 6/25/80).

The model format for the attorney general's statement for interim authorization Phase I is set out in the EPA manual at 2.3-4 to 2.3-12 and has nine parts. For purposes of my analysis, I have reformulated each of these nine parts into a series of questions. My answers to these questions formed the basis of my opinion that the state can meet federal solid waste control requirements. Please note that only those questions not denoted by an asterisk must be answered affirmately to qualify the state for Phase I interim authorization. Stated another way, a negative answer to any asterisked question cannot, under federal law, result in the denial of Phase I interim authorization. The questions are the following:

* * *

I. INDENTIFICATION AND LISTING

Can the state control hazardous waste generated, transported, treated, stored, and disposed of in the state? Can the state define hazardous waste to include all substances controlled under federal law?

II. STANDARDS FOR GENERATORS OF HAZARDOUS WASTE.*

A. Can the state apply standards to all generators of hazardous waste?

B. Can the state require generators to determine whether their waste is hazardous?

C. Can the state require generators to comply with storage and recordkeeping requirements?

D. Can the state require generators which accumulate waste for shipment to meet certain safety and health standards?

E. Can the state mandate international shipping requirements?

F. Can the state require generator-transporters to use a manifest system? Can the state require that intra- and interstate shipments be designated for delivery? Can the state require that intra-state shipments be delivered only to authorized facilities?

G. Can the state set the following manifest system requirements?

1. A requirement for identification of the generator, the transporter, the recipient and the waste?

2. A requirement that the manifest accompany all transported waste?

3. A requirement that a shipment not delivered to a designated facility be identified and reported by the generator?

4. A equirement for notification of an undelivered inter ate shipment to the state designated for receipt?

III. CAN THE STATE SET STANDARDS FOR TRANSPORTERS OF HAZARDOUS WASTE?

A. Can the state apply standards to all transporters?

B. Can the state establish recordkeeping requirements?

C. Can the state require the use of a manifest system?

D. Can the state require that a manifest accompany transported waste?

E. Can the state set notification and cleanup requirements for wastes discharged in transport?

IV. CAN THE STATE SET STANDARDS FOR STORAGE, TREATMENT, AND DISPOSAL FACILITIES? CAN THE STATE PROVIDE THAT NO FACILITY MAY OPERATE UNLESS THE FACILITY COMPLIES WITH CERTAIN STANDARDS, INCLUDING,

A. A requirement for the prevention of accidental release? A requirement for emergency procedures in the case of accidental release?

B. Closure requirements? Post-closure requirements?

C. Groundwater monitoring?

D. Security?

E. Training of personnel?

F. Inspection? Monitoring? Recordkeeping? Reporting?

G. Compliance with manifest system requirements? Notification requirements?*

H. Other standards as required by federal law?

V. DOES THE STATE HAVE POWERS OF INSPECTION?

VI. DOES THE STATE HAVE ENFORCEMENT AUTHORITY?

A. May the state issue an emergency order or seek a court

order restraining any person from engaging in unauthorized activity which endangers or causes damage to public health or the environment?

B. Does the state have the authority to sue to enjoin a threatened or continuing violation of a program requirement?

C. Does the state have the authority to assess, or bring suit for, civil penalties of at least $1,000 per day for any program violation, or seek criminal remedies including fines of at least $1,000 per day for any program violation?

VII. PUBLIC PARTICIPATION IN THE ENFORCEMENT PROCESS.

Does the state provide for public participation in the enforcement process?

A. Is there authority which allows intervention as of right in any civil or administrative action under VI by any citizen who has an interest or may be adversely affected?

OR

B. Are there assurances that the state will:

1. Investigate and provide written response to citizen complaints?

2. Not oppose intervention by any citizen where permissive intervention is authorized?

3. Publish and provide 30 days for public comment on any proposed settlement of a state enforcement action?

III. AUTHORITY TO SHARE INFORMATION WITH EPA UPON REQUEST AND WITHOUT RESTRICTION?

IX. AUTHORITY OVER INDIAN LANDS (if sought)?

* * *

The first four parts address the ability of the state to control solid waste by setting standards for the generators, transporters, and disposers of solid waste. Because the powers of the department are stated in very broad terms, it is my opinion that the department has the authority to meet all of the federal requirements set forth in Parts I-IV. Specifically, AS 46.03.020 provides as follows:

Powers of the department. The department may

(1) enter into contracts necessary or convenient to carry out the functions, powers and duties of the department;

(2) review and appraise programs and activities of state departments and agencies in light of the policy set out in § 10 of this chapter for the purpose of determining the extent to which the programs and activities are contributing to the achievement of that policy and to make recommendations to the departments and agencies, including but not limited to, environmental guidelines;

(3) consult with and cooperate with
(A) officials and representatives of any nonprofit corporation or organization in the state;

(B) persons, organizations and groups, public and private, using, served by, interested in or concerned with the environment of the state;

(4) appear and participate in proceedings before any state or federal regulatory agency involving or affecting the purposes of the department;

(5) undertake studies, inquires, surveys or analyses it may consider essential to the accomplishment of the purposes of the department; these activities may be carried out by the personnel of the department or in cooperation with public or private agencies, including educational, civic and research organizations, colleges, universities, institutes and foundations;

(6) at reasonable times enter and inspect with the consent of the owner or occupier any property or premises to investigate either actual or suspected sources of pollution or contamination or to ascertain compliance or noncompliance with a regulation which may be promulgated under §§ 20-40 of this chapter; information relating to secret processes or methods of manufacture discovered during investigation is confidential;

(7) conduct investigations and hold hearings and compel the attendance of witnesses and the production of accounts, books and documents by the issuance of a subpoena;

(8) advise and cooperate with municipal, regional and other local agencies and officials in the state, to carry out the purposes of this chapter;

(9) act as the official agency of the state in all matters affecting the purposes of the department under federal laws now or hereafter enacted;

(10) adopt regulations necessary to effectuate the purposes of this chapter, including, by way of example and not limitation, regulations providing for

(A) control, prevention and abatement of air, water, or land or subsurface land pollution;

(B) safeguard standards for petroleum and natural gas pipeline construction, operation, modification, or alteration;

(C) protection of public water supplies by establishing minimum drinking water standards, and standards for the construction, improvement, and maintenance of public water supply systems;

(D) collection and disposal of sewage and industrial waste;

(E) collection and disposal of garbage, refuse, and other discarded solid materials from industrial, commercial, agricultural and community activities or operations;

(F) control of radiation sources to prohibit and prevent unnecessary radiation;

(G) control of pesticides;

(H) such other purposes as may be required for the implementation of the policy declared in § 10 of this chapter;

(11) after consultation with other state agencies and local government officials, identify and propose for addition or deletion, by regulation, other licenses, permits or authorizations for which the provisions of ch. 30 [ch.35] of this title are applicable, and report annually to the legislature the permits which have been included or deleted.

The constitutionality of this sweeping delegation of authority to the department to do, in essence, all things necessary "to conserve, improve and protect . . . [the] natural resources and environment [of the state] and control water, land and air pollution, in order to enhance the health, safety and welfare of the people of the state and their overall economic and social well-being" has been upheld by the state supreme court. AS 46.03.010; Stock

v. State, 526 P.2d 3 (Alaska 1974). Therefore, I have concluded that each of the questions stated in Parts I-IV can be responded to in the affirmative. However, the department will have to adopt regulations, pursuant to AS 46.03.020(10)(A) and (D)-(H), to implement the requirements of Parts I-IV as the state does not yet have a solid waste control program along these lines.

The remaining Parts V-VII deal generally with the ability of the state to enforce the solid waste standards established under Parts I-IV.

Part V requires that the state have powers of inspection. AS 46.03.020(6) provides in part that the department may "at reasonable times enter and inspect with the consent of the owner or occupier any property or premises to investigate either actual or suspected sources of pollution or contamination to ascertain compliance or noncompliance with a regulation which may be promulgated under 20-40 of this chapter." In addition, AS 46.03.860 authorizes the department to "seek search warrants for the purpose of investigating actual or suspected sources of pollution or contamination to ascertain compliance or noncompliance with this chapter or a regulation promulgated under this chapter." It is my opinion that this statutory authorization satisfies the federal requirement.

Part VI addresses the ability of the state to enjoin violations and to impose civil or criminal sanctions. Administratively, AS 46.-03.820(a) enables the department to issue an emergency order restraining a person from engaging in unauthorized activity which endangers or causes damage to public health or the environment. If an emergency order is not immediately complied with, then the attorney general, upon request of the commissioner, must seek court enforcement of the order. AS 46.03.820(d).

Similarly, AS 46.03.850 authorizes the department to issue a compliance order when a person is violating or is about to violate a provision of AS 46.03 or a regulation, lawful order, permit, certificate, or a term or condition of a permit or certificate issued by the department under AS 46.03. Regulations prescribing the procedure to be followed in the issuance of compliance orders are set forth at 11 AAC 95. Compliance orders are enforceable by the attorney general. AS 46.03.850(f); AS 46.03.950(a). Once a solid waste program is set forth in department regulations, then AS 46.03.850 will provide a means by which the department may administratively enforce its program requirements. In

addition, AS 46.03.765 authorizes the state to sue to enjoin a threatened or continuing violation of a program requirement.

Regarding the ability of the state to undertake a civil action for damages, AS 46.03.760 authorizes the state to bring suit for civil penalties in the amount of $500 to $100,000 for an initial violation of a provision of AS 46.03 or a regulation, lawful order, permit, certificate, or term or condition of a permit or certificate issued under AS 46.03. Continuing violations are subject to assessments of up to $5,000 a day. Therefore, once a solid waste program is set forth in department regulations, AS 46.03.760 will provide the means by which the department may seek civil penalties for program violations. Similarly, AS 46.03.790 will provide the means by which the state may seek criminal penalties for program violations of up to $25,000. For purposes of section 790, each day on which a violation occurs is considered a separate violation.

Both AS 46.03.760 and AS 46.03.790 have been found to be constitutional by the Alaska Supreme Court. Stock v. State, 536 P.2d 3 (Alaska 1974) (decided before the 1976 amendment of these sections.)

However, in that decision the Alaska Supreme Court imposed a foreseeability requirement, as a narrowing construction on the definition of pollution contained in AS 46.03.900. The relevant portion of that decision states:

> We hold that by use of the word "potentially" the statute prohibits acts which a reasonable person would foresee as creating a substantial risk of making water actually injurious to the statutorily protected interests. . . . Thus, in "potentiality" cases [i.e., cases involving potential as opposed to actual harm], the state must hereafter prove that the threatened injury was foreseeable to a reasonable man in the position of the defendant at the time of the act or omission.

526 P.2d at 10-11. (Bracketed portion added.)

In addition, the Stock decision holds that the department is not required to exhaust administrative (e.g., compliance order) proceedings before instituting court action against a defendant for a polution violation, notwithstanding the fact that the same violation serves as the basis for both the administrative and the court action. Id. at 13 ff. Therefore, both judicial and administrative remedies may be pursued simultaneously.

Thus, it is my opinion that the state has enforcement authority sufficient to meet the federal requirements of Part VI.

Part VII requires that the state provide for public participation in the enforcement process. 18 AAC 15.010 et seq. are the regulations which govern the administrative procedures of the department in ruling on applications for various permits and written approvals. If a solid waste program were implemented by the department and made subject to these administrative procedures, as is likely to occur, then the provisions of 18 AAC 15.200 et seq. would apply. The provisions of 18 AAC 15.200 et seq. allow any person to request an adjudicatory hearing to contest a decision made under 18 AAC 80 (i.e., a decision to approve or disapprove an application for a permit or written approval as specified under 18 AAC 15.010). A hearing will be granted if the request discloses that the requestor would be adversely affected by the department's decision, that the requestor has raised a genuine issue of fact material to the decision, and that the procedural requirements of 18 AAC 15.200 have been met. 18 AAC 15.220. In addition, 18 AAC 15.220 allows intervention in these administrative hearing proceedings by other interested parties.

The federal requirement set forth in Part VI, however, must be satisfied in one of two ways. Either there must be authority which allows intervention as of right in any civil or administrative action under Part VI by any citizen who has an interest or may be adversely affected, or, alternatively, there must be assurances that the state will investigate and provide written response to citizen complaints, assurances that the state will not oppose intervention by any citizen where permissive intervention is authorized, and assurances that the state will publish and provide 30 days for public comment on any proposed settlement of a state enforcement action.

Currently, there is no law or policy which enables an interested party to participate in administrative enforcement proceedings. However, court rules applicable to civil enforcement proceedings do provide a mechanism for both permissive intervention and intervention as of right. Specifically, Civil Rule 24 provides in part as follows:

> (a) Intervention of Right. Upon timely application anyone shall be permitted to intervene in an action when the applicant claims an interest relating to the property or transaction which is the subject of the action and he is so situated that the disposition of the action may as a practical matter impair or impede his ability to protect that interest, unless the

> applicant's interest is adequately represented by existing parties.
>
> (b) Permissive Intervention. Upon timely application anyone may be permitted to intervene in an action when an applicant's claim or defense and the main action have a question of law or fact in common. . . . In exercising its disrection the court shall consider whether the intervention will unduly delay or prejudice the adjudication of the rights of the original parties.

Based on the above analysis, it is my opinion that there is insufficient state authority to allow intervention as of right in all civil and administrative actions listed under Part VI. However, it is also my opinion that the department can provide assurances that it will

1. investigate and provide written response to citizen complaints,

2. not oppose intervention by any citizen where permissive intervention is authorized, and

3. publish and provide 30 days for public comment on any proposed settlement of a state enforcement action.

These assurances may best be made in the context of regulations implementing a solid waste control program for the state. Thus, it is my opinion that the state can adequately provide for public participation in the enforcement process.

Part VIII requires that the department have authority to share information with EPA upon request and without restriction. The ability of DEC to share information with EPA is governed by the provisions of AS 09.25.110-120 and 18 AAC 10.010-180.

AS 09.25.110 provides as follows:

> Inspection and copies of public records. Unless specifically provided otherwise the books, records, papers, files, accounts, writings, and transactions of all agencies and departments are public records and are open to inspection by the public under reasonable rules during regular office hours. The public officer having the custody of public records shall give on request and payment of costs a certified copy of the public record.

AS 09.25.120 further clarifies the public's right to inspect and copy public records. In part, that statute excepts from public inspection and copying any record required to be kept confidential by a federal law or regulation or by state law. Other than the confidentiality provisions of AS 46.03.180, which relates to the control of air quality, and of AS 46.03.020(6), which relates to secret processes or methods of manufacture discovered during investigation, there is no other state law applicable to DEC which provides an exception within the meaning of AS 09.25.110-120.

18 AAC 10.010 et seq. are the department's regulations on freedom of information. These regulations set forth the department's policy on disclosure of department records and provide procedures for obtaining such information. Specifically, 18 AAC 10.010 provides:

> Policy on Disclosure of Department Records. (a) It is the policy of the department to give full access to documents in the public domain and to provide copies of such information in an expeditious manner. It is also the department's policy to facilitate the public's participation in the affairs of the agency which was created to serve them and the public interest in matters of the environment. It is the purpose of this chapter to ensure that requests for information are handled in a timely, reasonable and responsive manner while at the same time protecting people's right to privacy.
>
> (b) All department records are available to the public unless they are exempt by law.
>
> (c) All nonexempt records of the department will be made available for public disclosure upon request, regardless of whether any justification or need for those records has been shown.

Thus, the department is required by state law to share information wiht EPA upon request unless specifically provided otherwise. Therefore, it is my opinion that the requirements of Part VIII have been satisfied at this time.

The last part, IX, requires the state to set out the basis of its authority over Indian lands, if sought. I suggest that if you choose, as a matter of policy, to assert authority over Indian lands, that this question be turned over to Deborah Vogt, our in-house authority on Indian laws, for resolution.

If I can be of additional assistance on this matter, particularly with respect to drafting specific legislation or additional regulations, do not hesitate to call.

FINAL

COMMENTS OF THE
ALASKA OIL AND GAS ASSOCIATION
ON
ALASKA'S DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DRAFT HAZARDOUS WASTE MANAGEMENT REGULATIONS
January 28, 1983

1. 18 AAC 62.010 Definition of Hazardous Waste

COMMENTS:

This definition of a hazardous waste appears to be a two-part definition. The first part identifies the material which is considered a waste, and the second part identifies the characteristics of that material which make it hazardous. In addition to including waste identified in 40 CFR 261.2, the definition of a waste appears to include byproducts, since it specifically includes those materials which are the result of a commercial or industrial activity which was not undertaken for the purpose of producing or generating those materials. Unavoidable byproducts that are marketable should not be classified as "wastes" just because the process is not "for the purpose of producing" them. For example, gold is a byproduct of copper refining and would be classified as a waste from a copper smelter under this definition. The point to be made here is that an industrial byproduct should not be classified as a waste until there is an intent to discard.

Using the term "waste" in the definition of hazardous waste is very confusing. We suggest the state refer to wastes as solid wastes defined by 18 AAC 60 "Solid Waste Management Regulations."

Defining wastes as solid wastes allows a single definition applicable to both 18 AAC 60 and 18 AAC 62 regulations. The respective regulation could then define what portion of the State's solid wastes are hazardous and non-hazardous.

RECOMMENDATIONS:

Rewrite 18 AAC 62.010 as: "A waste is hazardous waste and subject to the provisions of this chapter if: (1) It is not excluded from regulation as a hazardous waste under Section 62.130; and (2) It exhibits any of the characteristics described in this chapter; or (3) It is listed in Appendices I and II of this chapter and it exceeds the quantities established in this chapter."

Change the title of section 62.010 to Applicability.

2. 18 AAC 62.020 Lists of Hazardous Wastes and 18 AAC 62.030 Hazardous Waste Sources

COMMENTS:

Sections 62.020 and 62.030 should be combined into a single section. Doing this would allow all the listing information to be incorporated together for easy access by the user.

The State should prepare a justification for re-arranging the chemical products listed at 40 CFR 261.33(e) and (f) into Appendix II "Discarded Chemical Products" found in this draft regulation.

3. 18 AAC 62.040 Discarded Chemical Products

COMMENTS:

The first sentence of this section could be deleted because reference to 40 CFR 261.33(e) and (f) existing as of July 1, 1982 was made in section 62.020.

In addition to lowering the small quantity generator exclusion for acutely toxic wastes, which in the federal regulations is 100 kg (40 CFR 261.5), this section expands the universe of chemicals which could become hazardous wastes. The regulation should exclude any legitimate use, reuse, recycling or reclamation as we do not believe that this regulation should regulate the "intended" use of a chemical material. Rather this regulation should only concern itself with regulating chemical materials intended to be discarded as is stated in the second sentence of this section.

RECOMMENDATIONS:

The first and third sentences should be deleted from this section.

The last two sentences should begin "If a person generates as a waste ...". If the phrase as a waste is not added, these sentences appear to apply to the amount of chemical manufactured rather than to the amount which is discarded.

We also recommend breaking this section up into sub-sections titled (a) Hazardous Chemical Products and (b) Acutely Hazardous Chemical Products.

4. 18 AAC 62.050 Characteristics of Toxicity

(a) This section would classify a waste as hazardous based upon animal testing of oral or aquatic toxicity.

COMMENTS:

First, the section calls for the use of "procedures established by (e) of this section". These procedures have not yet been published

and we have no way of evaluating their validity. In any event, the use of any methods which have not received review by a standard setting organization (such as the ASTM) is questionable. In order to have validity, test methods must be subjected to widespread testing and use. This type of validation study often leads to refinement of test methods which otherwise would have yielded erroneous results. A proper determination of whether a waste is hazardous or not is critically important to this program, and therefore the test methods to make the determination are also critical.

Second, the section says a waste will be considered hazardous if it "has an aquatic (fish) LC_{50} of less than (emphasis added) 1,000 mg/l or an oral (rat) LD_{50} of less than 5,000 mg/kg". These are extremely stringent levels on which to base the hazard determination, and we see no justification for their use. The USEPA's RCRA regulations specify that an oral (rat) LD_{50} of 50 mg/kg will cause the waste to be considered hazardous (40 CFR 261.11). That means that Alaska's regulations will be 100 times more stringent than the USEPA's. It should be noted that the federal RCRA regulations do not use LD_{50} and LC_{50} acute toxicity test results in the same sense as the ignitability, corrosivety, reactivity and EP-toxic characteristic tests. Rather, these toxicity test results are used as a listing criteria for assisting the EPA Administrator in determining whether a given waste should be added to one of the hazardous waste lists at 261.33(e) and (f). In addition, aquatic toxicity test results are not included in the Federal RCRA listing procedure. The federal program realized the limitations of using toxicity data to characterize a waste as hazardous. Therefore, RCRA adopted a listing approach to hazardous waste which uses among other things toxicity test results (LC_{50} and LD_{50}) as listing criteria.

In addition, this approach does not conform to Alaska's hazardous waste statutory requirements under which this program is being developed. The enabling legislation calls for ADEC's regulations to be "consistent with or substantially equivalent to" the federal program, and provides that before a waste may be listed as hazardous waste in the state regulations that is not also listed as a hazardous waste by the United States Environmental Protection Agency under 42 U.S.C. 6921, the Commissioner of ADEC must first determine that the waste is hazardous as defined by the state statute (AS 46.03.299(b)).

The proposed rules for Alaska are much more stringent than the Federal standards without explaining why.

Third, the section allows a waste generator to use the procedures of paragraphs (b)-(d), if the generator "has knowledge of each significant constituent of the waste and its concentration . . .". The section goes on to state that "significant" constituents include any substance listed in the NIOSH Registry with one of the LC_{50} or LD_{50} values in Table 2 or in 40 CFR §117.3 (reportable quantities of hazardous materials). The problems with this approach are numerous - a few are listed below.

