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Folder Title:
Clean Air Act/Early Reductions

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G	12	8	5	1

MEMORANDUM

TO: Teresa Gorman

DATE: May 15, 1991

FROM: Chuck Knauss

RE: Early Reductions - Monitoring and Baseline Requirements

Below are recommendations for changes to the Early Reduction regulations regarding monitoring requirements for determining baseline and post-control emissions. I understand that you may feel precluded from raising this issue at this time, but it is such an important issue I wanted to make sure you had information in case the opportunity for making changes arises. Listed below in order of preference are four options for changing EPA's draft proposal for determining baseline and post-control emissions for sources participating under the program:

- Option #1. Use the data in the Toxics Release Inventory of § 313 of SARA. This is probably not a viable option, given that EPA has expressed serious concerns regarding the accuracy of the TRI in the Federal Register notice on the Industrial Toxics Project. 56 Fed. Reg. 7849 (February 26, 1991).
- Option #2. Provide that companies can use either source test data or calculations, with no presumption in favor of source test data. See Attachment 1.
- Option #3. Provide that companies can use calculations if source test data does not exist. This option differs from the current proposal in that if a source does not have test data for 1987, it can submit calculations but does not have to establish one of the four requirements set out in the draft regulations. Under this option, if the company has source test data for 1987, it would have to submit that data. See Attachment 2.
- Option #4. Use the current EPA proposal, but soften the language -- currently the proposal states that "only if one of the following conditions is met." States administering this program

will read this language quite strictly and will make it very difficult for sources to meet the conditions for using calculations. We would recommend the language be changed to: "If one of the following conditions exists..." See Attachment 3.

If the source test presumption is left in the regulations, it is vital that the five possible methods of escaping this requirement remain in the regulations as well. Otherwise, many industrial sources would simply not be able to participate in the program.

To the extent possible, revisions should take into account that most sources considering participation in this program will not have source test data for base year emission estimates and that it is not now possible to go back and perform source tests for prior years. Further, for many sources there is simply no reliable source test method. Finally, many of these sources will not otherwise be required to install equipment for post-control monitoring.

The revisions are supported by section 504(b) which indicates that Congress' intent to obtain "sufficiently reliable and timely information for determining compliance" and to discourage requiring continuous emissions monitors as a matter of course. The thrust of § 504(b) is reliable information, whether obtained through monitoring or other methods. The requirement for monitoring in the context of the early reduction program is not justified as a blanket rule. The need for monitoring equipment is better addressed in individual operating permits.

Attachments (3)
cc: Jeff Holmstead
David Rivkin

Option 2

Proposed Changes In Baseline and Post-control Emissions
Demonstration for Title III Early Reduction Program

Proposed Changes to the Regulations:

Page 81, § 63.74(e) and (f).

Subsection (e) should read as follows and subsection (f) should be deleted. Note that subparagraphs (1) through (5) of subsection (e) should be deleted.

(e) The best available estimate of actual emissions for the purpose of establishing base year or post-control emissions under this section may consist of documented results from either (1) source tests using an EPA Reference Method, EPA Conditional Method, the owner's or operator's source test method which has been validated pursuant to Method 301 of Appendix A of this part (or other acceptable validation method) or (2) calculations based on engineering principles, emission factors, or material balance data.

For Proposed Changes to the Preamble please see attached pages 37-39 of the preamble as marked.

chlordan; chloroprene; coke oven emissions; dichloroethyl ether; 1,1-dimethyl hydrazine; dibenzofuran; epichlorohydrin; ethylene dibromide; heptachlor; methylene diphenyl diisocyanate; methyl isocyanate; mercury compounds; phosgene; 1,2-propylenimine; 1,1,2,2-tetrachloroethane; 2,4-toluene diisocyanate; vinyl chloride; and vinylidene chloride.

3. Base Year and Post-Control Emission Estimates. When determining the amount of emission reduction achieved at a source, the owner or operator would compare total controlled emissions of all HAPs from all emission points in the source to total emissions from the source (subject to the limitations for high-risk pollutants discussed in Section 2 above). Both emission calculations would be in the format of an annual emission rate (e.g., megagrams per year). The base year emission rate would need to be for calendar year 1987 or later. However, emission estimates for 1985 or 1986 may be acceptable if they are verifiable, based on data submitted to the Administrator pursuant to an information request issued under Section 114 of the Act, and received by the Administrator prior to November 15, 1990. The base year must also be one in which emissions were not artificially or substantially greater than emissions in other years before the emission reduction measures were implemented. Any emission rate that indicates non-compliance with any emission limit imposed by an applicable air pollution control law or regulation would not be acceptable. In addition, the base year emission rate would be required to represent a time period in which production rates, operating hours, and other operating parameters reflect normal conditions for the source. The owner or operator would need to provide sufficient information to demonstrate that all these conditions have been met. These requirements would ensure that the post-control emissions are compared

to normal, typical, and lawful pre-control emissions.

The proposed rule prohibits the use of EPA average emission factors for estimating base year equipment leak emissions. Use of these factors may produce significant overestimates of base year emissions in many cases. However, source owners or operators could establish base year estimates for equipment leaks specific to their sources consistent with equipment leak test protocols already established by EPA in the document entitled "Protocols for Generating Unit-Specific Emission Estimates for Equipment Leaks of VOC and VHAP," EPA-450/3-88-010, October, 1988. These procedures will also be published in a subsequent FEDERAL REGISTER notice.

To demonstrate the post-control emission rate, the source owner or operator would need to present verifiable and actual emission data for a year after 1987 (or 1985 or 1986, if allowed) and prior to the dates required for demonstration of the reduction, as discussed earlier. For both base year and post-control emissions, verifiable and actual data should be obtained through source test results using validated methods. (A validated method is a measurement methodology with a demonstrated precision and bias over the measured concentration of the source's emissions. A validated method may be an EPA Reference Method, conditional method, or a test protocol in which Method 301 is used to establish the accuracy and precision of an approach. Because EPA does not have reference or conditional methods for all of the 189 compounds listed in the 1990 amendments, the Agency is proposing method 301) ^{as one} process for the validation of test methods developed by sources who wish to make early reduction demonstrations. Method 301, "The Field Validation of Emission Concentrations from Stationary Sources," is being proposed today in Appendix A to 40 CFR Part 63. A list of validated methods may be obtained

or calculations based
on engineering principles
emission factors or
material balance data

from the Emission Measurement Technical Information Center (MD-19), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina

27711.) There may be cases, however, in which emission estimates are made due to: (1) lack of a test method; (2) the economic or technical infeasibility of testing; (3) the demonstration that estimates based on engineering principles or material balances are as accurate as results gained through testing, or (4) the emissions from the emission point in the source are small compared to total source emissions and errors in estimating emissions from such points will not have a significant effect on the accuracy of estimated total emissions from the source. A fifth reason for base year estimates only would be that the base year conditions no longer exist for the emission point and that source test results under current conditions could not be converted to base year conditions to produce emission estimates more accurate than could be obtained in other ways. Since there is a presumption of testing to define emissions, the source owner or operator would need to provide a justification based on one of these reasons to support the use of emission estimates instead of source test results.

Acceptance of the estimates would be based on the appropriate use of test methods or other ^{acceptable} ~~equivalent~~ means of determining the emissions.

The proposed rule contains a special provision for testing of emission points that account for a relatively insignificant fraction of total source emissions. Subject to the approval of the reviewing agency, emission estimates rather than source test results may be provided for these points since they are small compared to total source emissions and errors in estimating their emissions would not have a significant effect on the accuracy of estimated total emissions from the source.

Delete

Delete

Option 3

Proposed Changes In Baseline and Post-control Emissions
Demonstration for Title III Early Reduction Program

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Page 81, § 63.74(e) and (f).

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(e) The best available estimate of actual emissions for the purpose of establishing base year or post-control emissions under this section may consist of documented results from either (1) source tests using an EPA Reference Method, EPA Conditional Method, the owner's or operator's source test method which has been validated pursuant to Method 301 of Appendix A of this part (or other acceptable validation method) or (2) calculations based on engineering principles, emission factors, or material balance data. Where source test data is otherwise available pursuant to another provision of the Act for base year emissions or for post-control emissions, it should be submitted in lieu of calculations.

For Proposed Changes to the Preamble please see attached pages 37-39 of the preamble as marked.

chlordan; chloroprene; coke oven emissions; dichloroethyl ether; 1,1-dimethyl hydrazine; dibenzofuran; epichlorohydrin; ethylene dibromide; heptachlor; methylene diphenyl diisocyanate; methyl isocyanate; mercury compounds; phosgene; 1,2-propylenimine; 1,1,2,2-tetrachloroethane; 2,4-toluene diisocyanate; vinyl chloride; and vinylidene chloride.

3. Base Year and Post-Control Emission Estimates. When determining the amount of emission reduction achieved at a source, the owner or operator would compare total controlled emissions of all HAPs from all emission points in the source to total emissions from the source (subject to the limitations for high-risk pollutants discussed in Section 2 above). Both emission calculations would be in the format of an annual emission rate (e.g., megagrams per year). The base year emission rate would need to be for calendar year 1987 or later. However, emission estimates for 1985 or 1986 may be acceptable if they are verifiable, based on data submitted to the Administrator pursuant to an information request issued under Section 114 of the Act, and received by the Administrator prior to November 15, 1990. The base year must also be one in which emissions were not artificially or substantially greater than emissions in other years before the emission reduction measures were implemented. Any emission rate that indicates non-compliance with any emission limit imposed by an applicable air pollution control law or regulation would not be acceptable. In addition, the base year emission rate would be required to represent a time period in which production rates, operating hours, and other operating parameters reflect normal conditions for the source. The owner or operator would need to provide sufficient information to demonstrate that all these conditions have been met. These requirements would ensure that the post-control emissions are compared

to normal, typical, and lawful pre-control emissions.

The proposed rule prohibits the use of EPA average emission factors for estimating base year equipment leak emissions. Use of these factors may produce significant overestimates of base year emissions in many cases. However, source owners or operators could establish base year estimates for equipment leaks specific to their sources consistent with equipment leak test protocols already established by EPA in the document entitled "Protocols for Generating Unit-Specific Emission Estimates for Equipment Leaks of VOC and VHAP," EPA-450/3-88-010, October, 1988. These procedures will also be published in a subsequent FEDERAL REGISTER notice.

To demonstrate the post-control emission rate, the source owner or operator would need to present verifiable and actual emission data for a year after 1987 (or 1985 or 1986, if allowed) and prior to the dates required for demonstration of the reduction, as discussed earlier. For both base year and post-control emissions, verifiable and actual data should be obtained through source test results using validated methods. *← If they are otherwise available* (A validated method is a *purview* measurement methodology with a demonstrated precision and bias over the *to another* measured concentration of the source's emissions. A validated method may be *require* of the an EPA Reference Method, conditional method, or a test protocol in which Method 301 is used to establish the accuracy and precision of an approach. Because EPA does not have reference or conditional methods for all of the 189 compounds listed in the 1990 amendments, the Agency is proposing Method 301, *as one* process for the validation of test methods developed by sources who wish to make early reduction demonstrations. Method 301, "The Field Validation of Emission Concentrations from Stationary Sources," is being proposed today in Appendix A to 40 CFR Part 63. A list of validated methods may be obtained

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from the Emission Measurement Technical Information Center (MD-19), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina

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The proposed rule contains a special provision for testing of emission points that account for a relatively insignificant fraction of total source emissions. Subject to the approval of the reviewing agency, emission estimates rather than source test results may be provided for these points since they are small compared to total source emissions and errors in estimating their emissions would not have a significant effect on the accuracy of estimated total emissions from the source.

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(1) No applicable EPA Reference Method, EPA Conditional Method, or other source test method exists;

(2) It is not technologically or economically feasible to perform source tests;

(3) It can be demonstrated that the calculations will provide emission estimate of accuracy comparable to that of an applicable source test method;

(4) For base year emission estimates only, the base year conditions no longer exist at an emission point in the source and an emission estimate could not be produced for such an emission point, by performing source tests under currently existing conditions and converting the test results to reflect base year conditions, that is more accurate than an estimate produced by using engineering principles, emission factors, or a material balance; or

(5) The emission from one or a set of emission points in the source are small compared to total source emissions and errors in estimating emissions from such points will not have a significant effect on the accuracy of estimated total emissions from the source.

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option 4

chlordanes; chloroprene; coke oven emissions; dichloroethyl ether; 1,1-dimethyl hydrazine; dibenzofuran; epichlorohydrin; ethylene dibromide; heptachlor; methylene diphenyl diisocyanate; methyl isocyanate; mercury compounds; phosgene; 1,2-propylenimine; 1,1,2,2-tetrachloroethane; 2,4-toluene diisocyanate; vinyl chloride; and vinylidene chloride.

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Washington Post 7/14/91 p. C3

When a good idea is a good idea

It's not always easy dealing with government. Very often, we find ourselves at loggerheads with the regulators and the legislators. But every now and then something happens which makes us realize that it doesn't have to be that way.

Earlier this year, William K. Reilly, head of the federal government's Environmental Protection Agency (EPA), had a good idea. It is called the Industrial Toxics Project.

Essentially, the idea entails a cooperative effort between the EPA and 600 large industrial firms, including a number of oil and chemical companies. What the EPA proposed to these companies was the setting of a reasonable and clear goal for the reduction of the total volume of 17 specific chemicals—voluntarily—by the companies.

In other words, what the EPA was saying was: "Here's what needs doing; here's a sensible time frame for doing it in; you know your business, so you decide how to do it."

In short, here was a government body willing to admit we may know something about our own business. A government body willing to experiment with an approach other than "command and control" pronouncements. A government body that didn't feel the need to posture by mandating requirements.

Obviously, it was an offer we couldn't refuse and, along with other companies, we determined we would give it a try.

Although some reduction programs will require significant engineering and construction efforts to implement, we have pledged to try to have them up and running by year-end 1995.

It's an ambitious goal. It will take a determined effort and will call for substantial additions to our capital and operating expense. But it's a goal worth striving for.

Reducing or eliminating any harmful impact on the environment from our operations has long been a goal for Mobil. Ever since we first formulated an environmental policy in 1956, 14 years before the first "Earth Day," we have been committed to following stringent standards and guidelines to protect the environ-

ment. That same policy predated the Environmental Protection Agency, which was created in 1970, and exceeded what was required by law at the time. Even then, toxicology was on the list of topics covered by our first policy, along with air and water pollution.

Joining the EPA's Industrial Toxics Project is not our first cooperative venture, either. In addition to those we've joined in years gone by, Mobil presently is part of a joint 17-company automotive/oil industry research project aimed at finding cleaner-burning fuels and engines. We also have signed the American Petroleum Institute's environmental principles, which renew and reemphasize the industry's commitment to safe and ecologically sensitive operations.

Mobil, with 20 other industry members, established a not-for-profit corporation to provide funding for the operations of the newly created Marine Spill Response Corporation. This \$900 million organization is being designed to respond to catastrophic oil spills in the continental United States. It will create and operate five regional centers, each designed to have a best efforts response capability of 216,000 barrels, nearly 10 times larger than any previous response organization in the continental United States.

As a signer of the Chemical Manufacturers Association's guiding principles, Mobil also has pledged itself to safeguard the environment in the management of our chemical operations.

Those are just a few of our efforts, but you get the idea. Given our long-term commitment to the environment and our willingness to work cooperatively with others in limiting environmental damage from our operations, the decision to volunteer for the EPA program was not terribly difficult for us to make—and we're not looking for any special pats on the back.

However, we hope that, in accepting the EPA challenge, we can further demonstrate and reinforce Mobil's voluntary commitment to work for a cleaner environment for America. Given the opportunity, we are prepared to do our part.

All we need is a good idea.

Mobil

[6560-50]

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 63]

[AD-FRL-]

National Emission Standards for Hazardous Air Pollutants
for Source Categories: Proposed Regulations Governing
Extension of Compliance with Standards for Hazardous Air
Pollutants Due to Early Emission Reductions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The proposed rule would implement the provisions in Section 112(i)(5) of the Clean Air Act (as amended in 1990) ("the Act"). Those provisions allow an existing source to obtain a six-year extension of compliance with an emission standard promulgated pursuant to Section 112(d) of the Act if the source has achieved an emission reduction of 90 percent or more of hazardous air pollutants (95 percent or more for particulates) by certain dates specified in the Act. If the source is granted a compliance extension, an alternative emission limitation would be established by permit to ensure continued achievement of the emission reduction. The intended effect of the proposed rule is to establish requirements and procedures for source owners and operators to follow in order to obtain compliance extensions and for reviewing agencies to follow in evaluating requests for extensions.

DATES: Comments. Comments must be received on or before (45 days after publication in the FEDERAL REGISTER).

Public Hearing. If anyone contacts EPA requesting to speak at a public hearing by (2 weeks after proposal), a public hearing will be held on (about 4 weeks after proposal) beginning at 10:00 a.m. Persons interested in attending the hearing should call Ms. Lina Hanzely at (919) 541-5673 to verify that a

hearing will be held.

Request to Speak at Hearing. Persons wishing to present oral testimony must contact EPA by _____ (2 weeks after proposal).

ADDRESSES: Comments. Comments should be submitted (in duplicate if possible) to: Air Docket (LE-131), Attention Docket Number A-90-47 or A-91-13 (see Docket section below), Room M1500, U. S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

Public Hearing. If anyone contacts EPA requesting a public hearing, it will be held at EPA's Office of Administration Auditorium, Research Triangle Park, North Carolina. Persons interested in attending the hearing or wishing to present oral testimony should notify Ms. Lina Hanzely (MD-13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number (919) 541-5673.

Docket. Docket No. A-90-47, containing supporting information used in developing the proposed regulation and Docket No. A-91-13, containing background information on the high-risk pollutant list, are available for public inspection and copying between 8:30 a.m. and 3:30 p.m., Monday through Friday, at EPA's Air Docket, Room M1500, U. S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. David Beck, Chemicals and Petroleum Branch, Emission Standards Division (MD-13), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541-5421.

