

ALASKA LEGISLATURE COMMITTEE FILES 1983-1984 8672

2872 SB 503

2872

## 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.
- Persistence 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

Publications

Alternatives to the Land Disposal of Hazardous Wastes - An Assessment for California, Kent Stoddard, Gary Davis, Harry Freeman and Peter M. Deibler, Toxic Waste Assessment Group, California Governor's Office of Appropriate Technology, 1981. Categorizes the California wastestream, analyzes over forty alternative technologies and provides recommendations.

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.

Off-site Hazardous Wastes in California: Generation and Disposal Patterns, Pao Chau, Dan Coffey and David Ollis, Department of Chemical Engineering, University of California, Davis, 95616. Describes computer program to match the California wastestreams with a 96-component waste classification system.

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

March 20, 1984

Box 343 Talkeetna, AK 99676

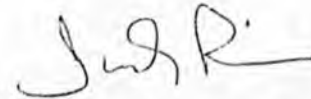
Senator Bettye M. Fahrenkamp  
Senate Resources Committee  
Alaska State Legislature  
Pouch V (MS 3100)  
Juneau 99811

Senator Fahrenkamp:

Senate Bill 503 in its present form clearly cannot meet the needs of Alaska.

The state's obvious unwillingness to accept its 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



505 W. Northern Lights Boulevard  
Suite 219  
Anchorage, Alaska 99503-2553  
(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,

A handwritten signature in cursive script that reads "Tom Brooks".

TOM BROOKS

TB:tp3:167

Enclosure

E.g:n  
3/8/84

Original sponsor: Resources Committee

1 IN THE SENATE BY THE RESOURCES COMMITTEE

2 CS FOR SENATE BILL NO. 503 (Resources)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 THIRTEENTH LEGISLATURE - SECOND SESSION

5 A BILL

6 For an Act entitled: "An Act relating to hazardous wastes; and providing  
7 for an effective date."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 ~~Section 1. AS 11.41 is amended by adding a new section to article 3  
10 to read:~~11 ~~Sec. 11.41.260. RECKLESS ENDANGERMENT WITH HAZARDOUS WASTE. (a)~~12 ~~A person commits the crime of reckless endangerment with hazardous  
13 waste if the person recklessly engages in conduct involving storing,  
14 transportation, or disposal of hazardous waste that creates a substan-  
15 tial risk of serious physical injury to another person.~~16 ~~(b) For purposes of this section, "hazardous waste" is defined  
17 as any substance subject to regulation as a hazardous waste under  
18 AS 46.03.295 - 46.03.312.~~19 ~~(c) Reckless endangerment with hazardous waste is a class C  
20 felony.~~

21 \* Sec. 2. AS 46.03 is amended by adding a new section to read:

22 Sec. 46.03.295. DUTIES OF THE DEPARTMENT. The department shall

23 (1) investigate and respond in writing to a complaint filed  
24 by a person in accordance with 42 U.S.C. 6901 - 6987;25 (2) provide public notice and a public comment period of  
26 not less than 30 days for a proposed settlement of a department en-  
27 forcement action; and28 (3) inform the public of the dangers of hazardous wastes  
29 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. <sup>REGULATIONS</sup> FEDERAL HAZARDOUS WASTE ~~LAW~~ ADOPTED BY REFERENCE. Pursuant to 42 U.S.C. 6921-6934, the authority to implement state hazardous waste regulations is by this section assumed. ~~(a) 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~~

<sup>may adopt</sup> (1) by reference and shall enforce regulations relating to hazardous waste management adopted by the federal government under 42 U.S.C. 6921 - <sup>as amended</sup> 6934, or

<sup>may develop and adopt other regulations which are consistent with the provisions of this chapter.</sup> (2) other regulations for the management of hazardous waste ~~that may include regulation according to the degree of hazard presented by the wastes.~~

~~(b) If a regulation adopted under this section requires issuing~~

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 46.03.788 and AS 44.03.790. 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 - 6907 and regulations adopted under those sections by the Environmental Protection Agency.

(b) The department shall

(1) <sup>adopt only,</sup> ~~identify the characteristics of hazardous wastes,~~ 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) ~~the~~ criteria for listing hazardous wastes;

(C) ~~the~~ requirements for <sup>encouraging the use, re-use, recycling and</sup> hazardous waste that ~~is used,~~ <sup>reclamation of hazardous wastes;</sup> ~~re-used, recycled, or reclaimed;~~ and

(D) ~~the~~ 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 - 6907;

(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 <sup>by a specific written finding,</sup> determines 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 <sup>encouraging the use, re-use, recycling and</sup> hazardous waste that ~~is used,~~ <sup>reclamation of hazardous wastes;</sup> ~~re-used, recycled, or reclaimed;~~ 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. 9. AS 46-03 to be 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.

~~46.03.312 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 sites.~~

\* Sec. 9. AS 46.03 is amended by adding a new section to read:

**COLLECTION AND STORAGE**

Sec. 46.03.306. ~~WASTEWATER~~ CENTERS. (a) Not later than one year

after the effective date of this section the department shall establish and operate regional hazardous waste ~~gathering~~ <sup>collection and storage</sup> centers for the ~~management~~ <sup>management</sup> 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~~ <sup>collection and storage</sup> centers to suitable private parties at not less than fair market value.

(c) ~~A small quantity generator of hazardous waste may not be charged for deposits of hazardous waste at a collection and storage center. Deposits of less than 0,200 pounds per month at a gathering 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) 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 [AG 46.03.302 - 46.03.308] are available to the public for inspection and copying. However, upon a showing

(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.

1 satisfactory to the commissioner that a record, report, permit, appli-  
2 cation, or information would, if made public, divulge methods or  
3 processes entitled to protection as trade secrets, the commissioner  
4 shall treat the record, report, permit, application, or information as  
5 confidential.

6  
7 (b) Information that is confidential may be transmitted under a  
8 continuing restriction of confidentiality to other officers<sup>or</sup> employ-  
9 ees, ~~or authorized representatives~~ of the state or of the United  
10 States if

11 (1) the person responsible for furnishing the record,  
12 report, permit, application, or information to which such information  
13 pertains is informed at least two weeks before the transmittal, except  
14 that information obtained under AS 46.03.295 - 46.03.318 shall be made  
15 available under a claim of confidentiality to the Environmental Pro-  
16 tection Agency upon request of the agency; and

17 (2) the information has been acquired by the department  
18 under the provisions of AS 46.03.295 - 46.03.318 [AS 46.03.296 -  
19 46.03.311].

20 (c) The provisions of this section do not limit the department's  
21 authority to release confidential information during emergency situa-  
22 tions.

23 \* Sec. 12. AS 46.03 is amended by adding a new section to article 5 to  
24 read:

25 Sec. 46.03.312. CIVIL REMEDIES AND PENALTIES. (a) In the  
26 enforcement of AS 46.03.295 - 46.03.311 the department may

27 (1) petition the superior court for injunctive relief to  
28 restrain a person from engaging in an unauthorized activity that ~~is~~  
29 ~~constitutes an imminent and substantial endangerment to~~  
30 ~~endangering or endangering 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 AB 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. AB 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~~ <sup>who are elected officials</sup> representing the general public, 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 <sup>board</sup> governor shall <sup>elect</sup> ~~designate~~ 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 sites for hazardous waste disposal facilities, in the state.~~ <sup>recommend potential sites</sup> In evaluating and ~~selecting~~ <sup>recommending</sup> 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) <sup>(7) insert new section (7)</sup> 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.

