ALASKA LEGISLATURE COMMITTEE FILES 1991-1992 8672
7169 HOUSE RESOURCES

AS 46.14.250 PAYMENT OF FEES AND FEE STRUCTURE

OBJECTIVE:

Establish that permit fees will be assessed by the department. The structure of fee rates is proposed to be established by the department in regulation. The selected fee structure could be based upon a number of variables that either affect direct cost to the department or that are related to the quantity or toxicity of emitted air contaminants.

FEDERAL REQUIREMENTS:

CAA Section 502(b)(3)(A) and (B)

STATE INTENT & EXPLANATION:

The Clean Air Act requires that permit fees be collected and that such fees must be adequate to pay the direct and indirect costs for executing all tasks associated with the permit program. The fees can not be used to pay other air program costs (example: the costs of controlling carbon monoxide pollution in Anchorage and Fairbanks because this problem is not caused by "permitted facilities").

Specific fees are not established in the bill because it would be difficult or impossible to establish an equitable fee structure. There is only limited knowledge about the fiscal impact of potential fee amounts to specific industry groups especially for small businesses that must now obtain permits. Much more research and public review is needed for setting an equitably fee structure.

AS 46.14.255 PENALTY AND INTEREST FOR NONPAYMENT

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section establishes a deterrence for non-payment of fees.	No specific requirement, but, authority for EPA to assess penalties and interest is set out in CAA Section 502(b)(C)(ii).	Establishing an adequate deterrent to non-payment of permit fees will result in a low percent of non-payment and will keep overall fees lower and reduce costs for collection of debt.

Sec. 46.14.260 DURATION OF OPERATING PERMITS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
The section identifies the maximum duration for any permit before renewal must be sought.	AS 46.14.265(a) ---- see CAA 502(b)(5)(B) AS 46.14.265(b) ---- see CAA 503(d)	Currently air permits are issued for up to 5 years. It is expected that the same policies would be retained since this concept is reflected in federal law. Although most permits would be issued for 5 years, facilities that have compliance problems would be issued permits for lesser durations. Facilities that traditionally re-locate on a frequent basis would probably also be issued for shorter durations since the applicant would not be able to anticipate facility location for five years in advance.

AS 46.14.265 REOPENING OF PERMITS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
The purpose of the section is to specify under what conditions a permit can be re-opened to incorporate new requirements.	CAA Section 502(b)(9) Also see CAA Section 502(b)(10)	It is the intent of Congress that permits are closed documents once issued and thereby serve as a shield for the permittee by containing all applicable requirements of state and federal law. Congress also saw a need to delineate specific events when the issuing agency could re-open a permit to incorporate new requirements of federal law. The department's intent is to comply with the federal requirement to provide for a re-opener in these limited instances.

AS 46.14.270 TERMINATION, MODIFICATION, AMENDMENT, OR REVOCATION AND REISSUANCE OF PERMITS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section specifies the procedure and causes for the department to terminate or change a permit after issuance.	CAA Section 502(b)(5)(D)	The intent is to comply with federal requirements and delineate explicitly "reasons for cause". Proposed language for this section is taken from the current language of AS 46.03.120 for waste disposal permits except for subsection (5) which is new language.

Sec. 46.14.275 FEDERAL TERMINATION, MODIFICATION, OR REVOCATION AND REISSUANCE OF PERMITS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section directs the department to take all necessary actions to avoid federal pre-emption on a permit that may result in permit termination or modification.	CAA Section 505(e)	The intent is to avoid federal intervention in permits issued by the department. Inclusion of this provision in statute is not mandatory, but, serves a valid purpose.

AS 46.14.280 TEMPORARY OPERATIONS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
The purpose is to provide a specific permitting mechanism for operations that typically relocate to numerous areas of the state depending upon short term contractual projects.	CAA Section 504(e)	There is a direct advantage in exercising this elective provision in federal law when recognizing the needs of certain Alaska industries. Typical facilities likely to receive permits using this provision include asphaltic concrete plants, portable incinerators and combustion devices used to clean petroleum contaminated soils. It may be desirable to extend the temporary period at any location beyond the one year stated in the proposed statute. Federal law does not limit the duration for a location, however there is a need

to stay within the bounds of "temporary".

AS 46.14.285 PERMIT AS A SHIELD

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section delineates that an issued permit serves as a shield for the permittee.	CAA Section 504(f)	The intent is to comply with federal requirement, but, include certain exceptions to the shield that must be retained to protect public health and the environment during unanticipated catastrophic events.

AS 46.14.290 TIMELY AND COMPLETE APPLICATION AS A SHIELD

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section delineates that filing a timely and complete permit application allows the owner and operator to continue lawful operation of the facility in the event that the department fails to issue or renew the permit.	CAA Section 503(d)	This provision is especially important for initial program start-up when the department will not be able to issue all of the permits immediately. This will also allow facilities that are not currently required to have a permit to continue operation without the permit. It is quite important to provide this assurance to permit applicants.

AS 46.14.300 MOTOR VEHICLE POLLUTION

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section would continue the existing authorities in AS 46.03.190 (proposed for repeal) to control emissions of air contaminants from motor vehicles.	CAA Section 187(a)(4) Also see CAA Section 182(c)(3)	The department currently performs several functions relating to control of vehicular emissions. The entirety of 18 AAC 52 focuses upon vehicular emission controls authorized under the current AS 46.03.190. The language proposed here simply up-dates the existing statute and does not provide any new authorities in this area.

AS 46.14.400 DEVELOPMENT OF PROGRAM (SMALL BUSINESS ASSISTANCE PROGRAM)

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section establishes the small business assistance program to provide aid to small businesses in complying with the requirements of the Clean Air Act.	CAA Section 507(a)	Providing this assistance to small businesses affected by the Clean Air Act will reduce the financial burden upon these businesses, increase their knowledge and understanding of obligations placed upon them by the Act and assist them in controlling and preventing release of air contaminants to the atmosphere. The small business assistance program is a required feature of any federally approved state permit program.

AS 46.14.410 SCOPE OF PROGRAM

OBJECTIVE:

This section lists the specific tasks that will be performed by the small business assistance program staff.

FEDERAL REQUIREMENTS:

CAA Section 507(a)(1)-(7)
Also see - CAA Section 507(d)

STATE INTENT & EXPLANATION:

This assistance program is to be viewed as a substantial aid to those entities that are least knowledgeable and least capable of coping with the technical, fiscal and legal provisions of the Clean Air Act. This section as drafted will provide this assistance to the greatest number of Alaska industries as possible. The federal definition of a small business for eligibility of this assistance is quite restrictive. This is so because of the congressional desire to contain cost of the assistance in recognition that the program is to be funded by the collected permit fees. The department has suggested statutory language that will expand the definition of a small business as much as allowed under the Act to make this assistance available to a larger portion of our small businesses. Furthermore, language is suggested to enable yet an additional expansion of the service if the Legislature were to allocate additional monies to this activity from the general fund. Such monies may originate

from the settlement of enforcement cases as discussed in AS 46.14.260(c).

AS 46.14.420 POWER TO LIMIT PROGRAM

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section identifies that the Administrator of EPA and the department can exclude certain businesses from the assistance program, that would otherwise be eligible, if certain criteria are met.	CAA Section 507(c)(3)	The intent is to incorporate this elective provision into state law as described in federal law which will enable the state to exclude a small business facility or group of similar facilities from the assistance program. The facility or group will be excluded only if it is determined by EPA, the U.S. Small Business Administration and the department that the facility or group, in light of its technical and financial capabilities, is not in need of the assistance provided by this program.

AS 46.14.430 COMPLIANCE ADVISORY PANEL

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section establishes an oversight panel to guide the small business assistance program	CAA Section 507(e)	This language has been drafted in recognition of the separation of powers criteria in Alaska law. It is possible that additional

and to report its findings to the EPA Administrator.

discussions and negotiations will need to occur with EPA to clarify if the proposed language satisfies the federal obligations.

The language regarding semi-annual meetings is not specified in federal law, but was included to contain the annual expenses of the panel in recognition of their limited duties.

AS 46.14.500 LOCAL AIR QUALITY CONTROL PROGRAMS

OBJECTIVE:

This section establishes a mechanism for local governments or groups of local governments to implement all or parts of this chapter within their respective jurisdictions. This language is intended to replace the existing AS 46.03.210 (proposed for repeal).

FEDERAL REQUIREMENTS:

There is no direct requirement in federal law. CAA Sections 110(a)(2)(E) and 502(d) do discuss the concept of local programs. The state remains responsible for achieving the goals of a permit program even if it is executed by a local government entity.

STATE INTENT & EXPLANATION:

The proposed language represents some major conceptual differences in comparison to that which exists in AS 46.03.210. This language provides much greater flexibility to the department to implement a cooperative program with any significantly sized local government for carrying out all or some of the provisions of this chapter. The existing statute would not allow any local government to assume responsibility for implementing the permit provisions of the amended Clean Air Act. The proposed language establishes a vehicle for achieving this interagency program.Called a

"cooperative agreement", this document will delineate the respective responsibilities of each agency and enable the department to approve the activities of the local program.

AS 46.14.510 INADEQUACY OF LOCAL PROGRAM

OBJECTIVE:

This establishes the mechanism for identifying and reconciling inadequacies of a local government program. The section incorporates some of the language that currently exists in AS 46.03.220 (proposed for repeal).

FEDERAL REQUIREMENTS:

CAA Section 110(a)(2)(E) specifies that the state is the responsible entity for implementing the requirements of the Clean Air Act.

STATE INTENT & EXPLANATION:

The intent of the section remains the same as the existing statute, however, the provisions are substantially changed primarily to work with the concept of a cooperative agreement.

AS 46.14.520 STATE AND FEDERAL AID

OBJECTIVE:

The proposed language reflects to a large degree the existing language of AS 46.03.230 (proposed for repeal)

FEDERAL REQUIREMENTS:

CAA Section 105 authorizes federal grants for air pollution control efforts implemented by state and local governments.

STATE INTENT & EXPLANATION:

The proposed statute includes only minor changes to the existing language. Although this provision of law is currently only used to a minor degree, it is anticipated that this may be executed on a much broader basis with the new permit program if some of the local governments desire to become partners in

		implementing the permit program. This statute would allow the state to provide all or a portion of the monies needed to carry out air permit functions by local government entities.

AS 46.14.800 PUBLIC RECORDS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section provides that documents in the department's possession are public records with very few exceptions (see - AS 46.14.810). This section is more expansive than existing public records laws in that this law recognizes fewer exceptions for process and production related information.	CAA Section 503(e)	The intent to comply with federal requirements. All permit records are public records except in those cases where confidentiality is necessary to protect a competitive position or to safeguard company information relating to confidential information about markets, processes or products.

AS 46.14.810 CONFIDENTIALITY OF RECORDS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section identifies the criteria that must be met to exclude documents from being public records. The language incorporates the existing language in AS 46.03.180	CAA Section 503(e) CAA Section 114(c)	This language is intended to meet the federal requirements. In general, federal regulations allow more information to be held as confidential in comparison to existing Alaska law. The proposed language will not alter

(proposed for repeal) with some clarifications.

existing state law, except for the items specifically noted here. Language is proposed to address situations when ambient monitoring and meteorological data can be considered confidential. This would protect the uncontrolled use of the collected data by entities that do not contribute to the cost of the data collection but would stand to benefit by its use in a reduced overall cost to themselves for preparation of a permit application.

AS 46.14.820 RESPONSIBILITIES OF OWNERS AND OPERATORS

OBJECTIVE:

This section is to clarify the respective responsibilities and liabilities of facility owners and operators for compliance with the provisions of this chapter.

FEDERAL REQUIREMENTS:

There is no applicable federal citation except that the state must be able to enforce upon responsible parties for violations of this chapter.

STATE INTENT & EXPLANATION:

The intent is to delineate the responsibilities and liabilities of facility owners and operators.

Most of the obligations in the Act are imposed on both owners and operators. This allows the department to secure expeditious compliance, without waiting for private parties to determine who, among them will effectuate compliance. However, this section is needed to avoid duplicative efforts by the private parties.

AS 46.14.830 ADMINISTRATIVE PENALTIES FOR AIR POLLUTION

OBJECTIVE:

This section would create a mechanism for the department to assess penalties administratively for violations of this chapter, regulations adopted under this chapter and for conditions of permits authorized by this chapter.

FEDERAL REQUIREMENTS:

none - see explanation for more detail

STATE INTENT & EXPLANATION:

Although there is no direct federal requirement, the Clean Air Act substantially enhances the enforcement authority of the U.S. Environmental Protection Agency. These enforcement authorities are found in CAA Sections 113, 205, 304, and 307. These powers are quite encompassing and include administrative penalties and field citations. Of greatest concern is that the U.S. EPA can determine that the state's enforcement is inadequate and then take action to intervene or supersede the state enforcement position with respect to compliance with state law with any individual permit issued by the department.

In drafting this proposed section, the state's intent is to develop an enforcement program that will be viewed as efficient in execution, effective in deterring violations and substantive in fine amounts to avoid a "pay to pollute" attitude by industries. Such a program need not be of equal par with EPA's enforcement program , but it must be of adequate backbone

if the state is to prevent frequent or recurrent intervention by the EPA.