SUPPLEMENTARY INFORMATION: The information presented in this preamble is organized as follows:

I. BACKGROUND AND PURPOSE

A. Clean Air Act Amendments: Provisions for Early Reductions

B. Benefits of Early Reductions

C. Coordination with States

D. Participation of Interested Parties

E. Judicial Review

II. SUMMARY OF AND RATIONALE FOR PROPOSED RULE

A. Applicability

B. Definition of Source

C. Demonstration of Early Reduction

1. General

2. High-Risk Pollutants

3. Base Year Emission Estimate

4. Post-Control Emission Estimate

D. Enforceable Commitments

E. Review of Base Year Emission Estimate

F. Permit Applications and Permits

G. Selection of List of High-Risk Pollutants

1. Criteria for Identifying High-Risk Pollutants

2. Application of the Criteria

III. ADMINISTRATIVE REQUIREMENTS

I. BACKGROUND AND PURPOSE

A. Clean Air Act Amendments: Provisions for Early Reductions

On November 15, 1990, the Clean Air Act was amended, and significant

changes were made to section 112 of the Act establishing national emission standards for hazardous air pollutants (HAP). One of the new features of the Act is a provision in Section 112(i)(5) that allows an existing source to be granted a six-year extension of compliance with a section 112(d) standard upon demonstration by the owner or operator of the source that it has achieved a reduction of 90 per cent or more in emissions of HAP (95 percent or more in the case of particulates). An enforceable emission limitation reflecting the reduction would then be established for the source by a permit. The emission reduction would have to be achieved before proposal of the applicable standard in most cases. However, the Act provides that a source achieving the reduction after a standard's proposal but before January 1, 1994, may qualify for the compliance extension if it makes an enforceable commitment (to achieve such reduction) before proposal of the standard.

The Act requires that the emission reduction be determined by comparing the post-control emissions with verifiable and actual emissions in a base year not earlier than 1987, except that 1985 or 1986 may be used as a base year if the emission data are based on information received by the Administrator before November 15, 1990, pursuant to an information request issued under section 114 of the Act. To qualify for an extension, the reduction would be calculated by comparing total base year and post-control HAP emissions from all emission points in the source. The only limit to this overall reduction calculation is with respect to "high-risk pollutants." Section 112(e)(5)(E) of the Act states that, "With respect to pollutants for which high risks of adverse public health effects may be associated with exposure to small quantities including, but not limited to, chlorinated dioxins and furans, the Administrator shall by regulation limit the use of offsetting reductions in

emissions of other hazardous air pollutants from the source as counting toward the 90 per centum reduction in such high-risk pollutants qualifying for an alternative emissions limitation under this paragraph." Section II.C. of this preamble includes a discussion of additional high-risk pollutants that are listed in today's proposed rule for which offsetting reductions of other HAPs would be limited.

Although the Act provides that a source may obtain a compliance extension and an alternative emission limitation upon demonstration of the 90 (95) percent reduction, there is a further provision in Section 112(i)(5)(A) that says, "Nothing in this paragraph shall preclude a State from requiring reductions in excess of those specified in this subparagraph as a condition of granting the extension..." In other words, a State may require by State rule that greater than a 90 (95) percent reduction of HAP emissions be achieved by the source in order to obtain a compliance extension. This topic is discussed further in Section I.C. of this preamble.

B. Benefits of Early Reduction Program

The purpose of the Section 112(i)(5) provision is to encourage early reductions in HAP emissions. It has the potential for substantial emission reductions well before the compliance date for emission standards issued under section 112(d). Source owners and operators would realize benefits from participating in the early reduction program by having more time to develop strategies for compliance with section 112(d) standards and by being able to choose the means by which they reduce their HAP emissions. The early reduction option gives them an opportunity to design cost-effective emission reduction approaches for their facilities and achieve an overall economic benefit over the long term. In addition, participating companies will enjoy

the benefit of improved community relations when they become recognized as good corporate citizens that are concerned about improving the environment. The public would benefit because the release of HAP emissions into the air would be significantly reduced earlier than if sources delay control of emissions until they are subject to section 112(d) standards. This early reduction results not only in lower annual emissions but also in lower overall emissions from the source over the long term.

The potential long-term environmental benefit of achieving early reductions of HAP emissions can be illustrated in an example (see Table 1). Consider a source emitting HAP at a rate of 100 tons per year. Assume this source achieves a 90 percent reduction in HAP emissions, to a rate of 10 tons per year, just prior to proposal of an applicable section 112(d) standard, and receives a six-year extension for compliance with the standard. In comparison, consider an identical 100 ton-per-year source which does not achieve early reductions but complies with a section 112(d) standard three years after the standard is promulgated, according to the compliance schedule for the standard (the Act provides that the standard specify the compliance date, not to exceed three years after promulgation of the standard). The standard is assumed to reduce HAP emissions from the source to two tons per year (98 percent reduction).

To estimate the benefit of the early reductions, a comparison can be made of cumulative HAP emissions under each scenario during the ten years starting from the time the early reductions are made to the time both sources are complying with the section 112(d) standard (which is after expiration of the six-year extension). The ten-year period includes one year from proposal (the time the early reduction must be achieved) to promulgation of the

TABLE 1
EMISSIONS UNDER EARLY REDUCTIONS VS. MACT

TIME (Years)	MACT Scenario	Early Reduction Scenario
From Proposal to Promulgation (Year 1)	100	10
Year 2	100	10
Year 3	100	10
Year 4	100	10
Year 5	2	10
Year 6	2	10
Year 7	2	10
Year 8	2	10
Year 9	2	10
Year 10	2	10
TOTALS	412	100

Assumptions: 100 ton/yr source (uncontrolled); MACT achieves 98% control; MACT is effective 3 yrs after promulgation; 9 yrs after MACT promulgation MACT applies to source which received a compliance extension

standard, three years from promulgation to the assumed compliance date of the standard, and six years for the compliance extension. During the ten years, the source reducing emissions early emits 10 tons per year or a total of 100 tons. The other source emits 100 tons per year for four years (period before it complies with the standard) and two tons per year for the remaining six years, for a total of 412 tons. Clearly, even when the standards are very stringent, there can be a large environmental benefit in the early reduction of emissions. A source may achieve reductions after proposal of an applicable standard and still participate in the early reduction program, provided the source reduces emissions before January 1, 1994. In such cases, reductions do not occur as far in advance of compliance with a standard as in the previous example, and the net environmental benefit would be less but would still be significant.

The Administrator is strongly committed to encouraging emission sources to voluntarily reduce emissions of air toxics, and the provisions of the rule being proposed today are intended to provide sufficient flexibility to encourage source owners and operators to participate in the early reduction program. In addition, because the Act includes certain requirements a participating source must meet, the proposed rule also contains provisions to ensure that those requirements are met, as discussed in Section II of this preamble. Thus, while the decision to participate in the early reduction program is voluntary on the part of the source, once participation has begun, the source must comply with the regulatory provisions of the program. The regulatory nature of the early reduction program distinguishes it from another EPA program, the Industrial Toxics Project, which is also designed to encourage voluntary reduction of toxics releases, not only into the air but

other environmental media as well.

The 33/50 (Industrial Toxics) Project was announced in February 1991 and is one of the major components of the Agency's pollution prevention strategy. The project establishes a national goal to reduce releases and offsite transfers of 17 chemicals by one-third by 1992 and one-half by 1995 with emphasis on the use of pollution prevention techniques. The Administrator is asking companies who produce or use these chemicals to participate in this program by making voluntary commitments to reduce their releases to all environmental media. Progress in achieving these goals will be monitored through the use of information reported to the Toxic Release Inventory. There is great interest on the part of the Agency and the industrial community in coordinating the 33/50 Project and the early reduction program to ensure that they complement and reinforce each other. To the maximum extent possible, consistent with today's proposed rule and section 112(i)(5) of the Act, air emission reductions achieved under the 33/50 Project will be credited toward the early reduction program. In addition, as with the 33/50 Project, the Agency encourages participation in the early reduction program through the adoption of pollution prevention measures. The Agency defines pollution prevention as the use of materials, processes, practices, or products that avoid, reduce or eliminate wastes or toxic releases, through activities such as toxic use reduction, source reduction and closed-loop recycling.

C. Coordination with States

EPA will administer the early reduction program until States have approved permit programs under Title V of the Act, and source owners or operators seeking compliance extensions will submit enforceable commitments and permit applications to the appropriate EPA Regional Office. EPA

headquarters offices will be available to provide technical assistance and guidance to EPA Regional Offices and states in administering the early reduction program. After a State has an approved permit program, it will process and evaluate for approval the enforceable commitments and permit applications. In addition, the Agency is considering the possibility of delegating authority for the early reduction program to States before they have approved Title V permit programs.

The involvement of State regulatory agencies, with or without approved programs or delegated authority, will be very important to the success of the early reduction program. The proposed rule requires that source owners and operators send copies of enforceable commitments and permit applications to appropriate agencies in the States, and EPA will consult with State officials on applications that EPA processes. In addition, as the owner or operator attempts to comply with the requirements of the program at the Federal level, other procedures or requirements may apply to the source at the State level. For example, a source may be required to obtain State preconstruction and operating permits for any actions it undertakes under the early reduction program, or the source may have to meet separate control requirements imposed by existing State regulations for toxic air pollutants. Moreover, in the long term the early reduction program will be administered by the States. After a State permitting program which includes provisions for implementing this program has been approved under Title V of the Act, a State will have the responsibility for granting compliance extensions and issuing permits to qualifying sources, and will have the right to require reductions in excess of 90 (95) percent as a condition of granting such compliance extensions.

Thus, the States will be playing active roles, even at the outset, as

sources reduce their HAP emissions to qualify for compliance extensions. Because of the potential for confusion or uncertainty to develop from differing EPA and State requirements, EPA plans special coordination efforts to reduce these undesirable effects. The EPA will consult with the States to describe the features of the early reduction program, benefits to be derived, and how EPA plans to administer the program prior to the States assuming administration responsibilities. In return, the States could share with EPA any conflicts or problems they envision, especially with regard to State air toxics regulations. Also, to enhance coordination, sources submitting enforceable commitments to EPA Regional Offices will be required to send copies to the appropriate State agency, so that States will be aware of a company's early reduction plans and have the opportunity to comment on them. The EPA Regional Offices will also consult with States regarding permit applications processed by EPA. The goal of these efforts is to foster EPA/State cooperation on the reduction of HAP emissions and ensure that all involved parties understand the requirements and procedures for early reduction demonstrations.

D. Participation of Interested Parties

The development of the proposed rule was closely coordinated with representatives of industry, environmental groups, State and local air pollution control agencies, and other special interest groups. Options for the rule's major provisions were presented and discussed with these and other interested parties at a meeting of the National Air Pollution Control Techniques Advisory Committee on January 29, 1991, and at four "roundtable" discussions in January, February, and March 1991. In addition, there have been numerous informal discussions. The views and concerns of these groups

and individuals have been very helpful to the Agency in its attempt to develop a rule that will carry out the requirements of the Act, encourage the greatest possible early reduction of emissions consistent with the legislation, and hold to a minimum the difficulties that are inherent in any regulatory program. Comments on all aspects of the proposed rule are encouraged.

E. Judicial Review

The permit establishing an alternative emissions limitation for a source would be considered a final Agency action and, as such, would be considered judicially reviewable. However, an enforceable commitment would be considered an interim action and would, therefore, not be judicially reviewable.

III. SUMMARY OF AND RATIONALE FOR PROPOSED RULE

This section of the preamble includes discussion of the major provisions of the proposed rule, the rationale for the decisions that were made concerning them, and other options that were considered in making those decisions.

A. Applicability

The proposed rule applies to any existing source that wishes to obtain a six-year compliance extension from an applicable section 112(d) standard by achieving early HAP emission reductions. The compliance extension would be obtained and authorized in accordance with Section 112(i)(5) of the Act, as described in Section I.A. of this preamble. An existing source is any source for which construction or reconstruction commenced prior to the date of proposal of an applicable standard. (See Section II.B. for further definition of "source".) Any source commencing construction or reconstruction after proposal of an applicable standard would be considered a new source and could not apply for a compliance extension. If the source consists of emission

points for which standards are proposed on different dates, the earliest proposal date of any of the applicable standards would be used to determine whether the source is new or existing. The proposed rule also applies to State or local air pollution control agencies reviewing applications for compliance extensions and issuing permits with alternative emission limitations in accordance with a permit program approved under Title V of the Act. The EPA Regional Offices will review applications and issue permits for sources located in States that do not have approved permit programs. Upon approval of their permit programs, States will assume the review and permitting activities.

B. Definition of Source

Section 112(i)(5)(A) of the Act specifies that the Administrator or a State with an approved permit program " . . . shall issue a permit allowing an existing source, for which the owner or operator demonstrates that the source has achieved a reduction of 90 per centum or more in emissions of hazardous air pollutants (95 per centum in the case of hazardous air pollutants which are particulates) from the source, to meet an alternative emission limitation reflecting such reduction in lieu of an emission limitation promulgated under subsection (d) for a period of 6 years from the compliance date for the otherwise applicable standard, provided that such reduction is achieved before the otherwise applicable standard under subsection (d) is first proposed." (emphasis added). The "emission limitation promulgated under subsection (d)" refers to an applicable hazardous air pollutant standard issued under section 112(d) of the Act.

"Existing source" is defined in section 112(a)(10) as "any stationary source other than a new source." "Stationary source" is given the same

meaning under section 112 as under section 111(a)(3). CAA §112(a)(3) "Stationary source" under section 111(a)(3) is defined as "any building, structure, facility, or installation which emits or may emit any air pollutant."

The language of section 112(i)(5)(A) seems to proceed from the assumption that one can identify the "source" to which "the otherwise applicable standard" would apply. If EPA has made a determination as to what will constitute a "source" for a particular MACT standard, then it is that source that must achieve the early reduction in order to obtain an extension from the MACT compliance date. However, with one exception noted below, at this time, EPA has not made any concrete determinations as to how it intends to define source for purposes of establishing MACT standards under section 112(d). Therefore, at this time, EPA cannot precisely define an "existing source" to which an otherwise applicable standard might apply for any particular source categories. EPA must define source for purposes of implementing the early reductions program. To do this, EPA has defined source to encompass the scope of the definition set forth in section 111(a)(3).

The courts have recognized that EPA has broad discretion to define "source." The Supreme Court has recognized that if any Congressional intent can be discerned from the statutory language of section 111(a)(3), "the listing of overlapping illustrative terms was intended to enlarge, rather than to confine, the scope of the Agency's power to regulate particular sources in order to best effectuate the policies of the Act." Chevron USA, Inc. v NRDC, 467 U.S. 837, 862 (1984). Thus a "source" can encompass "any discrete, but integrated operation, which pollutes." Chevron, 467 U.S. at 861. It could also encompass an entire plant. Id.

EPA recognizes that depending on a particular MACT standard, source may be defined broadly or narrowly, from a discrete emission point up to and including an entire plant. EPA's definition of "source" proposed here today for purposes of the early reductions program is consistent with the broad flexibility encompassed under section 111(a)(3) and is designed to further the underlying purposes of the early reductions program.

As set forth in section 63.24, EPA is proposing a multi-part definition of "source" for purposes of the early reductions program as follows:

For purposes of the early reduction program under this subpart only, source is defined as follows:

(a) a building, structure, facility, or installation identified as a source by the EPA in Appendix B of 40 CFR Part 63 for a particular source category; (b) all portions of an entire contiguous facility under common control that emit hazardous air pollutants; or (c) any portion of the entire contiguous facility that can be identified as a building, structure, facility, or installation for purposes of establishing standards under section 112(d) of the Act, including: (1) any individual emission point; (2) a set all of similar emission points within a contiguous facility (or a subset of such points) that are physically or functionally related to one another; (3) points associated with a particular process or production unit to the extent that they are physically or operationally related to one another.

The scope of the definition is best illustrated by examples of units that fall within this definition.

Under subparagraph (a), EPA has to date only identified one group of sources. These are fugitive equipment leak emissions at hazardous organic chemical facilities and other facilities identified in the Hazardous Organic NESHAP, or HON, to be proposed later this year. Equipment leaks have been identified as a source for purposes of establishing standards under section 112(d) with sufficient certainty to consider them separately. EPA has engaged in an extensive regulatory negotiation to establish MACT standards for equipment leaks from HON plants. See 56 FR 9315 (March 6, 1991). The

regulation to be proposed defines source as the collection of applicable equipment (valves, pumps, connectors etc.) within a process unit that uses as a reactant or makes one of the organics listed as hazardous in section 112(b) of the Clean Air Act Amendments. For the purposes of the negotiated rule, the process unit comprises all equipment from the feedstock storage tanks through end product disposition and wastewater treatment. Fugitive equipment leaks are treated as a separate source because they can occur throughout the plant wherever process equipment handles fluids and are not associated with any particular type of discrete emission point, e.g., storage or process vents. The negotiating committee recognized the need to treat equipment leaks as a separate source. EPA recognizes that the final definition of source may change, although unlikely, as a result of the notice and comment process. Nevertheless, for purposes of early reductions the definition of source for these types of emissions will be that which is reflected in the regulatory language in the March 6 notice.

The second part of the definition encompasses the entire contiguous facility (See Figure 1). Under paragraph (b) of the definition, if an applicant designates the entire contiguous facility as the source and demonstrates that the total emissions of hazardous air pollutants from the contiguous facility has been reduced by 90 (95) percent, then the facility would receive a six-year extension from any and all MACT standards applicable to the facility.