1 AB 46.03.317.

2 (c) For purposes of this section, "intrinsic suitability" of a  
3 site means that, based on existing data on the inherent and natural  
4 attributes, physical features, and location of the site, there is no  
5 known reason why a waste disposal facility that may be located in the  
6 site could not reasonably be expected to qualify for a permit under  
7 AB 46.03.302.

8 Sec. 46.03.315. MEETINGS OF THE BOARD. The board shall meet at  
9 the call of the chairperson and at other times as agreed by the mem-  
10 bers. The board shall hold its first meeting not later than  
11 January 31, 1985.

12 Sec. 46.03.316. COMPENSATION. A board member may not receive a  
13 salary for performing official duties of the board, but is entitled to  
14 per diem and travel expenses as provided for other boards and commis-  
15 sions.

16 Sec. 46.03.317. REPORT OF SITE AND FACILITY RECOMMENDATIONS.  
17 Not later than January 31, 1987, the board shall submit to the gover-  
18 nor and the legislature a report that includes recommendations for,

19 (1) the siting of hazardous waste disposal facilities in  
20 the state;

21 (2) the methods of financing and operating the facilities;  
22 and

23 (3) the types of facilities that should be constructed,  
24 such as chemical processing facilities, incineration facilities, and  
25 transfer and storage facilities.

26 Sec. 46.03.318. DEFINITION. For purposes of AS 46.03.313 -  
27 46.03.317, "board" means the Hazardous Waste Disposal Facility Site  
28 Board.

29 \* Sec. 14. AB 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, ~~not 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 (ACTION) 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) OF (b) OF] this section occurs is considered a separate violation.

(d) Notwithstanding (a) and (b) of this section, a [A] person <sup>knowingly</sup> who ~~is~~ <sup>is</sup> 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 <sup>the state's hazardous waste regulations.</sup> effective date of secs. 1, 4, 6, and 9 ~~of this Act.~~

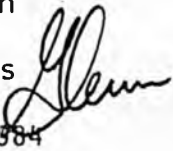
\* Sec. 19. Section 7 of this Act takes effect June 30, 1988.

# **noranda**

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Greens Creek Project  
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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 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
Akins AK.AT ACE AEL AHP AOGA APHA AGC B&R CHEV DEC FISC GOTT HEIM 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.

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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
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Identity of  
Hazardous Waste

Degree of Hazard

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Who: local Gov't

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State Depts.

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When: Annual Report

Each Permit App.

By Incident

What: Transportation

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Transp. Route

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Name, Amount, etc

Issue of Concern  
CSSB 503

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
Akins AK.AI ACE AEL AHP AOGA APHA AGC B&R CHEV DEC FISC GOTT HEIM 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.

Equivalent to State							*		*						
More Restrictive		*	*				*					*			
Public Hearing Only	*														
Oppose Concept	*					*									
Clean-up Alternative		*	*		*							*			
State Pays Disposal	*														
Generator Pays Disp.			*		*		*				*				
Coordinate w/site brd.					*						*				
For Small Gener. Only								*							
Oppose Concept															
State Pays															
Generator Pays		*				*	*		*	*	*	*	*	*	*
Subsidy to Small Bus.											*			*	

Issue of Concern CSSB 503	15 LWV	17 MOA	18 MYER	19 HOR	20 RDC	21 ROBS
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Equivalent to State

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Generator Pays

Subsidy to Small Bus.

Issue of Concern  
CSSB 503

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15  
Akins AK.AT ACE AEL AHP AOGA APHA AGC B&R CHEV DEC FISC GOTT HEIM 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
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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 \*



## MEMORANDUM

TO: All Operations Personnel  
 FROM: ~~Manager of Facilitation~~  
 DATE: August 12, 1983  
 SUBJECT: Handling and Spill Procedures for  
 Polychlorinated Byphynels (PCB)

*ROB CLAY MNGR CARGO SERV.*

Effective immediately, the following procedures for PCB's should be adhered to by all personnel:

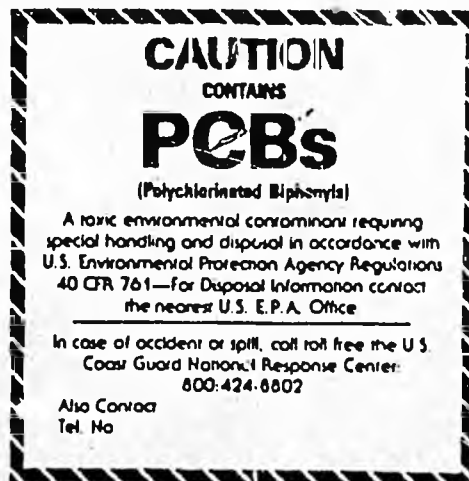
Packaging, Marking CFR 40 761.40 - 761.60 Polychlorinated Byphynels (PCB's)

1. PCB containers must comply with CFR 49 178.80 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<sub>L</sub> - 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.

All Operations Personnel

August 12, 1983

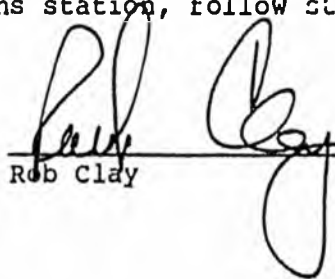
Page Three

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 jiking 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.

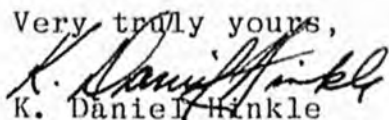
It is my understanding that once these materials have been reviewed and approved in your office a meeting will take place between your office and representatives of the Administration. Following a meeting of the minds, there will be a bill introduced setting out that accord.

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.

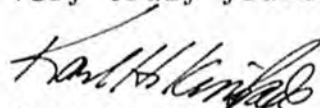
The brochures enclosed explain a little bit about my company and its abilities. I hope in some way we can be of service to Alaska and industry.