AS 46.14.840 CLEAN AIR PROTECTION FUND

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section establishes a special fund for the exclusive purpose of receiving permit fees, penalties and interest payments to be used to pay the costs of executing the permit program.	CAA Section 502(b)(3)(C)(iii)	This is a federally mandated provision for any approved state permit program. The department's intent is to comply with the minimum requirements of federal law.

AS 45.14.350 SPECIAL ACCOUNT

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
Monies received as a result of settlements from violations of law, including permit provisions, would be deposited in the general fund. The department may request appropriation by the Legislature of these monies for use in carrying out the air quality program of this chapter.	N/A	The intent is to keep track of these within the general fund special account and request appropriations to support the air quality program.

AS 46.14.900 LIMITATION OF POWERS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section describes the limits upon powers authorized by this chapter. The language reflects the contents of existing AS 46.03.245 (proposed for repeal).	no applicable federal citation	The intent is to retain the existing limits upon authority. A language addition was made to exclude air quality within residential dwellings from the purview of the department.

AS 46.14.990 DEFINITIONS

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section defines terms used within the chapter.	N/A	Intent and explanation not necessary.

SECTIONS 3 THROUGH 14

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
Amend: **AS 28.10.041(a)(10)** **AS 28.10.423**	N/A	The intent is to amend existing statutes to implement the new Chapter 14 of Title 46.

AS 29.35
AS 29.35.200(b)
AS 29.35.210(a)
AS 29.35.210(b)
AS 37.05.146(4)
AS 44.46.025(a)(2)
AS 44.62.330(a)(44)
AS 46.03.760(f)
AS 46.03.765
AS 46.03.780(a)
to incorporate reference to the new Chapter 14 of Title 46 of Alaska Statutes.

Add Clean Air Protection Fund to program receipt authority.

SECTION 15 AMEND AS 46.03.790(a)

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
Expand the type of actions that become subject to criminal prosecution.	CAA Section 113(c)(2)	The intent is to comply with federal requirements.

SECTION 16 AMEND AS 46.03.790 TO ADD (h)

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
Make criminal violations of this chapter subject to a maximum fine of $ 10,000 per offense.	Proposed 40 CFR 70.11 FR May 10,1991 Also see CAA Section 502(b)(5)(E)	The intent is to comply with federal requirements.

SECTIONS 17 THROUGH 19

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
Amend: AS 46.03.850(a) AS 46.03.875 AS 46.03.890(b) AS 46.08.075(a) to incorporate reference to the new Chapter 14 of Title 46 of Alaska Statutes	There is no applicable federal citation	The intent is to amend existing statutes to implement the new Chapter 14 of Title 46.

SECTIONS 20, 21 AND 22 AMEND AS 46.08.075, AS 46.08.900(6) AND AS 46.09.900(4)

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
Amend the definition of hazardous substance to include elements or compounds that enter the atmosphere.	There is no applicable federal citation.	Releases of air contaminants can and do result in direct and immediate damage to public health and the environment. This language change is essentially a house keeping function. The Attorney General's Office has interpreted the existing definition of hazardous substance to include emissions to the atmosphere.

SECTION 23 AND 24 AMENDS AS 46.35.200(4) AND AS 46.35.200(8)

OBJECTIVE:	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
Amend AS 46.35.200(4) to incorporate air permits issued under Chapter 14; amends reference to local programs under Chapter 14.	There is no applicable federal citation.	The intent is to amend existing statute to incorporate the new Chapter 14 of Title 46.

SECTION 25

OBJECTIVE	FEDERAL REQUIREMENTS:	STATE INTENT & EXPLANATION:
This section repeals existing statutes for air quality control.	There is no applicable federal citation.	The new Chapter 14 replaces all existing statutes for air quality control except AS 46.03.170. There is no longer a purpose for AS 46.03.170 since EPA has taken a position that they will not endorse any actions taken by the department under this authority. As discussed in AS 46.14.215, the State Plan becomes enforceable by EPA. EPA will not approve a plan incorporating this authority.

SECTION 26

OBJECTIVE:

This section authorizes the department to adopt regulations to implement this chapter.

FEDERAL REQUIREMENTS:

There is no applicable federal citation.

STATE INTENT & EXPLANATION:

The intent is to enable the department to fully implement the programs described in the chapter.

SECTIONS 27 AND 28

OBJECTIVE:

These sections provide for an effective date for each of the respective statutes within this bill.

FEDERAL REQUIREMENTS:

N/A

STATE INTENT & EXPLANATION:

Several statutes within section 2 of the bill require a delayed effective date to provide time to develop and adopt implementing regulations.

Alaska State Legislature

REPRESENTATIVE
MARK BOYER

VICE-CHAIRMAN
HOUSE FINANCE COMMITTEE

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House of Representatives

TO: Representative Cliff Davidson, Chair
House Resources Committee

From: Representative Mark Boyer

Date: February 4, 1992

Subject: Amendment to HB 377 "An Act relating to prevention, abatement, and control of air pollution; and providing for an effective date."

Attached is a proposed amendment which I plan to offer at your next committee hearing of HB 377. The proposal is appropriate to this bill as it deals with alternate fueled vehicles and improved air quality under the 1990 Clean Air Act Amendments. I have been in contact with the sponsor of the bill, Representative Moyer, and he agrees that his bill is an appropriate vehicle for this amendment.

The amendment would require the Department of Transportation (DOTPF) when purchasing, leasing, or otherwise contracting for the procurement of vehicles for the State Equipment fleet, in geographic areas where DOTPF maintains a fleet of at least 15 vehicles, to acquire an alternative fuel vehicle under the invitation to bid process.

Anchorage, Fairbanks, and Juneau are in non-compliance with the Federal Clean Air Act's National Ambient Air Quality Standards (NAAQS) with a December 31, 1995 deadline for compliance. I feel that it is appropriate that the State take the responsibility and provide the leadership role in using clean-burning fuels which when used in motor vehicles can achieve significant reductions in harmful emissions.

The advantages of implementing a clean vehicle fleet are:

(1) a clean vehicle fleet program will help develop the State's infrastructure to meet the requirements of the Federal Clean Air Act;

(2) high costs associated with vehicle fleet operation and maintenance can be reduced by the use of alternative fuels;

(3) use of natural gas as one possible alternative fuel will develop additional markets for our natural gas reserves, bring additional revenue to the State, and, reduce, albeit in a very minor way, our dependence on imported oil and its refined products.

When this amendment is adopted, Alaska will join with 28 other states, (Texas has the most comprehensive program) which have enacted legislation regarding the use of alternative fuels to run both private and government owned vehicles.

There are currently two pilot projects utilizing alternative fuels; Municipality of Anchorage running compressed natural gas (CNG) automobiles, and Fairbanks DOT-PF utilizing liquid propane gas (LPG) to fuel one flat bed and 5 pickup trucks. The Anchorage project has recently been evaluated. The Fairbanks project just began in March 1991 and will not be evaluated before one year of operation and extreme cold weather testing.

This is an exciting area and I hope that the Committee will share my enthusiasm for what this amendment might foster for other uses of alternate fueled vehicles in non-government environments.

Nanci Jones of my staff is available should you need additional information at 3466. Thank you in advance for your consideration of this amendment.

7-LS1624\G.1
Lauterbach
02/17/92

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE BOYER

TO: CSHB 377( ); 7-LS-1624\G

Page 1, line 8:

Delete "PURPOSE. The"

Insert "PURPOSES. (a) The primary"

Page 2, after line 1:

Insert replacement of automobiles, light trucks and vans in the state fleet with vehicles

"(b) The legislature also recognizes that the acquisition by the state of automobiles, light trucks, and vans fueled by energy sources other than gasoline for inclusion in the state fleet and their regular use by state agency personnel in the state's major metropolitan centers would will materially contribute to the improvement of air quality in those communities. Therefore, another purpose of this Act is to require state agencies operating in nonattainment areas for carbon monoxide and particulate matter to procure alternative-fueled vehicles.

* Sec. 2. AS 14.09 is amended by adding a new section to read:

Sec. 14.09.030. ALTERNATIVE-FUELED BUSES. The department shall develop plans to encourage contractors that provide school bus transportation to procure alternative-fueled buses. In this section, "alternative-fueled" means capable of operating on a fuel such as compressed natural gas, liquefied petroleum gas, liquefied natural gas, methanol, ethanol, reformulated gasoline, or electricity that, compared to operation on regular fuel, results in lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide, or particulates.

* Sec. 3. AS 36.30 is amended by adding a new section to article 1 to read:

Sec. 36.30.097. PROCUREMENT OF CERTAIN VEHICLES. (a) When the Department of Transportation and Public Facilities procures an automobile, light truck, or van for addition to the state fleet at a location in which the Department of Transportation and Public Facilities maintains a fleet of at least 15 vehicles, the procurement officer shall procure only an alternative-fueled vehicle if an alternative-fueled vehicle is available from an original equipment

7-LS1624\G.1
Lauterbach
02/17/92

AMENDMENT

OFFERED IN THE HOUSE BY REPRESENTATIVE BOYER

TO: CSHB 377( ); 7-LS-1624\G

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Delete "PURPOSE. The"

Insert "PURPOSES. (a) The primary"

Page 2, after line 1:

Insert

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manufacturing company.

(b) In making a procurement under this section, the procurement officer may give a preference to an automobile, light truck, or van operated on compressed natural gas.

(c) In this section, "alternative-fueled" means capable of operating on a fuel such as compressed natural gas, liquefied petroleum gas, liquefied natural gas, methanol, ethanol, reformulated gasoline, or electricity that, compared to operation on regular fuel, results in lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide, or particulates."

Renumber the following bill sections accordingly.

Page 28, line 24:

Delete "2"

Insert "4"

Page 28, line 26:

Delete "27"

Insert "31"

Delete "28"

Insert "32"

Page 28, after line 26:

Insert new bill sections to read:

"* Sec. 29. COOPERATION. The Department of Transportation and Public Facilities and the Department of Environmental Conservation shall cooperate with each other as necessary to achieve implementation of AS 36.30.097, enacted by sec. 3 of this Act, by July 1, 1994.

* Sec. 30. Sections 2 and 3 of this Act take effect July 1, 1994."

Renumber the following bill sections accordingly.

Page 28, line 30:

Delete "2"

Insert "4"

Delete "3 - 26"

Insert "5 - 29"

Page 29, line 2:

Delete "2"

Insert "4"

Department of Transportation and Public Facilities

POSITION PAPER

BILL NO: HB 377 APPROVED:

TITLE: Air Pollution Control Program DATE: February 11, 1992

This position paper addresses only those amendments to HB 377 dealing with alternative fuel vehicles. The department is interested in the utilization of alternative fueled vehicles. Never-the-less, it is vital that we proceed in a manner that does not render our fleet operation uneconomical or inefficient. The current amendments to CS HB 377 that would mandate the purchase of alternative fuel-vehicles would be disruptive and expensive.

In assessing alternative fuels there are numerous pros and cons associated with each fuel option. What works in Juneau may not work in Fairbanks. A trade-off in overall range may be acceptable to a maintenance vehicle but not to a Public Safety vehicle. In CO non-attainment areas, some alternative fuels emit CO at levels nearly equal to gasoline-fired vehicles, thus environmental benefits may be illusionary. Manufactured vehicles are just beginning to become available with alternative fuel engines and fuel storage systems. To achieve a full range of light trucks, vans and sedans for our users we may have to resort to after-market conversions. Though readily available, such conversions will add substantially to the cost of the vehicles. Very few alternative fuels are available at the retail level on a statewide basis, thus management of fleet assets among various locations will be complicated as will using alternative fueled vehicles on long-distance trips.

Because of these various complicating factors, the rapid, mandatory introduction of alternative fuel vehicles will hinder rather than foster the large-scale conversion of vehicles to alternative fuels.

For example, CNG (compressed natural gas) appears to be the leading contender for an Alaskan fleet. The state has abundant NG resources, the fuel has ultra-low emissions, it works very well in extreme cold, and manufacturers are beginning to offer CNG-fired vehicles off the assembly

BILL NO: HB 377

TITLE: Air Pollution Control Program

DATE: February 11, 1992

line. But there are very few retail CNG distributors in the southcentral portion of the state where NG is widely used, and no current availability in other areas of the state. Thus an appropriate strategy would be to start in Anchorage and gradually widen the network of retail CNG "quick fill" centers. The proposed amendment, would likely cause us to resort to LPG-fired (liquified petroleum gas) vehicles, because such fuel is more readily available, further delaying the day when CNG becomes more widely used.

For some of our fleet customers, even solving the fuel availability issue would not address all of the drawbacks. Aside from the unavailability of fueling centers, a typical CNG vehicle has about one-half to two-thirds the driving range as compared to gasoline. In sedans, the fuel storage subtracts from the available trunk space. All of these problems would make CNG a poor choice for Trooper vehicles at this time.

Recent preliminary discussions have been held between the Department of Environmental Conservation (DEC) and this department on the merits of alternative fuels. In general, we believe that state government can serve a very useful role in "jump starting" the use of alternative fuels, in particular by working toward the expansion of retail alternative fuel distributors.