1. It should be pointed out that the waste example given in 62.050(c) is extremely naive. To obtain knowledge of each significant constituent (i.e., Aldrin - .01%, Diuron - 1%, Benzene - 4%, Phenol - 2%, Cyclohexane - 5%, Water - 87%) used in this example, would impose a tremendous analytical burden upon the generator. Let's analyze this waste characterization example first assuming very little knowledge of the constituents or percent of constituents in that waste and second assuming we know the constituents in the waste but not the relative percent.

   Under the first assumption the waste must be analyzed for all X, A, B, C and D constituents as defined by Table 2. For simplicity's sake let's only consider X category wastes listed in Appendix II. There are 24 X category constituents listed in Appendix II. The X category wastes alone would require the generator to analyze this waste for all 24 constituents. When analytical sampling of a waste is performed it is always prudent to take repetitive and representative samples. In our situation let's assume two samples of this waste are analyzed for the 24 X category constituents. The total analytical cost to identify and determine relative percentages of the the X category wastes would be approximately $3,000. After completing the analytical work the combined totals would then be inserted into the EC equation for % constituent X. While this example only concerns itself with X category constituents listed in Appendix II it applies equally as well to the A, B, C and D category constituents. In addition, this example did not concern itself with the thousands of X, A, B, C, and D category constituents which could be found in the NIOSH registry.

   Under the second assumption, the generator must analyze this waste to determine relative percentages of each constituent. Determining relative percentages alone could cost the generator approximately $2,500 (this is for X, A, B, C and D components). The point to be made is that while the degree of hazard (EC) approach is an apparent attempt to overcome some of ADEC's perceived shortcomings with the federal program, it presently is not a realistic approach to the problem. As was found at the federal level and hopefully illustrated here, the amount of analytical testing required to implement a degree of hazard approach is extremely difficult to perform and would be prohibitively expensive.

2. The 1980 NIOSH Registry lists 168,096 chemical substances, many of which have an LD_{50} or LC_{50} listed. To use this listing in order to decide what to look for in a waste analysis would be nearly impossible. One would have to look at each listing and see if it was within the toxicity range of concern. You would then end up with thousands of chemicals to analyze the waste for. As stated above this would be extremely costly to the generator.

3. Many common substances which are normally not considered to be toxic are listed in the NIOSH Registry and are within the ranges given in Table 2. For instance, salt (NaCl) has an LD_{50} of 3,000 mg/kg. Sodium bicarbonate (baking soda) has an LD_{50} of 4,420 mg/kg. This means each of these substances would be in the D range, and if they comprise more than 10% of a waste, the waste could be hazardous.

   If a bakery accidently used too much salt or baking soda and ruined a batch of bread dough weighing 400 lbs., under this section the bakery would be required to determine the amount of salt and baking soda in the bad batch before disposing. This is another example of the potential problems with this type of constituent approach. A short, and by no means conclusive, list of other materials which could be considered hazardous under this section are:

Material	Toxicity from the NIOSH Registry
Salt	LD_{50} = 3,000 mg/kg
Baking Soda	LD_{50} = 4,420 "
Vitamin A	LD_{50} = 2,000 "
Nutmeg Oil	LD_{50} = 2,620 "
Cinnamon Bark Oil	LD_{50} = 3,400 "
Citric Acid	TLm^{96} = 100 - 1,000ppm
Caffeine	LD_{50} = 192 mg/kg

4. The system may not include many substances which <u>are</u> normally considered hazardous. This may happen because the NIOSH Registry includes many different types of toxicity tests, only four of which are included in Table 2. Thus, if a material has only been tested on mice or dogs, it will not be included as hazardous in this system, forcing the generator to conduct bioassays in accordance with paragraph (e).

5. The data included in the NIOSH Registry is itself of questionable validity. There is quite a bit of controversy over how it was derived and what it really means.

(b) Toxic Categories

This section sets out "toxic categories" based on the toxicity of constituents in a waste.

COMMENTS:

The table in this section is the basis for beginning a determination of whether a waste is hazardous. A waste could be hazardous if it has constituents with an aquatic LC_{50} of up to 1,000 ppm, an oral LD_{50} of up to 5,000 mg/kg, an inhalation LC_{50} of up to 200mg/l, or a dermal LD_{50} of up to 2,000 mg/kg. In comparison, the EPA's limits on these parameters are; no aquatic LC_{50}, an oral LD_{50} of

up to 50 mg/kg, inhalation LC_{50} of 2 mg/l, and dermal LD_{50} of 200 mg/kg (40 CFR 261.11). In each case the Alaska limits are 100 times more stringent than those of EPA. Clearly this does not conform to the requirements of Alaska's enabling statute which provides that the state's hazardous waste program be "consistent with and substantially equivalent to" the federal program or otherwise be justified by the commissioner (AS 46.03.299(b)). Also, this approach would regulate many innocuous substances that should not be considered hazardous.

It is totally inappropriate to use the hazardous determination of the toxicity test which yields the most stringent result. This ignores the fact, for instance, that an inhalation test has no bearing on a waste discharged which may enter a waterway. The toxicity test applied must reflect the actual disposal situation.

(c) Equivalent Concentrations (E.C.)

This section calls for an addition of the percentages of different constituents, weighted for their degree of toxicity.

COMMENTS:

The system proposed is an overly simplistic scheme whose validity has not been established. In AOGA's review of toxicity information relative to these regulations, no studies were found which showed that toxicity can be determined by this type of additive approach. As has been requested in past comments, ADEC should present the data and studies supporting this Equivalent Concentration equation. The point to be addressed is whether or not the E.C. test coresponds to an acute toxicity test with any degree of reliability.

The equivalent concentration approach recognizes that different wastes have different degrees of hazard. However, the problems mentioned earlier in our comments concerning the E.C. equation would require that a very extensive research program be implemented to verify the equation.

Consider the following example: a department store has a few bags of water softener salt that with age solidified and must be discarded. Since salt has an LD_{50} less than 5,000 mg/kg, it is in the D category. Applying the equivalent concentration formula, we get an E.C. as follows:

$$E.C. = 0\% \times \frac{0\%B}{100} + \frac{0\%C}{1{,}000} + \frac{100\%D}{10{,}000} = .01\%$$

Going to the hazardous waste graph, we find that the quantity of salt requiring disposal at an EPA approved landfill looks to be a little less than 400# per month or batch. Assuming the bags of water softener salt weigh 50#/each, the department store would be required to dispose of the salt at an EPA approved hazardous waste facility if they had over 8 bags. Costs to ship 400 pounds to Arlington, Oregon plus disposal costs will be approximately $3,000 (assumes no consolidation).

The questions that must be asked are: Will the management of the department store know of these regulations concerning disposal of water softener salt? Does the E.C. equation accurately indicate the hazard to human health and the environment caused by waste materials?

(d) Use of Bioassy Information

This section allows a waste generator to run bioassays on a waste rather than using the method of b-d above.

COMMENTS:

Because of the problems outlined above, the use of bioassay information would probably be required. Without having seen the bioassay test methods, which we understand have not yet been established by ADEC, we cannot comment directly on them.

As was mentioned in AOGA's comments on the May, 1982 draft, the U.S. EPA is also concerned about testing protocals for acute toxicity tests. Defining the testing protocal for the State's acute toxicity test is required if they are to be used as a characteristic test.

RECOMMENDATION:

AOGA strongly recommends that the testing protocals of the bioassay test be reviewed by the Hazardous Waste Advisory Work Group (HWAWG) before the hazardous waste management regulations are issued for public comment. Doing this will provide ADEC with a much needed outside review of the test procedures before submittal for public comment. Until an agreed upon test procedure is available, Section 62.050 should be deleted from the requirements of this section.

5. 18 AAC 62.060 Characteristics of Persistence

COMMENTS:

We are assuming that ADEC is attempting to address persistent materials which are leachable and upon leaching cause harm to the environment. A material may be persistent and still not cause harm to the environment or public health.

For instance, asphalt, rubber tires, roof shingles, certain plastics and other similar materials may be regulated as hazardous under this section. For a persistent material to be of concern to any hazardous waste regulation, that material must be leachable and the components of the leachate represent a potential harm to human health or the environment.

There seems to be a discrepancy between this section and the definition of persistence on page 34.

As was stated in our toxicity comments, we cannot adequately comment on the impacts or effectiveness of this section without seeing the test method for polycylic aromatic hydrocarbons (PAH) and halogenated hydrocarbons (HH). This test should include a method for determining the leachability potential of persistent materials before determining hazard.

RECOMMENDATIONS:

Delete section 62.060 until such time as the ADEC can justify the need to include persistent materials into these regulations. Also see comments and recommendations on Section 62.110.

6. 18 AAC 62.070 Characteristic of Carcinogenicity

This section would classify a waste as hazardous if it contains 1% or more of constituents which are identified as human or animal, positive or suspected carcinogens in the NIOSH Registry.

COMMENTS:

As with the toxicity characteristics, this could impose tremendous analytical burdens. Waste materials are usually complex mixtures and the generator will have to perform testing to determine what constituents are present. Basing the test on materials suspected as carcinogens in the NIOSH Registry means a generator would have to test the waste for thousands of chemicals.

There are also problems with simply adding up the percentages of different constituents. The carcinogenic effects shown in the registry are for many different organs or symptoms. There is no reason to believe that a waste containing 0.5% of a material which causes lung cancer and 0.5% of one which causes breast cancer will have the same effects as one which contains 1% of a material which causes bladder cancer. In addition, some of the cancer data in NIOSH is of questionable validity. A common complaint of the NIOSH cancer data as well as toxicity data is that they receive little, if any, peer review.

The ADEC must also look at whether such carcinogenic wastes have a potential to migrate or persist in the environment and thus cause harm before regulating these materials.

RECOMMENDATIONS:

Delete section 62.070 until such a time as the ADEC can justify an added benefit to the Alaskan environment. Also see comments on Section 62.110.

7. 18 AAC 62.110 Waste Extraction Procedure (WEP) Characteristic

This section essentially adopts the federal extraction procedure (EP) toxicity test found at 40 CFR Part 261, Appendix II. The EPA

specifically developed the EP-toxic procedure to test the leachability of a substance into the environment. The agency established concentration limits of certain persistent substances which had the ability to cause substantial harm to the environment and human health.

Section 62.050, 62.060 and 62.070 all deal with regulating hazardous wastes generated in Alaska which the ADEC believes are not adequately regulated by the federal program. This section gives ADEC the perfect opportunity to list those components of wastes which they feel are toxic, persistent or carcenogenetic and leach into the environment causing harm to animals or humans. The EP-Toxic test is not without its problems, but at least it is a recognized test procedure currently being used by the regulated community.

For this approach to work the ADEC must address the following points:

1. What wastes are currently generated in the state of Alaska which are not adequately regulated by the federal hazardous waste program or other regulation which presents an eminent health problem to the general public?

2. Of the wastes listed in 1 above, what EP-Toxic test concentration of these wastes should be set to protect human health?

AOGA realizes that point 2 will be very difficult to address but at least the ADEC will be working with existing testing procedures rather than attempting to develop total new unproven tests in Section 50, 60 and 70.

RECOMMENDATIONS:

Expand the scope of section 62.110 to include the two points stated above.

8. <u>18 AAC 130 Exclusions</u>

This list of exclusions is much shorter than that contained in the federal regulations. On the federal level, much effort was expended and a technical record established to justify those exclusions. Until the State has obtained supporting technical information that a given federally excluded hazardous waste causes a particular problem, in Alaska, we feel that the State should adopt the federal exclusions verbatim. The Alaska hazardous waste program enabling legislation requires as much. Before a waste may be listed as hazardous that is not also listed as hazardous waste by the U.S. Environmental Protection Agency under 42 U.S.C. 6921, the Commissioner of ADEC must determine that the waste is hazardous as defined in the Alaska hazardous waste statute (AS 46.03.299(b)(2)).

This section could create unwarranted problems for oil and gas exploration/production activites in the state. We do not believe that the regulations, relative to oil and gas exploration and production, will offer a significant increase in environmental protection. The cost of compliance, however, could be extremely high and the ability to comply may be very difficult, if not impossible, in some instances.

The two major discharges of oil and gas exploration and production are drilling fluids and produced waters. The environmental effects from discharges of these products have been the subject of millions of dollars of research conducted over several years. In general, research studies have not found that these discharges cause significant environmental impacts.

We must question whether the State of Alaska has evidence to implicate either drilling fluids or produced waters as waste products capable of imparting significant and irreparable harm to the environment. If significant and unalterable damage cannot be demonstrated, why further regulate an industry or its waste products? Where evidence is lacking to either substantiate or refute claims of environment damage due to waste disposal practices, we feel it is much more appropriate to conduct studies to answer the question than to formulate overly restrictive regulations which may be unnecessary.

The following few paragraphs describe the fate and effects of drilling fluids at onshore disposal locations.

Many factors influence the fate and effects of drilling fluids. The habitat onto or into which the drilling fluid is deposited, the climatic conditions (i.e. season), geological and physical factors at the time of drilling fluid discharge, all serve to alter the fate and thus the effects of the discharged drilling fluids. The type of drilling fluid which is discharged also influences fate and effects.

Onshore discharges of drilling fluids into sumps or pits with subseque t infilling in high arctic regions demonstrate very localized fects. D. W. Smith and T. D. W. James (1980) investigated changes in terrain and chemical properties of soil downslope from infilled drilling sumps and assessed their effects on vegetation at high Arctic well-sites. They found that contaminants consisting mainly of sodium chloride were distributed downslope from drilling sumps and were taken up by certain plant species. Reduction in plant cover was noted and felt due to chemical contamination and physical alteration. They concluded that "considering the small area in the High Arctic affected and the low production of vegetation, the potential for significant amounts of chemical contaminants reaching higher food chain levels is very low."

Impact on the permafrost by the deposition of drilling fluids in below-ground sumps was investigated by H. M. French and M. W. Smith

(1980). Their conclusion was that the discarding of drilling fluids in this manner does not lead to permafrost degradation.

W. E. Younkin and D. L. Johnson (1980) investigated the environmental impact of sump drilling fluid disposal to terrestrial systems utilizing ten sump drilling fluids representing three basic drilling mud systems. The research was conducted in Alberta, Canada. The three basic drilling fluid types were: KCl/water/polymer, dispersed water/gel and flocculated water/gel. Sump fluid chemistry and environmental impacts were studied on native plant and soil communities in the field and on potted reed canarygrass in the laboratory. Plant growth and seed germination studies were also carried out with exposures to selected components from KCl/water/polymer systems. The researchers noted that the KCl drilling fluids resulted in reductions in native plant cover but concluded that these reductions did not pose a serious threat to the long-term stability of any of the ecosystems in which disposal sites were located. No significant adverse effects on soil or vegetation were noted from the water/gel drilling fluids. The salt component of the drilling fluids was identified as the most damaging to plant health and soil chemistry. After two growing seasons the soil and tissue levels of salts had dropped to within control levels in the KCl drilling fluid disposal areas.

A rather involved study which investigated hydrologic and environmental effects of drilling mud pits and produced water impoundments was conducted for the American Petroleum Institute (API) by Dames and Moore (1982). The purpose of the API Study was to investigate the leaching potential of possible hazardous constituents from drilling fluid pits and impoundments. Eight sites from three major hydrogeologic regions were selected. Each site offered a different potential for leachate migration. The three major hydrogeologic regions were: 1, Northern, semi-arid sites on consolidated sedimentary facies in the Wyoming Overthrust Belt and the Williston Basin of North Dakota; 2) southern transitional climate sites on semi-consolidated sedimentary facies in N.E. Texas and in S.W. Arkansas; and 3) southern coastal sites on unconsolidated sedimentary facies in Southern Louisiana and Southern Texas. Six mud pits and two produced water impoundments were studied.

The parameters selected for chemical analysis in ground water, subsurface and surface soils and/or vegetation at these sites included arsenic (As), barium (Ba), cadmium (Cd), hexavalent chromium (h Cr), total chromium (t Cr), lead (Pb), mercury (Hg), zinc (Zn), sodium (Na), chloride (Cl), bromide (Br), total alkalinity, specific conductivity, pH and ground water temperature.

The following statement represents general conclusions from the study:

> "The observations made and the data collected during the API Study led to a number of conclusions regarding both the effects of mud pit and production impoundments and the efficacy of the methods used to evaluate such effects for these and other disposal facilities. In general, results of chemical analyses of ground water, subsurface soil and surface soil, and vegetation samples at the sites indicate the most motile ions found to leach from both mud pits and produced water impoundments were Na and Cl.
>
> Levels of Cl in ground water return to levels below Secondary Drinking Water Standards within a matter of several hundred feet at most facilities, and do not constitute either a health hazard or a water potability problem for public and industial ground water uses. Probable migration rates of heavy metals from both mud pits and produced water impoundments to ground water appear to be very slow and the observed concentrations measured in ground waters at the sites do not indicate a hazard to human health.
>
> Subsurface soils, surface soil and vegetation samples at all sites showed elevated levels of heavy metals, Na and Cl in pit and/or downgradient locations. However, apparent rates of migration are slow, based on the observation that "contaminated" subsurface layers, when they exist, are found in relatively narrow, shallow bands close to the point of origin. Moreover, although the results indicate elevated levels of some heavy metals in plants growing on some reclaimed mud pits and bordering some impoundments, the small size of the area of affected plants does not represent a significant portion of the available forage resources of the areas studied, and is unlikely to constitute a significant environmental or health hazard at any of the sites studied."

Moseley (1983) reviewed and summarized four major research studies on the onshore disposal of drilling fluids and the restoration of drilling fluid disposal sites.

The literature contains other studies on the effects of drilling fluid disposal at onshore (inland) sites. However, there should be enough evidence offered from the studies reported in these comments that traditional drilling fluid disposal methods do not offer significant and far-ranging environmental damage. To the contrary,

the studies reviewed indicated only localized effects that offered NO indication of long term human health or environmental effects. The promulgation of additional regulations to further control onshore disposal of drilling fluids and produced waters do not appear to be appropriate in light of evidence indicating minimal environmental effects.

Off-Shore Disposal of Drilling Fluids

Many studies have been conducted to measure the fate and effects of drilling fluids to the marine environment. The Alaska Department of Environmental Conservation is referred to three major review papers (Neff, 1981; Petrazzuolo, 1981; and Houghton, et. al., 1981) which synthesize much of the available literature on the subject. In addition, the major field studies which have investigated the fate and effects of drilling include Ray and Meek, 1980; Houghton, et. al., 1980; Ayers, et. al., 1980; and EG&G, 1982. With the exception of the Mid-Atlantic study (EG&G, 1982) all field studies listed were thoroughly critiqued by Neff, 1981 and Petrazzuolo in their synthesis papers.

The many field studies conducted on drilling fluids discharged offshore have demonstrated only localized zones of influence. None of the many field studies conducted to trace the fate and effects of drilling fluids have demonstrated large expanses of effects. Recovery of impaired resources has been noted in many instances and never has a concern for human health been demonstrated in any of the studies.

In both the onshore and offshore cases drilling fluids under the draft hazardous waste disposal regulations must be tested to determine whether they are a hazardous waste before a strategy for disposal is decided. There is always the potential for a drilling fluid which can be formulated in many different ways to fail one or more of the criteria for defining hazardous waste. In this case, a waste material which has already been shown to impart minimal environmental harm, would be subjected to further regulation in the interest of protecting an environment which is already adequately protected.

The implications of having to test drilling fluids to determine their status as a waste product before disposal are staggering to our industry. Some of the problems foreseen are:

1) During offshore drilling, drill cuttings coated with drilling fluids are discharged continuously. How would a continuous discharge be handled? To expect adequate storage capacity aboard drilling rigs to hold this material is unrealistic. It is not reasonable or feasible to have a storage barge constantly docked at an offshore platform.

2) Each drilling fluid has its own formulation. There are general classes of drilling mud systems but for purposes of the Alaska draft hazardous waste management regulations, the inclusion of one or more additives in various quantities would alter the drilling fluid. In this case, even if the drilling fluid had been previously classed as a non-hazardous waste it would again have to be tested for classification before disposal. During drilling, discharges of a part or all of the drilling fluid occurs intermittently. There is a great possibility for delays in drilling, while waiting for tests to be conducted to classifying (i.e., hazardous or non-hazardous) the drilling fluid before disposal.

3) The large volumes of drilling fluids utilized during drilling operations would create severe disposal problems at hazardous wastes disposal sites if relatively innocuous drilling fluids were classified as hazardous waste material.

In conclusion, the purpose of Alaska's draft hazardous waste management regulations should be to protect man and the environment. The criteria established for judging a waste product should not be loose enough to classify a waste as a hazardous waste when it has not been shown to cause significant harm to man and the environment. We believe that there is a possibility that certain drilling fluids could be classified as hazardous waste using the draft criteria presently proposed. However, we do not accept the idea that the discharge of a drilling fluid, whether into marine waters (offshore) or onshore, constitutes a threat to either man or the environment. Therefore, drilling fluids should be exempt in the draft hazardous waste management regulations.

RECOMMENDATION:

Rewrite Section 62.130 to include the following exclusion:

> Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

9. <u>18 AAC 62.140 Residue in Empty Container</u>

COMMENTS:

In section (a) the threshold levels should be specifically defined in 62.140. The second sentence--"However, if the threshold levels are exceeded, the container itself as well as the contents is

hazardous waste"--should be removed or reworded. As written this sentence implies that if threshold levels are exceeded, the container would be a hazardous waste, regardless of further emptying or cleaning.

Paragraph (b) criteria should be revised to agree with the EPA revisions to 261.7(b)(1) published August 18, 1982. One percent residue in a small container does not seem comparable to an allowable one inch depth. In a 55 gallon drum, one inch would approximate 3% of the volume which is allowed by EPA for containers up to 110 gallon capacity. Above 110 gallon capacity, the residue would be limited to 0.3%.