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,

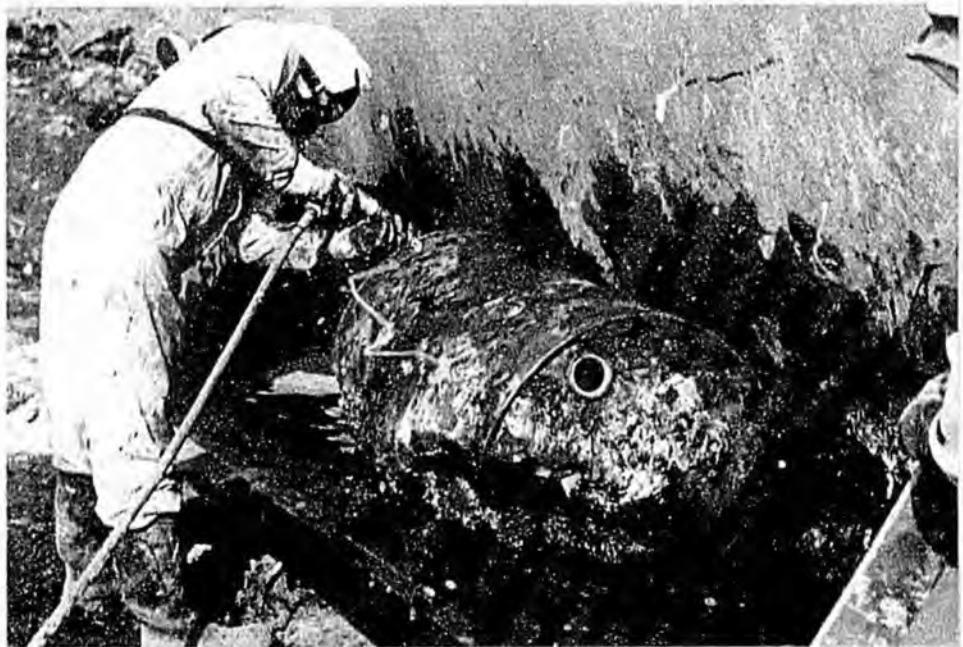
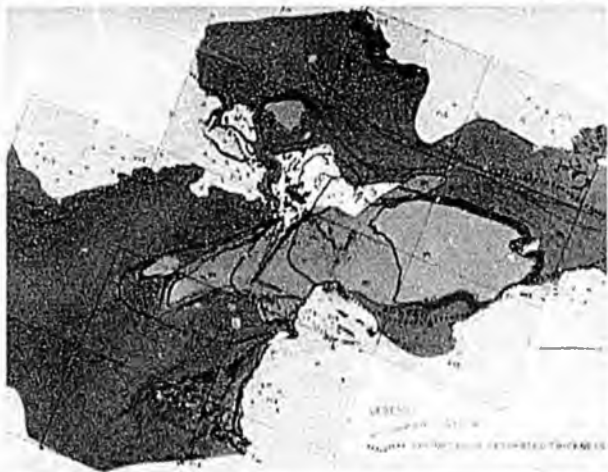
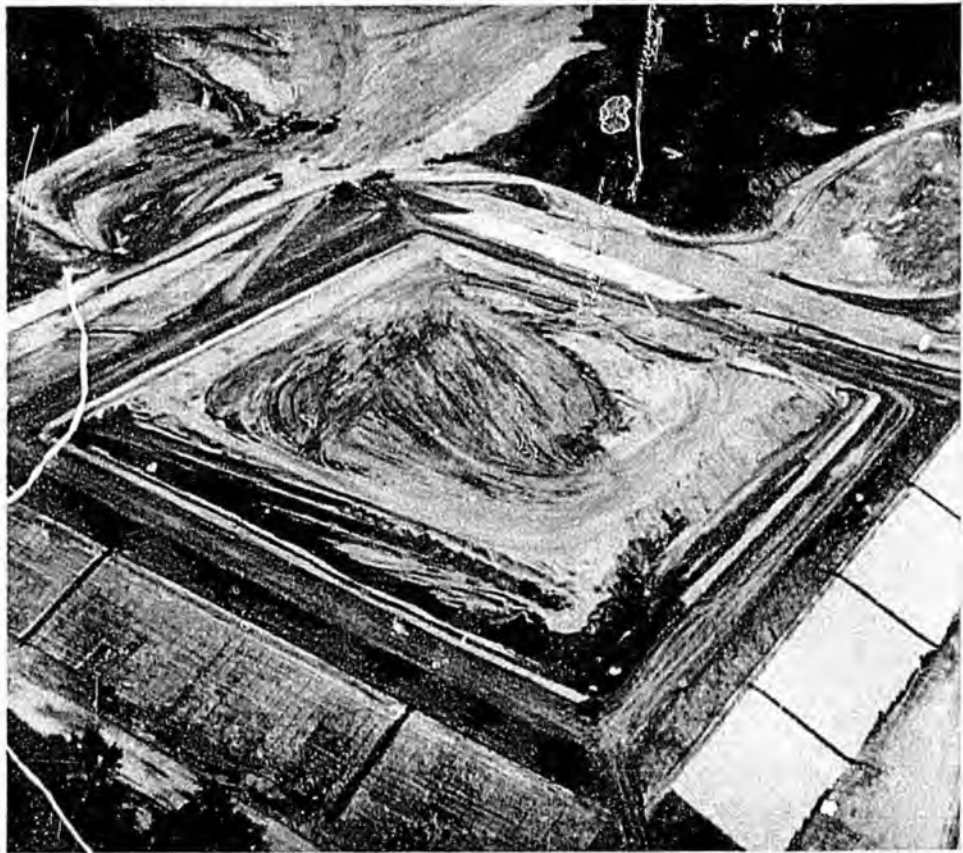


Karl H. Kinkade

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Enclosures  
CC: File

# WASTE MANAGEMENT PROBLEM SOLVING



**INDIANAPOLIS**  
WASTE MANAGEMENT SERVICES

# D'APPOLONIA WASTE MANAGEMENT SERVICES

## Investigation/Assessment

- Waste Characterization
- Geophysical Investigation
- Exploratory Drilling
- Monitor Well Installation
- Remote Sensing

## Engineering and Design

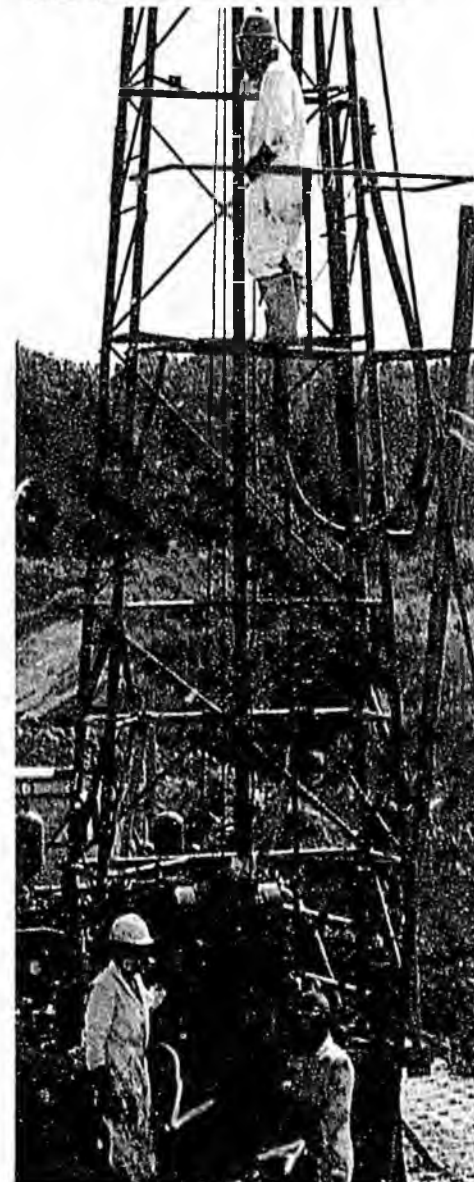
- Feasibility and Siting Studies
- Hydrogeological Modeling
- Treatment/Landfill Design
- Health/Safety Plans
- Agency Liaison and Permitting
- Delisting

## 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 isola-

tion, 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.