In order to achieve this goal we would ask that the legislation instead direct the two agencies to report back with a proposed alternative fuel fleet conversion strategy. Such a strategy would address such basic questions and issues as:

- Where should alternative fuels be used initially and where shouldn't they?
- What are the best methods of getting private sector retail outlets?
- What elements of the fleet are best suited to conversion?
- What fuel or fuels are the best choice for Alaska circumstances?
- What investments are needed initially, and how to reuse those investments in order to expand the geographic coverage of alternative fuels.
- Timetable and budget requirements.

We offer this as a constructive choice, for we firmly believe that the large-scale conversion of our automotive fleet needs a clear strategy which makes sense for the fleet managers, fleet customers, and ultimately all Alaskan vehicle owners. We urge you amend the legislation to allow us the time to develop such a strategy.

MEMORANDUM

State of Alaska
Department of Transportation & Public Facilities

TO: Nanci Jones, Staff
Representative Mark Boyer
Capital Building # 411

DATE: February 4, 1992

FILE NO: 1080

TELEPHONE NO: 243-7671

FROM: Ken Langel
Fleet Manager
Statewide Equipment Fleet

SUBJECT: Draft Legislation for Alternate Fuel Vehicles

I have reviewed the Amendment to HB 377 which deals with alternate fuel vehicles. The comments that follow parallel the ideas we discussed by phone earlier this morning.

1. The intent language to be added to Page 1, line 11, after "regulation" provides a clear statement that Alaska will benefit from the acquisition of alternate fuel vehicles. This is helpful language for setting the tone of new programs.

2. Sec. 14.09.030 seems to be okay as written.

3. Sec. 36.30.097 (a). This section, as currently written, will be difficult to comply with at this time. The following points should be considered.

   a. Unless the intent is to single out DOT/PF, the language in para (a) should refer to <u>all state agencies within the non-attainment areas</u>. In reality, the areas inclusive of Anchorage, Fairbanks, and Juneau all have more than 15 vehicles of the three types (autos, light trucks, vans) targeted for alternate fuel. Different wording, or a different approach to the 15 unit threshold, might ease the administrative burden of keeping track of what the next purchase needs to be vis-a-vis alternate fuel, conventional fuel.

   b. Language should be clear that procurement of alternate fueled vehicles should be made "where available from the original equipment manufacturer (OEM)". This clarifies that we are not retrofitting existing units, but purchasing factory units that are manufactured to run on alternate fuel.

   c. We need to be aware that at the current time, there is a very limited number of alternate fuel vehicle types available from OEMs. The Big Three (Ford, GM, Chrysler) are all developing programs, but current production and model selection is limited. As this improves, we will be in a better position to comply with alternate fuel vehicle requirements.

d. Alternate fuel vehicles, for a number of reasons, may not be suitable for some work situations encountered by state agencies. What provisions, if any, should there be for <u>legitimate</u> exemptions? One of the loudest objections voiced by users is that alternate fuel vehicles (particularly CNG units) have a very restricted range (about half that of conventional gas or diesel powered units). Many agency users are required to travel long distances from their base of operations; i.e., Anchorage based employees drive to Seward and Homer. Currently manufactured CNG units could not make that trip unless there were refueling stations on the Kenai Peninsula. This issue of range is more pertinent to Alaska than to other states who have developed alternate fuel legislation because of the nature of Alaska's road system, population, and geographical make-up.

e. Alternate fuel distribution systems need to be addressed. If we are to procure alternate fuel vehicles, we need fuel distribution stations where users can refuel their vehicles. For CNG in particular, the availability of refueling points is extremely limited in Alaska.

f. In summary, the wording of paragraph (a) may be too imperative. Because of problems discussed above, we may not be able to comply with mandatory requirements to procure alternate fuel vehicles at this time. Perhaps a change from imperative language to intent language would be appropriate to get the state moving in the direction of using alternate fuels, but at the same time allow us to move in concert with the development of distribution systems and availability of manufactured vehicles that run on alternate fuel.

4. Sec 36.30.097 (b). This section should include a <u>specific</u> preference. Procurement problems will most probably arise if the preference granted to bidders for alternate fuel vehicles is left up to the procurement officer. An appropriate price advantage similar to the state's five percent Alaska bidder's preference could be used. A range of five to ten percent would probably be appropriate.

I appreciate the opportunity to provide comment to this measure. Please do not hesitate to contact me if I can be of further assistance.

cc: Robert N. Bartholomew, Director, Admin Services
Katy McHugh, DOT/PF Legislative Liaison
Reading File

STATE GOVERNMENT INITIATIVES TO PROMOTE CLEAN TRANSPORTATION FUELS

A REPORT OF THE AMERICAN GAS ASSOCIATION STATE AND LOCAL SUBCOMMITTEE

Boldface indicates 1991 additions

The American Gas Association is heartened by the gathering momentum behind state government action to promote greater use of natural gas vehicles (NGVs) and other clean-fuel vehicles. The passage of the Clean Air Act Amendments of 1990 provides additional incentives for state and local governments to seriously consider the many benefits of an aggressive NGV program.

The natural gas industry is strongly committed to the development, commercialization and public acceptance of NGVs. NGVs can improve the environment by substantially reducing vehicular emissions of reactive hydrocarbons and carbon monoxide. In addition, since roughly two-thirds of all the oil consumed in the United States is used as a transportation fuel, NGVs can bolster national security -- and keep more of America's capital resources at home -- by displacing imported oil in the only major market where oil still has a monopoly.

Since 1987, individual cities and states have been leading the way in this important area. What follows is a report on significant actions to date.

Arizona: **In 1991, Chapter 176 was enacted which requires that the Director of the Department of Administration, in consultation with the State Energy Office, to implement a replacement program for fleets with vehicles that are the most fuel efficient in their class and to increase the use of alternative fuels in state-owned vehicles.**

In 1987, the Arizona Legislature enacted a law that mandates shifts to clean-fuel vehicles by certain public and private fleets in metropolitan Phoenix and Tucson. In 1988, the mandate was extended to buses, and natural gas was given a partial and temporary exemption from the state's motor fuels tax.

Arkansas: **In 1991, Act 559 creates a 9-member alternative fuels commission to coordinate and direct the alternative fuels market.**

AGA
American Gas Association
1515 Wilson Boulevard, Arlington, VA 22209 • (703) 841-8597

California: In September 1990, California enacted a number of measures that will help promote the use of NGVs. One law provides for tax credits for the cost of devices installed on new or used vehicles to convert them to Low Emission Vehicles. Credits are limited to $1000 per automobile and $3500 on other motor vehicles. Another law authorizes local units of government to assess emission fees to fund vehicle demonstration programs. A third law requires the Public Utilities Commission to evaluate and implement policies to promote the development of equipment and infrastructure needed to facilitate the use of NGVs and electric vehicles. The PUC must hold hearings, consider specific policies and provide the legislature with a progress report. The PUC also must sponsor workshops to address the regulation of the sale of natural gas for use in vehicles.

In September 1990, the California Air Resources Board adopted regulations for tailpipe emissions standards and test procedures for light- and medium-duty vehicles, and the distribution and availability of clean fuels. The proposal is designed to achieve the greatest possible emission reductions in the most efficient manner by spurring the development of advanced vehicle technology and allowing the use of cleaner-burning fuels. The regulations establish emission standards in four progressively more stringent categories: transitional low-emission vehicles, low-emission vehicles, ultra-low-emission vehicles and zero-emission vehicles. The phased-in production mandate for clean-fuel vehicles applies to vehicles produced for sale and use in the state of California. The hydrocarbon emission standards, expressed as non-methane organic gases (NMOG), include measurements of non-methane hydrocarbons, aldehydes, ketones, and alcohols. The NMOG will be adjusted for reactivity and starting with the 1994 model light-duty vehicle (including passenger cars) category, will have to meet a fleet average NMOG standard. A system for earning marketable credits for use in complying with fleet average standards will be established.

The Clean Air Act Amendments of 1990 include a California Pilot Program which requires, at a minimum, 150,000 clean-fuel vehicles to be produced, sold and distributed annually in 1996-98. Beginning in 1999, 300,000 such vehicles must by produced, sold and distributed annually.

In September 1989, the California legislature enacted two measures that promote the vehicular use of natural gas and other clean transportation fuels. One law provides that, until 1995, the incremental cost of any clean-fuel vehicle will be exempt from the state's 6 percent sales tax. Another law requires that, subject to vehicle availability, at least 25 percent of all newly acquired state government vehicles must have clean-fuel capability.

In the Los Angeles Basin, the South Coast Air Quality Management District has developed an Air Quality Management plan, aimed at achieving Clean Air Act standards by 2007. Although the plan has no force of law, it will be a factor in EPA decisions on noncompliance penalties. This has the effect of making the plan binding in the sense that significant departure from the plan would provide grounds for litigation and federal intervention. The plan includes a commitment by South Coast to issue a clean-fuels mandate for both private and public fleets in the Los Angeles Basin – a policy that could affect up to 1 million vehicles over the next 14 years.

Colorado: A 1990 Colorado law requires that 10% of the new motor vehicles purchased or leased by state agencies during fiscal year 1991-92 operate on clean fuels.

Each year thereafter through FY94-95, an additional 10% must use alternative fuels. New vehicles may be bi-fuel, and existing vehicles may be converted to reach the percentage requirements. Emergency vehicles and heavy-duty vehicles are exempt. The law also removes the sale of natural gas as a vehicle fuel from the jurisdiction of the public utilities commission.

In 1989, the Colorado Legislature enacted a law that provides a $200 rebate for any person who acquires a clean-fuel vehicle or retrofits an existing vehicle. State and municipal agencies are also eligible to receive the rebates, which are capped at five vehicles per person.

Connecticut: In 1991, the General Assembly passed two bills related to alternative fuels. Act 91-142 directs the Commissioner of Environmental Protection to conduct a study on the adoption of California's emission standards.

Act 91-179 establishes a 10% tax credit for any investments or expenditures relating to alternative fuel vehicles until 1993. Alternative fuel vehicle tunnel restrictions were removed. Also, effective October 1, 1991, this Act exempts from the sales tax and use tax: new vehicles that use clean alternative fuel; equipment to convert vehicles to clean alternative fuel or to dual use of a clean alternative fuel and another fuel; and, equipment incorporated into or used in compressed natural gas filling stations.

A bill aimed at global warming was passed in May 1990. Of interest in the bill is a section that prompts the Standardization Committee of the Public Works Department to "consider vehicles using alternative fuels when considering new purchases."

District of Columbia: In December 1990, the District of Columbia enacted sweeping alternative fuels legislation. The law requires government and private owners and operators of fleets of 10 or more to convert 5 percent of their vehicles to operate on clean alternative fuels each year beginning in 1993 through 2000. Reformulated gasoline is excluded from the clean alternative fuels definition.

The law also bans, effective 1998, commercial vehicles not powered by an alternative fuel from operating in the Central Employment Area (downtown area) of the District from sunrise to sunset between May 1 and September 15, the period when smog is particularly bad.

By February 15, 1992, and on October 1 of each subsequent year, each owner and operator of a commercial fleet is required to submit plans to the mayor that contain specific short- and long-range goals and timetables for the implementation of a clean alternative fuels program. Fines of up to $5000 per day for noncompliance may be levied.

Florida: In October 1991, the governor of Florida passed Executive Order 91-253 mandating alternative fuels in state agency vehicles. By January 1, all state agencies must submit FY 92-93 budget amendments to begin use of alternatively fueled fleet vehicles in air quality nonattainment areas. By the year 2000, all possible fleet vehicles will be required to use the most efficient, least-polluting alternative fuels. Highly visible demonstration programs using new technologies are also mandated. The governor's office will also make changes to implement the use of alternatively fueled fleet vehicles in FY 92-

93 with the goal of operating all possible fleet vehicles on alternative fuels. Florida's Energy Office, in conjunction with the Department of General Services and agency fleet managers, will develop a comprehensive state plan for alternatively fueled vehicle purchases and fueling and service infrastructure.

Hawaii: In 1991, the legislature passed two bills related to alternative fuels. SR 154 and SCR 175 requests that the Department of Business, Economic Development and Tourism, with the Department of Accounting and General Services, determine 1) alternative motor vehicle fuels, 2) conversion costs, 3) additional purchasing costs for alternatively fueled vehicles, 4) comparative costs of fossil and alternative fuels, and 5) short- and long-term benefits of using alternative fuels.

Iowa: In 1991, SF 508 establishes a mandate, beginning in 1992, that at least 5% of the new state vehicles purchased shall be equipped to utilize alternative fuels, increasing to 10% in 1994. Also, alternatively fueled vehicles may be financed under the Iowa Energy Bank Program, which provides energy financing for the state, state agencies, political subdivisions, school districts, area education agencies and community colleges.

Louisiana: SB 537 was passed in 1991 providing a 20% income tax credit for clean burning alternatively fueled vehicles and property related to the dispensing of such fuel.

In 1990, Louisiana enacted legislation that requires 30% of new state agency fleet vehicles to have clean-fuel capability as of September 1, 1994. The mandate increases to 50% in 1996, and could increase to 80% in 1998, pending a review of the program by the Louisiana Department of Environmental Quality.