In paragraph (d), the state should define what is meant by pesticides. The State should also supply a list of what pesticides they are referencing. Section 62.150 is mis-referenced.

In paragraph (e), it should not be necessary to use the removed rinsate or residue for "the original intended purpose". It should be adequate that the residue be used "for an appropriate purpose consistent with the physical state, concentration and purity of the rinsate or residue." Any worthwhile and environmentally sound re-use of the material would be preferable to having it placed in a landfill. In addition, this paragraph should not be restricted to "rinsate and vacuumed residue". Residue may be removed by such means as scraping before solvent rinsing.

RECOMMENDATIONS:

Rewrite section 62.140(b) to read:

(b) A container . . . (e.g., pouring, pumping, aspiration, etc.) and, no more than 3 percent by weight of the total capacity for 110 gallon and less containers or 0.3 percent by weight for containers greater than 110 gallons in size."

This wording is consistent with the EPA residue revision issued 18 August 1982.

Supply a list of the pesticides which are being referenced in section 62.140(d).

10. 18AAC 62.220 Dilution

COMMENTS:

Paragraph (c) has no relevence to the subject of "Dilution" and would be more appropriate if located as a paragraph under Sec. 200 as a "Requirement for Generators".

This provision seems to be somewhat akin to the federal "mixture" rule at 40 C.F.R. § 261.3. The federal mixture rule at § 261.3 (iv), includes some very useful and important exceptions for de

minimis amount of listed chemicals in wastewater systems subject to Section 402 or Section 307(b) of the Clean Water Act, and for mixtures of certain specifically listed spent solvents in solid wastewater. A careful reading should be made of this federal exception at 40 C.F.R. § 261.3. It is our belief that when you start looking at small laboratory operations at various manufacturing plants and/or production facilities you will discover that it would be very useful to have this exclusion especially for de minimis amounts of certain chemicals mixed with wastewater.

RECOMMENDATIONS:

Rewrite section 62.220 to include 40 C.F.R. 261.3 (iv) exceptions for de minimis amounts.

11. 18 AAC 62.630 Disposition of Hazardous Waste

COMMENTS:

There should be a reference to Sec. 620 regarding hazardous wastes which are to be recycled, reused or reclaimed.

The last sentence states that "all other wastes" can be disposed of in landfills meeting the requirements of 18 AAC 60. AOGA's concern is that there are no landfills in the state which currently meet the requirements of 18 AAC 60, therefore, how will this material be handled if no solid waste landfills exist to safely dispose of them?

12. 18 AAC 62.650 Manifest

COMMENTS:

The requirement under this section for the use of Chem-Trec for information regarding specific chemicals may not be appropriate to all waste generators since not all waste generators belong to Chem-Trec. Therefore, this requirement should be eliminated from the manifest stipulations.

AOGA suggests that this part be preempted by the Federal Uniform Manifest when it is adopted. Both the U.S. EPA and the DOT are combining efforts to develop this Uniform Manifest. This may be a requirement for obtaining interim authorization of the federal program.

RECOMMENDATIONS:

Rewrite section 62.250 to incorporate the federal uniform manifest system when adopted by RCRA.

13. 18 AAC 62.270 Annual Reports

COMMENTS:

AOGA suggests the state request biennial rather than annual hazardous waste reports. The Federal RCRA program has recently adopted this approach. This change would greatly reduce the amount of paper work the state would have to process without jeopardizing human health or the environment.

RECOMMENDATION:

Adopt the biennial submission of hazardous waste activities used by the RCRA program.

14. 18 AAC 62.300 Requirements for Transporters of Hazardous Wastes

COMMENTS:

Those transporters currently operating with an EPA approved transporter number should not have to obtain a state identification number. Instead, they should be grandfathered as are generators in section 62.200 (a).

RECOMMENDATIONS:

Add a new sentence to the end of paragraph 62.300(a) which would read:

> "Transporters who have previously notified the U.S. Environmental Protection Agency (EPA) and obtained EPA identification numbers shall merely inform the department of that fact and provide their EPA identification number."

15. 18 AAC 62.330 Alternative Requirements for Shipments by Rail

COMMENTS:

As a general comment on this section it should be noted that at the present time the Alaska Railroad does not haul hazardous waste.

16. 18 AAC 62.410 Permit Procedures; Duration; Conditions

COMMENTS:

Those TSD facilities currently operating under an EPA permit should be grandfathered under this section.

RECOMMENDATIONS:

Add an additional sentence between sentences 2 and 3 of section 62.410 to read:

> Persons who have previously notified the U.S. EPA and obtained EPA identification numbers as TSD facilities, shall merely inform the department of that fact and provide their EPA identification number.

17. 18 AAC 62.420 Underground Injection

COMMENT:

To be consistent with other parts of the regulation we suggest changing the July 1, 1981 date to January 21, 1983.

The initial report required to be submitted should be for 1982 rather than 1981, with subsequent reports for "1983 and each year thereafter."

Thirty days is an unnecessarily brief period for preparation of an annual report at a time of year when most companies and government agencies will be in a whirlwind of generating and receiving reports. We suggest extending the 30 day period to 60 days.

18. 18 AAC 62.510 Amount of Financial Responsibilities

COMMENT:

The last sentence of this section unjustifiably requires petrochemical facilities operating in the state to demonstrate financial responsibility in an amount of $10,000,000. The state should justify why the petrochemical industry and not other Alaskan industries must demonstrate such a large financial responsibility.

19. 18 AAC 62.530 Financial Responsibility by Self-Insurance

COMMENT:

The U.S. EPA only requires a financial test. It does not require an irrevocable letter of credit. Legal advice should be sought as to whether an irrevocable letter of credit is an appropriate means of establishing financial responsibility by self-insurance.

20. 18 AAC 62.610 Spills, Discharges, Reporting and Clean-up

COMMENTS:

Spilled hazardous waste materials must already be reported to state officials under 18 AAC 75. Therefore, the reporting requirements of this section can be deleted.

21. 18 AAC 62.620 Recycling and Reuse

COMMENT:

The degree of hazard identified by the WEP test is not sufficient to warrant being included in Paragraph (b). Instead, those wastes failing the WEP test should be included in paragraph (a).

22. 18 AAC 62.640 Request for Information

COMMENT:

The state should better define what it means by the phrase, "all reasonable requests for information."

23. 18 AAC 62.650 Petitions to Exclude a Particular Listed Waste

COMMENTS:

Why is the petition to delist only for wastes listed in 18 AAC 62? This section should be expanded to include any wastes that might be considered hazardous, not just listed wastes.

The last sentence of this section only references characteristics identified at Section 50-70 as important in delisting. What about sections 62.80-110?

24. 18 AAC 62.670 Definitions for Adopted Regulations

COMMENTS:

Several EPA used terms are listed in Section 680, some with identical meanings and some that are considerably different.

RECOMMENDATION:

Rewrite the end of the first sentence to read, ". . . except as modified by this section or by Section 680."

25. 18 AAC 62.680 Definitions

COMMENTS:

Dermal LD_{50}, Oral LD_{50} Inhalation LC_{50}, Aquatic LC_{50} - These definitions should be consistant with that used in the NIOSH registry.

manifest - appears to be defining some term other than "manifest"

persistence - this definition does not relate to persistence as defined in 62.060. Also a persistent material will not pose harm to the general public or to the environment if it is not leachable. Therefore, this definition and section 62.060 should make this distinction.

petrochemical facility - lubricant oils and greases should be included with "fuels"; these are normal refinery products and are not products of petrochemical facilities.

26. Appendix I

COMMENTS:

F002 - Carbon tetrachloride does not belong under F002 and four other materials have been omitted.

As a general comment, AOGA understands that Appendix I wastes should match identically with 40 CFR 261.31 and 261.32. The state should carefully review this section to ensure it being identical.

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

NOTICE OF PUBLIC HEARINGS
AND PROPOSED ADOPTION OF REGULATIONS:
HAZARDOUS WASTE

I. INTRODUCTION

Pursuant to AS 44.62.190 and 200, and AS 46.03.020(10), notice is hereby given that the State of Alaska, Department of Environmental Conservation is proposing to adopt comprehensive regulations regarding hazardous waste management in the State of Alaska. The regulations would affect persons who generate, transport, treat, store, or dispose of hazardous waste as it is defined by the regulations.

The proposed regulations have been prepared in accordance with the legislative mandate contained in Chapter 93 SLA 1981. That act, among other things, mandates the department to establish a state hazardous waste program and requires the program to be consistent with and substantially equivalent to that established by the federal government under the Resource Conservation and Recovery Act of 1976 P.L. 94-580, 42 USC §6901 et. seq. This mandate is generally codified at AS 46.03.299(a) and (b). In addition, Chapter 93 requires the establishment and implementation of financial responsibility requirements for any petrochemical facility or hazardous waste facility located in the State of Alaska. This mandate is codified at AS 46.03.830.

The regulations proposed are designed to meet the legislative mandate to establish a hazardous waste management program in the state and to implement and establish financial responsibility requirements for petrochemical facilities and hazardous waste facilities. While the sections of the Alaska statutes already cited in this summary are the primary provisions

4-18-83

which the proposed regulations would implement and interpret, other sections of the Alaska statutes which the proposed regulations would implement and interpret are: AS 46.03.296 ("Disposal of Hazardous Wastes"); AS 46.03.302 ("Hazardous Waste Permit"); AS 46.03.305 ("Hazardous Waste Reports and Manifests"); AS 46.03.308 ("Transportation of Hazardous Wastes"); and AS 46.03.833 ("Compliance with Financial Responsibility Requirements"). The proposed regulations would constitute a new chapter, Chapter 62 of Title 18 of the Alaska Administrative Code entitled : "HAZARDOUS WASTE."

II. ESSENTIAL FEATURES OF THE HAZARDOUS WASTE PROGRAM

To a large degree, and pursuant to the legislative mandate, the state program embodied in the proposed regulations mirrors the program developed by the federal government under the Resource Conservation and Recovery Act of 1976 (RCRA). RCRA is already being administered and enforced in Alaska by the U.S. Environmental Protection Agency. That program has been described in part as a "cradle-to-grave" tracking system for hazardous waste. That is, a system of record-keeping which maintains the identity and quantity of hazardous waste as it is produced or generated, up to and including the point at which it is finally disposed of. This includes adoption of the manifest system developed by the federal government under RCRA. The manifest system requires the preparation of a manifest documenting the identity and quantity of the waste as it is transported from the generator of the waste and is transported to its final destination. The manifest actually accompanies the waste as it is transported.

The proposed regulations would create a duty and responsibility on the part of those engaged in commercial or industrial activity to know whether their waste is hazardous as defined by the regulations. In general, waste is

hazardous depending upon its nature and the quantity generated. The proposed regulations declare that a waste is hazardous and subject to the provisions of the regulations if it exhibits any of the characteristics described by the regulations--ignitability, corrosivity, reactivity, waste extraction procedure (WEP), toxicity, persistence, or carcinogenicity--or if it is identified as a hazardous waste by any of the various lists included in the regulations, and it exceeds the quantities established which would require disposal or treatment at a hazardous waste facility. The attached flow chart graphically depicts the process entailed by the regulations for determining whether waste is hazardous.

With regard to the treatment or disposal of hazardous waste, the proposed regulations would generally require that if a person generates more than 400 pounds (181.8 kg) in any calendar month or batch, other than acutely hazardous chemical product, such waste must be treated or disposed only at a hazardous waste facility meeting federal standards. This general threshold level contrasts with the general level under RCRA of 2,200 lbs. At the present time there are no facilities permitted to accept hazardous waste from other sources. As in RCRA, the threshold level for acutely hazardous chemical products is 2.2 lbs. (1 kg) per calendar month or batch. Low concentration waste which is hazardous by virtue of toxicity or persistence may, with the permission of the department, be disposed at a State-permitted landfill.

III. FINANCIAL RESPONSIBILITY REQUIREMENTS FOR PETROCHEMICAL FACILITIES AND HAZARDOUS WASTE FACILITIES

As mandated by Chapter 93, SLA 1981, the proposed regulations would establish financial responsibility requirements for hazardous waste facilities, facilities which treat, store, or dispose of hazardous waste. The proposed regulations

would require that each hazardous waste facility demonstrate financial reponsibility in the amount of $4,000,000.00 for liability for the entry or discharge of hazardous waste in the state or to any third person for personal injury, wrongful death or property damange. A petrochemical facility would be required to establish financial responsibility for such potential liability in the amount of $10,000,000.00. In the case of hazardous waste facilities, financial assurance for closure and post-closure is presently required under federal law. No hazardous waste facility would be allowed to operate in the state without a permit from the department.

IV. PUBLIC HEARINGS

Notice is also given that public hearings regarding the proposed regulations will be held at the following locations on the following dates:

May 19, 1983	7:00 p.m.	Juneau	J-D High School Cafeteria
May 23, 1983	7:00 p.m.	Fairbanks	Ryan Jr. High School 951 Airport Road Multi-purpose Room
May 24, 1983	7:00 p.m.	Barrow	Borough Assembly Room Administration Building
May 25, 1983	7:00 p.m.	Anchorage	Central Jr. High School 1405 "E" Street Multi-purpose Room
May 26, 1983	7:00 p.m.	Soldotna	Assembly Chambers Borough Administration Building 148 North Binkley

Any person interested may present oral or written statements relevant to the action at the hearings. Written comments will also be received through May 31, 1983. Written comments and copies of the proposed regulations may be sent or obtained by writing to:

Richard A. Nevé
Commissioner
Department of Environmental Conservation
Pouch O
Juneau, Alaska 99811

Copies of the proposed regulations may also be obtained from each regional office of the department. Following the public hearings and the close of the time period for written comment, the Department of Environmental Conservation may adopt the proposed regulations substantially as described above without further notice or may decide to take no action on them.

V. INCREASED APPROPRIATIONS

It is estimated that the program engendered by the proposed regulations will require increased appropriations by Fiscal year as follows (figures are in thousands of dollars):

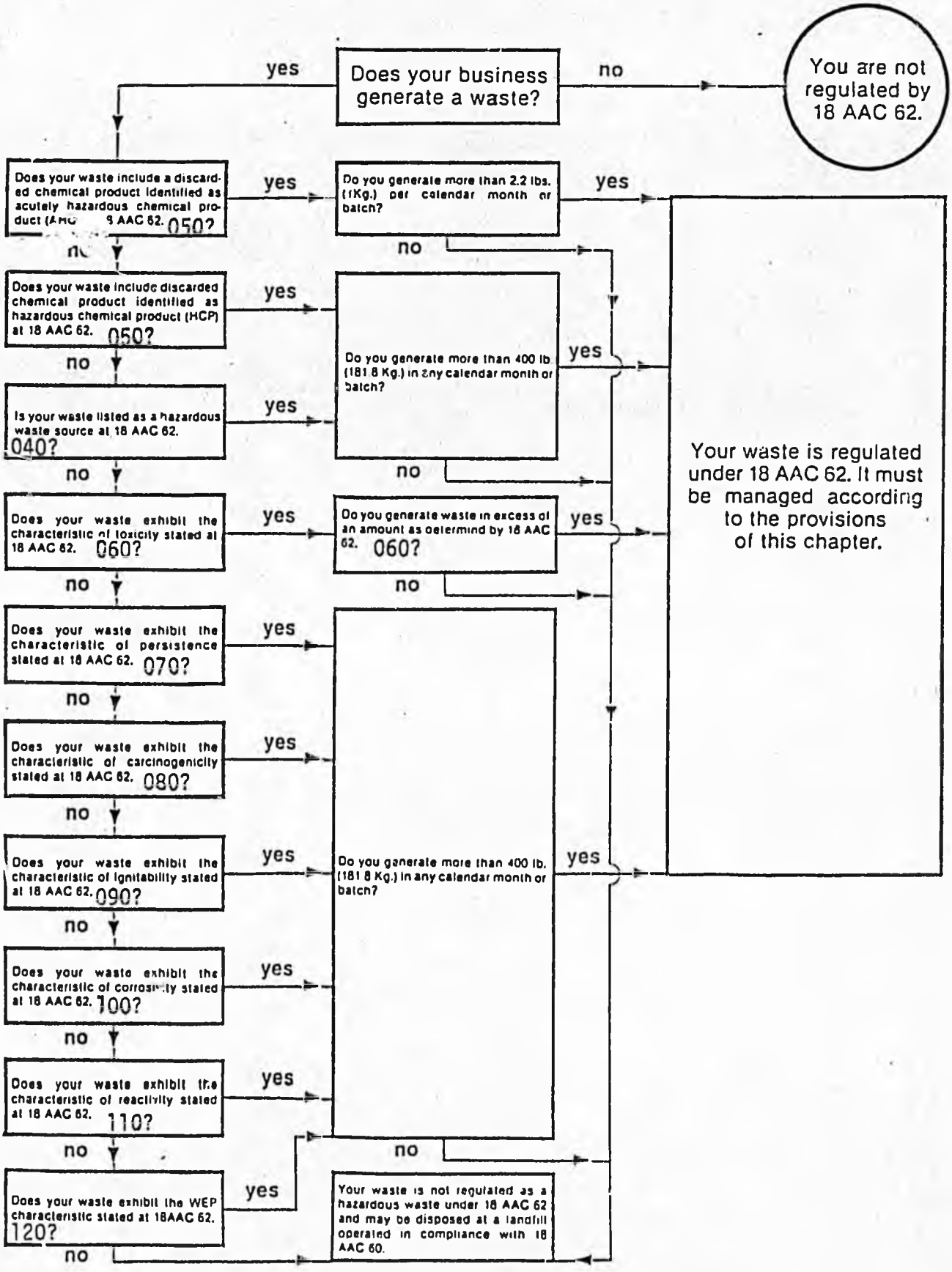
FY 84, $782	FY 86, $880
FY 85, $830	FY 87, $1,040

Date: April 18, 1983

Joe Cladouhos
Director
Division of Environmental Quality Management
Department of Environmental Conservation

CHAPTER 62 HAZARDOUS WASTE

APPENDIX III *FLOW CHART FOR DETERMINING WHETHER WASTE IS HAZARDOUS.*



Alaska Oil and Gas Association

AOGA

505 W. Northern Lights Boulevard
Suite 219
Anchorage, Alaska 99503
(907) 272-1481

FINAL

April 6, 1983

Mr. Stan Hungerford
Alaska Department of Environmental Conservation
Pouch O
Juneau, AK 99811

Suggested Topics for April Hazardous Waste Advisory Work Group Meeting

Dear Mr. Hungerford:

As the Alaska Oil and Gas Association (AOGA) representative on the Hazardous Waste Advisory Work Group (HWAWG), I distributed the January 28, 1983 draft of 18 AAC 62, Hazardous Waste Regulations to the AOGA member companies. Our members have had an opportunity to review the proposed regulations and have attached specific comments concerning the draft.

Our specific comments reflect AOGA's serious concerns regarding the proposed regulations. The draft contains several areas which differ from existing federal regulations regarding hazardous wastes. Also, there are several specifications for testing methods and other important parameters which are not well defined in the draft regulations. We would appreciate your response to the attached specific comments in the April HWAWG meeting.

We would also like to propose some general discussion topics for the April HWAWG meeting. AOGA supports early interaction between those charged with the drafting of proposed regulations and those that the draft regulations would affect. We feel that the HWAWG can provide such a forum for the exchange of concerns regarding the management of hazardous wastes. We have identified several general questions concerning the draft regulations and suggest these questions be discussed at the upcoming HWAWG meeting. We would also appreciate receiving your answers directly so that our member companies can more completely understand the draft regulations. Our questions are as follows:

- In what instances do you feel the draft regulations differ from those promulgated as a consequence of the Resource Conservation and Recovery Act (RCRA)? There are obviously basic differences between the proposed regulations and RCRA regulations. We would like to understand where you feel these differences occur and why they are needed in Alaska.

- What is the rationale behind these differences? Where differences exist between Alaska's proposed program and that of the federal government, there must be specific reasons related to special Alaska related concerns. These concerns, and the rationale used to address such concerns, need to be itemized to generate a further understanding of the proposed regulations.

- What is the scientific justification for the technical solution used to address the concerns leading to an approach different from RCRA? In the areas where the state felt a need to provide regulations different from the federal regulations, a technical approach to definition, storage and handling of wastes is used. This technical approach must have scientific justification, and a clear statement of such justification would clarify the proposed regulations. We are encouraged to hear that you offered to provide such a document in the February HWAWG meeting.

- What are some specific examples of wastes which: first, you feel are currently or are likely to be generated in Alaska, second, are not appropriately managed by existing state or federal programs and third, you feel constitute a hazard to human health and/or environment of Alaska? Broad regulations, such as those proposed by the subject draft; carry with them a "guilty until proven innocent" stigma. The focus provided by the answers to this question will be helpful in understanding the intent of these proposed regulations.

- Are there existing state and federal regulations which provide for the management of wastes contemplated by the draft regulations? It is AOGA's opinion that there are, and that an increase in regulation may not be required. A review by you of the existing regulations in the waste management arena, as well as statements as to which wastes you feel the existing regulatory system does not adequately manage, would provide insight to the concerns which you are trying to address in the proposed regulations.

- What are the costs associated with the requirements set out in the draft regulations? AOGA has a strong interest in a cost benefit analysis of these regulations. Your analysis of this issue would provide insight into the intention of the Department and the proposed regulations.

- Do you feel that the potential increase in waste streams defined as hazardous will create a burden upon the systems which are currently used in association with existing hazardous waste management? An increase in the volume of waste streams defined as hazardous may create an unjustified burden on newly identified "generators." An analysis of this potential impact, and an evaluation of its appropriateness would be helpful in understanding the intentions of the proposed regulations.

- Of particular concern to AOGA, do you feel that there are wastes associated with the exploration, development and production of crude oil or natural gas which are not adequately managed by existing regulations, and which pose a hazard to the health or environment of Alaska? If it is the intention of the Department to consider these wastes as hazardous, a clear statement of the position would be helpful. If it is the intention of the Department that the identification tests proposed in the draft regulations be performed on the "high volume" waste streams associated with the subject operations, a clear statement of that position would be helpful.