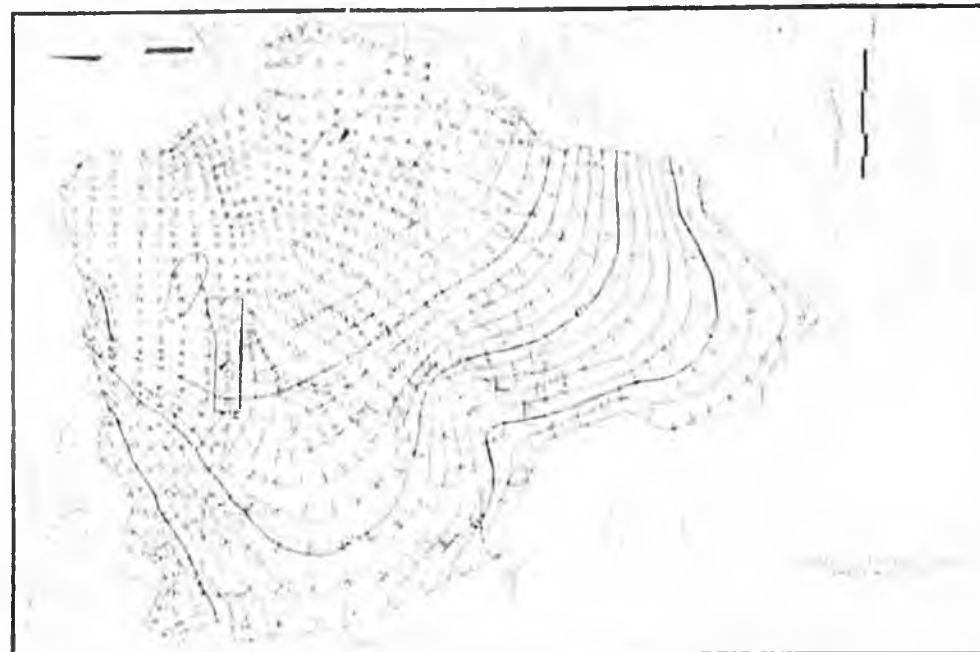
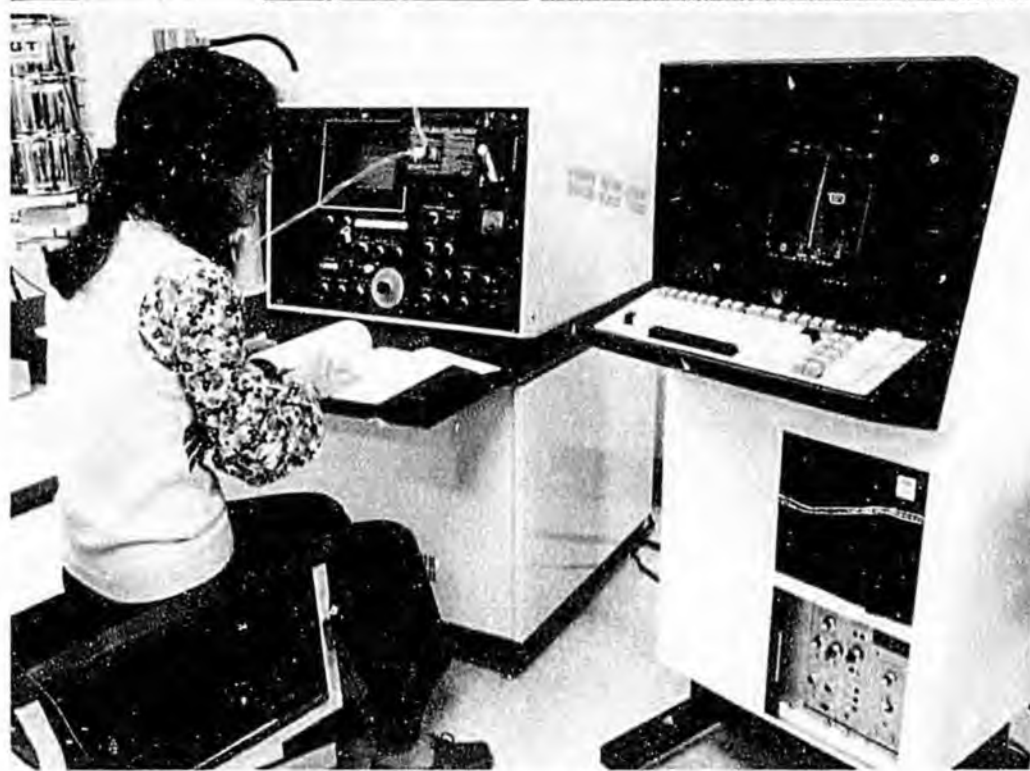
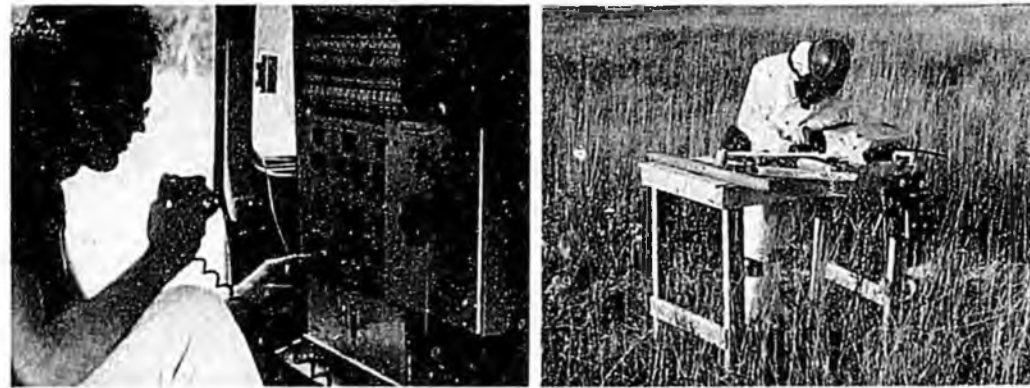
We understand the processes which generate the waste and tailor the waste management solution to fit the process as well as the site.

We look at the problem from both the short range and long range effects of available options. There are no pre-conceived 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.

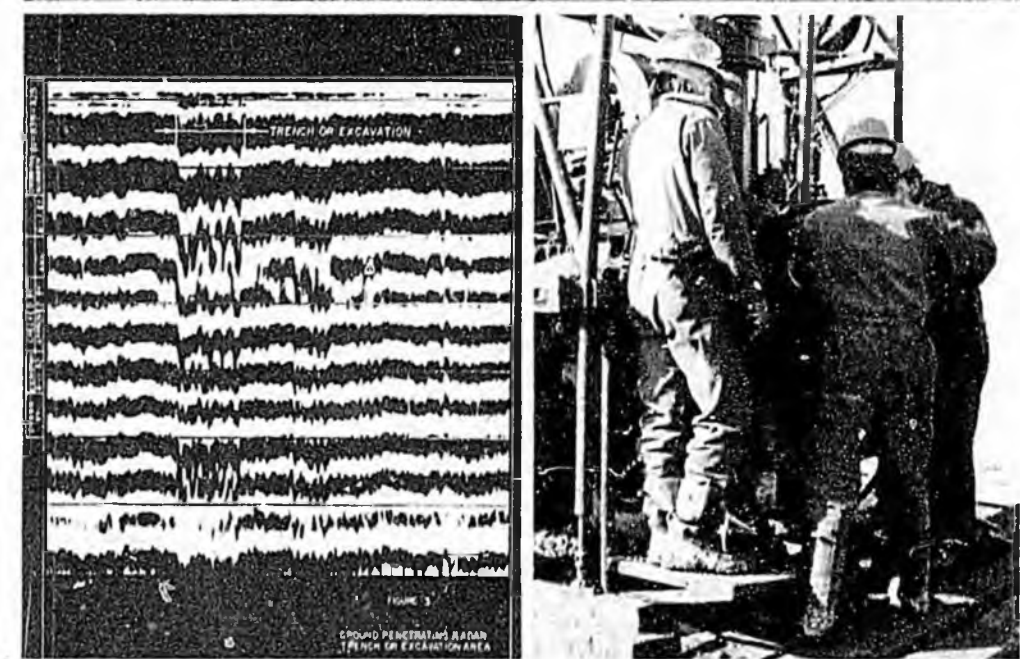
Site investigations usually center on hydrogeology, remote sensing and geochemistry. Our geophysics staff often uses Ground Penetrating Radar, electromagnetic resistivity, and seismic surveys to complement drilling and sampling techniques.

## 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 facilities to developing remedial action plans for uncontrolled hazardous waste sites.