The legislature has directed the Public Service Commission to deregulated the direct sales of natural gas by producers, pipelines, distribution companies or other persons for vehicle fuel purposes.

Maryland: The Maryland NGV Working Group, comprised of natural gas utility representatives from around the state, will have recommendations to submit to the legislature on compressed natural gas- and LNG-powered vehicles in 1992.

Massachusetts: In December 1990, Massachusetts enacted a law that will allow the Commonwealth to adopt the non-methane hydrocarbon emissions standards based on California's 1994 low-emission vehicle standards. The Massachusetts standards are to be phased in, beginning with model year 1993 vehicles, and prohibit any corporation or person from selling vehicles in the state unless they comply with the standards. In model year 2000, the hydrocarbon standard that can be met by gasoline-powered vehicles will be completely phased out.

The statute's language would allow Massachusetts to delay implementation of these standards by up to two years if the state determines that other New England states or New Jersey are unlikely to adopt the California standards. New York adopted California standards in 1990. (see New York)

Exemptions to the program are available for certain vehicles, such as used vehicles that

are sold as used vehicles in Massachusetts. Exemptions also are available for vehicles originally registered outside of Massachusetts but brought into the state because of ownership transfers pursuant to inheritance, divorce or legal separation.

Minnesota: Minnesota deregulated the sales of natural gas for resale to end-users for vehicle fuel purposes, making such sales a non-utility function. (1984)

Missouri: Passed in 1991, HB 45 sets a timetable for the conversion of government vehicle fleets to alternative fuels. Any fleet of 15 or more vehicles must convert 10% by July 1, 1996, 30% by July 1, 1998, and 50% by July 1, 2000, to be capable of burning alternative fuel. By July 1, 2002, 30% of government vehicles *must operate solely* on alternative fuels.

Nevada: AB 817 relates to clean air; requires the state environmental commission to conduct public hearings and submit a report concerning the use of alternative fuels in certain motor vehicles; requires the state environmental commission to adopt the laws of California concerning certain emmission tests for diesel vehicles.

New Mexico: In 1991, the legislature passed HM 23 which establishes the Clean Alternative Fuel Task Force.

New York: a 1991 *New York City* ordinance requires the city to purchase 385 alternative fuel motor vehicles by June 30, 1992, and establishes a rate of purchase for alternative fuel buses.

In Fall 1990, the New York Department of Environmental Conservation adopted California's 1993 motor vehicle emission standards and durability requirements. Beginning in 1993, 40% of passenger cars and light-duty trucks and certain medium-duty vehicles manufactured for sale in New York must meet exhaust standards of 0.25 gm/mi for hydrocarbons, 0.4 gm/mi for nitrogen oxides and 3.4 gm/mi for carbon monoxide. The percentage rises to 80% in 1994 and 100% in 1995. All emission control equipment must be certified to last 100,000 miles. As noted earlier, California has since adopted more stringent standards. New York is expected to follow suit, maintaining an equivalent program.

In August 1990, New York embarked on a six-year, $40-million state demonstration program to operate 268 cars, buses and trucks on alternative fuels. The vehicles will be purchased or retrofitted, operated throughout the state, and tested extensively for performance, durability and emissions. In addition, several fueling facilities will be built, and funding will be provided for driver and mechanic training and an information network. The vehicles operating on natural gas in the program will include buses and light- and heavy-duty trucks.

Also in August 1990, The Port Authority and the Triborough Bridge and Tunnel Authority (TBTA) jointly announced that they have opened access to their tunnels and bridges "to certain [dedicated] alternative-fueled motor vehicles that reduce air pollution." The TBTA fully lifted its ban on bi-fuel vehicles as well.

In 1989, three state agencies issued a jointly developed New York State Energy Plan

that calls for a 50% increase in natural gas use by 2008. While the plan stopped short of advocating an outright mandate for the use of clean transportation fuels, it did call for accelerated state government demonstration programs and asserted that New York State "should encourage the use of compressed natural gas as a transportation fuel".

North Carolina: **Chapter 738 requires the Energy Division of the Department of Economic and Community Development and the Department of Administration to study the use of clean transportation fuels in state-owned vehicles and to develop a demonstration project using natural gas as the fuel for state-owned vehicles.**

Oklahoma: **The "1991 Alternative Fuels Conversion Act" (HB 1193) provides for a 50% tax credit for conversion of a vehicle to liquid propane gas, liquid natural gas and compressed natural gas and for equipment used to fuel vehicles for a period of two years. The 50% tax credit is applicable from December 31, 1990 to January 1, 1993. At the end of the two-year period, the tax credit reverts back to the 20% implemented in 1990 by the legislature.**

The Office of Public Affairs currently administers the $1.5 million Oklahoma Alternative Fuels Conversion Fund. The fund will reimburse costs to any state, county, municipal or school district, up to $3500 per conversion, that voluntary converts a vehicle to compressed natural gas, LNG, propane, ethanol or electricity. The fund will also pay the costs, up to $100,000, to install fueling stations. In return, the agencies will repay the fund from the fuel savings achieved until the fund is repaid. Repayment will be suspended if the clean fuel price is not below the price of the fuel displaced by the alternative fuel.

Also, the sale of compressed natural gas, liquid natural gas, and liquid propane gas as a vehicle fuel was deregulated.

Oregon: **Enacted in 1991, SB 765 requires a certain percentage of state vehicles to be capable of using alternative fuel to the maximum extent economically possible. After July 1, 1994, the state shall acquire only alternative fuel vehicles except in areas unable to economically dispense alternative fuel.**

SB 766 requires motor vehicles, subject to the control of certain mass transit and transportation districts, to use alternative fuel to the maximum extent economically possible.

HB 2130 expands the energy conservation tax credit programs to include costs associated with acquiring and operating alternatively fueled fleet vehicles. It also permits investor-owned utilities to offer commercial and industrial customers cash to assist in the purchase of alternatively fueled fleet vehicles and fueling facilities.

HB 3344 establishes two studies. First, the Department of Transportation will study the feasibility of replacing department passenger-carrying gasoline vehicles with NGVs. The second directs the Department of Energy, in consultation with the Economic Development Department, to assess renewable fuels and cost of achieving state fuel independence.

The Oregon Department of General Services has established a demonstration program for clean-fuel vehicles. The Salem state motor pool is operating a 2-year demonstration program using 14 bi-fuel vehicles. Thus far, the program administrators are very pleased

with all aspects of the NGVs. Another 20-vehicle procurement is being considered.

Pennsylvania: In December 1989, both Houses of the Pennsylvania legislature adopted a resolution that urges Congress "to enact a meaningful mandate for phased shifts to alternative transportation fuels by a substantial number of our nation's vehicles, and to assure that any such mandate permits undistorted competition, under comparable regulatory conditions, between all transportation fuels that are substantially cleaner than oil-based products." The Pennsylvania resolution also urges Congress "to enact tax incentives for the private sector, and financial assistance incentives for the states and municipalities, in order to reduce the obstacles posed by initial capital expenditures for shifts to alternative transportation fuels."

South Dakota: In 1990, the South Dakota Legislature passed a resolution, patterned closely after the Pennsylvania resolution, that urges Congress "to enact a meaningful mandate for phased shifts to clean transportation fuels by a substantial number of our nation's vehicles." Like the Pennsylvania resolution, the South Dakota resolution also calls for federal tax incentives for the private sector, federal financial assistance incentives for states and municipalities, and federal policies that permit "undistorted competition" between clean transportation fuels.

Texas: **In 1991, the Texas legislature passed sales tax exemption status for propane and natural gas as a motor vehicle fuel.**

In May 1989, the Texas legislature enacted two laws that mandate a phased shift to clean transportation fuels by certain vehicles in nonattainment areas. The mandate covers all metropolitan buses, state agencies with fleets of over 15 vehicles and school districts with fleets of over 50 school buses. The mandate directs affected fleet operators to attain clean-fuel capability for all vehicles acquired after September 1, 1991. Retrofitting of vehicles will be necessary in the probable event that sufficient clean-fuel vehicles are not yet available directly from Original Equipment Manufacturers.

The following targets for compliance must be met:

30% of each affected fleet by September 1, 1994;
50% of each affected fleet by September 1, 1996; and
If certain findings are made by the Texas Air Control Board, 90% of each affected fleet by September 1, 1998.

The Texas Air Control Board is also empowered to set mandates for most local government fleets of over 15 vehicles --and for private fleets of over 25 vehicles.

For compliance, vehicles must have the capability to use compressed natural gas "or other alternative fuels that result in comparably lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide, or particulates or any combination of them". Exemptions can be obtained if refueling facilities are unavailable and/or if clean-fuel suppliers do not offer adequate financing.

Enactment of these laws followed a one-year state government demonstration program, involving 12 state government vehicles, which showed that retrofitting vehicles to natural gas led to substantial reductions in operating costs and dramatic improvements in emission levels.

Texas also passed HB 1878, which deregulates the sale of natural gas for resale to end users for vehicle purposes, making such sales a non-utility function, effective September, 1989.

Utah: **Several programs were established with HB 122 and HB 142. A Clean Fuel Private Sector Incentive Program will award monies from an annual budget of $10,000 to private sector conversions or purchases of clean-fuel vehicles. The second law established the revolving Clean Fuel Conversion Fund. An appropriation of $10,000 will be given annually. Up to $3,000 per government vehicle may be loaned out to government departments, school divisions, etc. with repayment required within seven years.**

Virginia: **In 1991, Virginia passed extensive alternative fuels legislation. SJR 206 and HJR 481 established an 18-month pilot project in Northern Virginia, Greater Metropolitan Richmond, and Hampton Roads to determine the feasibility of domestic clean fuels.**

HB 1401 prohibits the School Board from preventing the use of alternative fuels in school buses.

HJR 321 calls for each of the seven school divisions to develop plans for conversion of bus fleets to alternative fuels emphasizing compressed natural gas.

HB 1454 makes loans available from the Literary Fund to purchase alternative fuel buses, to convert buses to alternative fuels, and to build alternative fuel refueling facilities.

HJR 334 furthers the joint subcommittee on Clean Transportation Fuels through the 1992 legislative session.

SB 627 allows SCC to deregulate the sale of natural gas as a vehicle fuel on a case-by-case basis.

HJR 336 provides for the removal of tunnel restrictions on alternatively fueled vehicles.

In 1990, the Virginia General Assembly created a special joint subcommittee to study the possible use of natural gas vehicles and other clean-fuel vehicles in the state. The group is studying the emissions, economics, safety and other benefits of clean-fuel vehicles that could be purchased or leased by state agencies, school districts and local transit authorities. The subcommittee held seven hearings on clean-fuel vehicles and related issues last year, at various locations around the state.

The Virginia NGV Working Group, comprised of natural gas utility representatives from around the state, prepared a white paper to suggest options for an NGV program in Virginia. Many of the group's recommendations were included in the enacted package of legislation.

Washington: In 1991, municipal and state legislation made significant strides in alternative fuels. King County Ordinance 9891 provides that at least 50% of the vehicles purchased in 1992 shall use alternatives fuel and at least 75% in 1993; this may include the conversion of existing vehicles.

Ordinance 9892 waives the licensing fee from 1991-1996 for taxicabs and for-hire vehicles using alternative fuels.

Ordinance 9893 makes an appropriation of $132,500 from the Public Works Fund and Motor Pool Fund to implement the Alternative Fuels Pilot Program.

The state Clean Air Bill (HB 1028) requires 30% of vehicles purchased on state contracts to use clean fuels after July 1, 1992, increasing 5% each subsequent year. Preference will be given to dedicated clean fuel vehicles, however, conversions may be used in a one to one ratio. Also, the law finds compressed natural gas fueling infrastructure development imperative and to be in the public interest.

In 1989, the Washington legislature enacted a law requiring the state's Department of Transportation to "consider" acquiring clean-fuel vehicles where they are feasible and economically justified.

West Virginia: The governor, by means of executive order, initiated a test group of state vehicles to be converted to use compressed natural gas. The executive order seeks to establish a series of natural gas refueling stations to be operational by September 30, 1991 for use by the converted vehicles.

Wisconsin: Wisconsin received federal funding approval for a program to assist municipalities in converting their fleets to utilize alternative fuels and displace gasoline use by 85%. Qualified local governments may receive up to $30,000, or maximum of $2,000 per vehicle, under the two-year program. The Energy Department has allocated $150,000 for the program, funded by the Energy Overcharge Fund.

Governor Tommy G. Thompson has appointed a task force composed of cabinet members to monitor a state fleet alternative fuels pilot program and to develop state policy on the use of alternative fuels.

The Northeastern States: Eight northeastern states have agreed in principle to adopt stronger auto emissions standards, equivalent to those in California. The new standards would apply to model-year 1993 vehicles that enter commerce in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. The plan was drafted by the Northeast States for Coordinated Air Use Management, but each state will develop its own program. New York and Massachusetts have already done so. Maine and Rhode Island may be next in line.