Source may also be defined to encompass less than an entire plant. Under the definition of source under (c)(1), the applicant may identify one or more individual installations which emit hazardous air pollutants such as the tanks or vents in Figure 2. Each individual tank or vent must obtain a 90

Figure 1
Chemical Plant Schematic
Entire facility

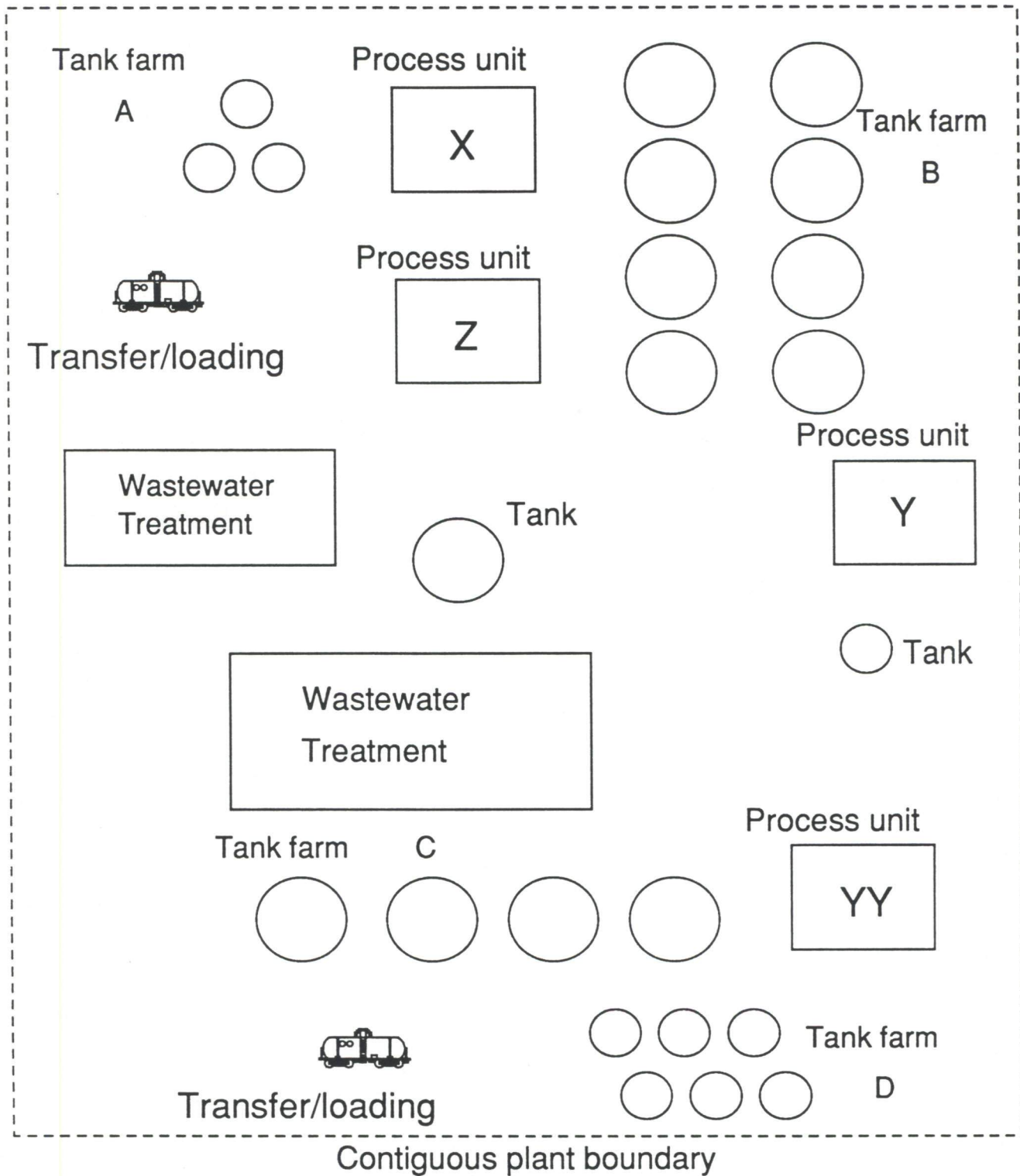
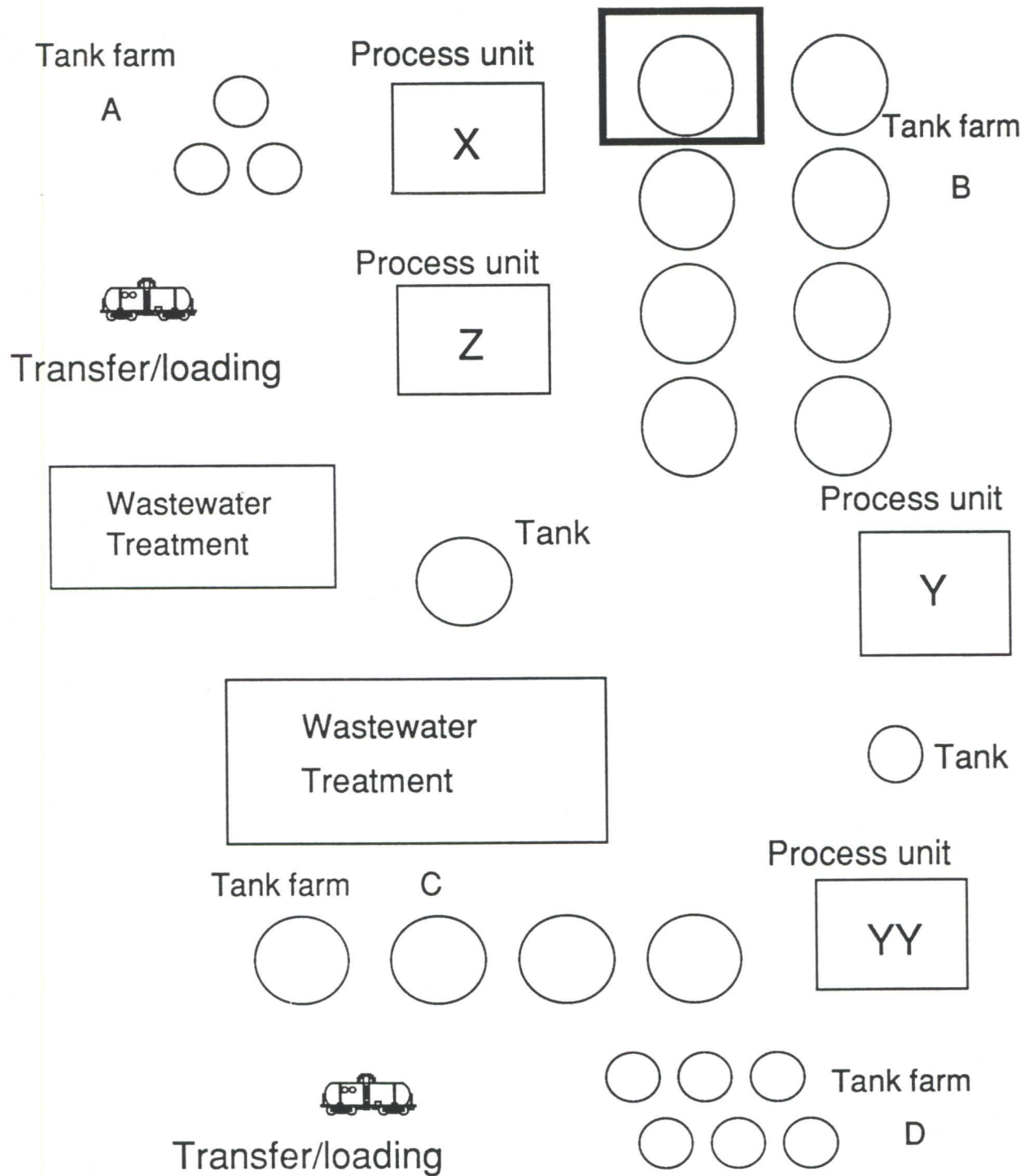


Figure 2
Chemical Plant Schematic
Individual point



percent reduction for that unit to obtain an extension from the MACT standard.

Under paragraph (c)(2) of the definition, the applicant could identify all storage tanks identified in Figure 1 as a source and achieve a 90 percent reduction across all tanks. Alternatively, the applicant could identify all tanks in one of the four areas (A, B, C, or D) as a separate source because each of the 4 areas is either functionally or geographically discrete. Thus, the applicant could identify the tanks in area B (Figure 3) as a source (a tank farm storing chemical X) and achieve an aggregate 90 percent reduction from the entire tank farm, even if one or more of the individual tanks did not achieve a 90 percent reduction. The applicant could not, however, subdivide the tank farm and exclude a portion of the tanks on the basis, for example, that they were already partially controlled (Figure 4).

Another acceptable example of source under (c)(2), would be the combining of all wastewater units as a source (Figure 5). As with the tank example, grouping of all similar functions (e.g., all operations or wastewater units) within a logical physical area would be acceptable. However, selective subdivision within such areas to include some loading operations or wastewater units and not others in a source designation would not.

Generally, geographic grouping to form a source would only be allowed for emission points of the same type within a logical physical area, as in the examples above. Not acceptable would be aggregating several unrelated tanks, process vents, wastewater units, etc., simply because they were all located on the same side of the road. However, if a building or other enclosed structure houses a collection of dissimilar emission points, such a source definition would be consistent with section 111(a)(3)'s definition of source as "any

Figure 3
Chemical Plant Schematic
Functional and geographical

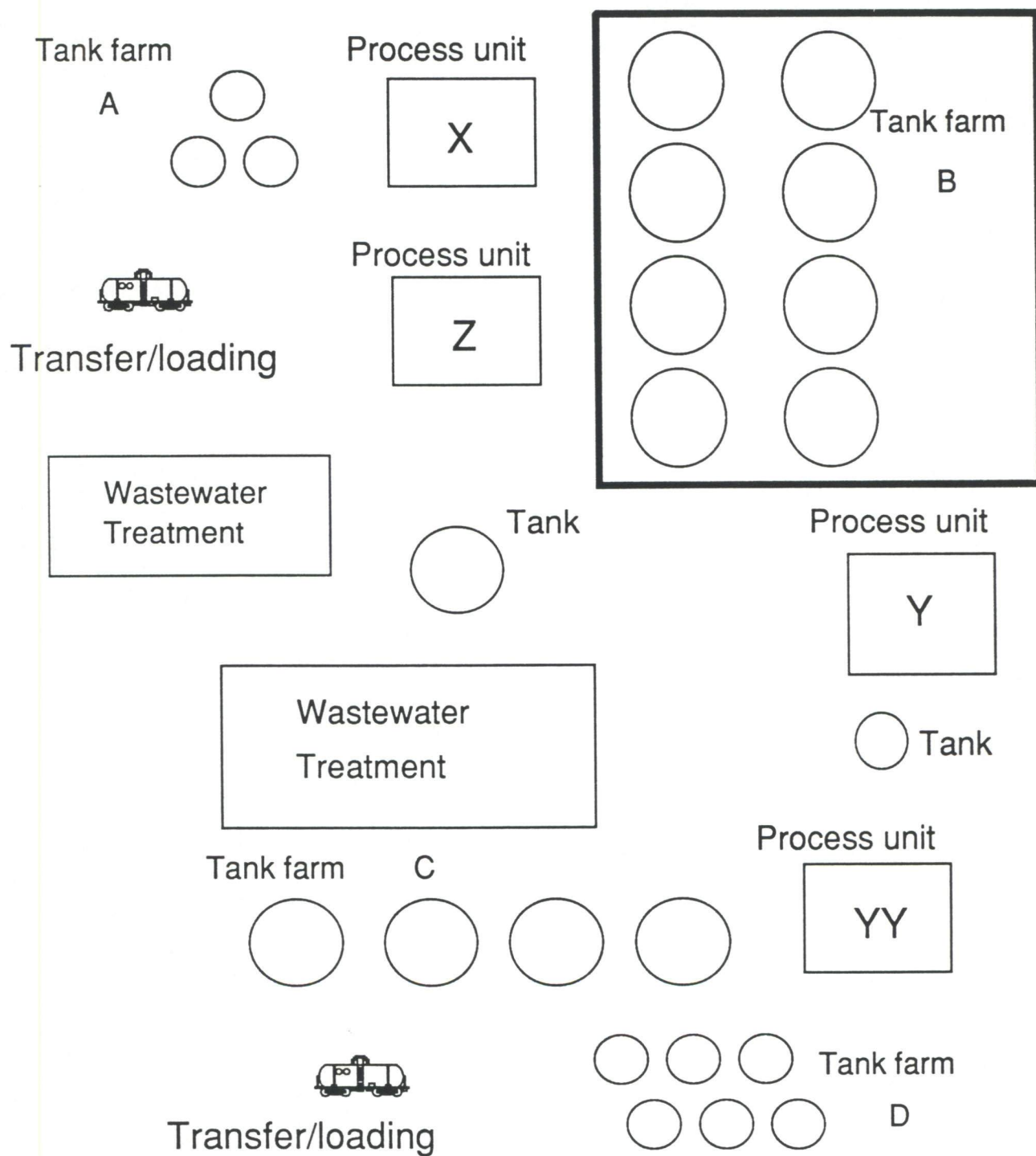


Figure 4
Chemical Plant Schematic
Unacceptable selective grouping

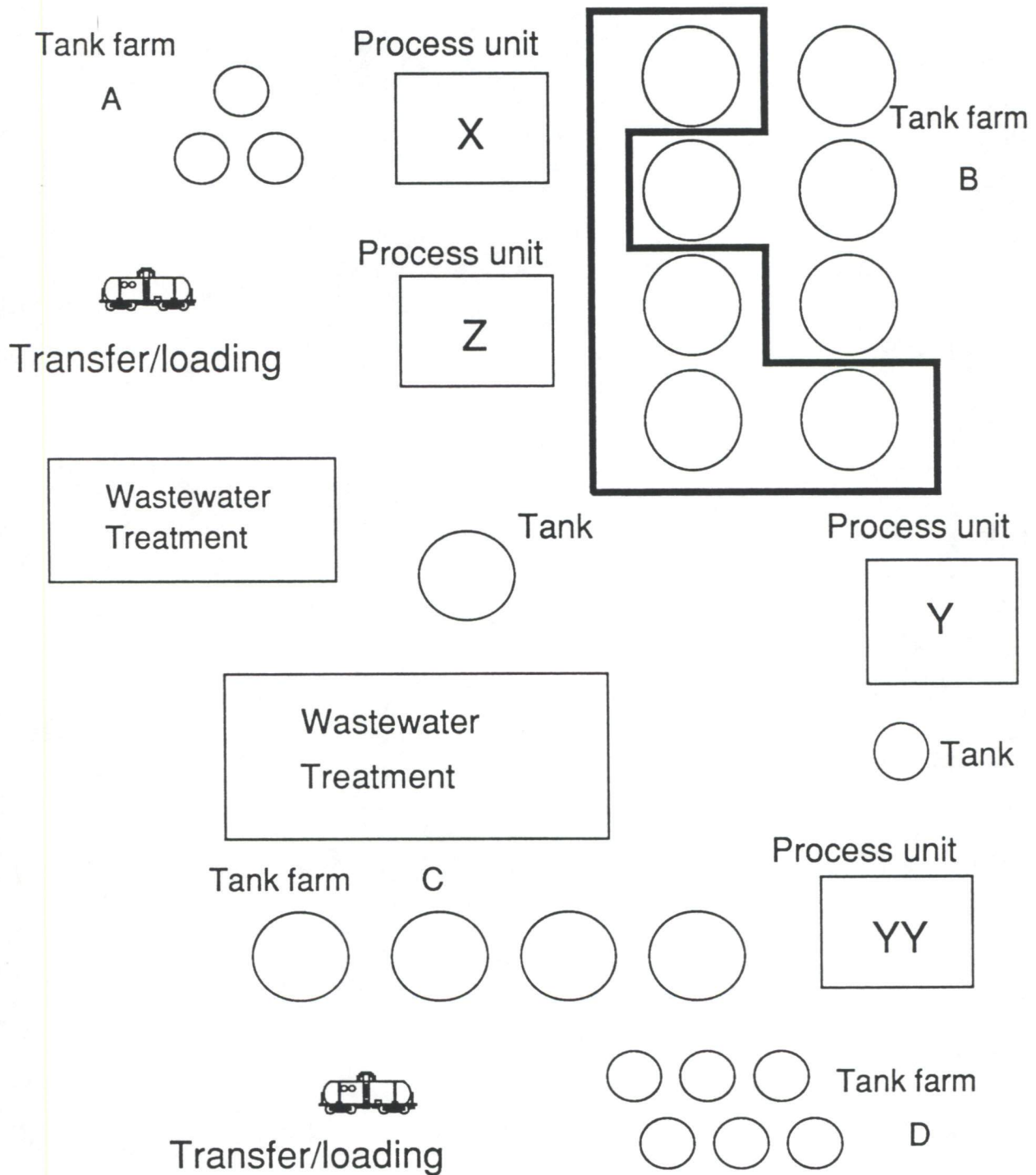
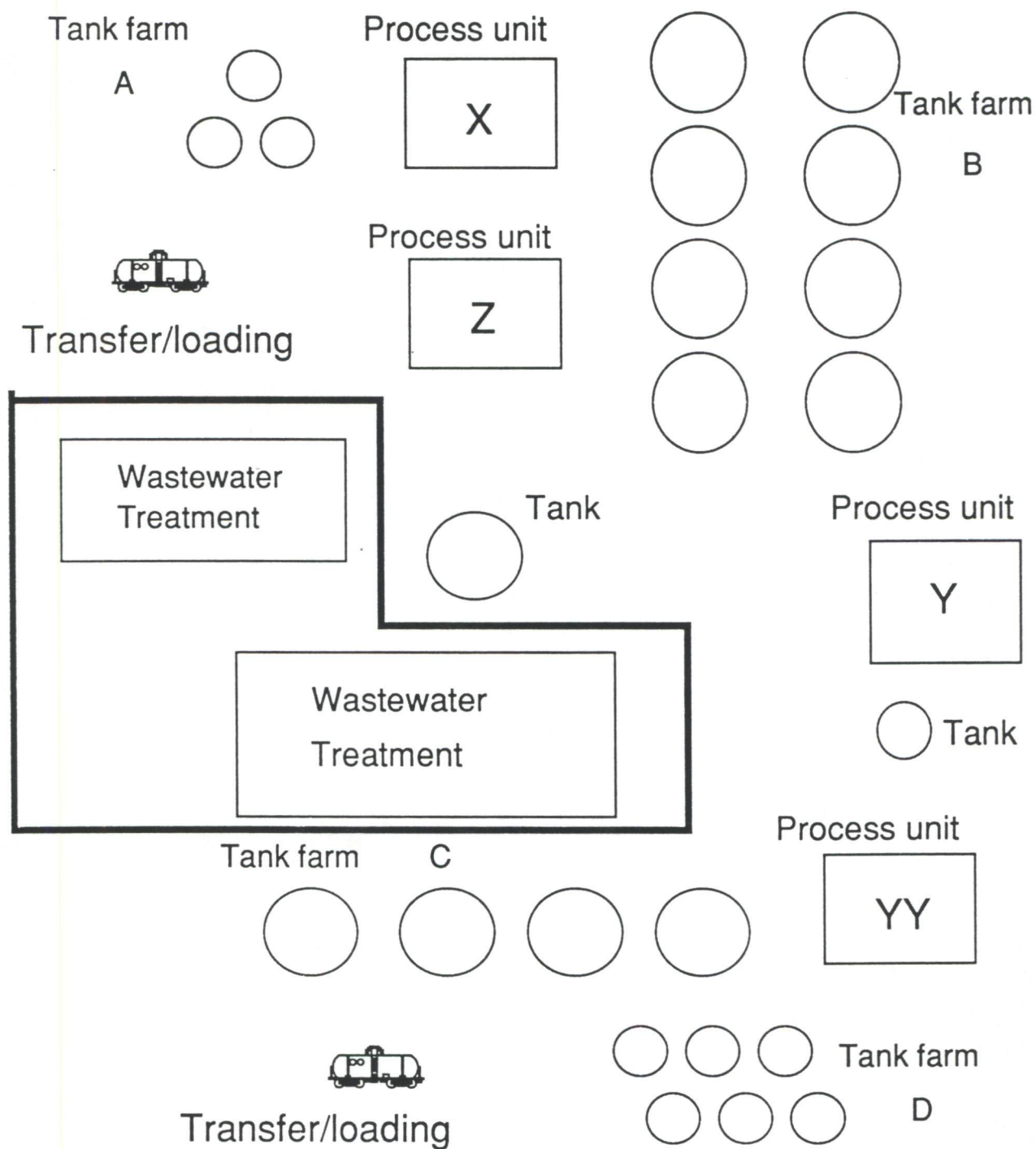