Discussions of the above concerns will help AOGA's member companies to understand the proposed regulations. As currently drafted, we have serious problems with the proposed regulations as reflected in the attached comments. We are looking forward to the April HWAWG meeting, your response to the questions noted above, and a review of our attached comments. As always, we are available to discuss any information we have presented.

Very truly yours,

Paul S. Logsdon

PAUL LOGSDON, Member
Hazardous Waste Advisory
Work Group

WWH:mk1.66

cc: (w/attachments)
Dr. Richard Neve', Commissioner
Alaska Department of Environmental Conservation
Bob Martin, ADEC Anchorage

Resource Development Council for Alaska, Inc.

444 West 7th Avenue. Anchorage. Alaska 99501
Box 100516. Anchorage. Alaska 99510 — 907/278-9615

RECEIVED
MAY 23 1983
ALASKA GOVERNMENT AFFAIRS

May 20, 1983

THIS IS AN RDC RED ALERT!!

The Alaska Department of Environmental Conservation has issued draft regulations on Hazardous Waste Management which could result in a lot of expense to you or someone with whom you do business! If you are concerned, you have the opportunity to influence those regulations. Here's what you must do:

...Contact the nearest ADEC office and get a copy of the regulations and study them for the effect they may have on you or your friends.

...Attend the public hearing nearest you and speak your concerns.

...Write ADEC and your legislators to voice your concerns.

The Resource Development Council believes that it is very important that as many Alaskans as possible examine the regulations and voice their concerns about them. We believe the regulations will place very onerous, expensive and unnecessary burdens on businesses and individuals. We also feel the federal regulations for Hazardous Waste Management are adequate and that we should carefully analyze the impact of these proposed additional state regulations before they are imposed on the people and businesses of Alaska.

The enclosed paper explains some of the implications of the draft regulations. There are many additional provisions in the regulations which may concern you directly.

The Council strongly urges you to become familiar with the regulations and insure that your concerns are heard. Please take the time to act on this important matter!

Sincerely,

RESOURCE DEVELOPMENT COUNCIL
for Alaska, Inc.

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Deputy Director

EXECUTIVE DIRECTOR
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Congressman Don Young

Bear Creek Mining Company
Exploration Division of Kennecott Corporation

Anchorage Office

June 24, 1983

JUN 29 1983

The Commissioner
Alaska Department of Environmental Conservation
Pouch O
3220 Hospital Drive
Juneau, Alaska 99811

Re: Draft Hazardous Waste Management Regulation of April 18, 1983

Dear Sir:

It appears that as drafted these regulations may jeopardize the commencement of hardrock mining in the State of Alaska. This threat exists in the ommission under proposed Exclusions (18AAC 140) of the same list of exclusions as present in the corresponding Federal regulations. Under Federal regulations "beneficiation wastes" are specifically excluded - they are not under the proposed regulations and thus mine tailings become hazardous wastes. As such, disposal costs would increase significantly, and the mine might well be uneconomic.

I can not believe that you wish to create regulations seriously jeopardizing hardrock mining in this state, therefore urge you to revise the subject draft regulations to conform fully with Federal regulations on the point of exemptions. As you are aware, there are already a series of State laws and regulations dealing with safe and environmentally sound mining.

It also appears that there are, in your draft regulations, other inconsistencies with the Federal regulations which result in uncertainty, confusion, and significant cost impacts on many types of industrial and commerical operations, as well as mining. We urge you to adopt regulations close to the Federal regulations throughout.

You are certainly aware that the Federal regulations are tough and create in some cases excessive economic impacts. There is no need to create a greater burden for Alaska to carry as it tries to create a productive and self-sufficient society within its borders.

Sincerely,

R. C. Babcock, Jr.
Vice President and Manager, Alaska

RCB:dk

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STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

Telephone:(907) 465-2600
Address: Pouch O
Juneau 99811

JUN 16 1983

June 15, 1983

The Honorable Bettye Fahrenkamp
Chair, Senate Resources Committee
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Thank you very much for your June 7, 1983, letter and comments on the department's proposed hazardous waste regulations. I share your concern that the state approach regulation of hazardous wastes in Alaska with caution to assure that the regulations are appropriate to conditions in our state. It is also most important to assure that the regulations be effective by designing and implementing a complete program. Such a program must educate the public about the potential effects of improper management of hazardous wastes and encourage or establish an appropriate waste management system in Alaska.

As you know, budget reductions in the past year and the reduced budget for FY'84 have had a significant impact on development and implementation of the hazardous waste program authorized with Senate Bill 29. To date, the increase in my staff from one program person has been limited to but one new field position in the Fairbanks office and supporting previous underfunding of one full-time equivalent field person in the Anchorage office. Under current written federal policy, the agency has a limited ability to request federal funding for program development.

My staff has been directed to work closely with the U.S. EPA to obtain available federal funds to replace the decreased state appropriations for my hazardous waste management program staff, so that we can continue the design and development of the program and regulations in FY'84. I intend to request increased state and available federal funding in FY'85 to restore the program staffing and support costs originally envisioned by the legislature.

During the next few weeks, my staff will be carefully analyzing all the relevant testimony received during the public review of our proposed regulations. The majority of the comments were well-founded and well-presented, and I am confident will be most helpful as we refine the proposed regulations. We appreciate the cooperation of you and your staff in this process. Monday's meeting between Jim Palmer, Joe Cladouhos and Stanley Hungerford was of great value to us.

I look forward to discussing with you the direction of our hazardous waste management program, and want to assure you that we will not implement unduly restrictive regulations without plans for adequately enforcing them and implementing an effective waste management system. The development of an informed public and an informed regulated community is a most important element of any program if it is to be effectively complied with and if it is to assure the protection of our Alaskan way of life.

Sincerely,

Richard A. Nevé

Richard A. Nevé
Commissioner

cc: Ron Kriezenbeck, Director/U.S. EPA
Stanley Hungerford, Supervisor/A&SWM
David DiTraglia, Hazardous Waste Program Mgr.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
ALASKA OPERATIONS OFFICE
3200 HOSPITAL DRIVE
SUITE 101
JUNEAU, ALASKA 99801

REPLY TO
ATTN OF:

May 19, 1983

MAY 2 0 1983

Richard A. Nevé, Commissioner
Alaska Department of Environmental Conservation
Pouch O
Juneau, Alaska 99811

Dear Commissioner Nevé:

We appreciate the opportunity to comment on the hazardous waste regulations proposed by your Department. EPA has not yet completed a detailed review of these regulations, however we will submit such a review prior to the close of the public comment period. EPA's review will be twofold. First, a detailed review of the proposed regulations to be completed by mid-June; and second, a comprehensive review of the State's proposed hazardous waste program which will be initiated upon receipt of the State's authorization application. This is scheduled for the first week in June. At this time we do wish to make some general comments based upon our review to date.

The hazardous waste regulations proposed by the Alaska Department of Environmental Conservation (ADEC) represents a serious and careful effort to establish a State operated hazardous waste management program for the State of Alaska. The adoption and implementation of hazardous waste regulations is a crucial step in the State's development of a program which can be authorized by the Environmental Protection Agency (EPA). Such an effort was envisioned and mandated by Alaska's environmental statutes. EPA, on the other hand, is charged by Congress with the responsibility of carrying out and enforcing the provisions of the Resource Conservation and Recovery Act (RCRA). In addition to regulating hazardous waste from "cradle to grave," RCRA mandates that EPA authorize a state to operate a hazardous waste program in lieu of Federal regulations after the State develops an acceptable program. This was the intent of Congress based on the concept that the States were in a better position to more efficiently and effectively manage hazardous waste within their jurisdiction. To this end, RCRA authorizes a state to develop a program that is more stringent than the Federal program.

During the past year, EPA has been providing assistance to DEC to help ensure that the proposed regulations contain all the requirements necessary in order for Alaska's program to be authorized.

In this context, we would like to address a concern which has been raised by certain reviewers of the regulations, namely, that DEC's proposed regulations go beyond the scope of the hazardous waste program envisioned by the Federal Resource Conservation and Recovery Act (RCRA). We wish to emphatically state that EPA does not perceive these regulations to go beyond the scope or intent of RCRA.

It is true that these regulations propose a more stringent definition of what wastes are to be regulated as hazardous. In general, Federal regulations allow hazardous wastes generated in quantities of less than 2,200 pounds/month to be handled as any other solid wastes, basically, to be disposed of in municipal or industrial waste landfills, rather than manifested and disposed of in landfills meeting the more technically demanding requirements of hazardous waste landfills. The Alaska regulations propose that only wastes generated in quantities of less than 400 pounds/month be allowed to be regulated as regular solid wastes. We would like to note that it has frequently been proposed that the Federal "small quantity cutoff," as it is called, be lowered from the current 2,200 pounds/month limit. EPA has yet to take action on these proposals; however, it is quite possible that the cutoff will be lowered in the near future.

Similar to the Federal regulations the State regulations require that wastes be tested for certain characteristics to determine whether or not they are hazardous. Lists of wastes which will automatically be deemed hazardous for purposes of regulation have also been developed. These regulations differ from the current set of Federal regulations in that the State requires a few additional criteria be applied to a waste to determine whether it is hazardous. Even though some of these specific criteria are not applied at the Federal level, the hazardous characteristics of wastes which these criteria seek to reveal are completely consistent with the characteristics EPA considered in determining which wastes should be managed as hazardous.

Finally, these regulations provide the same exclusions as the Federal program does for drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy from regulation as hazardous wastes. Alaska's proposed regulations establish a deadline by which this exclusions will be dropped by DEC, if they have determined that such wastes should potentially be regulated as hazardous. It should be stressed that by not making the exclusion permanent, these wastes would not automatically be regulated as hazardous. Eliminating the exclusion would simply mean that drilling fluids and produced waters would be subject to the same requirements as any other wastes to determine whether they are hazardous. Only if they display such hazardous characteristics would they then be regulated as hazardous wastes.

We wish to make two additional points regarding this exclusion. The first is that RCRA does not simply exclude all wastes from such sites from regulation as hazardous wastes. It is EPA's policy that only wastes uniquely associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy be excluded from regulation. That is, wastes such as spent solvents, pesticide wastes, and discarded commercial chemical products from these operations are not eligible for the exclusion. Second, and more importantly, the approach in the State's regulations to limit the exclusion is consistent with the exclusion contained in RCRA. A careful reading of RCRA

will reveal that Congress recognized the potentially hazardous quality of these wastes. These proposed regulations go a step beyond the Federal program only in the sense that they require a demonstration to be made that such wastes are not sufficiently hazardous to consider regulating them as hazardous wastes.

In summary, we would like to state that we are not aware of any requirements in the DEC's proposed regulations which go beyond the scope of RCRA. It is true that the approach toward defining what is to be regulated as a hazardous waste differs in a few areas from the one EPA has taken in developing a Federal program. However, it is our perception that in all respects these regulations seek to achieve the same goals as the Federal program, in short, proper management of hazardous wastes from the time they are generated through to treatment, storage, and ultimate disposal.

Sincerely,

Ronald A. Kreizenbeck, Director
Alaska Operations Office

cc: Alex Smith, EPA, Seattle
Ken Feigner, EPA, Seattle
Joe Cladouhos, DEC
Keith Kelton, DEC
Lennie Boston, Office of the Governor

STATE HAZARDOUS WASTE REGULATIONS

The Alaska Department of Environmental Conservation (ADEC) has issued draft Hazardous Waste Management regulations for public comment. These regulations have been developed specifically to regulate the small generators of hazardous wastes. Numerous Alaskan industries currently exempted from the federal hazardous waste regulations will be regulated by this proposed regulation. It is up to each Alaskan waste generating industry to evaluate its particular waste streams against the hazardous identification procedures outlined in th draft.

If a particular industrial wast stream falls subject to these regulations the owner of the waste would have to:

---Containerize and label the waste according to the U.S. Department of Transportation standards.

---Have it picked up by a transporter with an EPA identification number.

---Initiate a manifest which would track the waste from cradle to grave.

---Could not store the waste at the site of generation for more than 90 days without falling subject to the more onerous storage requirements.

---Would have to maintain records and prepare annual reports for submission to the ADEC. Would have to send the waste to a hazardous waste facility approved by the federal government for hazardous waste disposal. The closest federally approved landfill is in Arlington, Oregon. Cost to ship 400 pounds of hazardous waste from Anchorage to Arlington and dispose of it is approximately $3,000 (this estimate assumes no consolidation).

Examples of Alaskan industries which might be regulated are:

1. Service Stations which collect waste lube oils in quantities greater than 55 gallon quantities.

2. Printers, dry cleaners, film developers, and paint manufacturers who use solvents or other fluids containing small quantities of heavy metals or halogenated hydrocarbons.

3. Any disposers of the pesticides Endrin, Lindane, Methoxychlor, Toxaphene, Aldrin, Chlorodane, and Pentachlorophenal.

Because the ADEC has not evaluated the impact this regulation will have on the business community it is important for each business to evaluate its waste in relationship to this draft regulation. If any undue hardships are created for you or your business they should be pointed out during the public comment periods. The ADEC has scheduled public hearings in the following cities.

Juneau	May 23	7:00 pm	Juneau Douglas Cafeteria
Fairbanks	May 23	7:00 pm	Ryan Junior High School
Barrow	May 24	7:00 pm	Barrow Assembly Hall
Anchorage	May 25	7:00 pm	Central Junior High School
Soldotna	May 26	7:00 pm	Borough Assembly Chambers

Written comments can be submitted before June 27, 1983. The State wishes to promulgate these regulations by July 15.

Contact your nearest ADEC office to obtain a copy of the regulation. It is in your own best interest to fully understand the impacts this regulation could have on your livelihood.

TEMPORARY EXCLUSIONS

Drilling fluids, produce waters and other wastes associated with the exploration, development and production of oil, gas, or geothermal energy are excluded from the requirements of this chapter until January 11, 1985. The department will study data provided by industry on each of the following wastes to assess the need for permanent exclusions. Any waste which has not been permanently excluded by January 1, 1985, shall become subject to the requirements of this chapter.

NORTHWEST INTERSTATE COMPACT COMMITTEE MEMBERS

State	Governor's Representative	Date of Authorizing Legislation
Alaska	Mr. Stanley Hungerford Department of Environmental Conservation Pouch O Juneau, Alaska 99811 (907) 465-2666	June 1983
Hawaii	Mr. Melvin Koizumi Deputy Director Environmental Health Department of Health P. O. Box 3378 Honolulu, Hawaii 96801 (801) 548-4139	June 1982
Idaho	Mr. Robert Funderburg Manager of Radiation Control Division of Environment 450 W. State, 5th Floor Boise, Idaho 83720 (208) 334-4107	April 1981
Montana	Mr. Larry Lloyd, Chief Occupational Health Bureau Department of Health and Environmental Sciences Room A-113 Cogswell Building Helena, Montana 59601 (406) 449-3671	March 1983
Oregon	Mr. Donald Godard, Administrator Siting and Regulation Section Department of Energy Labor & Industries Building Room 102 Salem, Oregon 97310 (503) 378-6469	July 1981
Utah	Mr. Dennis Dalley, Director Bureau of Radiation Control 150 W. North Temple P. O. Box 2500 Salt Lake City, Utah 84110 (801) 533-6734	February 1982
Washington	Mr. David Stevens, Chairman Program Director Office of Nuclear Waste Management Department of Ecology Mail Stop PV-11 Olympia, Washington 98504 (206) 459-6504	April 1981

FACT SHEET

NORTHWEST INTERSTATE COMPACT ON LOW-LEVEL WASTE MANAGEMENT

The Northwest Interstate Compact on Low-Level Waste Management is the first compact established in the nation for managing low-level waste on a regional basis, fulfilling the Congressional intent set forth in Public Law 96-573, the Low-Level Radioactive Waste Policy Act. In the spring of 1981, the legislatures of Idaho and Washington formally adopted the Compact. Oregon adopted Compact language in July 1981, Utah passed the necessary legislation in February 1982. Montana joined by executive order of Governor Schwinden in November 1981 and their legislature adopted the Compact in March 1983. Hawaii passed the Compact in June 1982. Alaska's legislature approved the Compact in June 1983. Wyoming, the other eligible state, has joined the Rocky Mountain Compact.

Basically, the purpose of the Compact is to provide for the health and safety of the citizens of member states, with the responsibility for low-level radioactive waste management shared equally by the states. Membership in the Compact requires a party state in which a disposal facility is located (Washington has such a site) to accept waste from other member states. Waste from non-Compact states will not be accepted after Congress ratifies the Compact and authorizes the Compact states to prohibit importation. In addition to low-level waste, participants recognize the principle of reciprocity in accepting hazardous chemical wastes.

Under the Compact provisions, the Governor of each member state has named a representative to the Northwest Low-Level Waste Compact Committee. The Committee meets to consider matters arising under the jurisdiction of the Compact such as the review of low-level waste management regulations and approval of disposal of waste from non-member states. In addition, the Committee functions to enhance and extend communications efforts among the Northwest states and with the other regions.

There is one low-level waste disposal site in the Northwest Interstate Compact located on the U.S. DOE Hanford Reservation near Richland, Washington. The 100 acre site is operated by US Ecology, Inc. under sublease from Washington State. In 1982 1,390,000 cubic feet of low-level waste was disposed at the site, which compromised approximately 50 percent of the low-level waste disposed in the nation.

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

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JUL 5 1983

June 30, 1983

The Honorable Bettye Fahrenkamp
Senator
Alaska State Legislature
Pouch V
Juneau, Alaska 99811

Dear Senator Fahrenkamp:

Enclosed is a copy of our response to Mr. Beau Borjesson regarding the proposed hazardous waste regulations. Thank you for your interest in this matter.

Sincerely,

Glenn J. Miller
Environmental Engineer

Enclosure

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

Telephone:(907)
Address: 465-2600
Pouch 0
Juneau 99811

June 27, 1983

Mr. Beau Borjesson
Alaska Energy Company
P.O. Box 104045
Anchorage, Alaska 99510

Dear Mr. Borjesson:

Thank you for your letter and information package received in this department June 21, 1983, regarding the proposed hazardous waste regulations. I appreciate your interest in this very important and sensitive environmental issue. A copy of your comments has also been forwarded to this department through Representatives Charlie Bussell and Niilo Koponen, and acknowledgement of receipt of your comments will be mailed to them.

The numerous comments and extensive data pertaining to waste oil burners will be considered carefully along with information from other concerned citizens. Final decisions on what action to take will be made after the public comment period ends.

Again, I thank you for your interest in protecting Alaska's environment and your participation in this regulatory process.

Sincerely,

Richard A. Nevé

Richard A. Nevé
Commissioner

Enclosure

cc: Governor Bill Sheffield
Lt. Governor Steve McAlpine
Alaska State Legislators
David DiTraglia

hazardous wastes

FOSSIL FUELS

ALASKAN OIL EXPORTS - Another round of hearings on the complicated issue of whether to allow exports of Alaskan oil begins this week, convened by a key Senate export proponent.

Foreign Relations' East Asian and Pacific Affairs Subcommittee, chaired by export backer Frank H. Murkowski (R-Alaska), has scheduled hearings Tuesday and Wednesday, July 19-20, at 2 p.m. in 419 Dirksen.

While the Senate Banking Committee approved May 25 a six-year extension of current Alaskan oil export restrictions as part of the reauthorization of the Export Administration Act (S 979), Murkowski and the two other members of the Alaska delegation favor allowing at least some Alaskan crude to be shipped overseas if a formula can be worked out to protect national security and assuage maritime and oil industry concerns.

While staff say Murkowski has made no decision yet on whether he will offer an amendment to S 979 when it reaches the Senate floor, this week's hearing is believed to be aimed at establishing a hearing record on the issue for him.

Administration Position: After testifying earlier this year that it had made no decision on allowing exports, the Reagan administration in recent weeks also appears to have settled on a policy of allowing at least some exports to Japan.

News accounts from Japan, for instance, recently quoted an unnamed "U.S. government official" as saying, after two days of talks in Tokyo by a Japan-U.S. Energy Working Group, that the administration supports "at least" a partial lifting of the ban.

Administration officials who will testify this week before Foreign Relations include Richard McCormack, assistant secretary of State for economic affairs, and an official from the U.S. Trade Representative's office.

Critics of lifting current restrictions, including the AFL-CIO and the Consumer Energy Council of America, also will testify.

Congressional Opposition: Members favoring even a partial lifting of restrictions face an uphill battle in Congress this year. More than 200 House members have co-sponsored a bill (HR 1197) by Reps. Stewart B. McKinney (R-Conn.) and Howard Wolpe (D-Mich.) to continue bans indefinitely. Approximately 25 Senate members have co-sponsored a companion measure (S 1159) by Sen. Mark O. Hatfield (R-Ore.). (For additional details on the export issue, see Fact Sheet, May 24.)

Subcommittee contacts: Mary Locke, majority, x45481; Carl Ford, minority, x47522.

HAZARDOUS SUBSTANCES

GENERATION GAP - Senate Environment's environmental pollution subcommittee this week intends to wrap up its package of amendments (S 757) to the hazardous waste management law.

Still to be ironed out are provisions extending regulations to small businesses producing less than a metric ton per month of hazardous wastes and restricting land disposal of certain wastes.

The same issues are up for discussion next week in a House Small Business subcommittee, lobbied by small quantity waste generators who say they have had little influence on the House Energy amendments affecting them.

The small businesses are up against a tight deadline in the House. The Energy bill (HR 2867) comes up in Rules Committee this Tuesday, July 19, and may reach the floor before the Small Business panel hearing July 26. The Small Business panel does not have jurisdiction over the bill, but its hearing could build support for a floor amendment to ease House Energy's language.