State and Local Groups: A number of organizations representing state and local governments or agencies have adopted policy statements supporting the increased use of natural gas, especially in vehicles, as a viable way to pursue America's environmental and energy security goals. Groups endorsing this policy include the National Governors Association, the National Association of State Energy Officials, the National League of

Cities, the Energy Council (formally the South/West Energy Council) and the National Conference of State Legislatures. The National Association of Regulatory Utility Commissioners (NARUC) has adopted a resolution to "further encourage the development and widespread use of natural gas vehicles."

AMERICAN GAS ASSOCIATION
STATE AND LOCAL AFFAIRS SUBCOMMITTEE

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October 1, 1991

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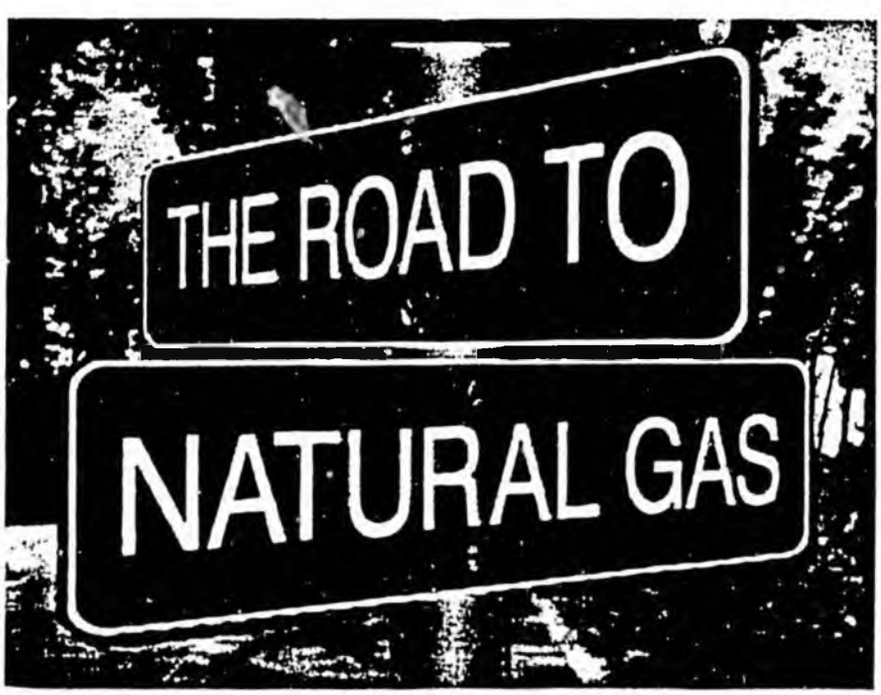
NGV

NATURAL GAS VEHICLES



NGV

The road to clean air.

The choice is clear. For transportation that's clean, affordable and safe, natural gas vehicles are the answer.

People all over the world recognize the advantages of natural gas as a vehicular fuel. It's **clean burning**: emits 85 percent less pollutants than gasoline. It's **affordable**: costs about 50 percent less than gasoline. It's proven to be **safe**: not only is natural gas itself safer than gasoline, the cylinders used to store it are sturdier than a gasoline tank. It **performs**: natural gas yields the same miles per gallon as gasoline, can travel at the same speed and about the same distance before refueling. And it's abundantly **available**: 93 percent of the gas we use in the U.S. is found right here, increasing our energy security.

These advantages are some of the reasons why more than 30,000 natural gas vehicles are currently in use across the United States, and close to a million around the world. And that's why some states are enacting legislation that mandates the use of cleaner fuels, like natural gas, for our nation' fleets.

The time is now, for Florida – its leaders, businesses and people -- to clean up our air. And the road is open.

The road to natural gas.

Air Quality

In Florida, six counties exceed the Environmental Protection Agency's Air Quality Standards: Broward, Dade, Duval, Hillsborough, Palm Beach and Pinellas. That means more than 3.5 million Floridians regularly breathe air that exceeds acceptable pollution levels.

Vehicles, and vehicle fueling infrastructure, are the sources of about two-thirds of carbon monoxide emissions. Diesel buses and trucks also emit particulates -- that black, sooty residue that can damage your lungs -- another serious component of air pollution. The vehicles we drive are responsible for 40 percent of the nation's smog.

Natural gas as a vehicle fuel can significantly reduce these emissions. Natural gas vehicles (NGVs) emit 99 percent less carbon monoxide, 65 percent less nitrous oxides, and 92 percent fewer reactive hydrocarbons than gasoline vehicles. And because natural gas is smokeless, particulate emissions from NGVs are virtually nonexistent.

As the quality of our air continues to deteriorate, our efforts to find cleaner ways to travel strengthen. President Bush's new Clean Air Act is an example of the type of legislation local governments are enacting to "clean up their act." Natural gas, as the cleanest burning fossil fuel, is a favored alternative.

Savings

Natural gas vehicles are less expensive to operate than gasoline vehicles.

In Florida the price per equivalent gallon of natural gas is about $.55 cents. Compare that with the average cost of $1.10 per gallon for gasoline, and the savings are obvious.

Because natural gas is such a clean fuel, maintenance costs are lower, too. The engines require less frequent tune-ups, spark plug changes, and last longer than gasoline engines do. Some customers say they can double the time span between tune-ups and still achieve maximum performance.

Converting a vehicle to run on compressed natural gas (CNG) generally costs $2,000 - $3,000, depending on the size of the vehicle and the total number of vehicles being converted.

Payback on the conversion varies with the number of miles driven annually, but is usually less than three years.

Price differential .50c (gasoline - CNG)

	Miles driven per vehicle, per yr.			
MPG	15,000	20,000	25,000	30,000
5	$1,500	$2,000	$2,500	$3,000
7.5	$1,000	$1,333	$1,667	$2,000
10	$750	$1,000	$1,250	$1,500
12.5	$600	$800	$1,000	$1,200
15	$500	$667	$833	$1,000
20	$375	$500	$625	$750

Safety

The unique properties of natural gas make it one of the safest vehicular fuels on the market today.

There are two reasons for this excellent safety record: the structural integrity of the NGV fuel system, and the physical qualities of the fuel itself.

The fuel storage system of an NGV is composed of steel or aluminum cylinders, which are much stronger than a gasoline tank. Because of this, the cylinders actually add to the structural integrity of the vehicle and help protect passengers in the event of a collision.

These cylinders are subject to rigorous abuse tests, such as pressure extremes, gunfire, heat extremes, collisions and fires, and have not failed.

NGV fuel systems are also a "closed loop", which prevents any spills or evaporative losses. Even if a leak did occur in an NGV system, the natural gas would dissipate into the atmosphere because it is lighter than air.

Natural gas itself has a high safety record, with an ignition temperature twice as high as gasoline, and a narrower range of flammability. This reduces the risk of spontaneous combustion. CNG is also neither corrosive nor toxic.

Studies have proven that injury rates were significantly lower for NGVs than for gasoline-powered vehicles. Of 434 million miles traveled by comparable NGVs and gasoline vehicles, there were 84 percent fewer injuries per mile in the NGVs.

Performance

When it comes to performance, natural gas vehicles rate high. Because CNG is already in a gaseous state, and has an octane rating of 130, NGVs are easier to start, in both hot and cold weather. NGVs experience less knocking, and no vapor locking. And they travel at speeds equivalent to a comparable gasoline-powered vehicle, at the same miles per gallon.

Converting a vehicle to run on CNG is simple. No major engine modifications are required, and vehicles can be converted to run on CNG only (dedicated) or on either CNG or gasoline (bi-fuel).

In a bi-fuel vehicle, a switch mounted on the dashboard allows the driver to change from CNG to gasoline if his supply is low and he's not near a filling station.

The CNG fuel tank is a steel or aluminum cylinder that can be mounted under a vehicle, in the bed or on top of a truck, or in the trunk of a car. When the vehicle is started, the CNG flows from the fuel cylinder through the master shut-off valve into a high pressure fuel line. The CNG from the fuel line enters a pressure regulator, where it is reduced from 3,000 pounds psi to 20 psi.

A solenoid valve then opens, and the CNG enters the engine's combustion chamber, where it is ignited to create power to drive the vehicle. Unlike gasoline, which must be vaporized before ignition, CNG enters the combustion chamber already in a gaseous state.

In a passenger car, two cylinders of CNG provide the equivalent of 10 gallons of fuel. Trucks and other larger vehicles can be equipped with more cylinders to provide a driving range of 300 miles.

Supply

Natural gas is in abundant supply. More importantly, 93 percent of that supply is right here in the United States, making natural gas the most dependable, secure and **domestic** energy source available.

Studies show the resource base of conventional natural gas supply in the lower 48 states alone is enough to meet demand for the next 50 years. When you include non-conventional sources of gas, and gas from other countries, we can increase our consumption and *still* have enough gas to meet the new demand for more than 140 years.

Increasing our use of natural gas for vehicles doesn't just clean up our air and save us money, it aids in energy security for our country. If just 5 percent of the nation's fleet vehicles were converted to compressed natural gas, the United States could decrease oil imports by 500,000 barrels annually, resulting in a dollar savings of $4 **billion** a year.

Although the gas is abundantly available, the number of public filling stations is limited. Fleets normally have their own private fill stations, which two or more companies located conveniently can share for reduced costs.

Refueling of NGVs is done in either a quick fill, which takes about two to five minutes; or a timed fill, which allows vehicles to refuel overnight, when the vehicles are retired for the day.

A.G.A.
American Gas Association

Natural Gas Vehicle is published bimonthly by the American Gas Association, 1515 Wilson Blvd., Arlington, VA 22209. **Natural Gas Vehicle** is protected through a pending trademark registration in the U.S. Patent Office.

Natural Gas Vehicle's aim is to keep fleet owners and operators, vehicle equipment manufacturers and suppliers, government officials and other interested parties informed of important developments concerning market growth for natural gas-powered vehicles, thereby encouraging active participation in and support of the use of natural gas to operate vehicles.

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Jeffrey Seisler
(The Natural Gas Vehicle Coalition)

MARATHON continued from page 1

State Gas Co. provided the natural gas for the NGVs.

Commenting on the arrangement at an advance news conference, Boston Marathon legend Bill Rodgers said, "In the scores of marathons I've run in around the world, this is the first time the athletes will breathe fresh air and not have to endure dangerous vehicle exhaust emissions. From my experience as a front runner in past marathons, I can say that this is a long overdue and positive development."

"We were delighted with the idea," added Marathon Director Guy Morse of the Boston Athletic Association. "After 94 years," Morse said, "we'll all breathe a little easier knowing that our leading runners will be enjoying cleaner air directly in front of them throughout the entire race."

Other news conference participants included wheelchair athletes Jane Raymond-Hall and Louis Antonio, as well as Boston Gas President Chester R. Messer.

In a statement released at the news conference, A.G.A. President Michael Baly III congratulated Boston Gas and the organizers of the Boston Marathon for "giving the runners a break this year." Messer, noting that his company is converting its entire vehicle fleet over the next few years to operate on natural gas, expressed confidence that "natural gas will be 'out front' no matter who wins the Boston Marathon."

For additional information, call Frank A. Arricale, Boston Gas' director of public information, at 617/742-8400.

Advertisements promoting recent A.G.A. member company natural gas vehicle activities, including fuel station openings and a strong presence in the Boston Marathon, have appeared in *The Wall Street Journal*, *The Washington Post*, and *Tulsa World*, and are included in this issue of the *Vehicle*.

Executive Order Guides Federal Vehicle Buys

An executive order announced April 17 by President George Bush targets the federal government's procurement of alternative-fuel vehicles as a key ingredient of the new federal energy mandate.

The order, which focuses on conservation in federal buildings and facilities and on fuel savings in federal vehicle use, directs the U.S. Energy Secretary to ensure that the federal government purchases annually the "maximum number practicable" of alternative-fuel vehicles as required by the Alternative Motor Fuels Act of 1988. The law provides $18 million for federal procurement of alternative-fuel vehicles. Bush's order seeks to have the "maximum number practicable" be original equipment produced by manufacturers, and seeks to initiate procurements in model year 1995.

In addition, the executive order calls for federal vehicle fuel efficiency by directing agencies operating fleets of 300 or more vehicles to reduce gasoline and diesel consumption by 10 percent by 1995, using 1991 as the baseline. Use of alternative-fuel vehicles will count toward the 10-percent reduction.

Under the order, federal procurement of alternative-fuel vehicles will be guided by requirements that life-cycle costing methods be incorporated in buying decisions, a provision designed to spur private industry to develop energy-efficient equipment.

The executive order, says Bush, "is an important component of the National Energy Strategy, and it demonstrates our commitment to a balanced approach for achieving an energy future that is secure, that is efficient, and that is environmentally sound."

STATE OF ALASKA
1992 LEGISLATIVE SESSION

BILL NUMBER: HB 377

FISCAL NOTE

Revision Date: 01/24/92
Title: Air Pollution Control Program

Department Affected: DOT&PF
BRU: Statewide Engineering & Operations Standards

Sponsor: Moyer
Requestor:

Component: Engeer. & Operations Stand.
Component Serial Number: 547

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY92	FY93	FY94	FY95	FY96	FY97
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	0	0	0	0	0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING:	0	0	0	0	0	0
CAPITAL	0	0	0	0	0	0
REVENUE	0	0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUNDS	0	0	0	0	0	0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL FUNDING:	0	0	0	0	0	0

POSITIONS

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

Estimate of current year impact: _____

ANALYSIS: (Attach a separate page if necessary)

See second page.