# Remedial Site Work

## Cleanup and Disposal

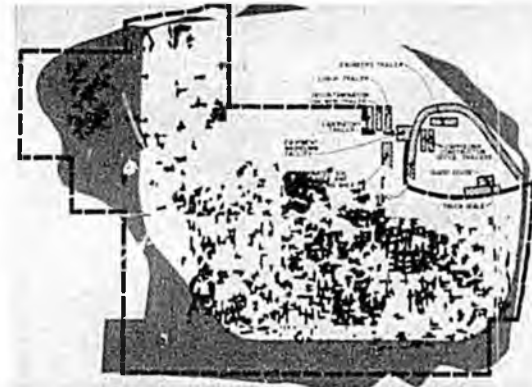
You've got to be an experienced professional for even the simplest remedial site work in hazardous waste management. And you can't take anything for granted.

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.



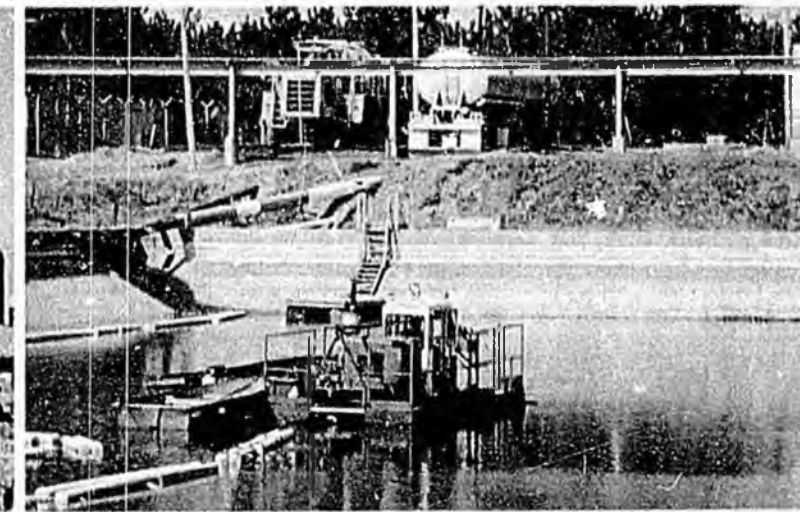
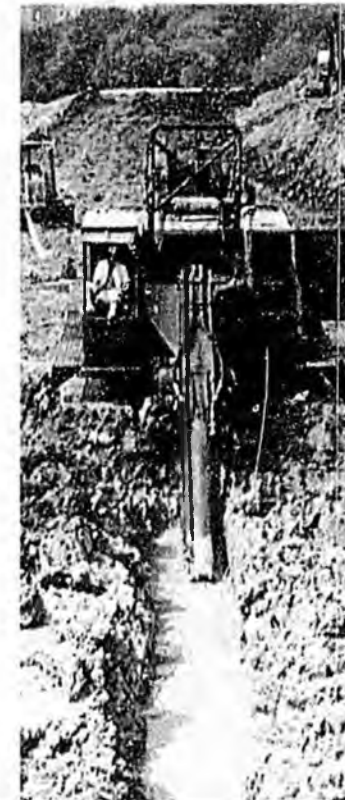
## In-Place Isolation/Containment

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 specially 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

## 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.



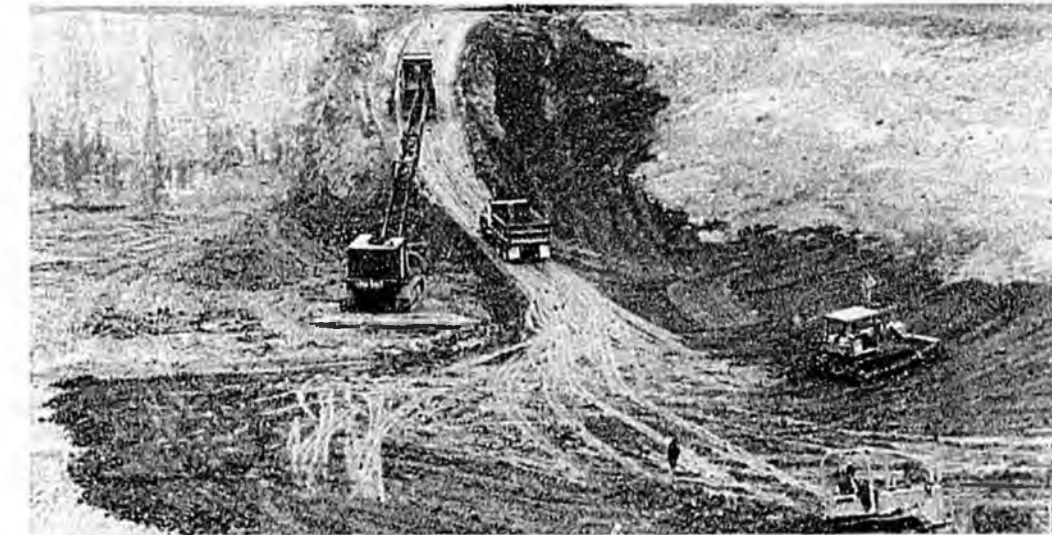
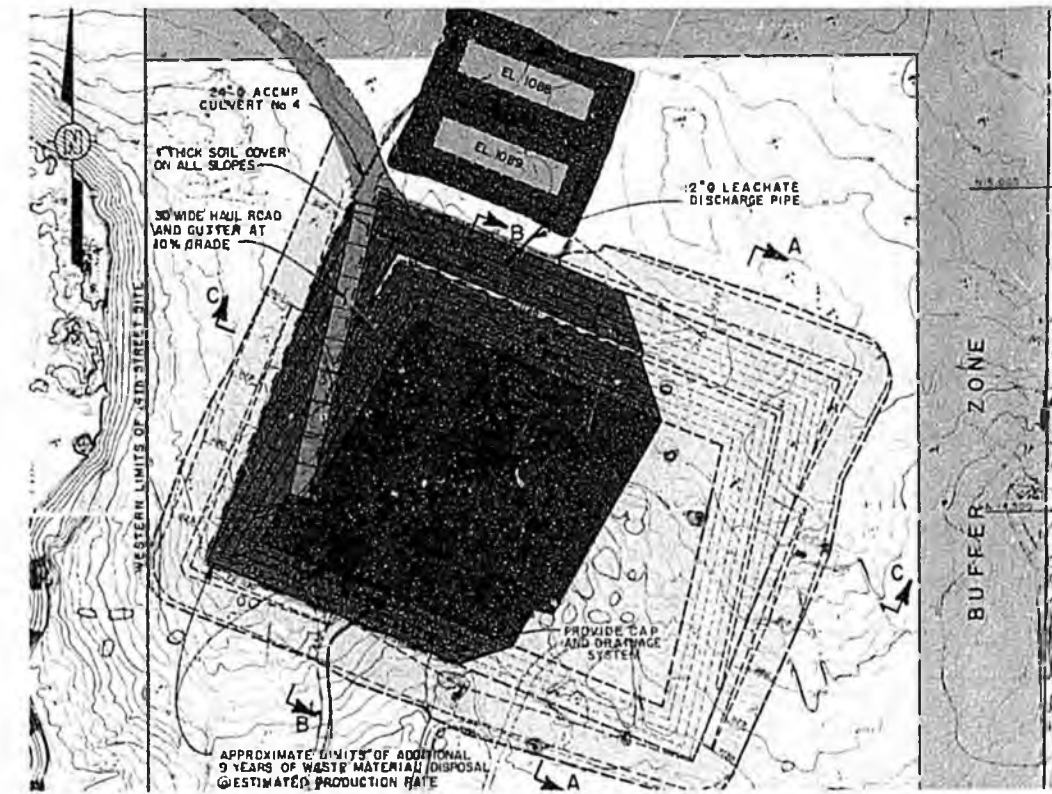
# Facilities, too