Markup: The Senate Environment

subcommittee plans to mark up Chairman John H. Chafee's (R-R.I.) amendments to the Resource Conservation and Recovery Act this Wednesday, July 20, at 10 a.m. in 406 Dirksen.

The markup has been postponed twice while members and staff try to fine-tune the small quantity generator and land disposal provisions. (See Weekly Bulletin, June 27, C20.)

The essence of the requirements appears acceptable to the subcommittee, but details such as deadlines for Environmental Protection Agency regulation and the waste quantity cutoff point below which small businesses won't be regulated had not been settled at press time.

Small Quantities, Big Issue: Opposition from small businesses and their major trade groups, the National Association of Manufacturers and the U.S. Chamber of Commerce, blocked a RCRA rewrite in the 97th Congress.

This year, faced with a less favorable political climate, the small businesses have been willing to compromise, but found that they could make little headway against House Energy leaders' push for a tough set of RCRA amendments.

The result is that HR 2867 goes too far for small business' comfort.

Major concerns include:

-- Language requiring those generating 25 kilograms or more per month to notify waste haulers of the contents of their shipments. Small business groups say 25 kilograms is too strict.

-- Provisions for a "hammer" of full RCRA compliance to fall on small generators if EPA fails to issue regulations within a tight deadline.

-- Provisions requiring EPA to ban land disposal of certain wastes. This requirement could increase waste disposal costs greatly for small generators, representatives say.

Small business groups representing dry cleaners and service stations, larger trade groups like the Chamber of Commerce and Chemical Specialties Manufacturers Association, and the solid waste management industry, which has been a driving force behind the amendments to extend RCRA to small quantities of hazardous waste, will testify before the Small Business Subcommittee on Energy, Environment and Safety next week.

Senate Environment contacts: Steve Shimberg, majority, x46228; Phil Cummings, minority, x47843. Small Business contact: Russell Orban, majority, x53171.

WATER RESOURCES

WATERWAY VIEWS - Shippers and barge and inland waterway operators will tell a Senate Environment subcommittee this week that the industry cannot afford cargo taxes the Reagan administration wants to impose to recover 70 percent of waterway maintenance and improvement costs.

Industry also will tell Water Resources Subcommittee members that if new fees are enacted, shippers and operators should be granted a formal say in how and where the federal government spends the revenues. The administration has been willing to listen if users accept fees but has not offered a formal plan.

The administration proposal (S 1554) to pass on to users most of the cost of maintaining and repairing commercial waterways, now entirely at federal expense, will be the subject of a Water Resources hearing Monday, July 18, at 10 a.m. in 406 Dirksen.

The hearing will be the eighth on water resources issues held this year by Chairman James Abdnor (R-S.D.), who wants to report an omnibus water policy and project authorization bill by the end of the summer.

The Proposal: The administration proposal, drafted by the U.S. Army Corps of Engineers and introduced by Environment Chairman Robert T. Stafford (R-Vt.), would impose a system-wide barge cargo fee of 1.1 mills per

alaska environment

Volume 7, No. 6 ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION November/December 1983

DEC Gives Added Push to Hazardous Waste Program

In a move to expedite the state's application to the federal government for an expanded hazardous waste program, Commissioner Richard Nevé announced in November that he was forming a DEC hazardous waste task force and reconvening the Hazardous Waste Advisory Work Group. The task force is made up of department staff with a wide range of expertise, including regulatory development, hazardous waste cleanup and enforcement, public communication, law, and administration. The Advisory Work Group members are representatives of public and private organizations who may be affected by the management of hazardous wastes.

The Commissioner explained that the departmental task force's first priority is to complete the application for final authorization of a state hazardous waste program under the federal Resource Conservation and Recovery Act (RCRA). The new state program, authorized by the State Legislature in 1981, will manage hazardous waste in Alaska at all stages, including generation, transportation, storage, treatment, and disposal (see accompanying article).

The Commissioner's announcement followed an October 31 management retreat held specifically to explore how to strengthen the department's work on the application process. This came after an earlier decision to forego "interim authorization" because of further work required to develop the hazardous waste regulations that are an integral part of the new program. Interim authorization is an optional step in the application process that allows a state to go through a trial period of implementation with federal hazardous waste staff observing while the state staff gears up to run the program.

Joe Cladouhos, DEC Director of Environmental Quality Management, was assigned by Nevé to head the task force. Referring to the state's schedule for applying for the program, Cladouhos said, "Our objective is to submit the draft authorization package by July 1, 1984." It is then the responsibility of the federal EPA to review the package so the application for final authorization can be made by October 1, Cladouhos explained.

(Continued on back page)



Soil contaminated with PCB's was removed this past summer from an area near the new Aniak school. Workers dug up enough tainted dirt to fill two C-130 cargo planes. The area is now secure for the winter. The discovery of the inadequate cleanup of this abandoned air force site has led DEC to reinspect other sites for possible contamination. Here DEC's Jim Allen (top photo) and helpers take samples and collect soil for shipment.

An Alaska Hazardous Waste Management Program

In a recent statement, DEC Commissioner Richard Nevé said "Even though Alaska is not yet heavily industrialized, it is important to assure the public that as the state grows, its wastes will be managed and disposed of in ways that will protect our lands and waters from irreparable harm."

The challenge to the state government since 1981 has been to develop a workable program, tailored to Alaska's present and future needs, using the legal and funding resources available.

In 1980 the federal government passed the Resource Conservation and Recovery Act (RCRA) to manage the nation's hazardous wastes. The program was designed to be passed on to state governments, with some grant funds available for program development and implementation. State matching funds are required. In 1981, the Alaska State Legislature passed SB 29, which required that DEC design a program that would implement the federal RCRA in Alaska.

RCRA requires the development of:

1. Regulations and standards to control the generation, transportation, storage, treatment, and disposal of hazardous wastes.
2. A manifest system that tracks wastes as they are shipped from the generator to a management or disposal facility.
3. A data system to inventory the activities of all regulated facilities.
4. A comprehensive liability insurance and post-closure financial responsibility program to assure that facility operators will prevent any adverse environmental incident.
5. A permit system which sets rigid standards for treatment, storage, or disposal activities.

(Continued on page 2)

Warning on Imitation Milk

Attorney General Norman C. Gorsuch recently issued a consumer advisory cautioning over 2,000 day care centers, schools, nursing homes, hospitals and other Alaskan institutions to be aware that the use of imitation dairy products may result not only in less nutrition to those served, but may jeopardize the receipt of subsidy funds from Federal agencies. The advisory was also prepared in conjunction with the state Department of Health and Social Services.

Gorsuch said: "The State is concerned about the use of imitation milk in institutions because there are important nutritional differences between milk and imitation milk, and the use of imitation milk may jeopardize subsidized funding from such sources as the Child Care Food Program and School Food Services. The Attorney General added "the substitution of imitation milk for real milk is not legally acceptable under the regulations of many programs.

"My office has received numerous inquiries in the last year about imitation dairy products, which are frequently marketed as 'alternatives' to dairy products. All consumers should be aware that the nutritional values of such imitation products are often exaggerated by their sellers. Moreover, at the present time we are very concerned because sellers of imitation milk have been agressively attempting to sell it to public institutions as a cost-effective alternative to real milk. Institutional buyers, such as day care centers, schools, nursing homes, hospitals, and other institutions which provide daily meals to children, patients, or senior citizens must be especially cautious if they consider buying these imitation milks."

Of most concern to state health and law officials is the fact that some distributors are falsely claiming that imitation milk is suitable for infants. Gorsuch stated: "Such imitation dairy products are not correctly formulated for infants, and in fact may be potentially harmful to infants. These products may be deficient in protein, sodium, potassium, and essential fatty acids, and are lower in calories than mother's milk or approved infant formula products."

The Attorney General's Office advisory explains that the most common imitation dairy product now being sold in Alaska is imitation low-fat dry milk. According to the Attorney General, the public should remember that federal Food and Drug Administration and State of Alaska regulations require that these products be called "imitation" because they are either not standardized or are not nutritionally equivalent to the product they imitate. "Consumers need to consider several factors in determining whether imitation milk is in fact cheaper than milk, especially nutritional factors. For example, one must consume two glasses of imitation milk to get the protein value of one glass of real milk," emphasized Gorsuch.

Because the sellers of imitation milk have been in direct contact with many of the institutions around the state, the Attorney General's Consumer Protection Section is mailing complete advisory packages to over 2,000 day care centers, schools, nursing homes, hospitals, and other Alaskan institutions. The advisory was prepared with the cooperation and advice of the State Department of Health and Social Services.

The Attorney General points out that other consumers may come into contact with these products, mostly through individual distributors but also in some grocery stores. Consumers should also be aware that other false or misleading claims may be made about these products, for example, claims that imitation milk is non-allergenic or less allergenic than real milk, although there is not at this time scientific substantiation for such claims.

Interested consumers who wish to obtain a copy of the three-page consumer advisory on imitation milk products may do so by calling the Consumer Protection Section of the Attorney General's Office in Anchorage at 279-0428, or by writing to that office at 1031 W. 4th Avenue, Suite 110, Anchorage, Alaska 99501.



"DEC's library is organized and 'user friendly' at last," says DEC librarian Alison Rule Talley. Since beginning work in August, 1982, Alison has begun to add DEC's holdings to the Alaska library data base. Her work has also made it possible for DEC staff to tap into an international library reference system. DEC Commissioner Richard A. Nevé presents Alison with an exceptional service award for her work to make the library work for the department.

Sheffield Rewards Cleanup Contributors

At a Governor's awards banquet, Governor Bill Sheffield cited figures showing a decrease in Alaska litter and presented awards to some of those responsible. The Governor honored six groups for outstanding contributions to litter reduction and recycling. In addition, the Governor presented a $120,000 matching grant to Alaskans for Litter Prevention and Recycling for conducting youth litter patrols and other litter reduction and recycling projects.

Top awards in five categories were presented to Larry Murikami of Fairbanks, the Department of Law Pretrial Program, SOHIO Alaska Petroleum Company, residents of the Anchorage Pioneers Home, Sergeant Drew Rotermund of the State Troopers, and Alaskans for Litter Prevention and Recycling (ALPAR).

All of the awards were presented at the Litter Reduction and Recycling Program's third annual awards banquet, held October 13 in Anchorage. Top awards were chosen from a field of 42 nominees representing projects ranging from school cleanups to statewide litter patrols.

Governor Sheffield spoke of the projects established by the Department of Environmental Conservation's litter program. Private efforts, combined with DEC's, have resulted in a 15-20% decrease in litter in Alaska. The Governor said the reductions match results in other states with programs such as Alaska's. He indicated that the decrease in litter is correlated with an increase in the amount of citizen participation in litter reduction and recycling activities. Noting that those being recognized represent outstanding contributions to the quality of Alaska life, Sheffield presented the following awards.

The Youth category award went to Larry Murikami of Fairbanks. Mr. Murikami's skill as head crew chief for the Fairbanks Youth Litter Patrols was praised. Under his management, the patrol picked up over 2,000 bags of trash. His enthusiasm kept the crew going under adverse weather conditions.

Winner in the Community Involvement category was the Department of Law Pretrial Intervention Program, Juneau. This program screens referrals by judges and probation officers and places offenders in community work programs. During the first six months of 1983, about 50 offenders contributed over 1600 hours to litter control in Juneau. That work at minimum wage would have cost over $6,000. This program represents an outstanding contribution to the quality of life in Juneau.

For the second year in a row, the Business and Industry award was presented to SOHIO Alaska Petroleum Company. SOHIO contributed 300,000 car litter bags to the DEC litter program, at a cost of over $12,000. Distribution is being carried out through DEC, the Division of Motor Vehicles, visitor information centers, and Marine Highway terminals. The goal is to get litter bags in as many vehicles traveling Alaska's roads as possible. That goal can become a reality, thanks to SOHIO.

Two awards winners were recognized in the category of Most Significant Achievement. The residents of the Anchorage Pioneer's Home were honored for their recycling project. Hundreds of pounds of paper and aluminum cans were recycled each week, and the home is maintained litter free.

The other award winner in this category was Sergeant Drew Rotermund of the Alaska State Troopers. Sgt. Rotermund engineered a litter law enforcement plan encompassing the 4th judicial district. The plan involves the Troopers, Fairbanks police, the judicial branches, DEC, and the Fairbanks North Star Borough. Under this program litter laws are actively enforced and standard penalties imposed. This program is functioning due to Sgt. Rotermund.

The Governor's Award is for a project with a significant impact statewide. The 1983 winner is Alaskans for Litter Prevention and Recycling — ALPAR. The idea for this group was conceived by members of the DEC Litter and Recycling Program Advisory Council who believed that business and industry could supplement the state's program. The ALPAR organization was developed by business and industry leaders, who set up the program and made contributions for its projects. The results to date are $120,000 in cash contributions and $300,000 of media coverage and in-kind support. These donations supported youth litter patrols in 11 communities, created a newsletter, supplied safety vests for the patrols, and provided jobs for more than 150 young people. More than 100 businesses belong to ALPAR.

Highlighting the evening was Governor Sheffield's presentation of $120,000 to ALPAR. The matching grant represents the state's commitment to this type of joint effort to clean up the environment. The funds will help continue the youth litter patrol program, offering young Alaskans summer employment opportunities.

All award winners were presented with plaques bearing the state's official litter reduction and recycling logo. The public recognition program is authorized by the Comprehensive Litter Reduction and Resource Recovery Act passed by the Legislature in July, 1980.

(D.E.C. Gives Push continued from page 1)

To tailor requirements to fit Alaska's needs, the developers of the state's program have proposed some moderate changes. The state program will be "substantially equivalent" to the federal program, and will improve it in the following ways:

1. Wastes will be managed according to the "degree of hazard" they present, or how toxic the chemicals are to organisms. This differs from the federal approach of simply listing hazardous chemicals and wastes by name or source.

(Continued on page 3)

(Alaska Hazardous Waste continued from page 2)

2. Generators of waste will be required to know more about their wastes, in order to determine their degree of hazard.
3. Recycling of wastes, and thus more efficient use of chemicals, will be encouraged.
4. Hazardous waste managers will be required to anticipate fires and spills and develop comprehensive written plans for handling these emergencies.
5. A lower threshold level of hazardous waste, 400 pounds, will be set. If a generator produces this amount per month, it will be regulated under the state program. The federal threshold level is 2200 pounds per month.

The Alaska program is equivalent to the federal requirements but adjusted to the Alaska situation. The "degree of hazard" approach regulates only those wastes which, in fact, pose a hazard to the public and the environment. A large amount of responsibility will rest on the generator for determining whether wastes are hazardous.

In the final analysis, the Alaska hazardous waste program will be more stringent than programs in many other states, but less stringent than in others. Washington state is implementing a program very similar to Alaska's, while the state of California has requirements substantially more restrictive.

Hazardous wastes and toxic materials have been the cause of many crises in the past ten to twenty years, especially in the industrialized states. Public awareness of the problem has been at an all-time high for ten years, and this situation continues. The federal RCRA has created a nationwide pattern for hazardous waste programs. When the Alaska program is in place, public and private organizations will find it about the same to do business in Alaska as elsewhere in the country.

(Alaska Hazardous Waste continued from page 1)

The Hazardous Waste Advisory Work Group worked with DEC staff in 1982 and 1983 to advise the department on development of the regulations which were presented at public hearings in June, 1983. Membership of the body includes the Association of General Contractors, the Alaska Oil and Gas Association, the Alaskan Air Command, Alaska Center for the Environment, Sierra Club, League of Women Voters, Alaska Federation of Natives, Alaska Truckers Association, Alaska Public Health Association, and the Municipality of Anchorage. Cladouhos stated that the group was invited to meet again in December of this year to provide advice from the public and see the application process through to completion.

The staff task force newly formed by Commissioner Nevé is comprised of the following members: Joe Cladouhos, EQM Director and Chairman of the group; David DiTraglia, Hazardous Waste Program Manager; Glenn Miller, Environmental Engineer; Ray Preston, Attorney on contract with DEC; Rosemary Antel, Ecologist; Jeff Mach, Environmental Field Officer; Steve Zrake, Environmental Field Officer; and Lois Stiegemeier, Information Officer.

Cladouhos said, in reference to the group, "the members represent the different skills and areas of knowledge needed to put together this type of program. Working together with the Advisory Group, I am confident we will end up with a program that will work well and protect public health in Alaska."

REGIONAL OFFICES

Northern Regional Office
P.O. Box 1601
Fairbanks, Alaska 99707
(907) 452-1714

Southeast Regional Office
P.O. Box 2420
Juneau, Alaska 99803
(907) 789-3151

Southcentral Regional Office
437 E Street
Anchorage, Alaska 99501
(907) 274-2533

REPORT ALL OIL and HAZARDOUS SUBSTANCE SPILLS: Call toll-free Zenith-9300 (call long distance operator)

PERMIT INFORMATION CENTER: Call 465-2615 (Juneau)
279-0254 (Anchorage)
452-2340 (Fairbanks)

Call collect any time for information on state, federal, and local permits.
Calls after working hours will be recorded and returned when working hours are resumed.

RECYCLING and LITTER HOTLINE: 789-3151 (Juneau)
274-9433 (Anchorage)
452-1714 (Fairbanks)

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STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

Telephone: (907) 465-2640
Address: Pouch O
Juneau 99811

September 26, 1983

Mr. Ron Kreizenbeck, Director
U.S. Environmental Protection Agency
Alaska Operations Office
3200 Hospital Drive
Juneau, Alaska 99801

Dear Mr. ~~Kreizenbeck~~ Ron:

Enclosed is ADEC's hazardous waste program work plan and ADEC-EPA Cooperative Agreement revised based on Mr. Feigner's memorandum delivered September 13, 1983. In response to the seven individual points and one unnumbered comment (u), we have corrected errors and revised language in the documents where necessary. Other issues raised are are addressed, in sequence, in this letter.

Of primary importance is the recent decision by Governor Sheffield to not apply for interim authorization in October. He felt that additional time was needed to improve the complex regulatory proposal and to make certain the issues, requirements and impacts were carefully presented rather than hastily assembled. Therefore a new schedule for developing the regulations and final authorization package has been developed. We are strongly committed to increasing our RCRA involvement and will be submitting the final package essentially as originally planned. Table II of the grant application has been revised slightly and is enclosed.

(u) The original grant application submitted June 27, 1983, indicated the need for grant funds to supplement our general funded hazardous waste program in order for ADEC to continue the process of preparing regulations and the documents supporting a request for program authorization, and to increase the state's role in RCRA activities pursuant to the revised Cooperative Agreement, in particular inspection/enforcement activities and work on Part B permits. During the past twelve weeks, ADEC has expended approximately fifteen work-months in the following areas:

a) Prepare and submit draft authorization package
b) Inspect and monitor North Slope Salvage incident
c) "Sell" program and regulations to private citizens, industrial representatives and government officials
d) Revise regulations

e) Participate in 7 scheduled RCRA inspections
f) Attend 1 permit writing class
g) Develop program plans, cooperative agreements, training plans and inspection schedule
h) Perform laboratory analysis
i) "Related" activities including PCB cleanups and asbestos disposal

1. The confidentiality preclusion comment is inserted in Section V of the agreement.
2. EPA's prioritization of certain aspects of compliance inspections is not properly included in the agreement. We have added language in Section IX-B to the effect that inspections will be conducted to determine compliance with all applicable RCRA requirements and the inspection checklist provided by EPA will be completed.

3. ADEC agrees to prepare one draft permit within sixty (60) days following receipt of the determination that the application is complete.

4. "Program development" is that ongoing work necessary to assuring all staff, regulated persons and the public are brought up to speed with the regulations, program activities, and requirements. This task includes technical assistance, informational responses, development and documentation of policies, operating directives and providing other guidance, on-the-job training and education to agency staff, field staff and potentially affected persons.

5. The grant application and budget forms submitted on June 27, 1983 clearly indicate a total grant request of $325,200. The $50,000 for additional laboratory staff detailed in Table II was left out of the work plan, appropriate corrections have been made.

6. An accurate accounting of total management costs associated with the proposed program is not available. However, it is estimated that the Commissioner, two division directors, a grant accountant, three regional supervisors and six regional program and field supervisors and a laboratory manager each expend between 0.05 to 0.1 work year; that the air and solid waste section supervisor, planner, and clerk typists each expend approximately 0.25 to 0.35 work years. The total cost of this direct involvement, by management and support staff in the hazardous waste program totals about 1.66 work years at a cost of approximately $100,000.

7. References in the agreement to 40 CFR Part 123 have been changed to 40 CFR Part 271 as noted.

Please review the enclosed documents and indicate the approvability of our grant application as soon as possible so we can continue our effort to implement this hazardous waste program.

Sincerely,

Joe Cladouhos, Director
Environmental Quality Management

By: Stan Hungerford, Supervisor
Air and Solid Waste Management

COOPERATIVE AGREEMENT

Between

U. S. ENVIRONMENTAL PROTECTION AGENCY, REGION X

and

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Relating to the cooperative administration of the laws enacted by the United States of America under Subtitle C of the Resource Conservation and Recovery Act of 1976, as amended [PL 94-580, 42 USC 6901 et seq], (RCRA), and the laws of the State of Alaska to protect the health and environment by regulating the generators and the treatment, storage, transportation and disposal of hazardous wastes.

I. PREAMBLE

The Regional Administrator, U. S. Environmental Protection Agency, Region X, (EPA) and the Commissioner of the Alaska Department of Environmental Conservation, (ADEC), designated as the lead agency of the State of Alaska, enter into this Cooperative Agreement. This Agreement is the first step towards comprehensive and integrated administration and enforcement of the Federal Hazardous Waste Management Program under Subtitle C of RCRA and the laws of the State of Alaska. This Agreement should assure efficient allocation of public funds, minimize duplicative effort, avoid confusion by the regulated community, safeguard the public welfare and implement the Federal hazardous waste management system under RCRA in Alaska.