Prepared by: Roger W. Allington, Director — Phone: 465-2951

Division: Engineering and Operations Standards — Date: January 24, 1992

Approved by Commissioner: _____ — Phone: 465-3900
Frank G. Turpin

Agency: Department of Transportation and Public Facilities — Date: January 24, 1992

Distribution By Preparer: Legislative Finance, Legislative Sponsor, Requestor, OMB, Impacted Agency(ies).

REV 2/7/92

ANALYSIS (cont. from page 1):

This bill empowers the Department of Environmental Conservation with sufficient authority to ensure that Alaska complies with the requirements of the Clean Air Act Amendments of 1990 (CAA). From a transportation agency's perspective, we have a strong interest in seeing that the Department of Environmental Conservation ensure that Alaska's air quality programs are in compliance with the CAA. Specifically, our interest is the penalty provisions contained in the CAA which target sanctions on federal-aid highway funding if a state is found by the Environmental Protection Agency to have an inadequate enforcement program. With Alaska now recieving over $200 million annually in federal-aid highway funding, this penalty is a strong incentive.

ALASKA AIR STATUTES

REQUIRED & ESSENTIAL FEATURES

Exclusive Fund for Air Permit Program

Create Small Business Assistance Program
- Create Advisory Panel
- Provide Assistance to Larger Group

Modify Criminal Provisions and Fines

Construction Permits v. Operating Permits
- Agency/Operator Emission Limits to Avoid Need for Permit

General Permits

Flexibility for Permit Fee Structure

Ability to Implement New Federal Rules in Permits
- Reopening of Permits

Emission Limits Based on Health Risks or Available Technology

Local Governments to be Implementing Partners

Administrative Penalties for Violations
- Deter EPA Intervention

Public Involvement in Permits
- Public Review of Permits
- Appeal through Adjudication
- Judicial Review
- EPA Review
- Public to Petition EPA

Retain & Update Existing Statutes

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Air Quality Management

1990 AMENDMENTS to the CLEAN AIR ACT

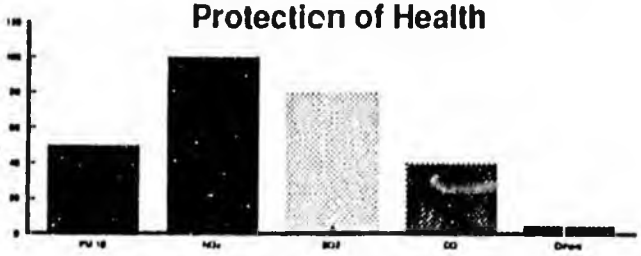
and their IMPACTS on ALASKA

Clean Air Act of 1970

Mobile Sources

Vehicle Tailpipe Standards

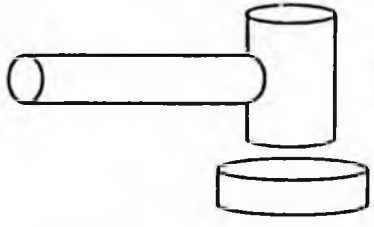
Protection of Health



Ambient Air Quality Standards

State Air Quality Control Plan

Clean up poor Air Quality Regions

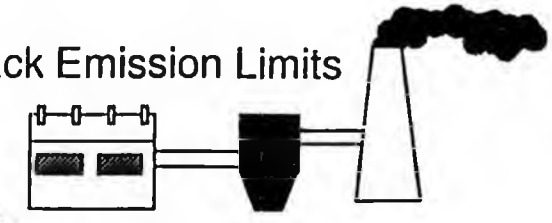


Enforcement

Civil Penalties - $10,000/day

Criminal Penalties - $10,000/day

Stack Emission Limits



State Stack Emission Standards

Federal New Source Performance Standards

National Emission Standards for Hazardous Air Pollutants

PROGRAMS ADDED by AMENDMENTS

In addition to changes in previous components of the ACT

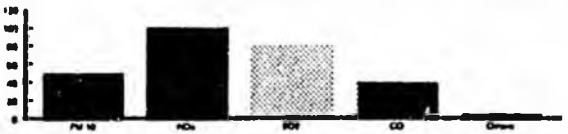
Clean Air Act Amendments
1975
1977
1980
1982

AREA CLASSIFICATION

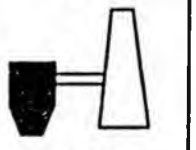
Prevention of Significant Deterioration (PSD)

PERMIT to CONSTRUCT PSD Facility

Review



PSD Increments



BACT

Secondary Impacts

Components of the Clean Air Act Amendments of 1990

Title I	Provisions for Attainment and Maintenance of National Ambient Air Quality Standards
Title II	Provisions Relating to Mobile Sources
Title III	Hazardous Air Pollutants
Title IV	Acid Deposition Control *
Title V	Permits
Title VI	Stratospheric Ozone Protection
Title VII	Provisions Relating to Enforcement
Title VIII	Miscellaneous Provisions
Title IX	Clean Air Research
Title X	Disadvantaged Business Concerns
Title XI	Clean Air Employment Transition Assistance

* Alaska is exempt from Title IV Provisions

CLEAN AIR ACT 1990 AMENDMENTS

Mobile Sources

Cold Start
CO Standards
Inspections

NON-ATTAINMENT AREA CLASSIFICATION

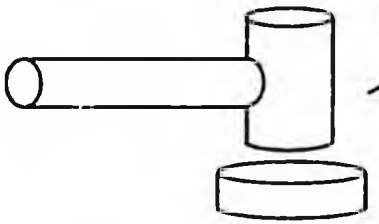
Clean Air Act Amendments

Nov. 15, 1990

List of TOXIC AIR POLLUTANTS

STATE OPERATING PERMIT PROGRAM

Federal Emission Standards
State Emission Standards
New Source Performance Standards
Standards for Hazardous Air Pollutants
Early Reduction/MACT
Permit Fees
Voluntary Emission Limits
Certification of Compliance
Reporting & Monitoring Procedures
Ability to Reopen for Cause
Public Comment
EPA Review
Judicial Review of Actions



Enforcement

Civil Penalties - $10,000/day
Criminal Penalties - $10,000/day

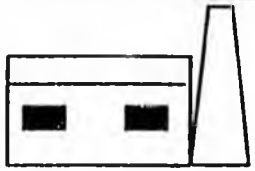
Small Business Assistance Program / Pollution Prevention

OPERATING PERMIT PROGRAM

Title V

WHO NEEDS AN AIR PERMIT ?

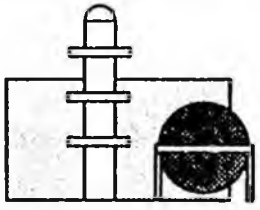
OLD CLEAN AIR ACT



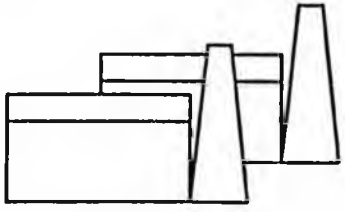
Fuel Burning Facilities
potential emissions of 250 tpy

Incinerators 1000 lb/hr

Diesel Engines - > 2350 hp



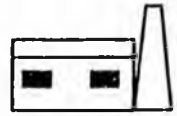
Petroleum Refineries



PSD size Facilities

State Air Quality Permit to Operate

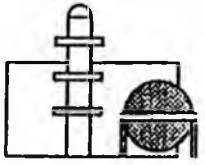
1990 CLEAN AIR ACT



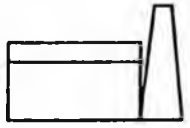
Fuel Burning Facilities
potential emissions of 100 tpy

Incinerators
1000 lb/hr & Sewage Sludge

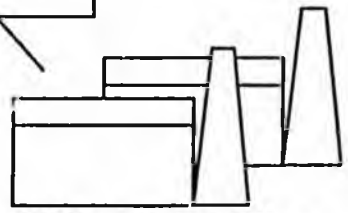
Diesel Engines - > 740 hp



Petroleum Refineries



Facilities emitting
Hazardous Air Polln
potential of 25 tpy



PSD size Facilities

PERMITS: WHO NEEDS THEM?

1991

Asphalt Plants

Incinerators rated larger than 1000 lb of waste per hour

Industrial processes with a design throughput greater than 5 tons per hour AND require an emission control device

Fuel burning equipment larger than 50 mm Btu/hr AND require an emission control device, such as a coal fired boiler which could burn 3 tons per hour

Fuel burning equipment larger than 100 mm Btu/hr, such as a natural gas fired boiler which could burn 1,667 cubic feet of gas per minute.

Petroleum refineries

Coal preparation facilities

Portland cement plants

Any facility subject review under the Prevention of Significant Deterioration (PSD) provisions, such as a new facility which could emit more than 250 tons per year of a regulated air contaminant, or an existing large facility which could emit more than 40 tons per year of a regulated air contaminant.

This includes facilities with stationary diesel equipment rated at more than 1700 kw or 2350 Horsepower, or could consume more than 45 gallons of diesel fuel per hour.

Any new or modified facility within 10 kilometers of Anchorage or Fairbanks which emits greater than 100 tons per year of carbon monoxide.

Any permittee which requests physical or operational limitations to provide emission offsets for facilities emitting carbon monoxide in Anchorage or Fairbanks.

Any permittee which requests physical or operational limitations to preclude review under PSD.

1993

Asphalt Plants

Incinerators rated larger than 1000 lb of waste per hour

Industrial processes with a design throughput greater than 5 tons per hour AND require an emission control device

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Petroleum refineries

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Any permittee which requests physical or operational limitations to provide emission offsets for facilities emitting carbon monoxide in Anchorage or Fairbanks.

Any permittee which requests physical or operational limitations to preclude review under PSD.

1993

ALL THE FACILITIES LISTED FOR 1991

All sewage sludge incinerators

All facilities with emissions greater than 100 tons per year. Examples: stationary diesel equipment larger than 740 Hp or 550 Kw, or stationary gasoline equipment rated at greater than 52 Hp or 39 Kw.

All facilities with emissions greater than 10 tons per year of any hazardous air contaminants listed by Congress, or 25 tons per year in aggregate.

All facilities which have equipment which must comply with specific federal New Source Performance Standards. In Alaska we have:

- Boilers with a rated heat capacity greater than 10 mm Btu/hr
- Facilities with petroleum storage vessels which store more than 40,000 gallons
- Coal preparation plants
- Grain elevators
- Combustion turbines
- Lime manufacturing plants
- Metallic mineral processing plants
- Dry cleaners with a total rated dryer capacity of 84 lb
- Onshore natural gas processing plants
- Gravel crushers
- Bulk gasoline transfer facilities, with gasoline throughput of 20,000 gallons per day.

All facilities with equipment for which specific emission limits will be set by federal law.