Figure 5
Chemical Plant Schematic
Functional grouping



building, structure, facility, or installation." For example, a metal parts coating operation consisting of degreasers, painting lines, and paint strippers within a single enclosed structure (Figure 6) could collectively be considered a source.

Under paragraph (c)(3), the applicant could identify a process or production unit as "source". For example, all equipment and emissions associated with the production of chemical X could be treated as one source. An applicant, therefore, could consider as one "source" the outlined areas in Figure 7 which constitute a process unit and include all tanks in Area A, the vents on Production Unit X, and the tanks associated with the process in Area B. All emission points that are substantially dedicated to a particular process must be included in the process unit source. In many instances, however, some components of the plant will be shared by multiple process units, such as a wastewater treatment system. For common or shared facilities, which serve or are linked with multiple process units, the applicant could consider the common facility as either part of a single process unit or treat it as a separate source. Thus, in Figure 7, if the wastewater system within the dotted box served only the process train producing chemical X, then it must be included in a definition of source which is defined as the chemical x process train. If, however, it serves multiple process units, then the applicant could consider it a separate source because it is a facility common to multiple process units, or could include it as part of the chemical x process train. Under this definition, the applicant must achieve a 90 percent reduction in HAP emissions from the entire process unit. That is, the combined HAP emissions from the raw material storage tanks, the

Figure 6
Metal Coating Operation

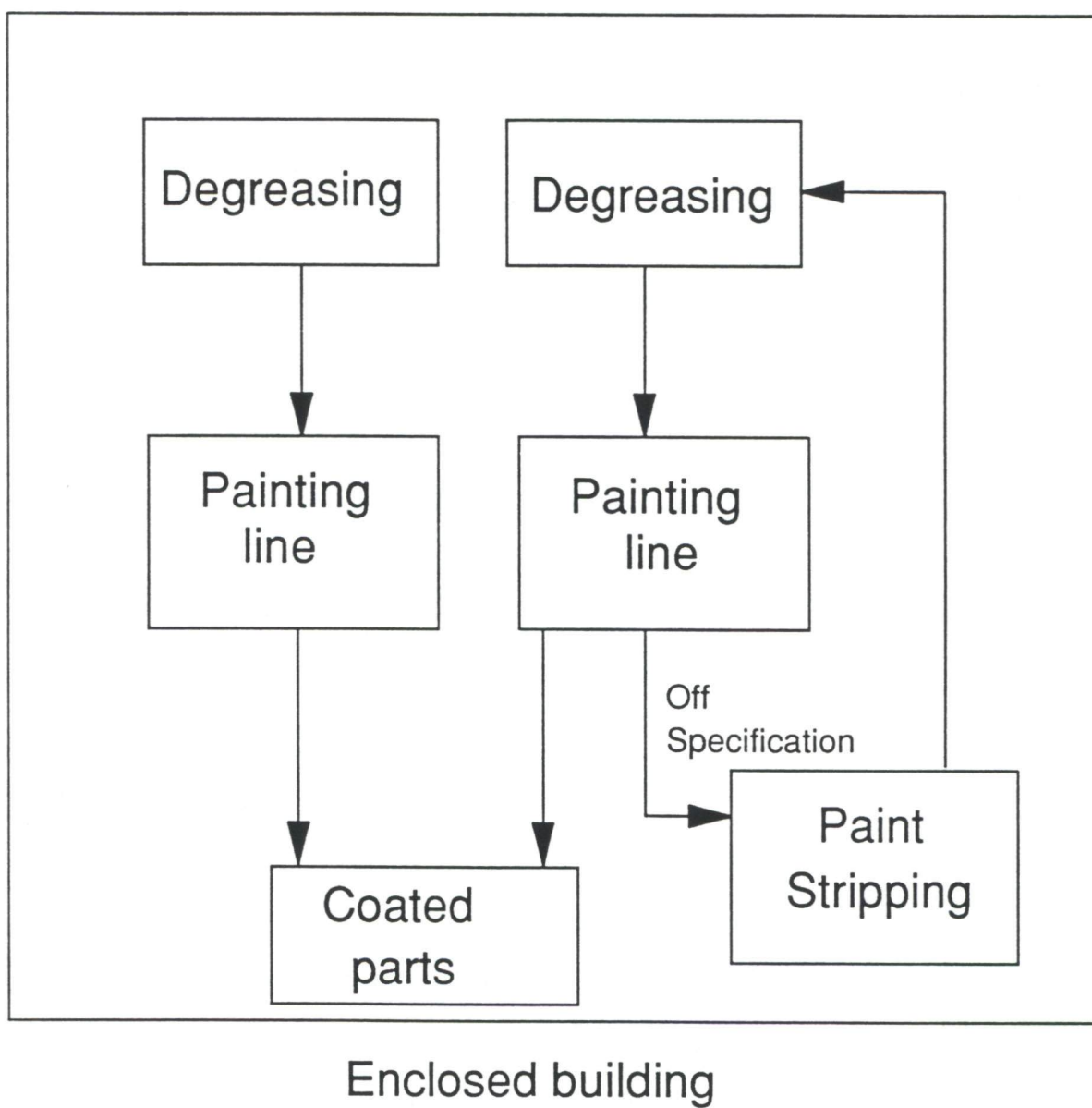
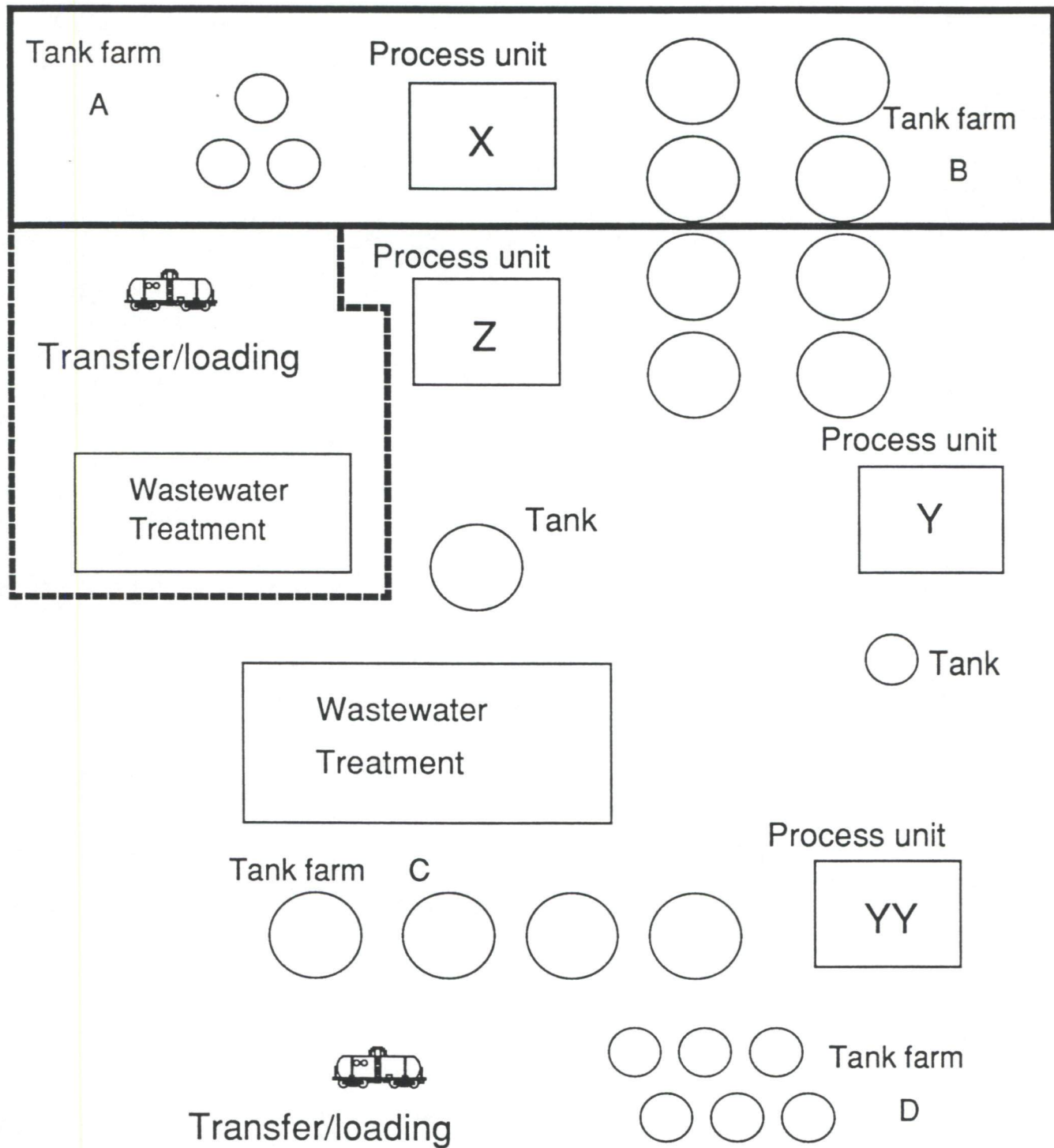


Figure 7
Chemical Plant Schematic
Process train



production process vents, the completed product tanks, and the wastewater treatment system (if it is included as part of the process train) must be reduced by 90 percent overall. If this source definition is used, a 90 percent reduction of each component would not be required provided the aggregate overall reductions achieves 90 percent.

Some process trains consist of several process units in series which together produce the desired end product. Within a chemical manufacturing facility, for example, chemical X is made as a feedstock to make chemicals Y and Z. Chemical Y, in turn, is made as a feedstock to make chemical YY. Under this scenario, the facility owner or operator could have some flexibility in defining the source. Acceptable configurations for a source would be: 1) each unit that produces a specific chemical, 2) the entire train, consisting of all connected process units X, Y, Z, and YY, 3) a train consisting of process units X, Y, and YY (but not Z), 4) a combination of process units X and Y; X and Z; X, Y, and Z; or Y and YY. Figure 8 shows several acceptable examples. An unacceptable combination would be X and YY because it does not include the functionally required link of process unit Y (see Figure 9).

Process trains making the same chemicals physically located in the same area, e.g., side-by-side butadiene production units, could be defined as one source. However, as described above, all the trains at the same location must be included; selective inclusion of two trains and not the third (at a location with three process units making the same product) would not qualify as an acceptable definition of source.

These examples are meant to be illustrative demonstrations of the types

Figure 8
Multiple Process Unit Train

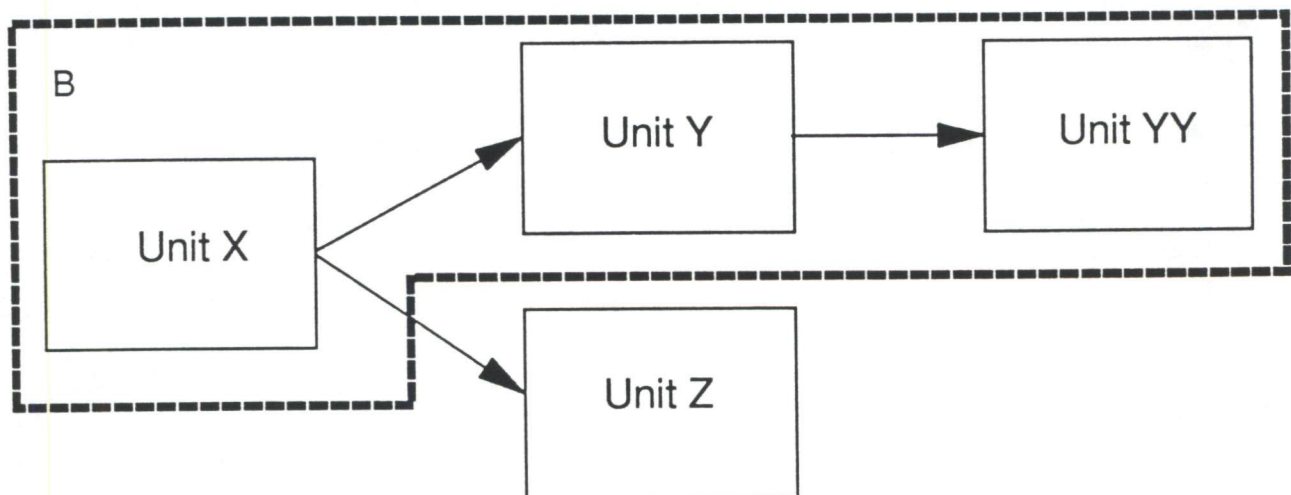
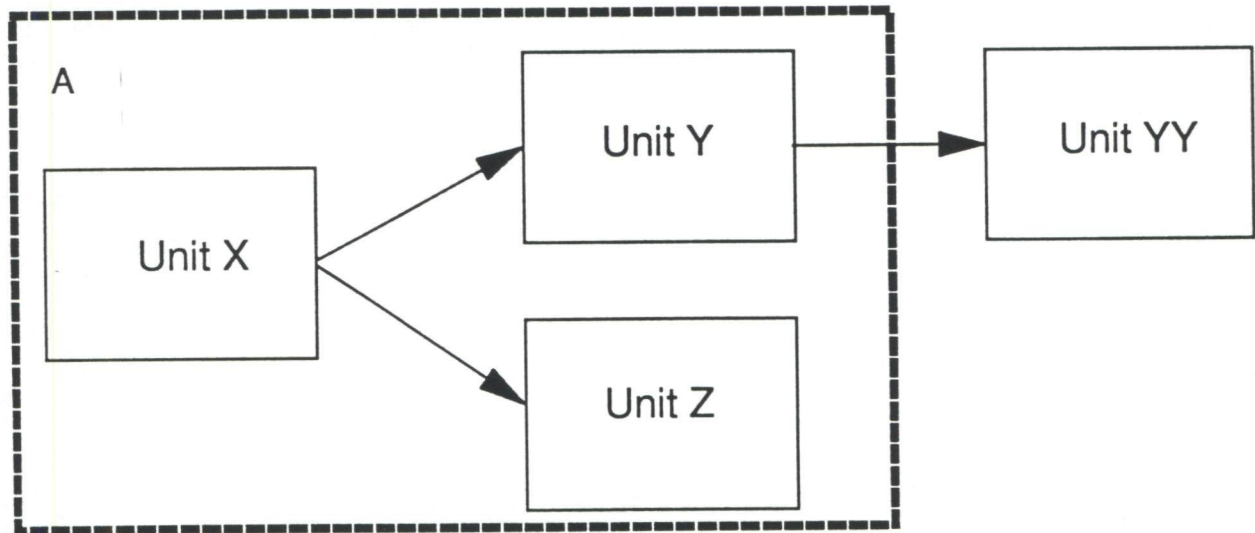