II. AUTHORITY and RESPONSIBILITY

EPA has the authority to enter into this Cooperative Arrangement pursuant to Section 3011 of RCRA. This agreement is in the best interest of the public and is in effect until the ADEC applies for and receives final authorization for its hazardous waste management program.

ADEC has the Statutory authority to conduct a hazardous waste management program substantially equivalent to the Federal hazardous waste management program under Subtitle C of RCRA. ADEC plans to adopt hazardous waste management regulations and to apply for authorization to implement RCRA under Section 3006(c) of RCRA in accordance with 40 CFR 271 Subpart F as outlined on page 6.

It is understood that EPA retains full responsibility for the administration and enforcement of the Federal hazardous waste management program in Alaska until the State has received authorization, and that nothing in this Agreement shall be construed to limit EPA's authority. State participation in this Agreement is intended to rapidly and efficiently implement RCRA and lead to assumption of State control of the program. Until ADEC has sufficient resources to carry out the full range of activities required to implement the Federal

program, EPA will retain primary responsibility for issuing permits, conducting inspections and for enforcing all federal hazardous waste laws and regulations.

ADEC shall administer those portions of the Federal hazardous waste management program identified in this Agreement consistent with the provisions of other agreements, RCRA, current Federal regulations, and any separate working agreements which may be entered into with the Regional Administrator as may be necessary or desirable for the full administration and enforcement of the Federal program.

III. EPA OVERVIEW OF STATE ACTIVITIES

EPA shall oversee and evaluate the State's performance of functions described in this Agreement on a continuing basis to assure that such performance is consistent with this Agreement and all applicable requirements embodied in current Federal regulations and laws. This evaluation generally will be accomplished by:

1. EPA review of all reports and submittals required by this Agreement, applicable Federal regulations and laws.

2. EPA on-site review of State performance in accordance with schedules established for annual program evaluations.

3. Considering all comments regarding the State's performance received from the regulated community, the public and Federal and local agencies. All such comments will be brought to the attention of the Commissioner prior to any public response to the comments.

The Regional Administrator may request, and the Commissioner shall submit, information and provide access to all files necessary for oversight and evaluation of the State's performance of functions described in this Agreement, on a quarterly basis except in a crisis.

EPA reserves the right to ask for the review of information submitted to ADEC which is claimed to be confidential by the submitter under State law. EPA will preserve the claim of confidentiality in accordance with procedures established at 40 CFR 2.

If, in the judgement of the Regional Administrator, any performance of functions is inconsistent with this Agreement or current Federal policies, regulations, or laws, he/she shall notify the State and may take any actions specified in 40 CFR 35.712.

IV. STATE NOTIFICATION OF PROGRAM CHANGES

As soon as the Commissioner has information concerning any substantial proposal or pending amendment, rescission, or repeal of any pertinent State statute, regulation, directive, or form, significant judicial decision, any of which the Commissioner has submitted to the Regional Administrator or agreed to make use of in connection with this Agreement, the Commissioner shall notify the Regional Administrator and transmit the text of any such change to the Regional Administrator.

Within 30 days, the Regional Administrator shall determine whether the proposed change would restrict the authority of the State to perform in accordance with this Agreement. Such change may be cause for termination, according to 40 CFR 30.920 et seq., of the Cooperative Agreement negotiated pursuant to this Agreement.

If an amendment, rescission, or repeal of any State statute, regulation, directive, form, or any significant judicial decision described in the preceding paragraph shall occur for any reason including action by the Alaska Legislature or State court, the Commissioner shall, within 10 days of such event, notify the Regional Administrator and shall transmit a copy of the text of such action to the Regional Administrator.

If Federal amendment, statute or regulation change occurs within RCRA guidelines, the State of Alaska will apply for and secure approval of these changes as soon as State legal and administrative procedures can be carried out.

V. PERMITS

EPA has the responsibility to review all hazardous waste permit applications and to prepare and issue the necessary permits in a timely manner according to federal regulations. EPA will notify ADEC in advance of any meeting scheduled between the agency and applicant. Unless precluded because of a claim of confidentiality, EPA will provide ADEC a copy of each permit application, amendment and technical analysis as soon as they are available; EPA will also provide ADEC copies of pertinent correspondence relating to the review of the application. ADEC will be included in EPA's internal review of draft permits and notified approximately one week prior to public notice.

VI. EFFECTIVE DATE

Unless otherwise stipulated, this Agreement and any subsequent modifications will take effect immediately upon being signed by the Commissioner and the Regional Administrator.

VII. AMENDMENTS

This Agreement may be amended or modified by mutual written agreement signed by both the Commissioner and the Regional Administrator.

VIII. TERMINATION

This Agreement will terminate when the State receives Interim or Final Authorization according to the provisions of 40 CFR 271, or on the date on which all Interim Authorizations end, whichever is applicable. It may also terminate at any time in accordance with 40 CFR 30.920 et seq.

IX. ENFORCEMENT

Until ADEC has been authorized to implement applicable procedures, EPA is responsible for all RCRA inspections and enforcement activities in Alaska. ADEC

a. Scheduling

By July 1 each year, EPA will submit to ADEC a tentative annual inspection schedule for the year. Within ten working days of receipt, ADEC will select those facilities or activities which will be inspected by ADEC staff, and notify EPA of its intent. EPA will be responsible for carrying out the rest of the inspection schedule. Each facility which ADEC inspects at EPA request will eliminate the need for ADEC to inspect one of the facilities originally selected.

Quarterly, and again two weeks prior to conducting the inspections, the agency which is conducting the inspection(s) will notify the other agency, confirming the specific schedule. ADEC will endeavor to accompany EPA inspectors on each inspection of a storage, treatment or disposal facility, and at least 50% of the inspections of generators and transporters of hazardous wastes for the purpose of staff training.

b. Reporting

Within thirty days of each inspection, the agency having responsibility for conducting an inspection shall prepare a written report of the inspection, evaluating compliance with RCRA requirements applicable to the facility or activity, and describing any follow-up action required. This report will be sent to the EPA Alaska Operations Office the ADEC Air and Solid Waste Management Section. Each report will include a completed checklist.

c. Sampling and Analysis

ADEC will analyze any samples of potentially hazardous wastes, toxic wastes, oils or pesticides for which the staff has equipment and capability, taken by ADEC or EPA staff. Results of such tests will be provided to EPA's Alaska Operations Office, the ADEC Air and Solid Waste Management section and appropriate regional supervisor.

d. Follow-up inspections

Within ten working days of receipt of a request from EPA, ADEC will re-inspect any facility or activity to check on any substantive or administrative violation of RCRA for which a notice of violation has been issued, or to sample and analyse any waste material for which it has the capability and which is specifically identified by EPA.

e. Non-Notifiers

ADEC agrees to inspect potential non-notifiers within 10 working days of written request from EPA. If, in the course of routine activites, ADEC staff discovers a previously unidentified non-notifier, ADEC will provide the person in charge of the local facility or activity with a copy of the applicable Federal and State hazardous waste management regulations and describe the non-notifier's responsibilities under the Federal regulations. ADEC will confirm, in writing, the contact with each non-notifier to EPA within ten working days of any such contact.

X. COORDINATION BETWEEN EPA AND ADEC

ADEC will assist EPA Region X to implement RCRA by performing tasks identified in the Department's annual hazardous waste management work plan.

EPA and ADEC will confer in person or via telephone prior to taking any action in the event of any reported discharge of a hazardous material. ADEC will be the first to report to the scene of an incident or discharge which poses an imminent hazard to the public, and will report promptly via telephone or other high speed communication system the results of the initial investigation and determination within 24 hours to the Commissioner or his designee. Interim reports will be made as appropriate. A written report of each emergency response will be submitted to the the Directors of the Environmental Quality Operations and Management Divisions within two weeks following completion of all activities required to resolve the incident. Reports will be delivered to the EPA Alaska Operations Office upon receipt by staff of the Division Directors' offices.

ADEC and EPA staff will determine, on a case by case basis, what assistance or involvement is necessary by EPA in response to each incident. In the case of an incident which does not pose an imminent hazard, either EPA or ADEC may be selected to investigate and assume responsibility for appropriate action.

EPA may desire additional assistance from ADEC in implementing its responsibility to carry out the Federal RCRA program. Any request by EPA for assistance beyond that described in Sections II, V, IX and XI of this Agreement shall be submitted in writing to the Commissioner on or before January 15 each year. ADEC will incorporate tasks in its annual work plan to accomodate such a request to the extent practicable. ADEC will provide a copy of its annual hazardous waste work plan to EPA Alaska Operations Office on or about July 1 each year. At the beginning of each quarter, staff of ADEC and the Alaska Operations Office will consult together to assure that timely adjustments in both EPA and ADEC work plans and other agreements are made to expedite ultimate approval of the State's hazardous waste management program.

EPA reserves the right to act independently in any RCRA implementation or enforcement activity in the State. EPA shall, prior to taking any actions or communications on compliance inspections or enforcement action within the State of Alaska, first contact the Department's Air and Solid Waste Management section staff for the purpose of coordinating state actions relating to the intended federal activity.

XI. SPECIFIC AGREEMENTS

Tasks for each fiscal year necessary to accomplish long-term goals for both agencies entering this agreement will be specified with grant application and are to be considered an integral part of the Cooperative Agreement.

XII. SIGNATURES

for R.A. Nevé 9/26/83

Commissioner Date
Alaska Department of Environmental Conservation

Regional Administrator Date
U.S. Environmental Protection Agency

SPECIFIC AGREEMENTS FOR FY 1984

I. PROGRAM AUTHORIZATION:

ADEC commits approximately one work year to its effort to obtain authorization of a hazardous waste program.

Time Table

	TASK	COMPLETION DATE
1.	Complete revision of regulations based on public and EPA comments	Oct 26, 1983
2.	Approve necessary legislative changes	October 26, 1983
3.	Announce public meeting to present final regulatory proposal	November 19, 1983
4.	Submit specific legislative lanaguage	January 6, 1984
5.	Hold public meeting	January 15-25, 1984
6.a)	Complete draft final authorization package	July 1, 1984
6.b)	Sign statutory changes into law	July 10, 1984
7.a)	Prepare Fy'86 budget assuming final authorization	October 1, 1984
7.b)	Sumbit final draft authorization package	" " "
8.	Regulations to Lt. Governor for filing	December 1, 1984
9.	Submit final authorization package for approval	January 10, 1985
10.	Receive final authorization	July 26, 1985

II. INSPECTIONS:

ADEC commits approximately one work year to inspections, inspection reports, sample analyses and other related activities. The attached schedule has been prepared for fiscal year 1984.

III. PERMITS:

ADEC commits approximately 0.50 work year to write one draft storage facility permit in the spring of 1984. Tasks associated with writing the permit include initial meetings, application review, report on application completeness, draft permit, draft public notice, plan review and site inspections. Aspects of the permit which require special considerations will be studied by ADEC and recommendations will be made for EPA's decisions. EPA will provide guidance in the form of workshops and a single contact to assist the permit writer. Unless unusual circumstances arise, ADEC will write the draft permit within 60 working days following determination that the application is complete.

Signed by:

W. L. Publicover

for R A Nore 9/24/83

Commissioner
Alaska Department of Environmental

Regional Administrator
U.S. Environmental Protection Agency

HAZARDOUS WASTE INSPECTION SCHEDULE

Priority	Facility	Location	Type	Comments
SOUTHCENTRAL REGIONAL				
1	Chevron Alaska Refining	Kenai	TSD	EPA will inspect 8/83; ADEC inspection 5-6/84
1	Union Chemicals	Kenai	TSD	EPA will inspect 8/83; ADEC inspection 5-6/84
1	Elmendorf AFB	Anchorage	TSD	EPA will inspect 7-8/83; ADEC inspection 5-6/84
1	Lynden	Anchorage	TRANS	EPA will inspect 7-8-9/83; ADEC inspection 5-6/84
1	Totem Ocean Trailer Exp	Anchorage	TRANS	EPA will inspect 7-8-9/83; ADEC inspection 5-6/84 5/82
2	Sealand	Anchorage	TRANS	EPA inspected 3/83; ADEC inspection 5-6/84
2	Alaska Constructors, Inc.	Anchorage	GEN	ADEC inspection 7/83-6/84
2	Big Three Ind., Inc.	Palmer	GEN	ADEC inspection 7/83-6/84
2	Chevron Bethel Bulk Plant	Bethel	GEN	ADEC inspection 7/83-6/84
2	Midnight Sun Spec. Del. Inc.	Wasilla	TRANS	ADEC inspection 7/83-6/84
2	Magna Corp.	Kenai	GEN	ADEC inspection 7/83-6/84
NORTHERN REGIONAL				
1	Sohio Alaska Petroleum	Prudhoe	TSD	EPA will inspect 7/83; ADEC inspection 5-6/84
1	Ft. Wainwright	Fairbanks	TSD	EPA will inspect 7/83; ADEC inspection 5-6/84
2	Arco Kuparuk	N. Slope	TSD	EPA will inspect 7/83; ADEC inspection 5-6/84
2	AMF Turboskope N. Slope	Prudhoe	GEN	ADEC inspection 7/83-6/84
2	Mukluk Freight Lines	Prudhoe	TRANS	ADEC inspection 7/83-6/84
SOUTHEAST REGIONAL				
2	USCGC Cape Penlopen	Petersburg	GEN	ADEC inspection 7/83-6/84
2	Union Oil Co./ AJ Rock Dump	Juneau	GEN	ADEC inspection 7/83-6/84

Revised 9/20/84

YEAR 1984

ANNUAL WORK PLAN
HAZARDOUS WASTE

PROGRAM ELEMENTS (° Outputs)	RESPONSIBLE AGENCY	SCHEDULE	RESOURCES FOR PROGRAM ELEMENTS				
			Work Weeks	Federal* Grant	Additional* Grant	State* Match	State* Nonmatch
Authorization				40.0	13.0	0.0	
° Receive comments on regulations from EPA, State Attorney General, and other State agencies	CO/AG/EPA etc.	9/1/83	5				
° Revise regulations; resubmit to EPA and State Attorney General	CO	9/25/83	4				5.0
° Submit final Interim authorization package; receive AG approval; prepare letter for Governor's signature; submit package to Governor	CO/AG/GOV/EPA	10/26/83	4				
° Effective regulations (depends on authorization date)	CO/EPA	3/1/84	14				
° Submit draft application for final authorization	CO	4/1/84	3				
° Submit complete application for final authorization	CO	7/1/84	3				

*Thousands of Dollars

YEAR 1984

ANNUAL WORK PLAN
HAZARDOUS WASTE

PROGRAM ELEMENTS (° Outputs)	RESPONSIBLE AGENCY	SCHEDULE	RESOURCES FOR PROGRAM ELEMENTS				
			Work Weeks	Federal* Grant	Additional* Grant	State* Match	State* Nonmatch
Development				57.5	5.0	31.1	
° Program policies, enforcement, permitting and manifest	CO	Mar 84	33				
° Field officer guidance	CO/NRO/SERO/ SCRO	Jun 84	15				24.0
° Waste collection network	CO/NRO/SERO/ SCRO	Jun 84	19				80.0
System Operation				72.9	90.0	18.0	23.5
° Permitting - state draft one storage permit	CO/ EPA/RO	1/84 - 6/84	22				
° Enforcement - DEC to participate in 6 inspections and conduct 18 inspections	NRO/SCRO/ CO/SERO/LAB	7/83 - 6/84	42				

*Thousands of Dollars

YEAR 1984

ANNUAL WORK PLAN
HAZARDOUS WASTE

PROGRAM ELEMENTS (° Outputs)	RESPONSIBLE AGENCY	SCHEDULE	RESOURCES FOR PROGRAM ELEMENTS				
			Work Weeks	Federal* Grant	Additional* Grant	State* Match	State* Nonmatch
Training		Ongoing	24	3.1	6.7	10.4	40.0
° Regulations	CO/NRO/SCRO/SERO						
° Enforcement	CO/NRO/SCRO						
° Spill Response	CO/NRO/SCRO/SERO						
° Personal Safety	CO/NRO/SCRO/SERO						
Administration		Ongoing		10.0	2.0	8.1	60.0
° Data system	CO/NRO/SCRO		26				
° Reading	CO/NRO/SERO/SCRO		23				
° State/EPA Agreements (including RCRA 3012 program)	EPA/ CO/NRO/SCRO/LAB		25				

*Thousands of Dollars

YEAR 1984

ANNUAL WORK PLAN
HAZARDOUS WASTE

PROGRAM ELEMENTS (° Outputs)	RESPONSIBLE AGENCY	SCHEDULE	RESOURCES FOR PROGRAM ELEMENTS				
			Work Weeks	Federal* Grant	Additional* Grant	State* Match	State* Nonmatch
Emergencies		As occur		25.0	0.0	13.5	52.5
° Spill response	NRO/SCRO/SERO/ LAB		30.0				
° Other	NRO/SCRO		11.0				
Special Activities		Ongoing		0.0	0.0	0.0	66.0
° PCB	EPA NRO/SCRO/SERO/LAB		19.0				
° Asbestos	NRO/SCRO/SERO		10.0				
Radioactive waste	NRO/SCRO		8.0				

*Thousands of Dollars

JIM

April 13, 1984

To: Jim Palmer
From: Steven Kadish
Re: Fiscal Note for CSSB 503

I spoke to Stan Hungerford and we agreed that the following budget would satisfactorily allow the Department of Environmental Conservation to perform the tasks outlined in the committee substitute:

2 Environmental engineers @ 50.0	100.0
1 Administrative Assistant @ 31.7	31.7
Materials, travel, support, etc	40.0
Small generators clean-ups	75.0
Disposal Facility Siting selection	75.0
Total	331.7

These figures would be carried through the next three years with adjustments.

I have asked Stan to redo the fiscal note to reflect these changes.

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: April 19, 1984

REQUEST
Bill/Resolution No.: CSSB 503
Title: Hazardous Waste....

Sponsor: Senate Resources
Requestor: Sen. Fahrenkamp & V. Fischer
Date of Request: April 12, 1984

FISCAL DETAIL
Agency Affected: Environmental Conservation
Program Category Affected: NRMEC

BRU, Program or Subprogram(s) Affected:
Environmental Quality Management
Air & Solid Waste Management

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING		6-months				
100 PERSONAL SERVICES		65.9	131.7	131.7		
200 TRAVEL		16.0	16.0	16.0		
300 CONTRACTUAL		8.4	16.8	16.8		
400 SUPPLIES		2.0	4.0	4.0		
500 EQUIPMENT		13.6	3.2	3.2		
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING		105.9	171.7	171.7		
CAPITAL		--	--	--		
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		105.9	171.0	171.7		
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME		3.0	3.0	3.0		
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Stanley W, Hungerford
Phone: 465-2666
Division: Environmental Quality
Date: April 19, 1984

Approved by Commissioner: Richard A. Neve'
Date: April 19, 1984
Agency: Environmental Conservation

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

ANALYSIS of FISCAL NOTE
CSSB 503 AMENDED
April 13, 1984

A. Details of the costs for recommending the site and type of state owned/sponsored hazardous waste management facility.

Assumptions:

a) The project will take six to seven years to complete through contracts managed by the Department of Environmental Conservation.

b) In the first year, develop the specific details of siting criteria, the appropriate types of facilities to be evaluated based on industries regulated and types of waste, and five or more general areas for evaluation.

In the second and third years, identify five potential sites, the type(s) of facility to be located at each, and begin physical evaluations of the sites. (75.0 each year)

c) In the next three to four years, conduct detailed evaluations of the five sites, including such parameters as meteorology, geology, hydrology, access, and socioeconomic factors. The cost could range from 500.0 to 2 million per site - an average of 1.25 million is estimated to justify each site to the public. Excess funds would be reserved for the design of the facility after approval of the site by the governor and legislature. (To be included in a fiscal note in 1986 audit cycle.)

d) In the sixth/seventh year conduct the public review of at least two sites. (50.0)

e) Prepare recommendation for the governor and legislature.

f) No inflation of costs or salaries.

Staffing Needs:

1	Environmental Engineer	(Range 19)	50.0 plus support costs
1	Administrative Assistant	(Range 12)	31.7 plus support costs

B. Details of the costs for a collection and transportation service for disposal of hazardous wastes from small quantity generators and households.

Assumptions:

a) The project will be for at least three and one half years.

b) There will be "cleanups" in four or more cities per year. (85.0 per year)

c) No inflation of transportation or disposal costs.

d) An agressive program of technical assistance to the small quantity generator to assure conformance to RCRA (Applicable Federal Hazardous Waste regulations)

e) A comprehensive public information campaign each year to maximize legal collection and disposal of hazardous wastes.

f) Analysis of the types, quantities and sources of hazardous wastes to provide information for the state hazardous waste facility siting project.

g) Site for the collection activity and security will be provided by local government.

Staffing needs:

1 Environmental Engineer III (Range 19) 50.0 plus support costs

C. Details of the estimated support costs for four positions.

Travel Costs:	1st year	2nd & 3rd years
Moving costs -- of the 2 Environmental Engineer IIIs: the department has found that the specialized expertise required cannot be found in Alaska.	12.0	--
Travel in support of project work (technical assistance and public information)	3.0	12.0
Travel to meet with contractors, local governments, public meetings	1.0	4.0
Contractual Costs:		
Office costs (5.6 per person -- telephone, xerox, janitor)	8.4	16.8
Supplies:		
Replace expendable laboratory, safety materials	--	2.0
Office	2.0	2.0
Equipment:		
Office equipment (desks, chairs, word processor)	5.1	--
Safety equipment and replacements	8.5	3.2

PROPOSED LETTER OF INTENT

The purpose of this Act is to provide specific direction to the Commissioner, Alaska Department of Environmental Conservation, regarding the development of hazardous waste management regulations and to make the necessary statutory changes to allow the Department to apply for and obtain authorization from the United States Environmental Protection Agency to administer a hazardous waste management program in this state.