## 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.

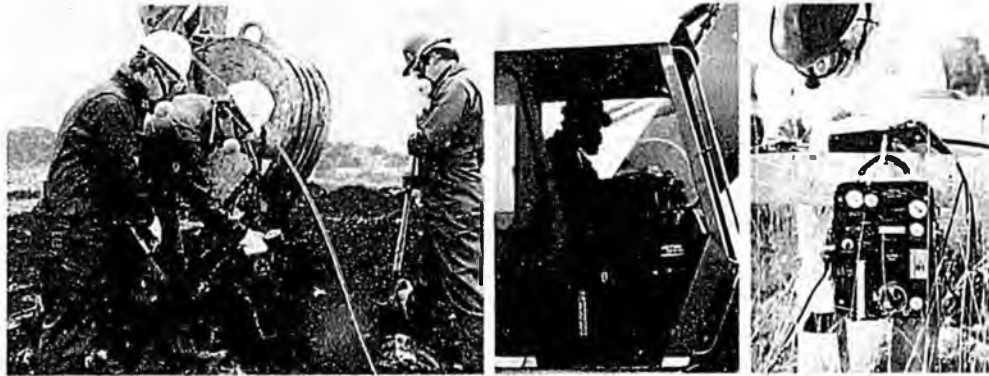
Our full-scope service approach may be the answer to your hazardous waste management problems and to guaranteeing safer and more economical facility operations. In other words, getting you out of the hazardous waste business without you losing control.



# 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 in-place 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                              | Mobil Oil Company                              |
| Allied Chemicals                   | Monsanto Chemical Company                      |
| American Cyanamid                  | Motorola                                       |
| Amoco Oil Company                  | Occidental Chemical                            |
| Bethlehem Steel Corporation        | Olin   |
| Borden Chemical Corporation        | Onan Corporation                               |
| Browning-Ferris Industries         | PPG Industries                                 |
| Chemtronics                        | Quaker State                                   |
| Chevron                            | Republic Steel Corporation                     |
| Ciba-Geigy                         | Sharon Steel Corporation                       |
| Crown Zellerbach                   | Texaco   |
| Diamond Shamrock                   | Texas Instruments                              |
| Dow Chemical Company               | Townsend-Textron                               |
| DuPont                             | Union Carbide                                  |
| Ethyl Corporation                  | Union Chemical                                 |
| Exxon                              | Union Oil                                      |
| FMC Corporation                    | U.S. Army Corps of Engineers                   |
| Georgia-Pacific                    | U.S. Army Toxic and Hazardous Materials Agency |
| Hammermill Paper                   | U.S. Department of Energy                      |
| Hughes Aircraft                    | U.S. Steel Corporation                         |
| IBM Corporation                    | Van Waters & Rogers                            |
| IT Corporation                     | Vertac   |
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| Koppers Company                    | Westinghouse                                   |
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*Protecting Tomorrow with Solutions Today*  
**D'APPOLONIA**  
 WASTE MANAGEMENT SERVICES

# D'APPOLONIA

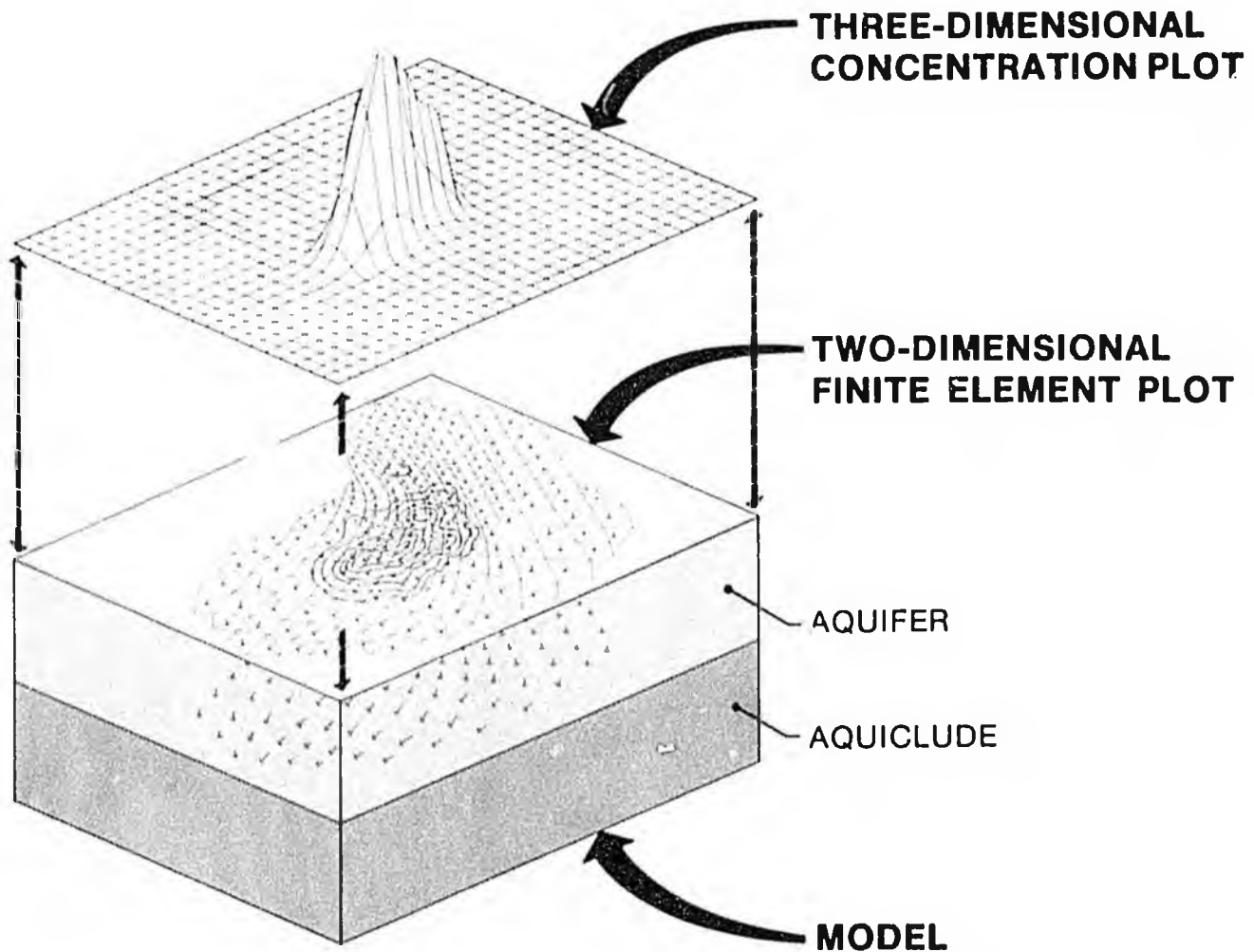
WASTE MANAGEMENT SERVICES

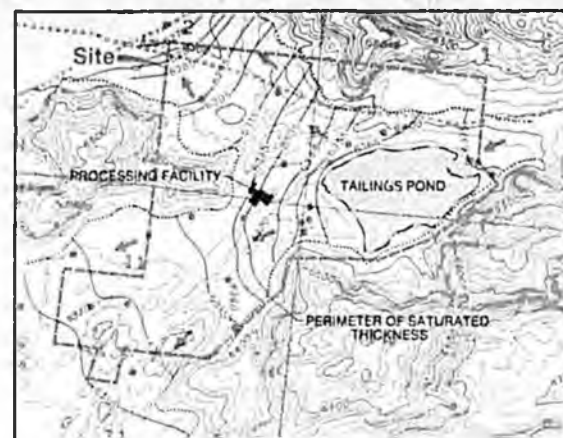
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# GEOFLOW

## COMPUTER MODELING OF GROUND WATER FLOW AND CONTAMINANT TRANSPORT





POTENTIOMETRIC SURFACE



pH CONTOURS



EXISTING CONCENTRATION CONTOURS



FORECASTED CONCENTRATION CONTOURS

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.