Figure 8 (continued)
Multiple Process Unit Train

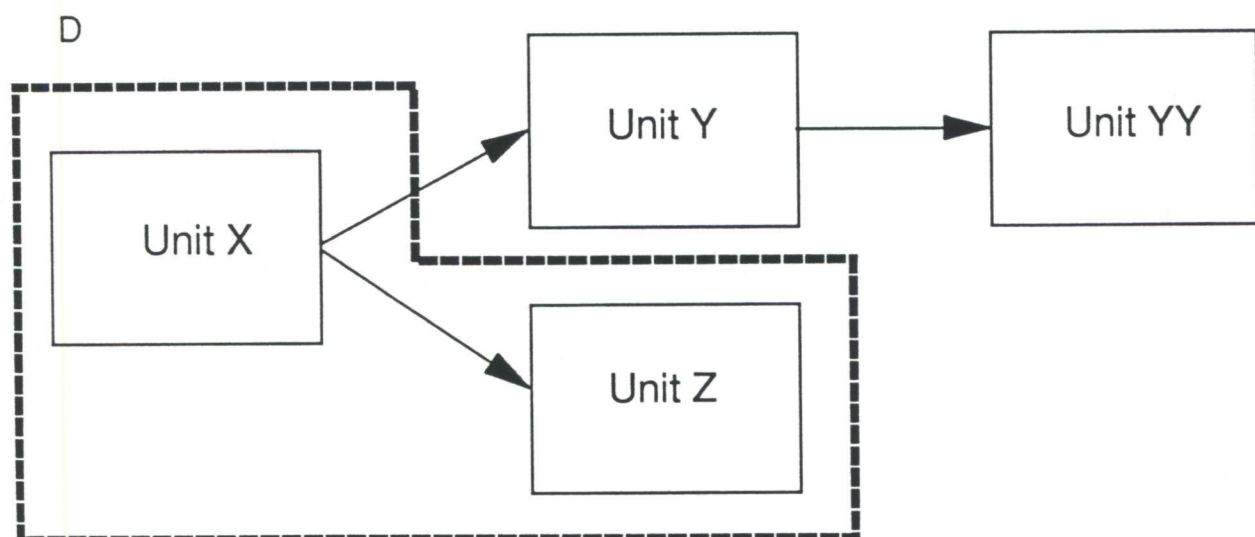
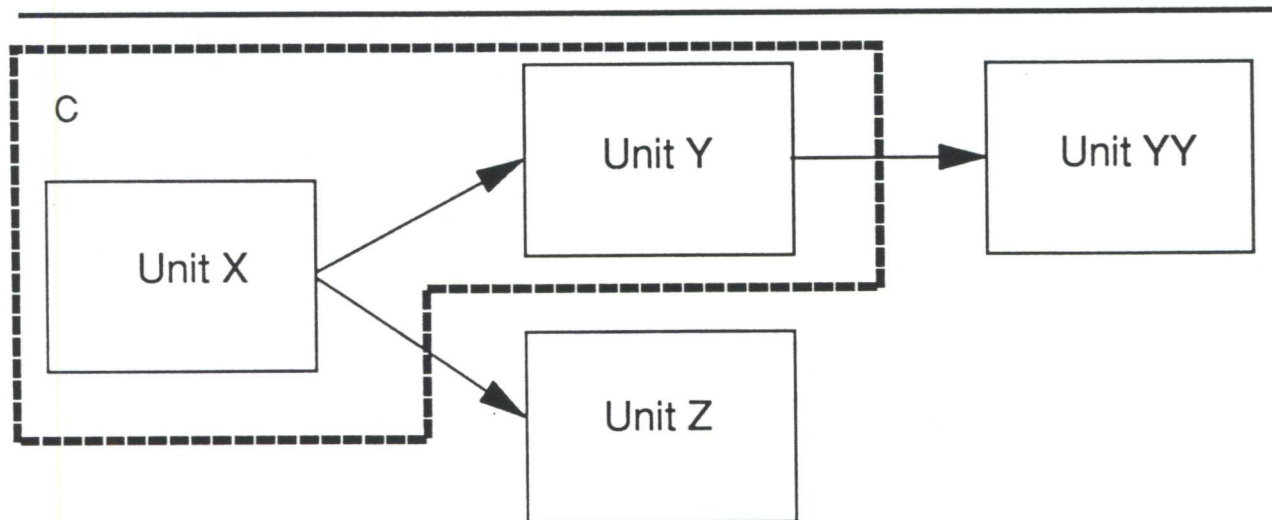
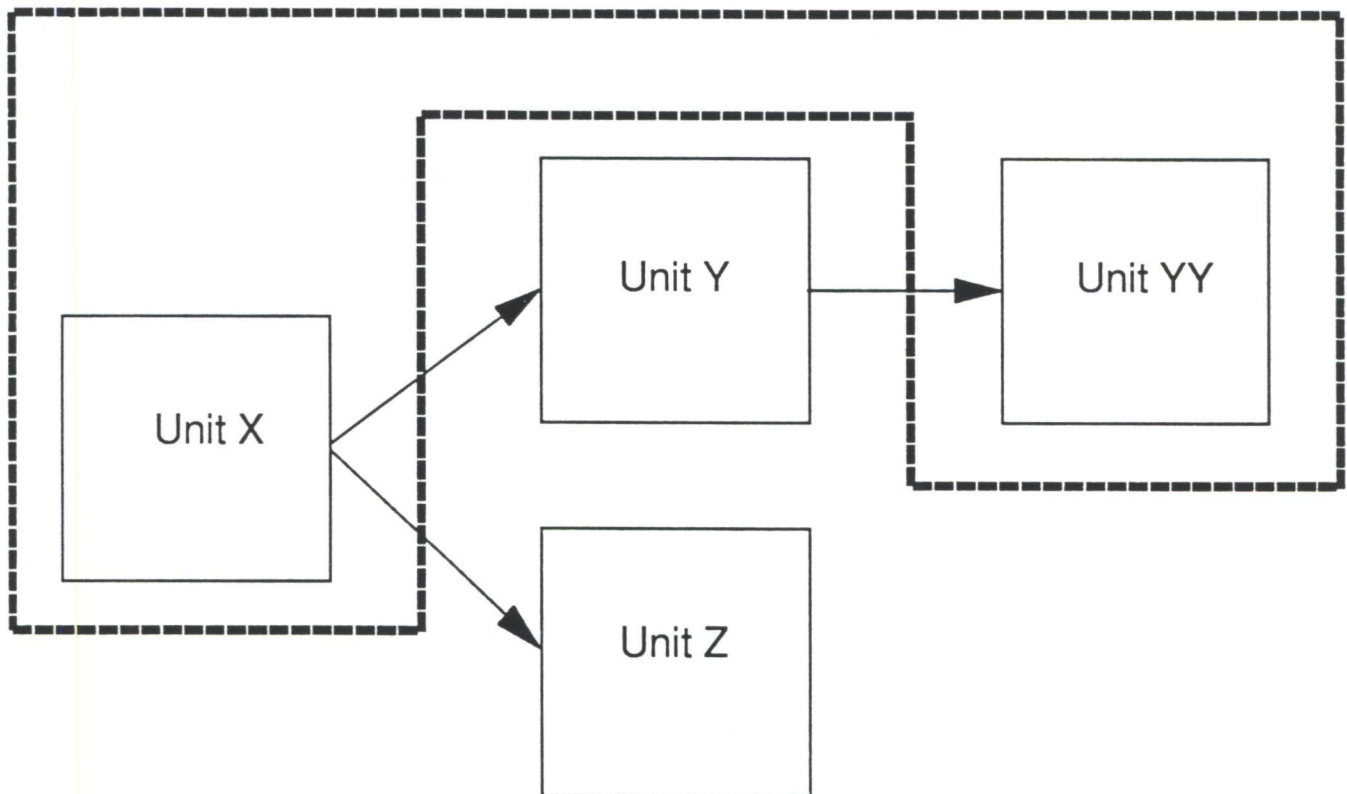


Figure 9
Multiple Process Unit Train
Unacceptable grouping



of groupings that may reasonably fall within the statutory definition of source. Since each individual plant will be configured differently, it is impossible to contemplate all the combinations that may be unique to a particular contiguous facility. However, because EPA has not yet defined "source" for purposes of establishing MACT standards, the test for the definition of source under the early reductions program must be whether the application includes identifiable "sources" as that term is defined under section 111(a)(3).

The important factor for the applicant to consider, and the factor that EPA will consider in reviewing the application, is whether each unit the applicant has defined as a source for its plant is the type of unit that could reasonably be subject to a MACT standard and that fits within a logical definition of source.

The proposed definition provides the maximum benefit to an applicant who is capable of making reductions in various parts of its plant, and is trying to make reductions without actual knowledge as to how EPA will define various components of his plant as "sources" for purposes of particular MACT standards. Each source identified would receive extensions from the MACT standards applicable to it. If a plant owner or operator chose to reduce plantwide emissions by 90 percent, the plant would receive an extension on all MACT standards applicable to it.

In arriving at this definition of source, EPA reviewed the specific statutory language, the pertinent legislative history and the underlying intent of the early reductions program as expressed in the legislative history. EPA believes that this definition of source is consistent with the

plain language of the statute, the legislative history and the underlying purposes of the early reductions provisions, and specific legislative history on the definition of "source."

The legislative history of the early reductions provision provides a clear indication that the purpose of the provisions was to provide an incentive to achieve early reductions. The Bill reported out by the House Energy and Commerce Committee was almost identical to the final Act with respect to the early reduction requirements. The Report accompanying that Bill stated that the purpose of the provision was to encourage early reductions, adding that:

Owners and operators should have an incentive to use this option because it allows them greater flexibility to choose the means by which they will reduce their air toxics emissions and to make those reductions without waiting for prescribed standards and regulatory schedules. Clearly, early reductions achieved before emission controls are required by MACT will benefit the environment and communities near the facilities that make early reductions. In the administration of this provision EPA thus should strive to encourage companies to take advantage of this incentive to reduce emissions early.

Committee on Energy and Commerce, U.S. House of Representatives, Report No. 101-490, at 332 (May 17, 1990).

Thus, the House Committee expressed a clear intent that the provision be utilized to encourage early emission reductions.

The legislative history on the scope of the definition of "source" for purposes of section 112 also sheds some light on Congress' intent. While the Conference Report does not address the source definition issue, there are floor statements by Senator Durenberger which speak directly to the issue. Senator Durenberger was one of the managers of the bill in the Senate and the principle author of Title III of the CAAA of 1990.

Conference report statements are typically considered to be the most reliable historical aids to statutory interpretations. See, e.g., United

States v. UAW, 352 U.S. 567, 585-586 (1966), statements of sponsors are not controlling legislative history but they are entitled to some consideration.¹ See Brock v. Pierce County, 476 U.S. 261, 263 (1986) ("statements by individual legislators should not be given controlling effect, but when they are consistent with the statutory language, and other legislative history, they provide evidence of Congress' intent").

A short time before final passage of the Bill by the Senate, Senator Durenberger made a number of specific statements about the early reduction provisions. The Senator reviewed a draft EPA paper concerning the definition of source and concluded that "creditable reductions must come from the same part of a plant site that is covered by the applicable MACT standard. . . . The owner cannot claim credit for reductions made at another part of the plant." ____ CONG. REC. S.16928 (daily ed. October 27, 1990). Senator Durenberger's floor statement indicates that his interpretation of the source definition with respect to early reductions would require reductions to be demonstrated by individual MACT units. His statement also recognizes that

¹ Congressman Dingell cautioned about the use of statements of individual members on various provisions of the CAA amendments noting:

the statement of managers as printed in the conference report represents the views of all the managers or conferees from the House and Senate who signed the conference report.
. . . only the statement of managers, which is part of the conference report, reflects the views of all the managers or conferees in the House and Senate.

____ CONG. REC. E. 3714 (November 2, 1990). This statement is consistent with customary use of legislative history, i.e. that one resorts to the legislative history in the first instance only where the plain language of the statute is not clear and that statements in conference reports agreed upon by all managers should be given higher precedence than individual statements by members.

what will be the "source" may vary from standard to standard and may range from a discrete portion of an entire contiguous facility to an entire facility. CONG REC. S.16927, 3rd col. (daily ed. October 27, 1990) (agreeing with the EPA paper that a section 112(d) standard may focus on a specific portion of a facility or may encompass the entire contiguous facility).

EPA believes that the definition of source proposed in section 63.73 is consistent with Senator Durenberger's statements. The Senator's statements start from the presumption that EPA has already identified the "source" to be regulated by a MACT standard. However, at the time many companies will undertake to make early reductions, EPA will not have determined what the "source" will be for purposes of the standard. If EPA has not identified the "source" for purposes of MACT, it is impossible for an owner or operator to determine what portions of its plant it should control to 90 percent in order to receive a six-year extension from MACT. Therefore, if EPA has not defined "source" as it may apply to particular units within the entire contiguous facility, the owner or operator can achieve an overall 90 percent emissions reduction from the entire major source or it can make a reasonable projection, subject to concurrence by EPA or a state, of what part of the facility might ultimately be subject to a particular MACT standard.

This definition affords the plant owner or operator substantial flexibility to participate in the early reductions program to the maximum extent possible and is consistent with the intent of the program as reflected in the House report cited above. Reading Senator Durenberger's statement as precluding such a definition ignores the fact that his statement proceeded from the assumption that the MACT source was identified at the time a source must commit to make (or actually make) the early reduction. As noted, this

will often not be the case. Moreover, such a limited reading of the provision would limit plants from participating in the program to those plants where EPA has already sufficiently progressed in the standards development to have an idea of what unit(s) at a plant will constitute a "source" for a particular MACT standard. Congress could not have meant to so restrict the early reduction program.

EPA's definition of "source" in this rule is an effort to "represent a reasonable accommodation of manifestly competing interests" in a manner it believes to effectuate the underlying policies of the Act. EPA believes the proposed definition of "source" is consistent with the plain language of the statute, the underlying purposes of the early reduction provisions and the legislative history on the definition of source. Moreover, EPA believes that the proposed definition will provide owners and operators sufficient flexibility to encourage significant participation in the early reduction program to the overall benefit of the environment.

C. Demonstration of Early Reduction

1. General. Because there are many combinations of source categories, HAPs, emission estimating methods, and emission control measures, it is neither possible nor desirable to prescribe by regulation the exact manner in which the required emission reduction must be demonstrated. Each situation will be unique in some way. Thus, the regulation provides a framework of general rules that allow differing methods and procedures for estimating emissions. However, owners or operators may find that this flexibility leads to uncertainty that particular emission estimating procedures will be acceptable for demonstrating the emission reduction. To assist owners and operators, EPA is planning to publish emission estimating procedures that

would be considered acceptable for source categories that will be subject to section 112(d) standards. Procedures for the first group of categories, for which standards will be proposed in the 1991-1993 time frame, will be published in a subsequent FEDERAL REGISTER notice.

The time period in which the early reduction may be demonstrated is limited by Section 112(i). In most cases, calendar year 1987 is the earliest year that can be used to calculate base year, or pre-control, emissions (see discussion of base year emissions below). The reduction must be achieved prior to proposal of an applicable section 112(d) standard, with one exception. If the reduction is achieved after proposal of the standard, the source may still qualify for a compliance extension and alternative emission limitation if two conditions are met: (1) before proposal of the standard, the source owner or operator must make an enforceable commitment (discussed in Section II.D. of this preamble) to achieve the reduction, and (2) the reduction must be achieved before January 1, 1994.

To determine the amount of emission reduction achieved at the emission source, the owner or operator must sum the estimated emissions of all HAPs listed in section 112(b) of the Act that are emitted by the emission points in the source in the base year and compare the total with a similar sum for estimated emissions following implementation of controls. The post-control estimated emissions sum must be ten percent or less of the sum for base year emissions, reflecting a 90 percent reduction as required to qualify for a compliance extension (five percent or less for hazardous air pollutants which are particulates, reflecting a 95 percent reduction). Thus, for sources containing more than one emission point, an owner or operator may control some emission points by less than 90 (95) percent and others by more than 90 (95)

percent as long as total base year emissions are reduced by 90 (95) percent.

To demonstrate the 90 (95) percent HAP emission reduction, source owners and operators may take credit for emission reductions achieved for any reason; the early reduction provisions in the Act and in the proposed rule do not distinguish between reductions achieved voluntarily and those that result from other regulatory requirements, including emission standards promulgated under section 112 prior to the Clean Air Act Amendments of 1990. All emission reductions since the base year are allowable for meeting the early reduction goal.

2. High-Risk Pollutants. The proposed regulation lists 31 pollutants for which exposure to small quantities may be associated with high risks of human health effects. Section 112(i)(5)(E) specifies that the Administrator shall limit the use of offsetting reductions in emissions among high-risk pollutants and other hazardous air pollutants. The EPA interprets this to mean that sources cannot include reductions in emissions of high-risk pollutants in their overall 90 (95) percent emission reduction calculation unless the high risk pollutants have, as a group, been reduced by at least 90 (95) percent. The CAA specifies that the pollutants identified as high-risk pollutants shall include, but not be limited to, chlorinated dioxins and furans. The EPA's methodology for identifying the high-risk pollutants involved the consideration of several criteria which were used as a means of differentiating among the hazardous air pollutants listed in Section 112(b) of the CAA. The specific criteria used to select the pollutants are described in detail in Section II.G. of this preamble.

The high-risk pollutants have been further grouped according to their potency or toxicity, as described below, into Category I (the most toxic) and

Category II. If any of these pollutants are included in a weighted average emission reduction calculation, there would need to be separate demonstrations that the total emissions of Category I plus Category II pollutants have been reduced by at least 90 (95) percent and that the total emissions of Category I pollutants have been reduced by at least 90 (95) percent. Emissions of the more toxic pollutants can never be offset by greater reductions in emissions of less toxic pollutants. Offsets could occur within a category, and reductions of a pollutant in Category I could be used to offset emissions of a pollutant in Category II. This requirement reflects Congress' concern that the high-risk pollutants always be well-controlled. The EPA considered the option of requiring that each high-risk pollutant be reduced by at least 90 (95) percent, but for the following reasons decided to allow offsetting of emissions within the two high-risk pollutant groups. First, for most of the pollutants the health effects data and other criteria used to select the pollutants are not precise enough to differentiate further among these pollutants on the basis of toxicity or health endpoints. On the other hand, a few of the pollutants are clearly more toxic than others and therefore were assigned to Category I to ensure that emissions of these pollutants are reduced by at least 90 (95) percent. Second, the EPA feels that this decision allows owners or operators additional flexibility in meeting the 90 (95) percent reduction requirement and as such will encourage participation in the early reduction program.