It is the intent of the legislature that Alaska's hazardous waste management program and the regulations thereunder not be inconsistent with the federal program. It is the intent of this Act (Section 4. AS 46.03.299(b)) that the Department:

1) adopt the characteristics of hazardous wastes 40 CFR Subpart C and as may be amended*;

2) adopt criteria for listing hazardous waste as contained in 40 CFR 261.11 and as may be amended*;

3) adopt special requirements for hazardous wastes which are used, reused, recycled or reclaimed contained in 40 CFR 261.6 and as may

*The phrase "and as may be amended" is intended to allow the Department to incorporate future regulatory and statutory changes made by the U.S. Environmental Protection Agency into the Department's regulations without state statutory changes.

be amended*;

4) adopt exclusions as contained in 40 CFR 261.4 and as may be amended*;

5) initially adopt the lists of hazardous wastes as contained in 40 CFR 261 Subpart D and as may be amended*. It is noted that the Department has the flexibility to enumerate upon these lists two years after receiving final authorization by the U.S. Environmental Protection Agency; and

6) adopt special requirements for hazardous waste, produced by small quantity generators as contained in 40 CFR 261.5 and as may be amended*. It is noted that the Department has the authority to develop new draft regulations for small quantity generators within two years following the date of authorization by the U.S. Environmental Protection Agency of the state hazardous waste program should the U.S. Environmental Protection Agency fail to revise 40 CFR 261.5 dated April 1, 1983.

The aforementioned direction will allow the Department to rely upon the significant resources and efforts of the federal government and this nation's scientific, business, and environ-

mental communities in their continuing efforts to refine hazardous waste management for the nation. The Department will thus focue the resources of the state towards enhancement of public awareness, enforcement capabilities, and identification of any aspects of hazardous waste management that are unique in Alaska.

Via the Act, the department is directed to focus the resources of the state towards development of a program not inconsistent with the framework contained within and promulgated under the federal program.

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

OFFICE OF THE COMMISSIONER
POUCH O, JUNEAU, ALASKA 99811

Telephone:(907)
Address:

465-2600

April 25, 1984

The Honorable Bettye Fahrenkamp
Senator
Alaska State Legislature
Pouch V
Juneau, AK 99811

Dear Senator Fahrenkamp:

I believe that some confusion may arise about the intent of the April 16, 1984, work draft of CSSB 503(Res). In Section 1 of the bill, Sec. 46.03.99(a) says, basically, that the Department of Environmental Conservation (DEC) shall (1) adopt RCRA regulations by reference; and (2) not later than July 1, 1986, adopt other regulations.

Mr. Stan Hungerford reported to me, that the work group Mr. Palmer chaired on April 9, 1984, discussed this issue thoroughly, and concluded that DEC should increase its hazardous waste staffing during FY 85 and under a cooperative agreement with the Environmental Protection Agency (EPA), operate as much of the full range of RCRA actvities in Alaska as possible. He has confirmed that this is, in fact, the intent of the proposed bill in subsequent conversations with Mr. Palmer and Mr. Steve Kadish of Senator Vic Fischer's office.

It is possible to construe the language of this section to require DEC to first seek and obtain EPA's authorization of a state RCRA program, and then revise its regulations and seek a second authorization of a program based on the potential risks of wastes exhibiting the additional characteristics of carcinogenicity, toxicity and persistence.

Since the work group expressed the need for DEC to increase its staff and gain experience enforcing the evolving federal program during the next two years, I suggest the following change to Section 1 of the proposed bill:

> "Sec. 46.03.99 REGULATION OF HAZARDOUS WASTE. a) Not later than July 1, 1986, the department shall in accordance with the Administrative Procedure Act (AS 44.62), adopt regulations which take effect on July 1, 1987, for the identification and management of hazardous waste
> 1) as defined by the Environmental Protection Agency and
> 2) wastes which exhibit the characteristics of toxicity, persistence, or carcinogenicity."

This wording would assure that the agency not be diverted from the ultimate objective of preparing and submitting a final application for EPA's approval by July 1987, which incorporates the comprehensive hazardous waste program proposed in the October 26, 1983, draft regulations.

It has also been pointed out to me that proposed definition of "associated wastes" is a bit confusing. I suggest that, based on the wording agreed to by Mr. Tom Brooks (AOGA) and Mr. Hungerford, the definitions be revised to read:

"(37) "waste associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy" means

(a) waste, including drilling muds, cuttings, hydrocarbons, brine, acid, sand, and emulsions or mixtures of fluids produced from and unique to the operation or maintenance of a well, whether naturally occurring or added for the operation or productivity of the well;
(b) waste that is derived intrinsically from primary field operations; and
(c) does not include spent solvents and oil's from equipment maintenance activities, discarded chemical products or fuels.

(38) "waste derived intrinsically from primary field operations" means waste produced from a well, and removed

(a) at the drill site; or
(b) at crude oil production facilities by crude oil or wastewater treatment processes before custody transfer of the crude oil."

Sincerely,

Richard A. Neve'
Commissioner

RAN/SH/ne

cc: Jim Palmer
Steve Kadish

Clarification Amendments for CSSB 503

1. page 1, Section 1 (a). Change to the following language recommended by the Department of Environmental Conservation:

(a) Not later than July 1, 1986, the department shall in accordance with the Administrative Procedure Act (AS 44.62), adopt regulations which take effect on July 1, 1987, for the identification and management of hazardous waste
1) as defined by the Environmental Protection Agency and
2) wastes which exhibit the characteristics of toxicity, persistence, or carcinogenicity.

2. page 2, Section 2, line 22. Delete the following: [or transporter]

3. page 2, Section 2, line 26. Insert the following after "under (a) of this section to":

the highest elected local official, and

4. page 8, Section 9. Change to following language recommended by Department of Environmental Conservation:

(37) "waste associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy" means
(a) waste, including drilling muds, cuttings, hydrocarbons, brine, acid, sand, and emulsions or mixtures of fluids produced from and unique to the operation or maintenance of a well, whether naturally occurring or added for the operation or productivity of the well;
(b) waste that is derived intrinsically from primary field operations; and
(c) does not include spent solvents and oils from equipment maintenance activities, discarded chemical products or fuels.

(38) "waste derived intrinsically from primary field operations" means waste produced from a well, and removed

(a) at the drill site; or
(b) at crude oil production facilities by crude oil or wastewater treatment processes before custody transfer of the crude oil.

POSITION PAPER/Department of Health & Social Services

POSITION PAPER

SENATE BILL NO. 503

For an Act entitled: "An Act relating to hazardous wastes."

This Bill appears to be a necessary updating of existing statutes to enable the state to obtain federal approval of a state hazardous waste management program. The Bill also designates the Department of Environmental Conservation as the agency with exclusive jurisdiction to adopt and enforce regulations for the control of hazardous wastes in the state. Regulations adopted must be consistent with 42 U.S.C. 6924-6925 and with regulations adopted under those sections by the U.S. Environmental Protection Agency.

The Department is pleased to note the inclusion in AS 46.03.296(b) of transportation of hazardous wastes as liable to regulation. The Department is also gratified to note the inclusion of civil and criminal penalty provisions in the legislation.

The Department of Health and Social Services recognizes the need for this legislation at this time and looks forward to a cooperative relationship with the Department of Environmental Conservation in reviewing proposed regulations for their impact on the health of the people of the state.

Recommended by: E.S. Rabeau, M.D.

E.S. Rabeau, M.D.
Director
Division of Public Health

Date: April 16, 1984

Approved by: Robert London Smith

Robert London Smith, Ph.D.
Commissioner
Department of Health
and Social Services

Date: 4/18/84

* *

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date 4/18 , 1984

REQUEST

Bill/Resolution No.: SB 503
Title: Hazardous Wastes

Sponsor: Resource Committee
Requestor: Senate Resources
Date of Request: 4/17/84

II. FISCAL DETAIL

Agency Affected: Health & Social Servs.
Program Category Affected: Public Health

BRU, Program of Subprogram(s) Affected:
Public Health Administration

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 SUPPLIES						
500 EQUIPMENT						
600 LANDS & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
800 MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY	0	0	0	0	0	0

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for Analysis

Prepared By: Dean Tirador, M.D. (fcc) Phone: 465-3090
Division: Public Health Date: 4/18/84

Approved by Commissioner: Robert London Smith, Ph.D. Date: 4/18/84
Agency: DHSS

Distribution (by Agency preparing fiscal note):
Legislativve Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

May 2, 1984

To; Paula
From: Steve K

Re: Hazardous Waste, CSSB 503
Description of Committee Substitute Changes

1. Page 1, Section 1 of the Resources Committee Substitute bill has been deleted and new language has been substituted.

It is possible to construe the language of this section in the Resources substitute to require DEC to first seek and obtain EPA's authorization of a state RCRA program, and then revise its regulations and seek a second authorization of a program based on the potential risks of wastes exhibiting the additional characteristics of carcinogenicity, toxicity, and persistence.

However, all involved -- the members of the advisory group, fellow legislators, and the DEC -- agree that only set of regulations should be developed.

The language drafted before you clarifies this intent.

TRANSPORTATION, page 2

2. This section needs clarification. It is the responsibility of the generator to arrange for transportation of the hazardous waste and complete the manifest required for its transportation. By deleting the words "or transporter" we have eliminated any confusion.

Paula: please note:

The Municipality of Anchorage Hazardous Waste Task Force would like to propose the following language:

Not later than January 1, 1985, the Department shall develop and effective notification procedure to inform local governments and public safety agencies of proposed shipments of hazardous waste through a community.

I think this ok. The members of this task force include members of the Resource Development Council, environmentalists, and a hazardous waste transporter. Kristi — thinks we should keep this as is in the draft.

page 8-9

3. The proposed definition of "associated wastes" has been improperly drafted in the Resources substitute. The correct definition is presented here.

Municipality of Anchorage

600 EAST 38TH AVENUE
ANCHORAGE, ALASKA 99503-6091
(907) 564-1323

TONY KNOWLES
MAYOR

MAYOR'S HAZARDOUS WASTE TASK FORCE

May 2, 1984

Senator Bettye Fahrenkamp, Chairwoman
Senate Committee on Resources
Pouch V
State Capital
Juneau, Alaska 99811

Honorable Senator Fahrenkamp:

The Municipality of Anchorage has formed a Mayor's Hazardous Waste Task Force to address issues related to hazardous waste management in the community. One of the most important and immediate areas of concern to the Task Force is the safe transportation of hazardous wastes in the Anchorage area.

As a result, the Task Force has reviewed CSSB 503 and has a concern with Section 46.03.308., TRANSPORTATION OF HAZARDOUS WASTE. It is our understanding that original intent of this provision was to provide notification to local government on the potential for movement of hazardous waste through a community. As drafted, the proposed provision does not serve this function; notification to a local government would not occur until after the shipment of hazardous waste had already passed through a community. In addition, the delivery of a manifest to the Alaska Department of Environmental Conservation (ADEC) prior to shipment could potentially make it difficult for a transporter to meet Federal transportation requirements.

It is, therefore, recommended that this section be deleted and the following provision substituted:

> Not later than January 1, 1985, the department shall develop an effective public notification procedure to inform local governments and public safety agencies of proposed shipments of hazardous wastes through a community.

This change would give ADEC opportunity to go through a public review process to develop a notification procedure for meeting the needs of local government while not jeopardizing a transporter's ability to satisfy Federa' regulations on the shipment of hazardous wastes.

Your consideration of this recommendation would be greatly appreciated.

Sincerely,

MUNICIPALITY OF ANCHORAGE

Mike Martin, Co-Chairperson
Hazardous Waste Task Force

Jerry Schreiner, Co-Chairperson
Hazardous Waste Task Force

cc: Mayor Knowles
Hazardous Waste Task Force Members
Senator Fisher
Senator Josephson
Senator Ray

MEMORANDUM State of Alaska

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MAIL STOP:

TO: Jim Palmer
Legislative Aide to
Senator Bettye Fahrenkamp

DATE: April 27, 1984

FILE NO:

TELEPHONE NO: 465-2666

FROM: Stanley W. Hungerford
Section Chief
Air & Solid Waste Management

SUBJECT: Regarding Hazardous Waste Program

Attached is a copy of the memo to Commissioner Neve' as you requested during our discussion.

02-001B(Rev.4/80)

MEMORANDUM State of Alaska

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

TO: Richard A. Neve'
Commissioner

DATE: April 27, 1984

FILE NO:

TELEPHONE NO: 465-2666

FROM: Stanley W. Hungerford
Section Chief
Air & Solid Waste

SUBJECT: Hazardous Waste Program for FY 85

During the past several months, a number of events have occurred which are of significance to the continued development of our fledgling hazardous waste program. They include:

1. The governor's office recommended a hazardous waste program budget of approximately $700.0 for RCRA type activities and an increase in staff of two persons, so we could take a more aggressive postion implementing EPA's program as we work toward authorization.

2. The Senate Finance Committee reduced funds in Air and Solid Waste Management (primarily federal funds) which will critically affect the hiring date, travel and training funds or the new hazardous waste postions if the final budget retains these cuts.

3. US EPA insisted that the penalty provisions of the statute be changed to assure "equivalence" with RCRA.

4. The Senate Resources Committee has proposed legislation which indicates strong support for a state program which is more stringent than current RCRA program, and "fills out" a total hazardous waste management program in Alaska, as well as revising the penalty provisions.

5. EPA guidance on RCRA grants is requiring a major increase in permitting and enforcement activities by the state as a condition of awarding grants, and developing what they consider a "quality program."

These events will cause us to make several major changes in our time-schedule for applying to EPA for final authorization, and will demand a rapid increase in carrying out RCRA activities in Alaska. For FY 85, I suggest that the following are of major importance if we are to comply with the intent of the budget requests, federal program and grant requirements, Alaska legislature and meet public expectations:

1. We must assure adequate funding of the support costs for new staff including moving and training in order to increase the quality of our program.

2. We may need to expedite the hiring of the new hazardous waste staff we requested in the operating budget to increase our involvement in the RCRA program as well as the staff added by the legislature to manage the siting, cleanup and public involvement contracts.

3. We must amend our cooperative agreement to emphasize our increased responsibilities, probably by the beginning of January 1985.

4. We need to contract an independent evaluation of our proposed tests for carcinogenicity, toxicity and persistence to assure that they are appropriate for the use intended in the program, and to determine whether wastes exhibiting these characterisitics are best regulated by the degree of hazard or by a listing process; to be completed by November 1984.

5. The regulations should be revised and the draft authorization package prepared by January, again with contractor assistance, for public and EPA review.

6. The new staff acquired via the legislation must schedule and contract for hazardous waste cleanups by March 1985, and have ready for a June public hearing detailed criteria for siting a hazardous waste management facility and the public review process to be followed when determining an appropriate site.

SWH/ne

cc: Chris Noah
Keith Kelton
Joe Cladouhos
David DiTraglia

TELECOPY TO TOM SNAPP

ALL ALASKA WEEKLY 456-6426

BITS FROM BETTYE

April 24, 1984

Hazardous waste is something that nobody likes to talk about, nobody likes to have to deal with and nobody wants to have in their back yard. However, three years ago, prompted by possible petrochemical development in the State, the Legislature passed legislation mandating that the State of Alaska take over the management and control of hazardous wastes from the federal government.

As Chairman of the Senate Resources Committee and as Chairman of the conference committee which came up with the authorizing legislation in the closing days of the session, I was deeply involved and supportive of this effort. During that session, the debate centered around whether or not the federal government should continue to manage hazardous waste in Alaska under the Resource Conservation and Recovery Act (RCRA) or whether or not the State should take over this responsibility. We made the decision to assume this responsibility. Since that time, the debate over hazardous waste management has changed from whether or not the State should assume control to the question of the method by which hazardous wastes should be controlled. For over two years, a debate has raged over this issue. The Department of Environmental Conservation has been working on a set of

regulations which incorporate a "degree of hazard" approach. This approach does not list specific chemicals or materials as hazardous as does the federal "listing" approach, but rather uses specific chemical tests to which a potential hazardous waste must be subjected. If the waste passes the test, it would not be classified as hazardous. If, however, the material does not pass the test, it is considered hazardous waste and must be treated and disposed of in very special and specific manners.

While we have all been actively working to devise a plan for state control, feelings run deep on all sides of this issue and the debate has been very intense. It became apparent to me that unless everyone affected could come to some consensus, we would not have a workable hazardous waste program. In an attempt to get a viable and working program off the ground, I pulled together a working group of Senator Vic Fischer, Senator Joe Josephson, the House Resources Committee, and my staff to try to reach a consensus on this issue.

We expanded our group to include representatives of the Alaska Environmental Center, the Alaska Oil and Gas Association, the Alaska Chapter of the Associated General Contractors, organized labor, rural Alaska, the Alaska Department of Environmental Conservation and Governor Sheffield's office. About three weeks ago this group met in Anchorage. The group spent an entire day working. Late in the afternoon, we reached a consensus on issues such as criminal and civil penalties for violations of the hazardous waste statutes, the public process and criteria in-

volved with the siting in Alaska of a hazardous waste disposal site (time limits for this siting decision were also agreed upon), the expansion of the Department of Environmental Conservation's spring cleanup effort to at least four times a year, the notification of local public authorities of the transportation route of hazardous wastes through their jurisdiction, and the review and evaluation of the proposed hazardous waste regulations for a period of 2 years, after which these regulations will be finalized. As with any compromise on a hotly debated issue, no one can be totally happy with the legislation that is developed. However, all have agreed that this legislation will allow everyone to "get on board" and get going with our hazardous waste program.

One of the key items of the legislation is the requirement of the State to immediately take over the active enforcement of the federal hazardous waste program. Our group felt very strongly that the Department of Environmental Conservation must obtain hands on experience in managing hazardous wastes. By mandating that the State take over everyday management of the program now, the Department will get this necessary experience.

The legislation has been considered last week in both the Senate and House Resources Committee, and both committees acted favorably on the bills. The Senate Judiciary and House Finance Committees are now considering this legislation and I am very hopeful that we can obtain passage this year and continue the process that was started three years ago.

Alaska State Legislature

Official Business

Pouch V
State Capitol
Juneau, Alaska 99811

AMENDMENT by FERGUSON

CS SB 503(~~Res~~) JUD

Page 1, line 7 after the word "violations;" Insert:

public contracts;

Page 9, between lines 10 and 11 Insert a new section to read:

Sec. 10. AS 36.98 is amended by adding a new section to read:

Sec. 36.98.090. PROHIBITIONS.

A legislative staff member may not solicit or receive a contract for from a state agency or department other than the legislature during the interim following the session in which the person worked. This section applies to all legislative staff members range 18 or higher.

Renumber remaining section accordingly.

MEMORANDUM State of Alaska

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

TO: Chris Noah
Deputy Commissioner

DATE: April 12, 1984

FILE NO:

TELEPHONE NO: 465-2666

FROM: Stanley W. Hungerford
Supervisor, A & SWM

SUBJECT: Transmittal of analysis and fiscal note

Attached is a fiscal note, requested by Mr. Jim Palmer of Senator Fahrenkamp's office. This identifies staffing, costs and capital budget contractual costs related to two sections of proposed revisions to CSSB 503. Estimated costs for conducting four hazardous waste cleanup costs per year for at least three years are about $78.0 (thousands) annual operating costs and a total capital cost of $900.0 for the three years of contracts. Estimated costs for thoroughly evaluating the impacts at five potential state hazardous waste management facilities are about $140 in annual operating costs and a total capital cost of $6,425.0 for performing the site evaluations and public review process.

This fiscal note was prepared based on the agreements stated at Mr. Palmer's meeting in Anchorage on April 9 and without a copy of the specific language which may appear in CSSB 503.

SWH/ne

MEMORANDUM State of Alaska

DEPARTMENT OF ENVIRONMENTAL QUALITY

TO: Nancy Lord
Legislative Aid to
Senator Vic Fischer

DATE: May 4, 1984

FILE NO:

TELEPHONE NO: 465-2666

SUBJECT:

FROM: Stanley W. Hungerford
Supervisor
Air & Solid Waste Section

As you requested, the following is a more detailed description of the contractual activities necessary during FY 85 and FY 86 to accomplish this intent of proposed Sec. 46.03.313 of CSSB 503 up to the point of actually determining the environmental impacts and public acceptance of proposed sites as required by Sec. 46.03.313(d) of one or more sites and making the recommendation required by Sec.46.03.314. The activities listed will not necessarily each require separate contracts or contractors.

Project 1. Inventory the types, amounts and location of hazardous waste generated in Alaska as regulated by proposed state regulations.

$10,000

Project 2. Determine the type(s) and capacity(ies) of hazardous waste management facilities needed to provide an economic means for managing wastes including transportation, storage, chemical treatment, recycling and disposal facilities with particular emphasis on encouraging alternatives to land disposal.

$35,000

Project 3. Develop regulations required by AS 46.03.313(b)(2) interpreting and clarifying siting criteria and establishing the public process for determining approvability of a site.

$45,000

Project 4. Determine five or more areas which are suitable for the types of facilities proposed in project 2.

$50,000

Project 5. Based on the criteria developed in project 1, determine the suitability of three or more specific sites for facilities.

$75,000

Project 6. Identify alternative models of industrial and governmental financing for the proposed facilities and incentives/inducements to encourage community acceptance of a facility. $10,000

$225,000

SWH/ne

cc: Chris Noah
Keith Kelton
Jim Palmer
Paula Scavera
Billie Trent
David DiTraglia
Denise Olmstead

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: April 13, 1984

REQUEST
Bill/Resolution No.: CSSB 503
Title: Hazardous Waste...