Permit Contents

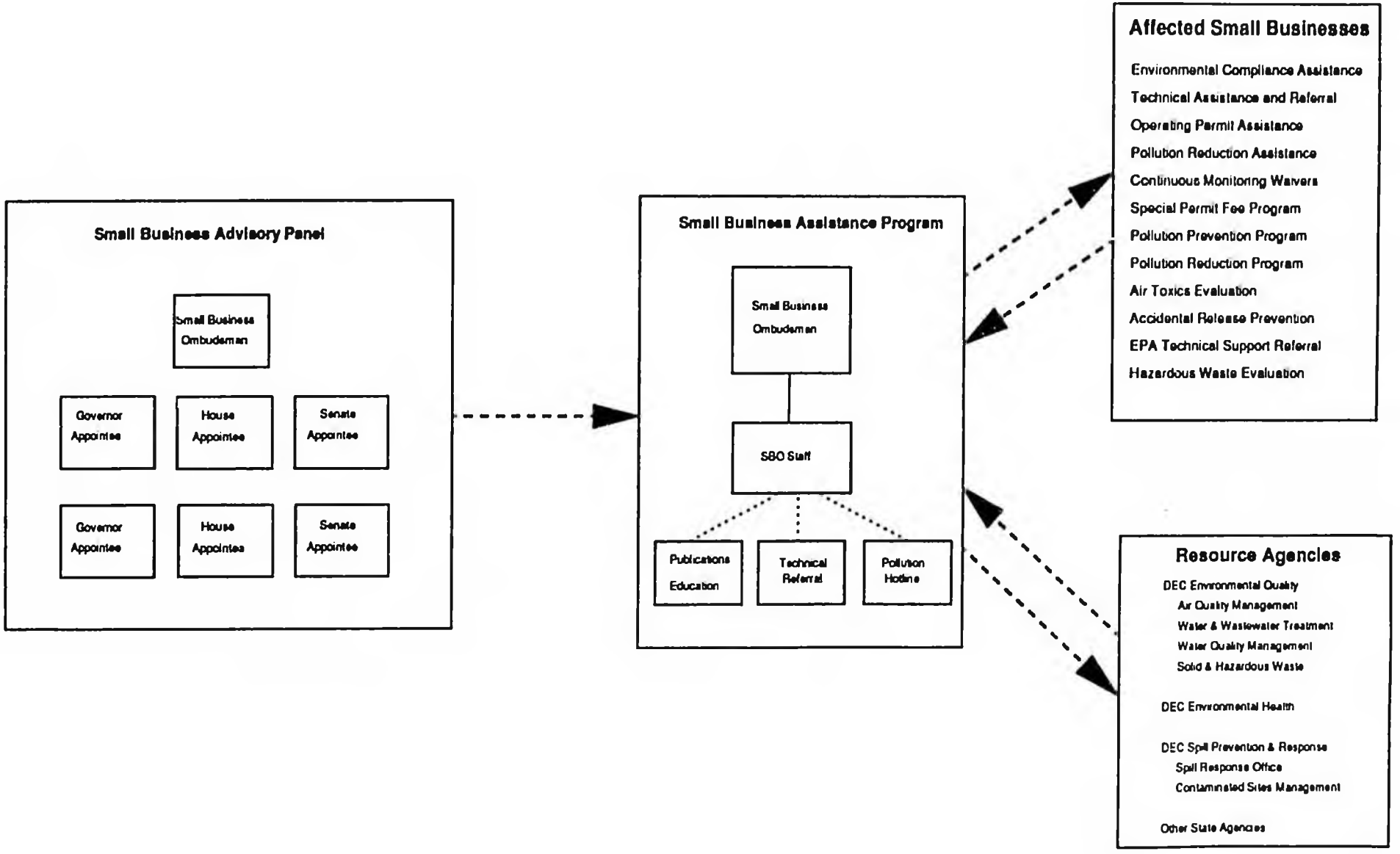
STATE AIR QUALITY

PERMIT TO OPERATE

Single Permit contains all State and Federal Requirements

- Facility Location, Mailing address
- Federal Emission Standards
- State Emission Standards
- New Source Performance Standards
- Standards for Hazardous Air Pollutants
- Early Reduction/MACT
- * Permit Fees
- Voluntary Emission Limits
- * Small Business Assistance Provisions
- * Certification of Compliance
- Reporting & Monitoring Procedures
- * Ability to Reopen for Cause
- Public Comment
- * EPA Review
- * Judicial Review of Actions

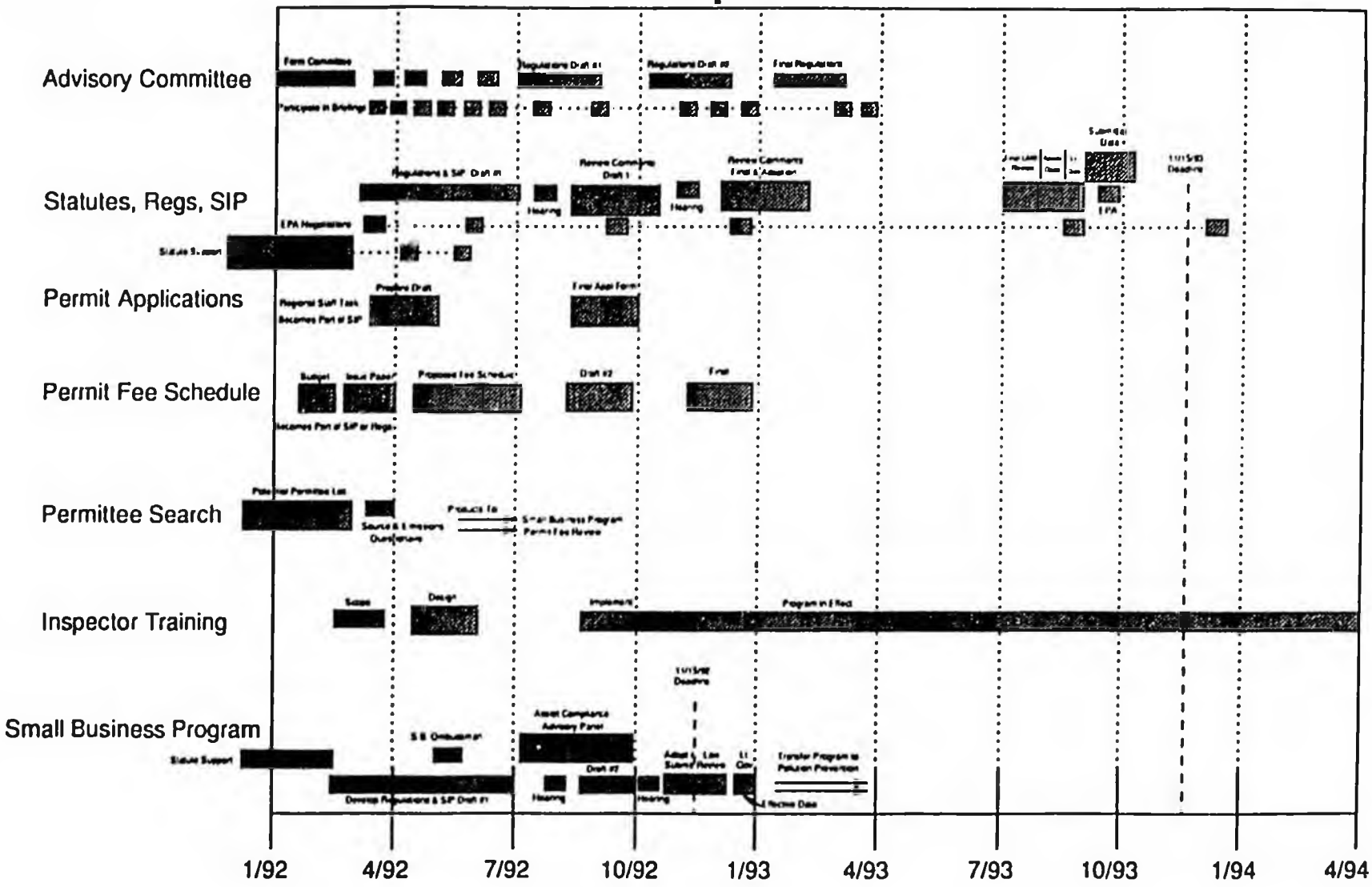
Small Business Assistance Program



STATUTORY NEEDS

- Establish exclusive fund for Permit Fees and Air Program direct expenses
- Create Small Business Assistance Program
- Create Small Business Compliance Advisory Panel
- Increase Criminal Penalty Provisions and Fines
- Establish authority for General Permits
- Separate Construction Permits from Operating Permits
- Update Existing Statutes

CAAA 90 Title V - State Operating Permit Program Development Phase



CLEAN AIR ACT

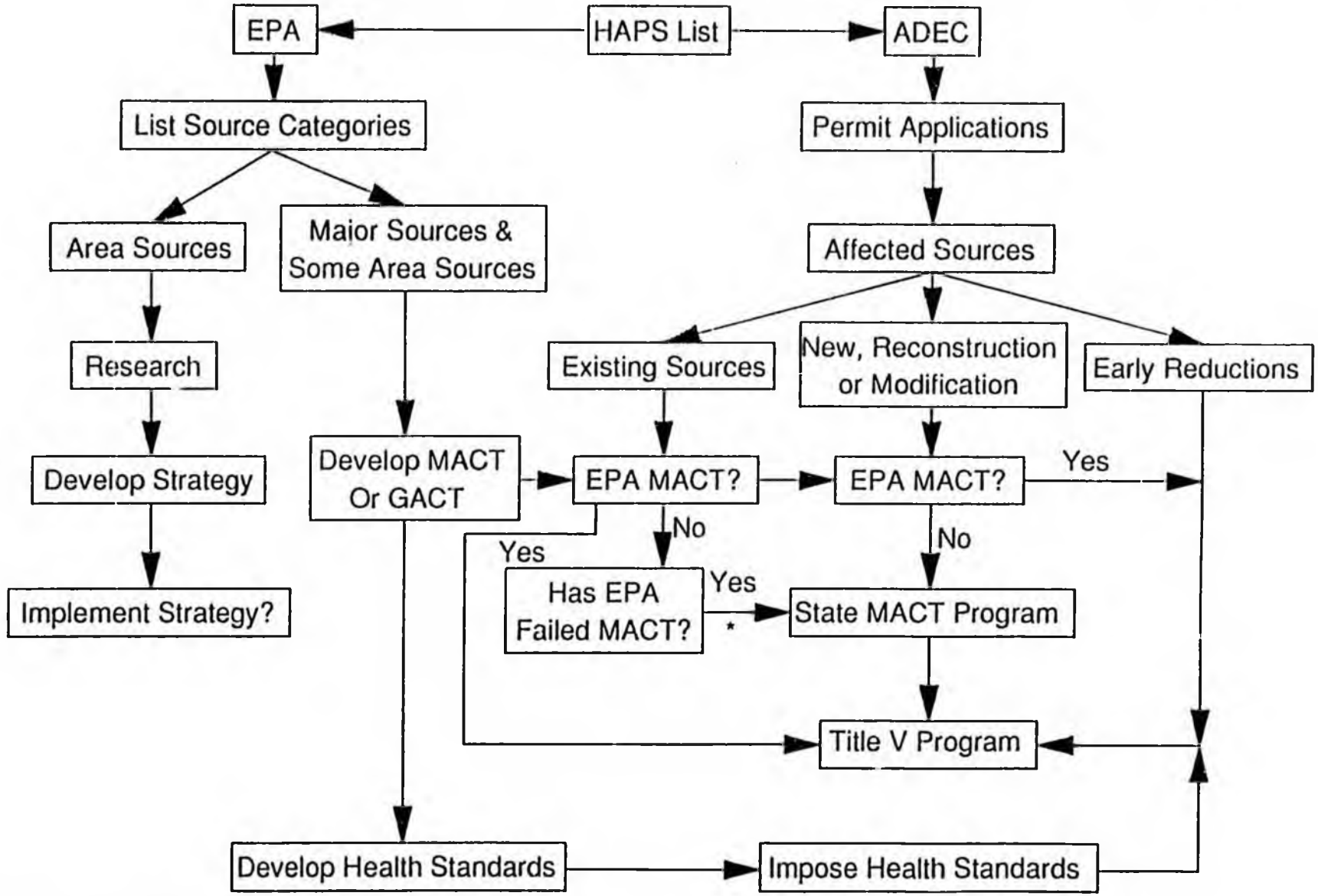
1990

TITLE III

SECTION 112

HAZARDOUS AIR POLLUTANTS

SECTION 112 (HAPS) REGULATORY FLOWCHART



* Equivalent Emission Limitation

CORRECTION

THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY

CLEAN AIR ACT

1990

TITLE III

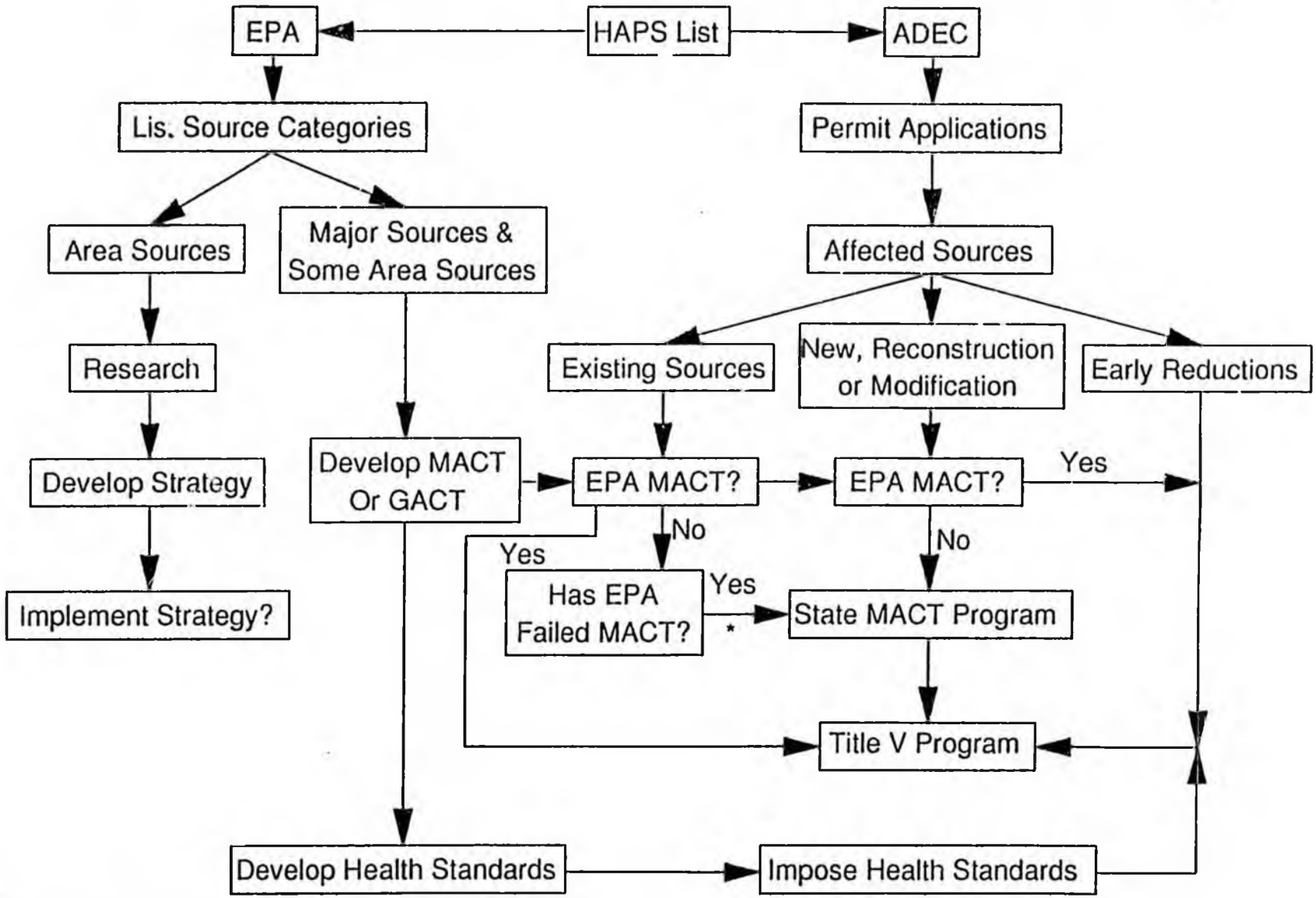
SECTION 112

HAZARDOUS AIR POLLUTANTS

CLEAN AIR ACT. SECTION 112
HAZARDOUS AIR POLLUTANT ACRONYM LIST

HAPS	Hazardous Air Pollutants; one or more of the 189 air pollutants listed in the Clean Air Act Amendments of 1990.
GACT	Generally Available Control Technology
MACT	Maximum Achievable Control Technology
PACT	Politically Achievable Control Technology
PICT	Politically Impossible Control Technology
$3M^2$	3 Month Moratorium