The Category I high-risk pollutants are: arsenic compounds; asbestos; chromium compounds; hydrazine; and 2,3,7,8-tetrachlorodibenzo-p-dioxin. The Category II high-risk pollutants are: acrolein; acrylamide; acrylic acid; acrylonitrile; benzene; benzotrichloride; beryllium compounds; 1,3-butadiene;

chlordane; chloroprene; coke oven emissions; dichloroethyl ether; 1,1-dimethyl hydrazine; dibenzofuran; epichlorohydrin; ethylene dibromide; heptachlor; methylene diphenyl diisocyanate; methyl isocyanate; mercury compounds; phosgene; 1,2-propylenimine; 1,1,2,2-tetrachloroethane; 2,4-toluene diisocyanate; vinyl chloride; and vinylidene chloride.

3. Base Year and Post-Control Emission Estimates. When determining the amount of emission reduction achieved at a source, the owner or operator would compare total controlled emissions of all HAPs from all emission points in the source to total emissions from the source (subject to the limitations for high-risk pollutants discussed in Section 2 above). Both emission calculations would be in the format of an annual emission rate (e.g., megagrams per year). The base year emission rate would need to be for calendar year 1987 or later. However, emission estimates for 1985 or 1986 may be acceptable if they are verifiable, based on data submitted to the Administrator pursuant to an information request issued under Section 114 of the Act, and received by the Administrator prior to November 15, 1990. The base year must also be one in which emissions were not artificially or substantially greater than emissions in other years before the emission reduction measures were implemented. Any emission rate that indicates non-compliance with any emission limit imposed by an applicable air pollution control law or regulation would not be acceptable. In addition, the base year emission rate would be required to represent a time period in which production rates, operating hours, and other operating parameters reflect normal conditions for the source. The owner or operator would need to provide sufficient information to demonstrate that all these conditions have been met. These requirements would ensure that the post-control emissions are compared

to normal, typical, and lawful pre-control emissions.

The proposed rule prohibits the use of EPA average emission factors for estimating base year equipment leak emissions. Use of these factors may produce significant overestimates of base year emissions in many cases. However, source owners or operators could establish base year estimates for equipment leaks specific to their sources consistent with equipment leak test protocols already established by EPA in the document entitled "Protocols for Generating Unit-Specific Emission Estimates for Equipment Leaks of VOC and VHAP," EPA-450/3-88-010, October, 1988. These procedures will also be published in a subsequent FEDERAL REGISTER notice.

To demonstrate the post-control emission rate, the source owner or operator would need to present verifiable and actual emission data for a year after 1987 (or 1985 or 1986, if allowed) and prior to the dates required for demonstration of the reduction, as discussed earlier. For both base year and post-control emissions, verifiable and actual data should be obtained through source test results using validated methods. (A validated method is a measurement methodology with a demonstrated precision and bias over the measured concentration of the source's emissions. A validated method may be an EPA Reference Method, conditional method, or a test protocol in which Method 301 is used to establish the accuracy and precision of an approach. Because EPA does not have reference or conditional methods for all of the 189 compounds listed in the 1990 amendments, the Agency is proposing Method 301, a process for the validation of test methods developed by sources who wish to make early reduction demonstrations. Method 301, "The Field Validation of Emission Concentrations from Stationary Sources," is being proposed today in Appendix A to 40 CFR Part 63. A list of validated methods may be obtained

from the Emission Measurement Technical Information Center (MD-19), U. S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.) There may be cases, however, in which emission estimates are made due to: (1) lack of a test method; (2) the economic or technical infeasibility of testing; (3) the demonstration that estimates based on engineering principles or material balances are as accurate as results gained through testing, or (4) the emissions from the emission point in the source are small compared to total source emissions and errors in estimating emissions from such points will not have a significant effect on the accuracy of estimated total emissions from the source. A fifth reason for base year estimates only would be that the base year conditions no longer exist for the emission point and that source test results under current conditions could not be converted to base year conditions to produce emission estimates more accurate than could be obtained in other ways. Since there is a presumption of testing to define emissions, the source owner or operator would need to provide a justification based on one of these reasons to support the use of emission estimates instead of source test results. Acceptance of the estimates would be based on the appropriate use of test methods or other equivalent means of determining the emissions.

The proposed rule contains a special provision for testing of emission points that account for a relatively insignificant fraction of total source emissions. Subject to the approval of the reviewing agency, emission estimates rather than source test results may be provided for these points since they are small compared to total source emissions and errors in estimating their emissions would not have a significant effect on the accuracy of estimated total emissions from the source.

D. Enforceable Commitments

Section 112(i)(5) of the Act provides the opportunity for sources that achieve a 90 percent (95 percent for particulates) reduction in HAP emissions before proposal of an applicable section 112(d) standard to obtain a six-year extension for compliance with the standard. Section 112(i)(5)(B) contains a special provision for sources that would be affected by the first group of standards, scheduled for proposal before 1994, which are anticipated to be for the following source categories: synthetic organic chemical manufacturing industry, coke ovens, dry cleaners using perchloroethylene and 1,1,1-trichloroethane, commercial sterilizers, chromium electroplating and chromic acid anodizing, asbestos, industrial cooling towers, and halogenated solvent cleaners. Because of the short time prior to proposal of these standards, sources subject to the standards would not have the same amount of time as sources affected by later standards to plan for and achieve early reductions prior to proposal of the applicable standard. Therefore, Congress provided that a source could qualify for a compliance extension and an alternative emission limitation if it enters into an enforceable commitment and achieves the 90 (95) percent reduction prior to January 1, 1994. The enforceable commitment must be made prior to proposal of the applicable section 112(d) standard. The provision further states that "such commitment shall be enforceable to the same extent as a regulation under this section." (Section 112(i)(5)(B))

The proposed rule would require that, before proposal of an applicable section 112(d) standard, the enforceable commitment be submitted by a responsible official of the source to the EPA Regional Office or to the State in which the source is located, if the State has an approved permit program

under Title V of the Act or has been delegated authority for the early reduction program. (See list of Regional Office addresses at the end of this section for submittal of commitments or for assistance in obtaining addresses of State reviewing agencies.) The commitment document would contain information identifying the name and location of the source, a description of the source as defined according to this rule, the base year estimate of HAP emissions, the general plan for reducing those emissions, and a statement committing to early reduction of HAP emissions signed by a responsible official of the source.

The commitment to achieve the early reductions before January 1, 1994, is binding on the source and is enforceable under section 113 of the Act. There are several required components of an enforceable commitment. First, the enforceable commitment shall clearly state the intention of the source to achieve the necessary reductions before January 1, 1994, and provide a general plan of how the reductions will be achieved. The description of the planned emission reduction measures should be in sufficient detail to demonstrate that the source owner or operator has given serious consideration to real emission reduction measures that can be implemented to qualify the source for the early reduction program. The information that is required in the enforceable commitment is similar to, but not as comprehensive as, that required for the permit application. It should demonstrate how the source will be able to achieve the emission reduction commitment; however, only the base year emission estimates need to be fully documented.

Second, the commitment is to be considered "enforceable". The Agency believes that once a source has made a commitment to achieve early reductions, an enforcement action may be brought against that source if it fails to

achieve the reductions or if false information is contained in the commitment. Sources found submitting false information in the commitment for early reduction shall be subject to enforcement action under Section 113 of the Act or other Federal statutes. This is an important consideration for a company to weigh when preparing the commitment. All data and information submitted should be carefully reviewed to verify its accuracy and veracity. The EPA will exercise its authority to ensure the integrity of information contained in the commitments by conducting audits of any or all submittals. The purpose of this activity is to encourage sources to make only serious commitments that can be backed up with acceptable emission estimates.

Sources that rescind the commitment prior to December 1, 1993, must comply with the applicable standard issued under section 112(d) of the Act by the compliance date specified in such a standard. Any source failing to meet the January 1, 1994, deadline that does not rescind the commitment prior to December 1, 1993, would be subject to penalties for emission reductions not achieved levied on a per pound pollutant basis until the source achieves compliance with the applicable section 112(d) standard.

Any source failing to meet the January 1, 1994, deadline that does not rescind the commitment prior to December 1, 1993, would be subject to penalties for emission reductions not achieved. (The penalty may vary depending on the amount of pollutant reduction already achieved and control measures required to achieve the target reduction but in most situations will exceed the economic benefit to the source for noncompliance.) Thus, such a source would not only fail to obtain the six-year extension but would be subject to an enforcement action under section 113 of the Act.

The proposed requirements for information to be contained in enforceable

commitments are as follows:

1. Source identifying information and name of official contacts.
2. A general description of the type of activity of the source which causes HAP emissions.
3. A complete list of all HAP emission points that define the source for which early reduction will be achieved.
4. A base year emission estimate and supporting basis for the estimate for all HAPs for each emission point contained in the source. Separate estimates for high-risk pollutants, discussed in Section III.B.2. of this preamble, would be required in addition to the total HAP emission estimates for each emission point. The information provided must be adequate to show that the base year emission estimate represents all non-accidental emissions of all HAPs emitted from the source; that the estimate is based on verifiable and actual emissions for the base year, supported by emission test results and/or engineering calculations; that estimated emissions are not artificially or substantially greater than emissions in other years prior to implementation of emission reduction measures; that emissions are for 1987 or later (except that the Administrator may allow use of a 1985 or 1986 baseline if the data were verifiable, submitted to the Administrator in response to an information request under Section 114 of the Act, and received by the Administrator before November 15, 1990); and that the source was in compliance with all air emission limitations for the emission points in the source that were applicable for the base year.
5. A general emission reduction plan for achieving the required emission reductions, including descriptions of emission control equipment to be employed, process changes or modifications to be made, and any other

emission reduction approaches to be used.

6. A statement of commitment, signed by a responsible official of the source, certifying the accuracy and veracity of the base year emission estimates; providing the post-control emission level(s) necessary to achieve the 90 (95) percent reduction and qualify for the compliance extension; committing to achievement of the stated post-control emission level(s); and acknowledging that the base year emission estimates are being submitted in response to EPA under the authority of section 114 of the Act and that the commitment is subject to enforcement as specified in the proposed rule.

The base year emission estimates may be audited by the Agency. False statements will be considered violations of section 114 of the Act and of this proposed rule and, thus, actionable under section 113; they can be considered, in appropriate cases, violations of 18 U.S.C. Section 1001, the general false swearing criminal provision of the Code. Commitments for early reduction should be taken seriously and should not be entered into lightly. While some degree of error may be unavoidable given the short time period for assimilating and providing the necessary information, a source owner or operator should have a high degree of confidence in the emission estimates provided and should take seriously the commitment to participate in the early reduction program. Given the scope and effect of the Clean Air Act Amendments, resources of Federal, State, and local agencies and of source owners and operators will be taxed heavily, and should be expended only in serious activities to accomplish real environmental improvement. Thus, EPA encourages only those commitments to early reduction that are based on sound evaluation of HAP emission sources and emission reduction potential.

In determining what should be required in an enforceable commitment, the

Administrator considered the purpose of a commitment and what would be needed to carry out that purpose. The only sources required to submit an enforceable commitment are those for which the early reduction of HAP emissions will occur after proposal of an applicable section 112(d) standard and before January 1, 1994. The purpose of the commitment is, therefore, to encourage the source owner or operator to make a decision to achieve early reductions before proposal of the standard and, having made the decision, also make a commitment to implement it. In order to make such a commitment, a company will need to determine with at least some degree of accuracy that the planned emission reduction is achievable. To do this, emission points in the source must be identified along with their estimated base year emission rates. An initial assessment of the types and effectiveness of appropriate emission reduction measures for each of these emission points should be made. There will be enough information to enable the company to determine the probable capability of the measures to achieve the desired emission reductions. This sort of information is the minimum acceptable for an enforceable commitment. The owner or operator will be required to seriously evaluate the likelihood of success in achieving the reduction before making a commitment and to demonstrate to the reviewing agency that the company intends to achieve the early reductions.

The Administrator could require more information than that which is being proposed. In addition to the proposed requirements for documented base year emission estimates and a clear definition of the emission points in the source, he could require detailed descriptions of planned control measures with calculations showing how the planned emission reduction would be achieved for each emission point in the source. There are two reasons the proposed

rule does not include this requirement. First, there is a very short time period between now and the scheduled date of proposal for early section 112(d) standards (about six months). Section 112(i)(5) of the Act and the proposed rule requires submittal of the enforceable commitment before proposal of an applicable standard. Companies could find it difficult to provide such detailed information in the allotted time period. Definite plans for specific emission control measures would have to be made, funding commitments from corporate officials would need to be obtained, and full documentation would need to be prepared for inclusion in the submittal.

A second reason for not requiring details regarding plans for achieving the emission reduction is that it would legally bind the source to the specific measures in the commitment. The Administrator believes that the source owner or operator should be given flexibility to determine the best approach for early reduction and should not be required to implement an approach that was committed to at an early date if it later turns out to be infeasible or inferior to another approach. Therefore, the proposed requirement that general plans for the emission reduction be described with full details to be submitted later in the permit application is believed to be the most reasonable alternative that is consistent with the goals of the early reduction program.

Enforceable commitments are to be submitted to the appropriate EPA Regional Office at the following addresses:

Director, Air, Pesticides, and Toxics Management Division, EPA Region I (AAA), John F. Kennedy Federal Building, Boston, MA 02203

Director, Air and Waste Management Division, EPA Region II, Jacob K. Javits Federal Plaza, New York, NY 10278

Director, Air Toxics and Radiation Management Division, EPA Region III,
841 Chestnut Street, Philadelphia, PA 19107

Director, Air Management Division, EPA Region 4, 345 Courtland Street,
N.E., Atlanta, GA 30365

Director, Air and Radiation Division, EPA Region 5, 230 South Dearborn
Street, Chicago, IL 60604

Director, Air, Pesticides and Toxics Division, EPA Region 6, 1445 Ross
Avenue, 12th Floor, Suite 1200, Dallas, TX 75202

Director, Air and Toxics Division, EPA Region 7, 726 Minnesota Avenue,
Kansas City, KS 66101

Director, Air and Toxics Division, EPA Region 8, 999 18th Street, Suite
500, Denver, CO 80202-2405

Director, Air and Toxics Division, EPA Region 9, 1235 Mission Street,
San Francisco, CA 94103

Director, Air and Toxics Division, EPA Region 10, 1200 Sixth Avenue,
Seattle, WA 98101

E. Review of Base Year Emission Estimate

Each enforceable commitment and each permit application must contain a base year estimate for each emission point in the source for which the applicant is requesting an early reduction extension. The Act requires that the base year estimate be "determined with respect to verifiable and actual emissions" and that the applicant show "there is no evidence that emissions in the base year are artificially or substantially greater than emissions in other years prior to implementation of emissions reduction measures." In other words, the emission estimate should represent, as accurately as possible, actual emissions during a normal year of operation. This is

important because the base year estimate determines the amount of emission reduction and the residual HAP emission level that will qualify the source for a compliance extension.

Considering their importance to the program, EPA plans to review base year emission estimates submitted in enforceable commitments (as well as estimates submitted by applicants who wish to have their base year estimates evaluated but who are not required to submit enforceable commitments) to determine their adequacy, and also will provide the opportunity for the States and the public to review the estimates and make comment. Of course, if the estimates supplied by an applicant are subject to review, presumably they also are subject to change. The potential for changes to the base year estimates would cause concern to the applicant, since planned control strategies would be based on achieving a 90 (95) percent reduction from the submitted base year emission estimate. Thus, the review should take place as soon as possible after receipt of the enforceable commitment, and if the estimate is changed as a result of the review, the applicant should be allowed to revise or rescind the enforceable commitment. EPA is proposing the following procedure for review of base year emission estimates.

No later than 30 days after receipt of a commitment, the EPA Regional Office will notify the applicant whether the base year emission estimate contained in the submittal is complete or incomplete. At this point in the review process, EPA only is judging whether all information required for the estimate has been supplied, not whether the information is adequate for the purposes of the early reduction program. Where EPA determines the estimate is incomplete, the deficiencies in the estimate will be listed, and the applicant must correct and resubmit the base year emission estimate before further

review can proceed.

Within 60 days of receiving a complete base year emission estimate, EPA will judge the adequacy of the estimate and give notice of the determination. If EPA determines that the estimate is approvable, a notice will be published by advertisement in the area affected identifying the aggregate base year emission estimate that is being proposed for approval and noting the availability of the nonconfidential information contained in the enforceable commitment for public inspection in at least one location in the community in which the source is located and in the appropriate EPA Regional office. A 30-day public comment period will be provided, with opportunity to extend it to 60 days upon request. If EPA determines that the base year estimate is not approvable because it is incorrect or is deficient in some manner, the applicant will be notified of the decision and the reasons for the decision. The applicant shall correct and resubmit the base year emission estimate or, within 30 days of being notified of the disapproval, notify EPA that the source will withdraw from the early reduction program. There is no time limit being proposed for resubmittal of the estimate; it is assumed that an applicant would resubmit as quickly as possible to allow adequate time after approval to implement the emission reduction plans. If the applicant chooses to resubmit a corrected estimate, EPA will review the revised estimate within 30 days and, if approvable, will publish a notice to that effect.

If no adverse comments are received on an estimate proposed to be approved, the base year estimate will be considered approved upon expiration of the comment period and a notice of the approval shall be published. However, if adverse comments are received during the comment period and EPA agrees with the comments, notice will be given to the applicant of disapproval

of the base year emission estimate and the reasons for disapproval. Again, the applicant will be given the opportunity to correct the estimate and resubmit to EPA. If a revised base year estimate is submitted to EPA that adequately takes into account the adverse comments, EPA will publish a notice containing the approved base year emission estimate for the source.

In cases where adverse comments are received on an estimate proposed for approval and EPA determines that the comments do not warrant changing the estimate, EPA will publish a notice providing the approved estimate without changes and the reasons for not accepting the adverse comments.