Sponsor: Senate Resources
Requestor: Sen. Fahrenkamp & Fischer
Date of Request: April 12, 1984

FISCAL DETAIL
Agency Affected: Environmental Conservation
Program Category Affected: NRMEC

BRU, Program or Subprogram(s) Affected:
Environmental Quality Management
Air & Solid Waste Management

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING		6-months				
100 PERSONAL SERVICES		65.9	131.7	131.7		
200 TRAVEL		16.0	16.0	16.0		
300 CONTRACTUAL		8.4	16.8	16.8		
400 SUPPLIES		2.0	4.0	4.0		
500 EQUIPMENT		13.6	3.2	3.2		
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING		105.9	171.7	171.7		
CAPITAL		480.0	--	--		
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		585.9	171.7	171.7		
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME		3.0	3.0	3.0		
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Stanley W. Hungerford
Phone: 465-2666
Division: Environmental Quality
Date: April 13, 1984

Approved by Commissioner: [signature]
Date:
Agency: Environmental Conservation
Deputy Commissioner

Distribution (by Agency preparing fiscal note):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

12/1/83

ANALYSIS of FISCAL NOTE
CSSB 503 AMENDED
April 13, 1984

A. Details of the costs for recommending the site and type of state owned/sponsored hazardous waste management facility.

Assumptions:

a) The project will take six to seven years to complete through contracts managed by the Department of Environmental Conservation.

b) In the first year, develop the specific details of siting criteria, the appropriate types of facilities to be evaluated based on industries regulated and types of waste, and five or more general areas for evaluation.

In the second and third years, identify five potential sites, the type(s) of facility to be located at each, and begin physical evaluations of the sites. (75.0 each year)

c) In the next three to four years, conduct detailed evaluations of the five sites, including such parameters as meteorology, geology, hydrology, access, and socioeconomic factors. The cost could range from 500.0 to 2 million per site - an average of 1.25 million is estimated to justify each site to the public. Excess funds would be reserved for the design of the facility after approval of the site by the governor and legislature. (To be included in a fiscal note in 1986 audit cycle.)

d) In the sixth/seventh year conduct the public review of at least two sites. (50.0)

e) Prepare recommendation for the governor and legislature.

f) No inflation of costs or salaries.

Staffing Needs:

1	Environmental Engineer	(Range 19)	50.0 plus support costs
1	Administrative Assistant	(Range 12)	31.7 plus support costs

B. Details of the costs for a collection and transportation service for disposal of hazardous wastes from small quantity generators and households.

Assumptions:

a) The project will be for at least three and one half years.

b) There will be "cleanups" in four or more cities per year. (85.0 per year)

c) No inflation of transportation or disposal costs.

d) An agressive program of technical assistance to the small quantity generator to assure conformance to RCRA (Applicable Federal Hazardous Waste regulations)

e) A comprehensive public information campaign each year to maximize legal collection and disposal of hazardous wastes.

f) Analysis of the types, quantities and sources of hazardous wastes to provide information for the state hazardous waste facility siting project.

g) Site for the collection activity and security will be provided by local government.

Staffing needs:

1 Environmental Engineer III (Range 19) 50.0 plus support costs

C. Details of the estimated support costs for four positions.

Travel Costs:	1st year	2nd & 3rd years
Moving costs -- of the 2 Environmental Engineer IIIs: the department has found that the specialized expertise required cannot be found in Alaska.	12.0	--
Travel in support of project work (technical assistance and public information)	3.0	12.0
Travel to meet with contractors, local governments, public meetings	1.0	4.0
Contractual Costs:		
Office costs (5.6 per person -- telephone, xerox, janitor)	8.4	16.8
Supplies:		
Replace expendable laboratory, safety materials	--	2.0
Office	2.0	2.0
Equipment:		
Office equipment (desks, chairs, word processor)	5.1	--
Safety equipment and replacements	8.5	3.2

STATE OF ALASKA 1984 LEGISLATIVE SESSION
FISCAL NOTE

Revision Date: 4/12/84

REQUEST
Bill/Resolution No.: CSSB 503
Title: Hazardous Wastes...

Sponsor: Senate Resources
Requestor: Sen. Fahrenkamp & Fischer
Date of Request: April 12, 1984

FISCAL DETAIL
Agency Affected: Environmental Conservation
Program Category Affected: NRMEC

BRU, Program or Subprogram(s) Affected:
Environmental Quality Management
Air & Solid Waste Management

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 84	FY 85	FY 86	FY 87	FY 88	FY 89
OPERATING *		(6 months				
100 PERSONAL SERVICES		78.6	157.2	157.2		
200 TRAVEL		28.0	24.0	24.0		
300 CONTRACTUAL		27.4	27.4	27.4		
400 SUPPLIES		8.0	5.0	5.0		
500 EQUIPMENT		22.5	4.5	4.5		
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING		164.5	218.1	218.1		
CAPITAL		7,325.0	--	--		
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		7,489.5	218.1	218.1		
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME		4.0	4.0	4.0		
PART-TIME						
TEMPORARY						

SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

ANALYSIS: Attach a separate page for analysis

Prepared By: Stanley W. Hungerford
Division: Environmental Quality Management
Phone: 465-2666
Date: April 12, 1984

Approved by Commissioner: [signature]
Agency: Environmental Conservation
Deputy Commissioner
Date: 4/12/84

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

12/1/83

ANALYSIS of FISCAL NOTE
CSSB 503 AMENDED
April 12, 1984

A. Details of the costs for recommending the site and type of state owned/sponsored hazardous waste management facility.

Assumptions:

a) The project will take six to seven years to complete through contracts managed by the Department of Environmental Conservation.

b) In the first year, develop the specific details of siting criteria, the appropriate types of facilities to be evaluated based on industries regulated and types of waste, and five or more general areas for evaluation. (75.0)

c) In the second year, identify five potential sites and the type(s) of facility to be located at each. (50.0)

d) In the next three to four years, conduct detailed evaluations of the five sites, including such parameters as meteorology, geology, hydrology, access, and socioeconomic factors. The cost could range from 500.0 to 2 million per site - an average of 1.25 million is estimated to justify each site to the public. Excess funds would be reserved for the design of the facility after approval of the site by the governor and legislature. (6,425.0)

e) Conduct the public review of at least two sites. (50.0)

f) Prepare recommendation for the governor and legislature.

g) No inflation of costs or salaries.

Staffing Needs:

1	Environmental Engineer	(Range 19)	50.0 plus support costs
1	Administrative Assistant	(Range 12)	31.7 plus support costs
1	Clerk Typist III	(Range 8)	25.5 plus support costs

B. Details of the costs for a collection and transportation service for disposal of hazardous wastes from small quantity generators and households.

Assumptions:

a) The project will be for at least three and one half years.

b) There will be four "cleanups" per year, each one in one or more cities. Estimated cost per clean up is 75.0.
4 cleanups per year x 75.0 per cleanup x 3 years (900.0)

c) No inflation of transportation or disposal costs.

d) An agressive program of technical assistance to the small quantity generator to assure conformance to RCRA (Applicable Federal Hazardous Waste regulations)

e) A comprehensive public information campaign each year to maximize legal collection and disposal of hazardous wastes.

f) Analysis of the types, quantities and sources of hazardous wastes to provide information for the state hazardous waste facility siting project.

g) Site for the collection activity and security will be provided by local government.

Staffing needs:

1 Environmental Engineer III (Range 19) 50.0 plus support costs

C. Details of the estimated support costs for four positions.

	1st year	2nd & 3rd years
Travel Costs:		
Moving costs -- of the 2 Environmental Engineer IIIs: the department has found that the specialized expertise required cannot be found in Alaska.	16.0	--
Travel in support of project work (technical assistance and public information)	9.0	18.0
Travel to meet with contractors, local governments, public meetings	3.0	6.0
Contractual Costs:		
Office costs (5.6 per person -- telephone, xerox, janitor)	22.4	22.4
Printing costs	5.0	5.0
Supplies:		
Replace expendable laboratory, safety materials	6.0	4.0
Office	2.0	2.0
Equipment:		
Office equipment (desks, chairs, word processor)	11.0	--
Safety equipment and replacements	11.5	4.5

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: M/S 533

MAY 14 1984

Honorable Bettye Fahrenkamp
Chairman
Senate Committee on Resources
Pouch V
Juneau, Alaska 99811

Dear Ms. Fahrenkamp:

In your letter of April 30, 1984, you requested that the Environmental Protection Agency review Alaska's proposed hazardous waste legislation to determine whether it meets Federal requirements for authorization of State programs. The following discussion is offered relative to the May 7, 1984 draft of Senate Bill 503.

It is our belief that the bill as proposed will provide adequate statutory authority for Alaska to develop and implement a program which can receive authorization under the Resource Conservation and Recovery Act. We have had numerous discussions with the Alaska Department of Environmental Conservation (ADEC) and the Department of Law regarding the requirements for statutory authority. Most recently, we have provided several comments to ADEC (copies enclosed) on aspects of Senate Bill 503 which might benefit from clarification. However, none of the issues we raised would appear to necessitate further amendments to the bill in order to establish adequate statutory authority.

We wish to note that a formal opinion on Alaska's statutory authority can not be rendered until a complete application for final authorization has been submitted by the State. In particular, we will look to the Attorney General's statement, a required component of the application, to demonstrate the adequacy of statutory and regulatory authority. However, we do not envision encountering any problems with Alaska's statutory authority if Senate Bill 503 is adopted

Sincerely,

Alexandra B. Smith

Alexandra B. Smith, Director
Air & Waste Management Division

Enclosures

MAY 17 1984

M/S 533

MAY - 2 1984

Commissioner Richard Neve'
Alaska Department of Environmental
Quality
Pouch O
Juneau, Alaska 99811

Dear Commissioner Neve':

In our letter to you of April 24, 1984, we provided several comments on the April 13, 1984 work draft of Senate Bill 503. Having reviewed a newer version of the bill dated April 24, 1984, we find that the first three comments from our previous letter remain applicable to the newer version.

The fourth comment, pertaining to small quantity generators of hazardous waste, is still generally applicable, but must be modified in light of changes to the bill. Specifically, AS 46.03.299(d) appears to define small quantity generators as those who generate less than 220 pounds of hazardous waste in any month. However, this same section also appears to establish authority only over those generators who generate 220 pounds or more a month. Thus, the proposed provision omits reference to the fact that even though hazardous waste from small quantity generators are excluded from full regulation, they should nonetheless be regulated. See 40 CFR 261.5(g).

Please keep us advised as any future changes are proposed to Senate Bill 503.

Sincerely,

/s/ Kenneth D. Feigner

Kenneth D. Feigner, Chief
Waste Management Branch

cc: Douglas K. Mertz, Alaska Department of Law

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

M/S 533

APR 24 1984

Commissioner Richard Neve'
Department of Environmental Conservation
Pouch O
Juneau, Alaska 99811

Dear Commissioner Neve':

We have reviewed the work draft of Senate bill 503 dated April 13, 1984. The version of the bill under review is simpler and clearer than the previous draft, and is in general consistent with the Federal requirements for authorization of State hazardous waste programs. Following are a few specific concerns:

1. The date of the Federal regulations which are proposed for adoption by reference in AS 46.03.299(a)(1) is not specified. Presumably, the State is not intending to adopt future changes to the Resource Conservation and Recovery Act (RCRA) regulations prospectively, and it has been the Environmental Protection Agency's (EPA) experience that such prospective adoptions are in general prohibited by State constitutions. Clarification on these issues is needed. On the other hand, Alaska's hazardous waste statutory authority must allow for modifications to the State regulations to ensure that future modifications in the RCRA regulations can be adopted by the State. Otherwise, the State program could not remain equivalent to the Federal program.

2. In AS 46.03.299(a)(1) the Federal regulations are adopted by reference, and the Federal regulations already have established requirements for management of waste defined as hazardous because of identified characteristics. We suggest that all of the sentence after "waste" be deleted.

   AS 46.03.299(a)(2) calls for the Alaska Department of Environmental Conservation to adopt "other regulations for the management of hazardous waste, including waste that exhibits the characteristics of toxicity, persistence, or carcinogenicity, or other characteristics identifed as hazardous by the Environmental Protection Agency." The latter part of this requirement is confusing.

3. AS 45.03.313(b) and (G) establish procedures for applying for permits for hazardous waste management facilities, and public participation in site selection. It should be noted that the Federal regulations, proposed for adoption by reference, already enumerate procedures which would apply to issuance of permits. The relation between the new statutory provisions and the Federal regulations is unclear.

4. Section 8 proposes to amend the existing definition of hazardous waste so that wastes are defined as hazardous if the amounts generated are above certain minimum quantities. This approach is somewhat confusing and potentially inconsistent with the Federal requirements. First of all, hazardous wastes from small quantity generators, though not regulated according to the full set of Federal hazardous waste regulations, are nonetheless regulated by virtue of 40 CFR 261.5(g). The proposed definition appears to preclude such regulation. Secondly, under the Federal program a generator's status as a small quantity generator is determined by the total amount of hazardous waste generated, not by whether each waste is generated in excess of a minimum amount. The language in Section 8 implies that each waste is considered independently of other wastes in determining whether it is "hazardous," and therefore subject to regulation. Finally, by specifying small generator cutoffs in statutory form, Alaska is reducing its flexibility to alter these cutoffs in response to any future changes in the Federal regulations. In view of these concerns, it is EPA's recommendation that no changes be made to the existing statutory definition, and that the State rely on regulatory provisions to establish small quantity generator cutoffs.

If you wish to discuss these or any other issues regarding Senate bill 503, please contact David Hanline of my staff at (206) 442-2958, or Ted Rogowski of our Office of Regional Counsel at (206) 442-4165.

Sincerely,

/s/ Alexandra B. Smith

Alexandra B. Smith, Director
Air & Waste Management Division

cc: Douglas K. Mertz, Alaska Department of Law

CSSB 503 - An Act Relating to Hazardous Waste

A Brief History.

In 1981, legislation (SB 29) was passed that directed the state to seek EPA authorization to administer and enforce a hazardous waste program in Alaska. The program would otherwise be managed by EPA.

Over two years later at the end of 1983, with the proposed regulations and other aspects of the authorization package nearly completed, it became apparent that the penalty sections of the current Alaska statute would have to be amended to meet EPA specifications.

Two bills SB 498 - Rules by Request of the Governor and SB 503 Resources were introduced at the beginning of the session to meet this obligation. The Governor's legislation provided the amendments to the penalty sections only, and as such was an endorsement of the hazardous waste regulation developed by the Department of Environmental Conservation. In its proposed regulations, DEC was attempting to develop a hazardous waste management program that made sense for Alaska and did not simply mimic the federal approach. SB 503 also included similiar language regarding changes to the penalty codes, but limited the development of the state hazardous waste program to be the same as the federal program.

These two bills represented divergent and contradictory approaches. All interested agreed that the state should take over the management of the hazardous waste program. However, there was disagreement as to how this should be accomplished.

CSSB 503 Hazardous Waste Legislation, History

In addition, two other bills relating to hazardous waste were introduced at the start of this session. These are SB 450 - Vic Fischer regarding the disposal of hazardous waste, and SB 486 - Josephson providing the public the right to know about the storage and disposal of hazardous materials and wastes.

All four items were referred to Senate Resources Committee, which combined them into one mega-workdraft in the form of a committee substitute for SB 503. The workdraft was sent to over 30 groups and individuals to seek their comments including business, labor, environmental, health, resource development, government, and civic interests. After this review was complete, the Resources Committee then convened a meeting on April 9, 1984 of these same interested parties to hammer out compromise legislation.

After a full day of intense negotiation, agreement was reached by all the work group participants. Alaska Oil and Gas Association, Associated General Contractors, environmentalists, Alaska District Council of Laborers, Municipality of Anchorage, and various legislative and state government offices were represented. The result is the committee substitute for SB 503 before this committee.

Alaska State Legislature

SENATOR BETTYE FAHRENKAMP
CHAIRMAN, RESOURCES COMMITTEE

4016 EVERGREEN
FAIRBANKS, ALASKA 99701

907-479-3550

WHILE IN JUNEAU
POUCH V
JUNEAU, ALASKA 99811
OFFICE 907-4[illegible]53
RESOURCES COMMITTEE
907-465-3834
HOME 907-789-9162

Senate

CSSB 503 - AN ACT RELATING TO HAZARDOUS WASTE

SECTIONAL ANALYSIS

Section 1. Regulation of Hazardous Waste

(a) This section directs the Department of Environmental Conservation to adopt regulations for the management of hazardous waste. These regulations must meet minimum EPA requirements as well as regulate those hazardous wastes that are toxic, persistent, or carcinogenic. The federal program ignores the carcinogenic and toxic effects of a waste on human health and the environment. Regulations should be developed no later than July 1, 1986 and effective on July 1, 1987.

(b) Mining waste, oil and gas production wastes are temporarily excluded in this section until federal studies on these wastes have been completed. DEC will consider the report results in the development of regulations for these wastes.

(c) This section instructs the state to take actions necessary to receive EPA authorization for the hazardous waste program.

(d) The quantities of waste are established in this section.

(e) This section requires the Department to conduct an education program about the regulations for those affected.

Section 2. Transportation of Hazardous Waste.

Before a hazardous waste can be transported, a manifest (already required under federal law) which includes information about the type of material, disposal site, and handling procedures must be sent to DEC. DEC then sents a copy of this manifest to the highest local elected official and the local and state public safety agencies.

Section 3. Temporary Collection of Hazardous Waste.

This section institutionalizes the very successful program currently offered by DEC, known as "hazardous waste clean-ups". Temporary collection and transfer operations will be held for small quantity and household generators of hazardous waste four times a year.

Section 4. Hazardous Waste Management Facilities and Sites.

This section outlines the criteria and public comment procedures DEC should use to determine hazardous waste management sites and facilities in Alaska. Recommendations to the Governor and Legislature should be submitted not later than July 1, 1987. Final sites and facilities should be submitted two years later.

Sections 5 - 8. Penalties for Violations.

These sections include the technical amendments needed to satisfy federal requirements to obtain final authorization of the hazardous waste program.

Section 9. Definitions.

This section defines certain terms found in the legislation.

CSSB 503 - AN ACT RELATING TO HAZARDOUS WASTE

In 1981, legislation (SB 29) was passed that directed the state to seek EPA authorization to administer and enforce a hazardous waste program in Alaska. The program would otherwise be managed by EPA.

Over two years later at the end of 1983, with the proposed regulations and other aspects of the authorization package nearly completed it became apparent that the penalty sections of the current Alaska statute would have to be amended to meet EPA specifications.

Two bills SB 498 - (Rules by Request of the Governor) and SB 503 (Resources) were introduced at the beginning of the session to meet this obligation. The Governor's legislation provided the amendments to the penalty sections only. Since 1981 DEC has attempted to develop hazardous waste management regulations which varied greatly from the federal approach. SB 503 also included similar language regarding changes to the penalty codes, but limited the development of the state hazardous waste program to be the same as the federal program.

These two bills represented divergent and contradictory approaches. All interested agreed that the state should take over the management of the hazardous waste program. However, there was disagreement as to how this should be accomplished.

In addition, two other bills relating to hazardous waste were introduced at the start of this session. These are SB 450 - Vic (Fischer) regarding the disposal of hazardous waste, and SB 486 - (Josephson) providing the public the right to know about the storage and disposal of hazardous materials and wastes.

ALL FOUR [illegible] REFERRED TO THE SENATE RESOURCE COMMITTEE, WHICH COMBINED [illegible] ONE WORKDRAFT IN THE FORM OF A COMMITTEE SUBSTITUTE FOR SB 503. THE WORKDRAFT WAS SENT TO OVER 30 GROUPS AND INDIVIDUALS TO SEEK THEIR COMMENTS INCLUDING BUSINESS, LABOR, ENVIRONMENTAL, HEALTH, RESOURCE DEVELOPMENT, GOVERNMENT, AND CIVIC INTERESTS. AFTER THIS REVIEW WAS COMPLETE, THE RESOURCE COMMITTEE THEN CONVENED AN INFORMAL MEETING ON APRIL 9, 1984 OF THESE SAME INTERESTED PARTIES TO HAMMER OUT COMPROMISE LEGISLATION.

AFTER A FULL DAY OF INTENSE NEGOTIATION, AGREEMENT WAS REACHED BY ALL THE WORK GROUP PARTICIPANTS. ALASKA OIL AND GAS ASSOCIATION, ASSOCIATED GENERAL CONTRACTORS, ALASKA CENTER FOR THE ENVIRONMENT, ALASKA DISTRICT COUNCIL OF LABORERS, MUNICIPALITY OF ANCHORAGE, AND VARIOUS LEGISLATIVE AND STATE GOVERNMENT OFFICES WERE REPRESENTED. THE RESULT IS THE COMMITTEE SUBSTITUTE FOR SB 503 BEFORE YOU TODAY.

THE MAIN SECTIONS OF THE BILL INCLUDE:

1. SECTION ONE DIRECTS THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TO ADOPT REGULATIONS FOR THE MANAGEMENT OF HAZARDOUS WASTES AT THE END OF TWO YEARS. IT ALSO DIRECTS THE DEPARTMENT TO IMPLEMENT AN EDUCATIONAL PROGRAM ABOUT THE REGULATIONS AFTER THE REGULATIONS ARE ADOPTED.
2. SECTION 2 DEALS WITH THE TRANSPORTATION OF HAZARDOUS WASTE.
3. SECTION 3 SETS OUT CRITERIA FOR THE ESTABLISHMENT OF A HAZARDOUS WASTE DISPOSAL FACILITY.
4. SECTIONS 4-8 DEALS WITH THE CRIMINAL AND CIVIL PENALTIES FOR VIOLATIONS OF HAZARDOUS WASTE STATUTES.

THE BILL, IN MY OPINION, IS A GOOD PIECE OF LEGISLATION AND I ENCOURAGE YOUR SUPPORT.