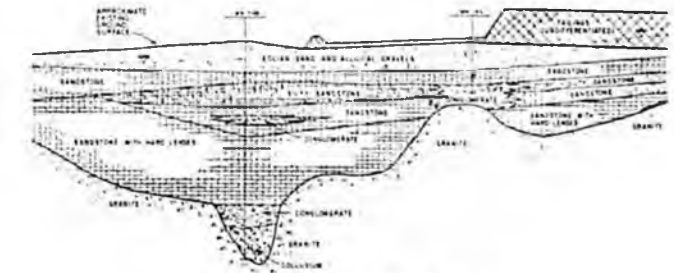
Results are reported for specified future times and include piezometric heads, velocity and flow vectors, concentrations, saturated thicknesses, and adsorption capacities at any location during the simulation period. A second program permits the graphical display of these results in the form of two- 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.

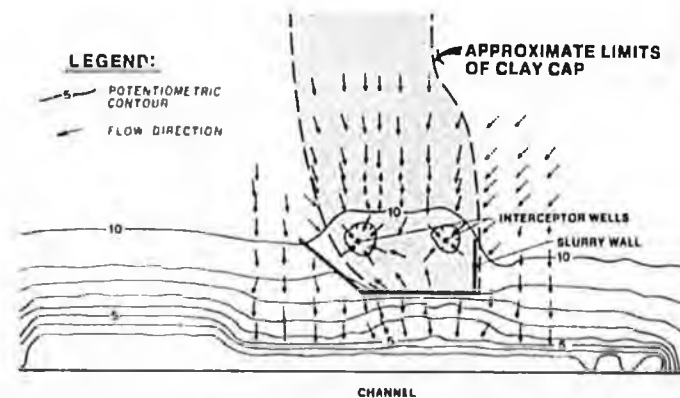
## Program Applications

### 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 confirmed 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.



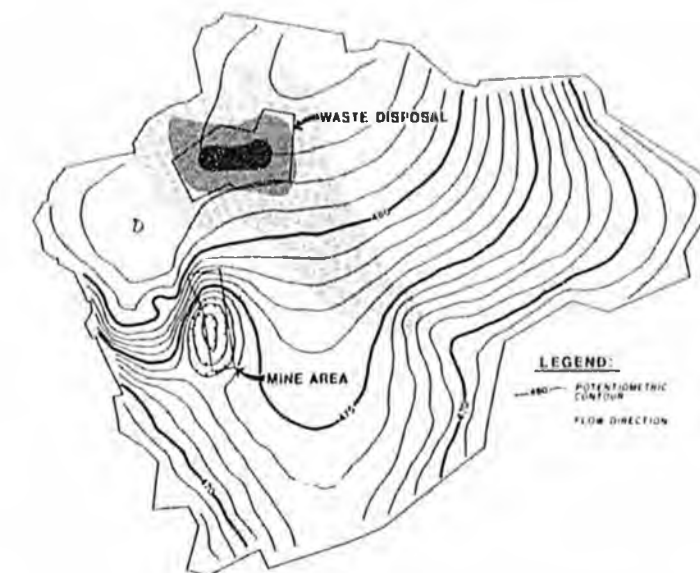
Geologic Cross-Section



Predicted Ground Water Flow Directions and Potentiometric Surface

### Locating Monitoring/Interceptor Wells

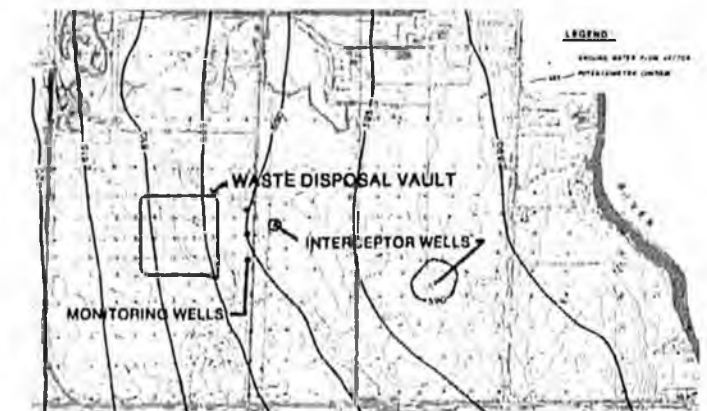
GEOFLOW has helped optimize the location of monitoring wells and interceptor wells at many hazardous waste sites. One such facility for a major chemical company was modeled to locate monitoring wells for a 50-year ground water monitoring program and develop the optimum pumping sequence and schedule for 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.



A Simulated Plan of Mine and Waste Disposal Operation

### 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.



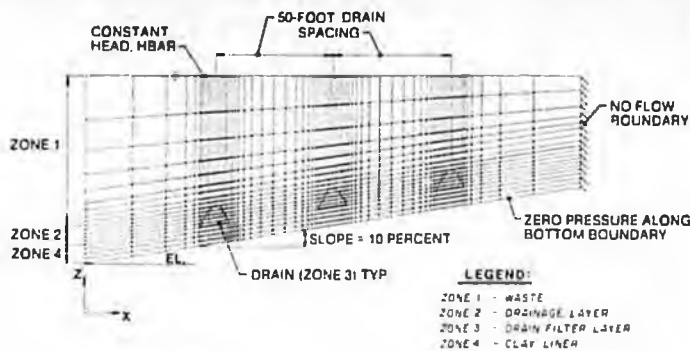
Response of Aquifer to Interceptor Well Operation

### 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.

## Designing Leachate Collection Systems

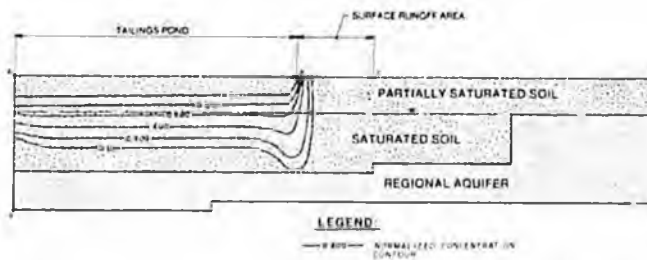
Optimization of the design of the leachate collection drainage network for an Appalachia synfuels plant waste disposal facility was performed using GEOFLOW. The model included saturated waste material, the underdrain system, the clay liner, and native material below the liner. Design variables studied 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.



*Grid System for Underdrain-Liner Design*

## 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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# Toxic wastes: Philadelphia cleans up its mess

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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 incinerator 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. of Lester and Onas 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 DeRwal, 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 E. Weston Inc. of West Chester, which studied the site and used radar equipment to



Zack Smith tests the sometimes flammable air at the dump

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.

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, sent 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



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.*

don't take any chances."

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 1-1/2 to 7 years and Jerome Lightman, president of Lightman Drum, was sentenced to 1-1/2 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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*Bringing technology to Earth*


# **D'APPOLONIA**

Waste Management Services, Inc.