It is important to note that the proposed rule does not provide an absolute shield against changes to the base year emission estimate. It is EPA's intent to provide assurance to the applicant that an approved base year estimate will be honored and will not be subject to change arbitrarily. However, discovery of incorrect or false information in the estimate or its supporting basis, even after its initial approval, would have the potential for invalidating the estimate and requiring a revision. In the case of falsified information, EPA may bring an enforcement action against the source owner or operator under Section 113 of the Act (see Section 63.80(b) of the proposed rule). Such discrepancies could be discovered at any stage of the process, including the permit application review step. This possibility underscores the importance of the applicant submitting "verifiable and actual" data that have been carefully reviewed and approved by knowledgeable company officials.

This initial review of the base year emissions estimate is not to be taken lightly. The EPA believes that adequate time will be provided for reviewers and commenters to examine the basis for the estimates. During this comment

period, commenters are urged to present any criticisms regarding data quality and approach so that applicants can modify their base year estimates if necessary at that point and proceed with reasonable confidence that their base year estimates are acceptable. The EPA believes this approach will provide some level of certainty to participants concerning their base year estimates prior to their implementation of emission reductions. As noted, incorrect or falsified information cannot shield the applicant from further review at a later time (e.g., during permit review). Certainly, it is not in the interests of the public health and environment to grant compliance extensions for reductions that are inadequate. The EPA would expect that challenges to the adequacy of the base year estimate at the permit review stage would be based on factual evidence showing that estimates are incorrect or methods used for the initial estimate are substantially in error.

During development of the proposed rule, industry representatives expressed concern about the Agency's plans to provide opportunity for public review and comment on emission estimates and supporting data and information. Their concern was that the applicant may consider some of the supporting data and information to be confidential and, therefore, would not want it made available to the public. The EPA is sensitive to industry's need to keep certain information confidential and has a policy of accommodating that need where possible. A recent FEDERAL REGISTER notice clarified EPA's current policy regarding categories of data that qualify as "emission data" and thus are not regarded as confidential (56 FR 7042, February 21, 1991). This policy will be followed in the early reduction program.

Once every month, the EPA Regional Offices will publish in the FEDERAL REGISTER a list of sources for which base year emission estimates have been

submitted for review. Interested parties will be able to use these lists to identify the actions they wish to review and comment on and can contact the appropriate Regional Offices and State agencies for information.

F. Permit Applications and Permits

The request for a compliance extension and alternative emission limitation would be in the form of a permit application and would contain the necessary elements to demonstrate early emission reduction as well as additional information required for a complete permit application. In general, it would need to be received by the appropriate reviewing agency before proposal of an applicable section 112(d) standard. However, for sources that previously made an enforceable commitment, the permit application must be received no later than December 1, 1993 (which may be after proposal of an applicable standard). The permit application for sources with an enforceable commitment would need to contain the necessary information to demonstrate that a reduction had been achieved or, where applicable, would be achieved by January 1, 1994. The source would be required to provide additional data for any emission points for which emission data were not available on January 1, 1994, in a separate submittal by March 31, 1994. This second submittal allows the source time to follow up with actual data demonstrating achievement of the 90 (95) percent reduction from tests conducted after final controls are in place, perhaps as late as December 31, 1993. The permit application would specify the emission limitations determined for each emission point and the test method or equivalent means used for the determination. Current EPA plans, under 40 CFR Part 70 to be proposed in April 1991, would require that the permit be issued within nine months after receipt of the complete permit application. Until that time, the

emission levels specified in the permit application would be enforceable because they are an extension and a refinement of the enforceable commitment entered into by the applicant. Section 112(i)(5)(B) of the Act provides that the commitment "shall be enforceable to the same extent as a regulation under this section."

If the relevant State has an approved Title V permit program, it would process the application according to provisions in 40 CFR Part 70. For sources in States without approved Title V permit programs, applications would be submitted to the EPA Regional Office and would be processed according to provisions in 40 CFR Part 71. (These regulations are scheduled for proposal in April 1991 and November 1991, respectively, and will specify the time increments for evaluation and approval/denial of permit applications at the State and Federal levels.) A fee may be required by States to offset the costs of reviewing applications. (If EPA is the reviewing agency, a fee as specified in 40 CFR Part 71 would be required.)

If an application is not received by the applicable date, the source would be subject to enforcement action under section 113 of the Act. If the application is denied, the source would be subject to applicable standards promulgated under section 112(d). If the application is approved, the reviewing agency would prescribe a source specific emission limitation to ensure the continued reduction in emissions at the level which qualified the source for the extension. Compliance monitoring, reporting, and recordkeeping requirements also would be included. The emission limitation would be established by a permit issued under Title V of the Act (either by EPA or a State), would be effective and enforceable upon issuance, and would remain in effect until six years after the compliance date for the applicable standard,

at which time the standard would take effect.

The permit application would provide a general description of the type of activity at the source which causes HAP emissions, identify the type of source category(ies) and the specific emission points that define the source for purposes of the early reduction demonstration, document the base year emission estimate for each listed HAP emitted from each emission point in the source, describe measures taken to achieve the early emission reduction, document post-control emission estimates for each emission point in the source, provide calculations showing that the 90 (95) percent reduction has been achieved, and contain a certification by a responsible official of the source that the reduction was achieved. In addition, the application must specify how compliance is to be maintained. Such a compliance plan would indicate how and when emissions would be monitored by the source owner or operator and how violations of the emission limits would be reported and corrected.

In determining whether to approve or deny a permit application, the reviewing agency would evaluate available information, including that supplied by the source owner or operator and information received from public comments on the application. In this evaluation, the agency would decide whether the information and data required had been provided and whether data were valid considering the following:

1. Were emission tests conducted in accordance with the procedures and requirements of the proposed rule?
2. Were justifications acceptable for using something other than testing to estimate post-control emissions?
3. Are engineering calculations correct and the assumptions underlying

the calculations valid?

4. Have emission factors been appropriately applied and can their use be reasonably expected to accurately represent the emissions from the source?

5. Are material balance data adequately documented by records and sufficiently accurate to give credible emission estimates?

6. Have all HAP emissions from each source for which a compliance extension is requested been documented and included in the calculations?

After evaluating a permit application containing an early reduction demonstration, the permitting authority would make a determination to either approve or deny it. If denied, the owner or operator would be notified of the reasons for denial, which may include any of the following:

1. The information provided by the owner or operator is incomplete.

2. The required 90 (95) percent reduction has not been demonstrated or it has not continued to be achieved after demonstration.

3. The base year or post-control emission estimates are incorrect or not sufficiently reliable or well-documented to determine with reasonable certainty that required reductions have been achieved. (Sources which submit base year emission estimates for review early, including sources which submit an enforceable commitment, may not be subject to a second base year review at the permit application stage. Note, however, that base year estimates could change at this stage if they are found to be based on incorrect or false information, or if a significant change in emission estimating or testing methods has occurred since initial review.)

4. The emission of HAPs or the performance of emission control measures is sufficiently variable or unreliable as to preclude determination that the required reductions have been or will continue to be achieved.

If the application is approved, the reviewing agency would establish by permit issued under Title V of the Act an enforceable emissions limitation for the source reflecting the continued use of the control measures which qualified the source for the compliance extension. The permit would also include operating conditions, compliance monitoring, reporting, and recordkeeping requirements necessary to ensure continuing compliance.

Although the demonstration of 90 (95) percent reduction of HAP emissions would be expressed in terms of actual annual emissions, the emission limitation may be expressed in a number of different ways. A numerical emission limitation in the same format as applicable source category standards would be preferable. However, that may not be possible if, for example, the early reduction is being achieved with emission control technology that is different from that on which the standard was based. A different format may be necessary in such a case, or a different time period for averaging emissions (e.g., 24 hours vs. 1 month) may be appropriate. Regardless of the format and units of the emission limitation, the main objective is to establish a limit for which monitoring, recordkeeping, and reporting requirements can be established by which it can be determined whether there is continuing achievement of the 90 (95) percent reduction of emissions. Although a numerical emission limitation is the preferred format, if it is not feasible for technological or economic reasons, a design, equipment, work practice, or operational standard (which could include requirements for operator training or certification), or combination of any of these, could be established instead as long as it reflects the continued use of the control measures used to achieve the 90 (95) percent reduction.

The emission limitation would be effective and enforceable immediately

upon issuance of the permit for the source and would remain in effect until six years after the compliance date for the applicable section 112(d) standard, at which time the source would be required to comply with the standard. Since permits will be issued for five-year periods, there will be two permits in effect over the six-year compliance extension. The second permit, which will be issued when the first one expires, will contain the alternative emission limitation for the remainder of the six-year extension and will also contain the limitation necessary to comply with the section 112(d) standard for the period of time beginning at the end of the six-year extension.

A compliance extension granted under the proposed regulation would not exempt an applicant from other standards or requirements promulgated pursuant to section 112(f) or (g) of the Act, which might include additional control measures needed to protect public health or the environment. Moreover, any emission points in the source that are not included in the emission reduction demonstration would be subject to any applicable section 112(d) standard by the compliance date specified in such standard. In addition, the Administrator will review emissions from sources granted extensions at the same time that other sources in the category or subcategory are reviewed under section 112(f). This review is to determine whether emissions remaining after application of section 112(d) standards present a significant risk of adverse effects on public health, thus indicating a need for revision of the standards.

Emission reductions of HAP for the purpose of obtaining an alternative emissions limitation under section 112(i)(5) of the Act are not creditable for the purpose of meeting an offset requirement under section 173(a)(1) of the

Act. Offsets may be needed when a source is to be constructed or modified within a nonattainment area (an area that exceeds a National Ambient Air Quality Standard). The HAP reductions are not allowed as offsets in this instance because section 173(c)(2) of the Act states: "Emission reductions otherwise required by this Act shall not be creditable as emission reductions for purposes of any such offset requirement." A source emitting HAPs either will have to comply with a standard issued under section 112(d) of the Act or an alternative emissions limitation which is granted to the source in lieu of such a standard. Therefore, the reduction of HAP emissions under the early reduction program is a substitute for the reduction of HAP emissions as "required" under a section 112(d) standard.

However, a source owner or operator may use as offsets any reductions in non-HAP emissions which are obtained through use of the HAP emission reduction measures, if such non-HAP reductions are not required by any other provision of the Act. These reductions are allowed as offsets under 173(c)(2) of the Act which further states: "Incidental emission reductions which are not otherwise required by this Act shall be creditable as emission reductions for such purposes..." As a simple example, consider a source emitting ethylene (a non-HAP) and ethylene oxide (a HAP) which is controlled for purposes of qualifying for a compliance extension under the early reduction program. The control measures used to reduce ethylene oxide emissions by 40 tons per year also reduce ethylene emissions by 20 tons per year, although there is no requirement to reduce the ethylene emissions. In this instance, the 20 ton per year reduction in ethylene emissions may be used, if needed, to offset an increase in volatile organic compound emissions from new construction or a modification of an existing source.

G. Selection of List of High-Risk Pollutants

As discussed in Section II.C. of this preamble, EPA is proposing a list of high-risk pollutants. The proposed rule would not allow reductions of other HAPs to be used as offsets against these high-risk pollutants in determining a weighted average 90 (95) percent reduction of HAP emissions from the source. This section discusses the criteria and rationale for selection of this proposed list.

1. Criteria for Identifying High-Risk Pollutants.

The screening analysis employed a three-tiered approach in which the hazardous air pollutants were evaluated according to specific criteria. Only those pollutants meeting the criteria of the first tier were further evaluated in the second tier. Similarly, only those meeting the criteria for the second tier were evaluated in the third tier. Two pollutants (2,3,7,8-tetrachlorodibenzo-p-dioxin and dibenzofuran) were not screened using the tiered analysis because Section 112(i)(5)(E) of the CAA already specifies these pollutants as "high-risk" pollutants.

Prior to the screening process, available data on health effects for each of the pollutants were compiled. The health effects endpoints considered were carcinogenicity, reproductive and developmental toxicity, acute lethality, and systemic effects other than acute lethality (e.g., neurologic disorders). For carcinogens, there were two sources of information. The source for potency factors and weight-of-evidence (described below) was the Integrated Risk Information System (IRIS) which is administered by EPA's Office of Health and Environmental Assessment. The second source of information used to identify potential carcinogens of high concern was the hazard ranking developed to support reportable quantity adjustments under the

Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), Section 102.

The IRIS was also used to gather information on noncarcinogens having an EPA-verified inhalation reference concentration or oral reference dose. A reference concentration or reference dose is an estimate of the daily exposure to the human population that is likely to be without deleterious effects during a lifetime. For pollutants with neither a reference concentration nor reference dose, the primary source of information for health effects other than cancer was the Registry of Toxic Effects of Chemical Substances (RTECS), which is developed and maintained by the National Institute of Occupational Safety and Health. The RTECS data base is widely used as a toxicity data source by both industry and regulatory agencies. Although RTECS is not formally peer-reviewed, the data are from the scientific literature. The EPA recognizes the limitations associated with the lack of peer review, but believes for the initial step of compiling health effects information, RTECS represents one of most readily available comprehensive sources of information on toxicological endpoints other than cancer. As described below, the health effects data were reviewed in following steps of the analysis.

Information on the cancer potency factor, weight-of-evidence, and CERCLA hazard ranking was recorded for each carcinogen on the list where these data were available. The potency factor (i.e., the unit risk estimate) is a measure of the probability of an individual developing cancer as a result of exposure to a specified unit ambient concentration (e.g., 1 microgram per cubic meter) over a 70-year lifetime. The weight-of-evidence that a pollutant is a carcinogen is based on a classification scheme that considers the quality and adequacy of available health effects data. The weight-of-evidence

classification scheme is described in EPA's Risk Assessment Guidelines of 1986 (EPA/600/8-87-045).

The CERCLA hazard ranking is a comprehensive evaluation of pollutants for potential carcinogenicity. Each pollutant was assigned a hazard ranking of "high", "medium", or "low." The hazard ranking is based on a review of human epidemiologic and/or animal bioassay data and a quantitative assessment of available data to calculate the relative strength of a pollutant to elicit a carcinogenic response. The hazard ranking methodology is described in the EPA document entitled Methodology for Evaluating Potential Carcinogenicity in Support of Reportable Quantity Adjustments Pursuant to CERCLA Section 102 (EPA/600/8-89/053).

Data pertinent to reproductive and developmental effects, acute lethality, and other systemic effects were also recorded for each substance on the list. For reproductive and developmental effects and effects other than acute lethality, the lowest observed effect level (LOEL) was recorded. The LOEL is the lowest dose or exposure level of a chemical in a study at which a statistically or biologically significant effect is observed in the exposed population. For acute effects, the dose or concentration of a chemical required to cause death in 50 percent of the exposed population (LD_{50} or LC_{50}) was recorded. The EPA recognizes that lethality is not an endpoint typically used in developing environmental regulations and that there are issues concerning route-to-route extrapolation associated with LD_{50} 's. However, other types of preferable data are lacking for certain acutely toxic substances. In this analysis, the LD_{50} was used as a screening value only in the absence of other types of data such as reference concentrations or LOELs.

Both human and animal studies for each health effects category were

examined, and data from studies involving inhalation, ingestion, and dermal absorption routes of exposure were considered. Once the health effects data were compiled, the pollutants were evaluated on the basis of potency or toxicity in each health effects category.

a. Tier 1 of the Analysis

The first tier of the analysis focused on whether the available health effects data for a pollutant met certain criteria. A potential carcinogen could meet the criteria if it had an EPA-verified potency factor or if it had been designated as a CERCLA Section 102 chemical of high concern for potential carcinogenicity. The basis for these criteria is that the health effects data for pollutants with a verified potency factor or a high-concern designation have been thoroughly reviewed by EPA. Cancer risk assessment information (i.e., a potency factor designation) is verified by EPA only after a comprehensive review and consensus on available chronic toxicity data by the Carcinogen Risk Assessment Verification Endeavor (CRAVE), an interdisciplinary scientific panel of EPA experts. Similarly, the CERCLA methodology and the individual evaluations of the high-concern chemicals have received both extensive EPA and external review as part of the rulemaking process for reportable quantities under CERCLA Section 102.

For carcinogens that also cause health effects other than cancer and for noncarcinogens, data used in support of development of an EPA-verified inhalation reference concentration or oral reference dose were given preference because the scientific studies have been extensively reviewed by EPA. If a verified reference concentration or dose was unavailable, the health effects data (i.e., the LOEL or LD₅₀) retrieved from RTECS was reviewed for quality of the scientific study. In examining the RTECS data, the

following criteria were applied: 1) only data from studies involving inhalation, oral ingestion and skin application routes of exposure were considered (not, for example, intraperitoneal or intravenous routes of exposure); 2) both human and animal studies in each category were examined; and 3) data from Eastern European studies were considered only if other data on a given endpoint were unavailable.

It is possible that in the future additional verified potency factors or other health effects data may become available that indicate that a pollutant should be added to the high-risk list. In such a case, the CAA does not preclude the EPA from adding pollutants to the list. If EPA does add additional pollutants to the list, it is possible that a source already complying with an alternative emission limit may become subject to additional emission control requirements. The EPA solicits comments on whether or not a source already complying with alternative emission limits issued under section 112(i) should be exempted from any changes to the list of high-risk pollutants or whether these sources should be phased into compliance over a reasonable period of time, such as three years.

b. Tier 2 of the Analysis

The second tier of the evaluation was to determine which of the remaining pollutants merited further analysis based on potential for adverse public health effects under relevant exposure scenarios.