SECTION 112 (HAPS) REGULATORY FLOWCHART



* Equivalent Emission Limitation

CLEAN AIR ACT

1990

TITLE III

SECTION 112

HAZARDOUS AIR POLLUTANT LIST

Clean Air Act. Section 112
Hazardous Air Pollutants (HAPS)

Chemical Name	CAS No.
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorene	53963
Acrolein	107028
Acrylamide	79061
Acrylic Acid	79107
Acrylonitrile	107131
Allyl Chloride	107051
4-Aminobiphenyl	92071
Aniline	62533
o-Anisidine	90040
Asbestos	1332214
Benzene	71432
Benzidene	92875
Benzotrichloride	98077
Benzyl Chloride	100447
Biphenyl	192524
Bis(2-ethylhexyl)phthalate (DEHP)	117817
Bis(chloromethyl)ether	542881
Bromoform	75252
1,3-Butadiene	106990
Calcium cyanamide	156627
Caprolactam	105602
Captan	133062
Carbaryl	63252
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloramben	133904
Chlordane	57749
Chlorine	7782505
Chloroacetic Acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chlorobenzilate	510156
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene (Neoprene; 2=chloro-1,3butadiene)	126998
m-Cresol	108394
o-Cresol	95487
p-Cresol	106445
Cresols/Cresylic acid	1319773
Cumene(Isopropylbenzene)	98828
D(2,4), salts and esters	94757
DDE	3547044
Diazomethane	334883
Dibenzofurans	132649
Dibromo-3-chloropropoanol(1,2)	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene(p)	10
3,3-Dichlorobenzidene	91941
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,3-Dichloropropene	542756
Dichlorvos	62737
Diethanolamine	111422
N,N-Dietyl aniline (N,N-Dimethyianiline)	121697
Diethyl sulfate	64675
3,3-Dimethoxylbenzidene	119904
Dimethyl aminoazobenzene	60177
3,3-Dimethyl benzidene	119937
Dimethyl carbamoyl chloride	79447
Dimethyl formanide	68122
1,1-Dimethyl hydrazine	57147
Dimethyl phthalate	131113
Dimethy sulfate	77781
4,6-Dinitro-o-cresol and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667

Chemical Name	CAS No.
Epichlorohydrin (Chloro-2,3-epoxypropane(1))	106898
1,2-Epoxybutane (1,2-Butylene oxide)	106887
Ethyl acrylate	140885
Ethyl benzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (1,2-Dibromomethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene imine (Aziridene)	151564
Ethylene oxide	75218
Ethylene thiourea	96457
Ethylene dichloride (1,1,-Dichloroethane)	75343
Formaldehyde	50000
Heptachlor	76448
Hexachlorobenzene	118741
Hexachlorobutadiene	87683
Hexachlorocyclopentadiene	77474
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydrochloric acid	7647010
Hydrogen flouride (Hydroflouric acid)	7664393
Hydroquinone	123319
Isophorone	78591
Lindane (all isomers)	58899
Maleic anhydride	108316
Methanol	67561
Methoxychlor	72435
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933
Methyl hydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert butyl ether	1634044
4,4-Methylene bis (2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
Methylene diphenyl diisocynate (MDI)	101688
4,4'-Methylenedianiline	101779
Napthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethyamine	62759
N-Nitrosomorpholine	59892
Parathion	56382
Pentachloronitrobenzene (Quintobenzene)	82688
Pentachlorophenol	87865
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phosphine	7803512
Phosphorus	7723140
Phthalic anhydride	1336363
PCB's (Arochlors)	1336363
1,3-Propane sultone	1120714
beta-Priolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569

Chemical Name	CAS No.	Chemical Name	CAS No.
1,2-Propylenimine (2-Methyl aziridine)	75558	m-Xylene	108383
Quinoline	91225	o-Xylene	95476
Quinone (1,4-Cyclohexadienedione)	106514	p-Xylene	106423
Styrene	100425	Xylenes (mixed)	1330207
Styrene oxide	96093	Antimony Compounds	-----
Tetrachlorodibenzo-p-dioxin (2,3,7,8)	1746016	Arsenic Compounds (inorganic including arsine)	-----
1,1,2,2-Tetrachloroethane	79345	Beryllium Compounds	-----
Tetrachlorethylene (Perchloroethylene)	127184	Cadmium Compounds	-----
Titanium tetrachloride	7550450	Chromium Compounds	-----
Toluene	108883	Cobalt Compounds	-----
2,4-Toluene diamine (2,4-Diaminotoluene)	95807	Coke Oven Emissions	-----
2,4-Toluene diisocyanate	584849	Cynanide Compounds[1]	-----
o-Toluidine	95534	Glycol ethers[2]	-----
Toxaphene (Chlorinated camphene)	8001352	Lead Compounds	-----
1,2,4-Trichlorobenzene	120821	Manganese Compounds	-----
1,1,2-Trichloroethane	79005	Mercury Compounds	-----
Trichloroethylene	796016	Mineral fibers[3]	-----
2,4,5-Trichlorophenol	95954	Nickel Compounds	-----
2,4,6-Trichlorophenol	88062	Polycyclic Organic Matter[4]	-----
		Radionuclides (including radon)[5]	-----
		Selenium Compounds	-----

[1]X'CN where X=H' or any other group where formal dissociation may occur, for example, KCN or $Ca(CN)_2$.

[2]Includes mono- and di-ethers of ethylene glycol, diethyl glycol and triethyl glycol $R-(OCH_2CH_2)_n-OR'$ where:
n = 1,2, or 3
R = alkyl or aryl groups
R' = R,H, or group which, when removed, yield glycol ethers with the structure: $R-(OCH_2CH)_n-OH$. Polymers are excluded from the glycol category.

[3]Includes glass microfibers, glass wool fibers, rock wool fibers, and slag wool fibers, each characterized as "respirable" (fiber diamter less than 3.5 micrometers) and possessing an aspect ratio (fiber length divided by fiber diameter) greater than 3.

[4]Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[5]A type of atom which spotaneously undergoes radioactive decay.

Chemical Name	CAS No.
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethypentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354

CLEAN AIR ACT. SECTION 112
Some Source Categories and Subcategories Located in Alaska

I. **Industry Group -- Fuel Combustion**

Category

1. Industrial External Combustion Boilers
2. Institutional External Combustion Boilers
3. External Combustion Space Heaters
4. Industrial Electric Generation Turbines
5. Industrial Reciprocating IC Engines
6. Commercial/Institutional Turbines
7. Commercial Reciprocating IC Engines
8. Process Heaters
9. Petroleum Industry Process Heaters
10. Oil and Gas Steam Generation
11. Industrial In-Situ Fuel Use
12. Prescribed Burning
13. Residential Boilers
14. Residential Wood Combustion - Fireplaces
15. Residential Wood Combustion - Woodstoves

II. **Industrial Group -- Metallurgical Industry: Nonferrous Metals**

Category Name

1. Primary Metals -- Miscellaneous
2. Lead Acid Battery Manufacturing

III. **Industrial Group -- Mineral Products Processing and Use**

Category Name

1. Asphalt Concrete Manufacture
2. Stone Quarries
3. Mining Operation -- Sand/Gravel
4. Metal Pipe Coating Asphalt/CoalTar
5. Asbestos Removal: Demolitions
6. Asbestos Removal: Renovations
7. Asbestos Waste Disposal: Demolitions
8. Asbestos Waste Disposal: Renovations
9. Construction: Spraying and Insulation
10. Asphalt Paving and Roofing Operations
11. Asphalt Processing
12. Mineral Dryers/Calciners
13. Ore Flotation

CLEAN AIR ACT. SECTION 112
Some Source Categories and Subcategories Located in Alaska

IV. Industry Group -- Petroleum Refineries

Category Name

1. Petroleum Refining

V. Industry Group -- Petroleum and Gasoline Production and Marketing

Category Name

1. Oil and Gas Production
2. Gasoline/Petroleum Storage
3. Petroleum Marketing (With Bulk Terminals and Plants)
4. Natural Gas Storage/Transmission

VI. Industry Group -- Surface Coating Processes

Category Name

1. Surface Coating Operations -- General Solvent Uses
2. Auto and Light Duty Truck
3. Wood Furniture
4. Large Ship
5. Printing/Publishing
6. Architectural

VII. Industry Group -- Waste Treatment and Disposal

Category Name

1. Solid Waste Disposal -- Open Burning
2. Sewage Sludge Incineration
3. Municipal Landfills
4. Groundwater Cleaning
5. Hazardous Waste Incineration
6. Cooling Water Chlorination --Steam Electric Generators
7. Wastewater Treatment Systems
8. Water Treatment Purification
9. Water Treatment -- Boilers

VIII. Industry Group -- Agricultural Chemicals Production and Use

Category Name

1. Fumigation Use
2. Parathion Use
3. Soil Fumigant Use
4. Space Fumigant Use
5. Substituted Phenyl Ureas Production

CLEAN AIR ACT. SECTION 112
Some Source Categories and Subcategories Located in Alaska

IX. Industry Group – Food and Agriculture Industry

Category Name

1. Coffee Roasting

X. Industry Group – Polymers and Resins Production

Category Name

1. Polyurethane Foam

XI. Industry Group – Production and Use of Inorganic Chemicals

Category Name

1. Chlorine
2. Fertilizer Formulation and Use
3. Fluorides
4. Hydrogen cyanide
5. Manganese chemicals
6. Phosphate fertilizers
7. Sodium cyanide production

XII. Industry Group – Production of Synthetic Organic Chemicals

Category Name

1. Pulp & Paper Production
2. Sawmill Operations
3. Dry Cleaning (petroleum and chlorinated solvents)
4. Boat Building
5. Comfort cooling towers
6. Commercial sterilization facilities
7. Hospital sterilizers
8. Industrial cooling towers
9. Industrial process aids -- enhanced oil recovery
10. Jet fuel deicer use
11. Leather tanning
12. Paint removers use
13. Paints, coatings, and adhesives: manufacture and use
14. Photographic film processing

XIII. Industry Group – Miscellaneous

Category Name

1. Wood preservation -- direct use

Note: This is not the complete list which was published by the U.S. EPA

CLEAN AIR ACT. SECTION 112
CONTROL STRATEGY DEFINITIONS

Maximum Achievable Control Technology (MACT)

NEW SOURCES

A degree of emissions reductions that is achieved in practice by the best controlled similar source, to be determined by the Administrator.

EXISTING SOURCES

A degree of emission reduction that shall not be less stringent than but may be more stringent than;

the average emission limitation achieved by the best performing 12% of the existing sources in categories with more than 30 sources; or

the average emission limitation achieved by the best performing 5 sources in categories with fewer than 30 sources.

Generally Available Control Technology (GACT)

An alternative degree of emissions reductions which can be established by the Administrator for area sources. GACT can be the same as MACT or less stringent.

Health and Environment Standards

An additional degree of emissions reduction developed after promulgation of MACT that is necessary to protect public health or prevent an adverse environmental effect.

Early Reductions

A program where a facility operator can receive a 6-year compliance extension to a MACT deadline, if the HAPS emission are reduced by 90% (95% in the case of HAPS which are particulates) before the proposal of a MACT standard.

Equivalent Emission Limitation

A degree of emission reductions established by a state air quality program which would be equivalent to what the Administrator would have developed as MACT, and implemented by the state after the Administrator has failed to promulgate the MACT standard on schedule.