Albuquerque, NM Beckley, WV Brussels, Belgium Denver, Colorado Genua, Italy  
Houston, TX Los Angeles, CA Milwaukee, WI New Orleans, LA Wilmington, NC

March 1983

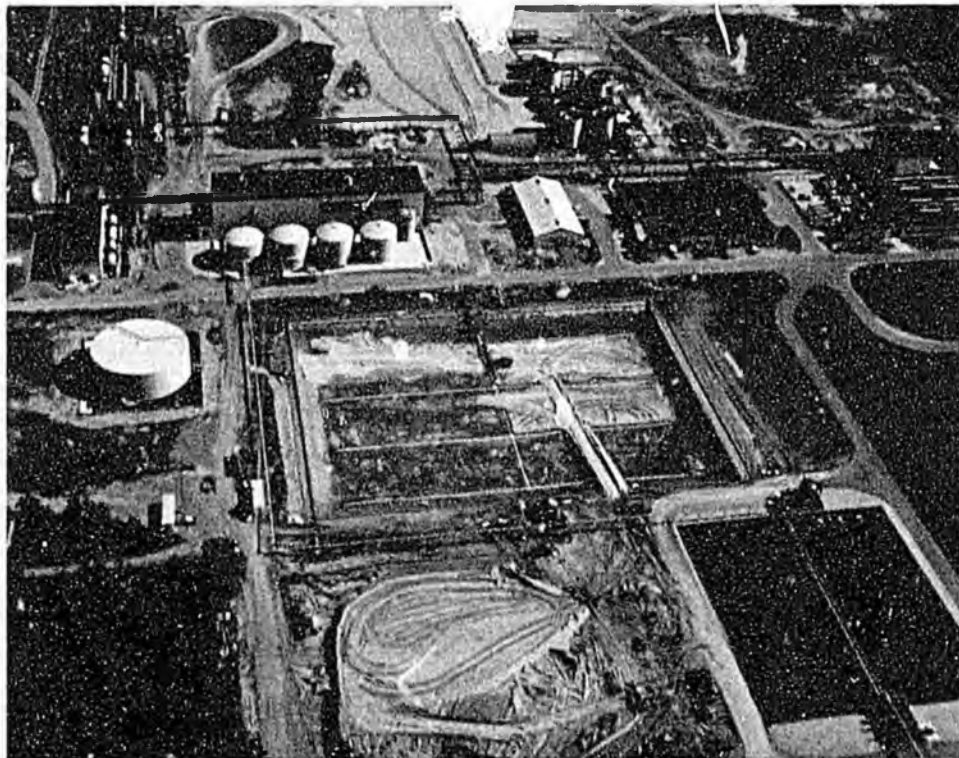
**D'APT POLONIA**  
WASTE MANAGEMENT SERVICES



**Hazardous Waste  
Treatment/Disposal  
Facility Development  
Program**

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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 a 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.

# D'APPOLONIA

WASTE MANAGEMENT SERVICES

## Headquarters

Pittsburgh, PA 15235  
10 Duff Road  
(412) 243-3230  
800-245-6510  
Telex: 81-2378

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- Brussels, Belgium 1170  
Boulevard du Souverain 100  
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- Houston, TX 77042  
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713/978-7597
- Irvine, CA 92714  
17500 Redhill Avenue Suite 202  
714/556-5340
- Milwaukee, WI 53223  
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414/354-3500
- New Orleans, LA 70062  
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504/466-9888
- Pittsburgh, PA 15235  
10 Duff Road  
412/243-3230
- Wilmington, NC 28401  
616 Market Street  
919/343-1084

## Group of Companies

D'Appolonia Consulting Engineers  
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.

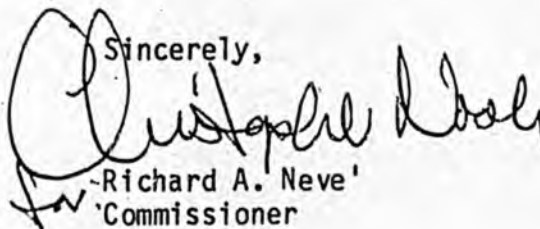
MAR 7 1984

Mr. C. Carpenter

-2-

March 5, 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

ST

BILL SHEFFIELD, GOVERNOR

**DEPT. OF ENVIRONMENTAL CONSERVATION**

OFFICE OF THE COMMISSIONER  
POUCH O, JUNEAU, ALASKA 99811

Telephone: (907)  
Address:

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:

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.

APR 3 1984

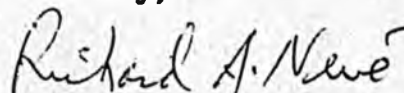
Ms. Martha K. Reynolds

-2-

March 15, 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,

A handwritten signature in cursive script that reads "Richard A. Neve". The signature is written in dark ink and is positioned above the typed name and title.

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 prerogatives 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 (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

MAR 21 1984

# 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.

March 23, 1984

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:m1

cc: Governor Sheffield



Alaska Center for the Environment  
1069 W. 6th Avenue  
Anchorage, Alaska 99501 274-3621

March 28, 1984

Senator P. tte 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 governmental entities will be responsible for managing those amounts of hazardous waste not regulated by federal and state entities.
- 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 5 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 (other than AS46.03.295-46.03.311)

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 hazardous 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 carcinogenicity in an industrial society that creates 30,000 new chemicals per year is common sense.

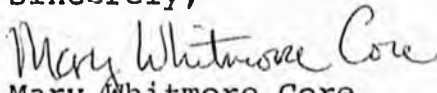
It is acceptable for the state to assume fiscal responsibility for a one time opportunity enabling a business to test a waste stream. The responsibility to know what is in a waste stream is the responsibility of the business owner but to implement the new regulations assistance could be allowed. The 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  
Executive Director-Issues

cc:

Robert H. Ziegler, Sr.  
Richard I. Eliason  
Paul A. Fischer  
Vic Fischer  
Bob Mulcahy  
Arliss Sturgulewski

Governor Bill Sheffield  
Lennie Boston  
John Shively  
Commissioner Neve'  
John Ringstad  
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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Paula P. Easley

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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.4.1:** 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.5.1**

**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.6.1**

**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 storage 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 so many different pieces of legislation into one. Portions of the legislation may be difficult to pass. Other parts that would be acceptable could be delayed 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 interpretation of the wording is that municipalities would not be able to adopt ordinances that were not consistent with the provisions of AS46.030295-46.03.312. If this is a correct interpretation then this would eliminate the current 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.

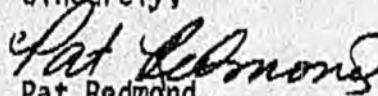
Also on page 6 Section 46.03.06--GATHERING CENTERS--We feel that permanent centers may not be appropriate in the near future. Perhaps a program that provides for collection and collective disposal and a yearly or twice yearly would be more appropriate for a few years. This would be similar to the Clean-up 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 recycling before land disposal of hazardous wastes. The regulations that have already been proposed by the Department of Environmental Conservation are a step in this direction. We find it very difficult if not impossible to support any attempts to weaken those regulations.

Sincerely,



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 Senate (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 separately. 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 than 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

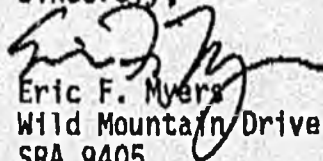
course, such technical assistance would be expensive and must be funded adequately. I can not think of any more appropriate use of petroleum revenues than to insure healthful and sustainable development of Alaska's economy and resources. If needed, a tax could be considered, levied on consumer goods 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 99677  
(907) 694-6377

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.

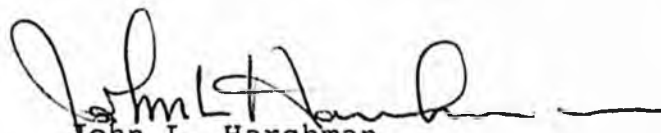
MAR 23 1984

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 it 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 as 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 substantial hazard to human health or