To evaluate this potential for carcinogens, generic exposure modeling was performed if a CRAVE-verified potency factor was available. A CRAVE-verified potency factor was available for 54 carcinogens. The EPA's Human Exposure Model was used for this exercise, and dispersion parameters representative of average conditions were assumed. The model provided an

estimate of the ambient concentration in the vicinity of a source emitting 10 tons per year at an average release height of 10 meters under median meteorological conditions. The predicted long-term ambient concentration at a distance from the source (500 meters) representative of the location of nearby residences was recorded. This modeled ambient concentration was then compared to the concentration for each pollutant that would result in a maximum individual cancer risk of one in ten thousand. This risk level was selected to be consistent with the presumptive acceptable risk benchmark described in the National Emission Standard for Hazardous Air Pollutants for benzene proposed on September 14, 1989 (54 FR 38044). Pollutants that would not exceed the presumptive benchmark (when emitted in amounts of ten tons per year) were not given further consideration in the analysis. Pollutants with the potential to exceed the benchmark when emitted in quantities of 10 tons per year or less were retained for further evaluation in Tier 3. In addition, any pollutant classified as either a Group A carcinogen (a known human carcinogen) or ranked as high concern for potential carcinogenicity was retained for further evaluation. These screening criteria, in effect, selected 10 Group A carcinogens, 22 carcinogens (other than Group A) with potency factors greater than $1 \times 10^{-5} (\mu\text{g}/\text{m}^3)^{-1}$, and 5 potential carcinogens of high concern.

Noncarcinogens with verified inhalation reference concentrations or oral reference doses met the criteria for this tier if the modeled ambient concentration (using the same modeling parameters described above) exceeded the reference concentration or dose by at least one order of magnitude. Noncarcinogens without verified inhalation reference concentrations or oral reference doses met the criteria for this tier if the modeled ambient

concentration exceeded either a pollutant's LOEL or LD₅₀, divided by uncertainty factors of 100 and 1000, respectively, for any of the health effects categories described above (i.e., acute lethality, reproductive/developmental effects, and systemic effects other than lethality).

Uncertainty factors were applied to the health effects benchmarks since the LOEL and LD₅₀ values represent levels at which health effects are known to occur, and as such do not represent appropriate thresholds for potential adverse effects. These uncertainty factors are meant to account for variables such as interspecies variations and sensitive subpopulations.

By comparison, a reference concentration or reference dose represents the exposure level below which no deleterious effects are expected to occur over a lifetime of exposure. That is, the reference concentration or dose is a level at which the potential for public health effects would be considered negligible. To estimate a level at which public health risks could be potentially significant, the EPA deemed it appropriate to consider exposure levels one order of magnitude higher than the reference concentration or dose. These levels would therefore be somewhat higher than the reference concentration or dose but would still be well below the level at which health effects are known to occur.

The Tier 2 screening criteria, in effect, selected for further analysis 13 pollutants having either a LOEL less than or equal to 0.1 mg/kg/day for reproductive/developmental effects and effects other than acute lethality, an LD₅₀ less than or equal to 1.0 mg/kg/day for acute lethality, or reference concentration or dose less than 0.0003 mg/m³ or 0.0009 mg/kg/day.

c. Tier 3 of the Analysis

The final tier in the screening process consisted of a review of nationwide emissions data to determine whether or not each remaining pollutant would actually be emitted by one or more sources in quantities sufficient to result in significant risk to public health. The primary source of emissions information was the 1989 Toxics Release Inventory (TRI). Because the TRI data base is limited to certain pollutants, source industrial classification (SIC) codes, and facility sizes, additional data were also gathered for each pollutant. These additional data were derived from in-house EPA data bases on source categories (e.g., the source category listing) and the 1990 Chemical Economics Handbook - SRI International for information on U.S. production and consumption of chemicals.

Sources with reported emissions were evaluated against the presumptive benchmarks for significant health risk potential described previously in Tier 2. If no source in the U.S. reported emissions of a given pollutant sufficient to exceed the benchmarks, the pollutant was not included on the list. If one or more sources exceeded the benchmarks with reported emissions of a listed pollutant the pollutant was retained for designation as a high-risk pollutant. The rationale for this decision was that one source emitting a listed pollutant could have an adverse impact on public health and should not be allowed to offset emissions of a high-risk pollutant with reductions in a less hazardous pollutant.

The EPA recognizes that a sources emissions may change from year to year. If emissions data become available that indicate that a pollutant should be added to the high-risk list, the CAA does not preclude EPA from doing so.

III. ADMINISTRATIVE REQUIREMENTS.

A. Public Hearing.

A public hearing will be held, if requested, to discuss the proposed regulation in accordance with Section 307(d)(5) of the Clean Air Act. Persons wishing to make oral presentations should contact EPA at the address given in the ADDRESSES section of this preamble. Oral presentations will be limited to 15 minutes each. Any member of the public may file a written statement with EPA before, during, or within 30 days after the hearing. Written statements should be addressed to the Air Docket Section address given in the ADDRESSES section of this preamble.

A verbatim transcript of the hearing and written statements will be available for public inspection and copying during normal working hours at EPA's Air Docket Section in Washington, D.C. (see ADDRESSES section of this preamble).

B. External Participation.

In accordance with Section 117 of the Act, publication of this proposal was preceded by consultation with appropriate advisory committees, independent experts, and other regulatory agencies. In addition, a number of meetings were held with interested parties during development of the proposed regulation. The Administrator will welcome comments on all aspects of the proposed regulation.

C. Docket.

The docket is an organized and complete file of all the information submitted to or otherwise considered by EPA in the development of this proposed rulemaking. The principal purposes of the docket are: (1) to allow interested parties to identify and locate documents so that they can effectively participate in the rulemaking process and (2) to serve as the

record in case of judicial review (except for interagency review materials [Section 307(d)(7)(A)]).

D. Paperwork Reduction Act.

Information collection requirements associated with this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. An Information Collection Request document has been prepared by EPA (ICR No. ____), and a copy may be obtained from (insert IPB Desk Officer name), Information Policy Branch, EPA, 401 M Street, S.W. (PM-223), Washington, D.C. 20460, or by calling (202) (insert IPB Desk Officer phone number). The public reporting burden for this collection of information is estimated to average 185 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. (This figure is obtained from the Supporting Statement prepared for the proposed rule.)

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503, marked "Attention: Desk Officer for EPA." Comments are specifically requested concerning the reporting burden on small entities and whether special provisions are needed to reduce it. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

E. Executive Order 12291 Review.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. The proposed regulation is not major because it would result in none of the adverse economic effects set forth in Section 1 of the Order as grounds for finding a regulation to be major. There would be no adverse cost or economic impacts caused by the proposed regulation.

This regulation was submitted to OMB for review as required by Executive Order 12291. Any written comments from OMB to EPA and any EPA responses to those comments will be included in Docket No. A-90-47. This docket is available for public inspection at EPA's Air Docket Section, which is listed under the ADDRESSES section of this preamble.

F. Regulatory Flexibility Act Compliance.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule, if promulgated, will not have a significant economic impact on a substantial number of small business entities because the impact of the proposed rule is not significant.

LIST OF SUBJECTS

Air pollution control, early emission reductions, hazardous air pollutants, compliance extensions, sources.

Date

Administrator

It is proposed that 40 CFR Chapter I be amended by adding Part 63 to read as follows:

PART 63 - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart A - General Provisions

Subpart B - [Reserved]

Subpart C - List of Hazardous Air Pollutants, Petition Processes, Lesser Quantity Designation, Source Category List

Subpart D - Regulations Governing Compliance Extensions for Early Reductions of Hazardous Air Pollutants

Sec.

63.70 Applicability.

63.71 Definitions.

63.72 General provisions for compliance extensions.

63.73 Source

63.74 Demonstration of early reduction.

63.75 Enforceable Commitments.

63.76 Review of base year emission estimates.

63.77 Application procedures.

63.78 Early reduction demonstration evaluation.

63.79 Approval of applications.

63.80 Enforcement.

Appendix A - Test Methods

Method 301 - Field Validation of Emission Concentrations from Stationary Sources

Authority: Clean Air Act (42 U.S.C. 7401 [et seq.]), as amended by Pub. L. 101-549).

Subpart D -- Regulations Governing Compliance Extensions for Early Reductions of Hazardous Air Pollutants.

§63.70 Applicability.

The provisions of this subpart apply to an owner or operator of an existing source who wishes to obtain a compliance extension from a standard issued under section 112(d) of the Act. The provisions of this subpart also apply to a State or local agency acting pursuant to a permit program approved under Title V of the Act. The Administrator will carry out the provisions of this subpart for any State that does not have an approved permit program.

§63.71 Definitions.

All terms used in this subpart not defined below are given the same meaning as in the Act or in Subpart A of this part.

"Act" means the Clean Air Act as amended.

"Actual emissions" means the actual rate of emissions of a pollutant from an emission point, but does not include excess emissions from a malfunction. Actual emissions shall be calculated using the source's actual operating rates, and types of materials processed, stored, or combusted during the selected time period.

"Artificially or substantially greater emissions" means abnormally high emissions such as could be caused by equipment malfunctions, accidents, unusually high production or operating rates compared to nameplate or historical rates, or other unusual circumstances.

"Category I hazardous air pollutants" means hazardous air pollutants from the following list (corresponding Chemical Abstracts Service numbers are

shown in parentheses next to the pollutant name, where available): arsenic compounds; asbestos (1332214); chromium compounds; hydrazine (302012); and 2,3,7,8-tetrachlorodibenzo-p-dioxin (1746016).

"Category II hazardous air pollutants" means hazardous air pollutants from the following list (corresponding Chemical Abstracts Service numbers are shown in parentheses next to the pollutant, where available): acrolein (107028); acrylic acid (79107); acrylamide (79061); acrylonitrile (107131); benzene (71432); benzotrichloride (98077); beryllium compounds; 1,3-butadiene (106990); chlordane (57749); chloroprene (126998); coke oven emissions; dichloroethyl ether (111444); 1,1-dimethyl hydrazine (57147); dibenzofuran (132649); epichlorohydrin (106898); ethylene dibromide (106934); heptachlor (76448); methylene diphenyl diisocyanate (101688); methyl isocyanate (624839); mercury compounds; phosgene (75445); 1,2-propylenimine (75558); 1,1,2,2-tetrachloroethane (79345); 2,4-toluene diisocyanate (584849); vinyl chloride (75014); and vinylidene chloride (75354).

"EPA Conditional Method" means any method of sampling and analyzing for air pollutants that has been validated by the Administrator but that has not been published as an EPA Reference Method.

"EPA Reference Method" means any method of sampling and analyzing for an air pollutant as described in Appendix A of Part 60, Appendix B of Part 61, or Appendix A of Part 63.

"Equipment leaks" means leaks from pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, agitators, accumulator vessels, and instrumentation systems in hazardous air pollutant service.

"Existing source" means any stationary source other than a new source.

"Hazardous air pollutant" means any air pollutant listed pursuant to section 112(b) of the Act.

"Malfunction" means any sudden failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

"New source" means a stationary source the construction or reconstruction of which is commenced after the Administrator first proposes regulations under section 112(d) of the Act establishing an emission standard applicable to such source.

"Not feasible to prescribe or enforce a numerical emission limitation" means a situation in which the Administrator or a State determines that a pollutant (or stream of pollutants) listed pursuant to section 112(b) of the Act cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal law; or the application of measurement technology to a particular source is not practicable due to technological or economic limitations.

"Permitting authority" means either a State agency with an approved permitting program under Title V of the Act or the Administrator in cases where the State does not have an approved permitting program.

"Process or production unit" means equipment or machinery connected together or assembled into a unit for the purpose of making a product or performing a function.

"Responsible official" means one of the following:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

[Note: The EPA does not require specific assignments or delegations of authority to responsible officials. The Agency will presume that these responsible corporate officers have the requisite authority to sign enforceable commitments under this subpart unless the corporation has notified the enforceable commitment reviewing agency to the contrary. Corporate procedures governing authority to sign enforceable commitments may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.]

(b) For a partnership or sole proprietorship, a general partner or the proprietor, respectively; or

(c) For a municipality, State, Federal, or other public agency, either a principal executive officer or ranking elected official. For the purposes of this subpart, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

"Reviewing agency" means a State agency with an approved permitting program under Title V of the Act or with delegated authority to review

enforceable commitments and base year emission estimates submitted under this subpart. An EPA Regional Office is the reviewing agency where the State does not have such an approved permitting program or delegated authority.

"State" means a State or local air pollution control agency.

§63.72 General provisions for compliance extensions.

(a) Except as provided in paragraph (f) of this section, a State acting pursuant to a permitting program approved under Title V of the Act shall by permit allow an existing source to meet an alternative emission limitation in lieu of an emission limitation promulgated under section 112(d) of the Act for a period of 6 years from the compliance date of the otherwise applicable standard provided the source owner or operator demonstrates:

(1) According to the requirements of §63.74 that the source has achieved a reduction of 90 percent (95 percent or more in the case of hazardous air pollutants which are particulates) in emissions of:

- (i) total hazardous air pollutants from the source,
- (ii) Category I hazardous air pollutants, if applicable, and
- (iii) Category I plus Category II hazardous air pollutants, if applicable.

(2) That such reduction was achieved before proposal of an applicable standard or, for sources eligible to qualify for an alternative emission limitation as specified in paragraph (c) of this section, before January 1, 1994.

(b) A source granted an alternative emission limitation shall comply with an applicable standard issued under section 112(d) of the Act immediately upon expiration of the six year compliance extension period specified in paragraph (a) of this section.

(c) An existing source which achieves the reduction specified in paragraph (a)(1) of this section after proposal of an applicable standard but before January 1, 1994, may qualify for an alternative emission limitation under paragraph (a) of this section if the source makes an enforceable commitment, prior to proposal of the applicable standard, to achieve such reduction. The enforceable commitment shall be made according to the procedures and requirements of §63.75.

(d) For each permit issued to a source under paragraph (a) of this section, there shall be established as part of the permit an enforceable alternative emission limitation for hazardous air pollutants reflecting continued use of the emission reduction methods which qualify the source for the alternative emission limitation.

(e) An alternative emission limitation shall not be available with respect to standards or requirements promulgated pursuant to section 112(f) of the Act, and the Administrator will, for the purpose of determining whether a standard under section 112(f) of the Act is necessary, review emissions from sources granted an alternative emission limitation under paragraph (a) of this section at the same time that other sources in the category or subcategory are reviewed.

(f) Nothing in this regulation shall preclude a State from requiring hazardous air pollutant reductions in excess of 90 percent (95 percent in the case of particulate hazardous air pollutants) as a condition of such State granting an alternative emission limitation authorized in paragraph (a) of this section.

§63.73 Source

An alternative emission limitation may be granted under this subpart to

an existing source. For the purposes of this subpart only, a source is defined as follows:

(a) A building structure, facility, or installation identified as a source by the EPA in Appendix B for a particular source category;

(b) All portions of an entire contiguous facility under common control that emit hazardous air pollutants; or

(c) Any portion of an entire contiguous facility under common control that can be identified as a facility, building, structure, or installation for the purposes of establishing standards under section 112(d) of the Act, including:

(1) Any individual emission point;

(2) A set of similar emission points that are physically or functionally related to one another; or

(3) Points associated with a particular process or production unit to the extent they are physically or operationally related to one another.

§63.74 Demonstration of early reduction.

(a) An owner or operator applying for an alternative emission limitation shall demonstrate achieving early reductions required by §63.72(a)(1) by following the procedures in this section.

(b) An owner or operator shall estimate base year emissions for the source by documenting the following information:

(1) A description of the source including; a site plan of the contiguous area under common control which contains the source, markings on the site plan locating the building, structure, facility, or installation that constitutes the source, evidence that the source conforms to one of the allowable source definition options from §63.73, and the activity at the source which causes

hazardous air pollutant emissions;

(2) A complete list of all emission points of hazardous air pollutants in the source, including an identification number and short descriptive title;

(3) The base year chosen, where the base year shall be 1987 or later except that the base year may be 1985 or 1986 if the owner or operator of the source can demonstrate that emission data for the source for 1985 or 1986 was submitted to the Administrator pursuant to an information request issued under section 114 of the Act and was received by the Administrator prior to November 15, 1990;

(4) The best available estimate on an annual basis of actual emissions during the chosen base year for each hazardous air pollutant emitted and each emission point listed in the source in paragraph (b)(2) of this section;

(5) The total base year emissions from the source of all hazardous air pollutants calculated by summing the individual emission estimates from paragraph (b)(4) of this section;

(6) The total base year emissions from the source of all Category I hazardous air pollutants calculated by summing the individual emission estimates of Category I pollutants from paragraph (b)(4) of this section;

(7) The total base year emissions from the source of all Category II hazardous air pollutants calculated by summing the individual emission estimates of Category II pollutants from paragraph (b)(4) of this section;

(8) The supporting basis for each emission estimate in paragraph (b)(4) of this section including;

(i) For test results submitted as the supporting basis, a description of the test protocol followed and any problems encountered during the testing, a record of the raw test data, and a discussion of the validity of the method

for measuring the subject emissions; and

(ii) For calculations based on emission factors, material balance, or engineering principles and submitted as the supporting basis, a step-by-step description of the calculations, including assumptions used, and a brief rationale for the validity of the calculation method used;

(9) Evidence that the emission estimates from paragraph (b)(4) of this section are within allowable emission levels specified in any air pollution control laws or regulations applicable for the base year;

(10) Evidence that the emissions estimated in paragraph (b)(4) of this section are not artificially or substantially greater than emissions in other years prior to implementation of emission reduction measures;

(c) An owner or operator shall estimate post-control emissions by documenting the following information;

(1) For each emission point listed in the source in paragraph (b)(2) of this section, a description of all control measures employed to achieve the emission reduction required by §63.74(a)(1);

(2) The best available estimate on an annual basis of actual emissions after the base year and following employment of control measures for each hazardous air pollutant and each emission point in the source as listed in paragraph (b)(2) of this section;

(3) The total post-control emissions of all hazardous air pollutants from the source calculated by summing the individual emission estimates from paragraph (c)(2) of this section;

(4) The total post-control emissions of all Category I hazardous air pollutants from the source calculated by summing the individual emission estimates of Category I pollutants from paragraph (c)(2) of this section;

(5) The total post-control emissions of all Category II hazardous air pollutants from the source calculated by summing the individual emission estimates of Category II pollutants from paragraph (c)(2) of this section;

(6) The supporting basis for each emission estimate in paragraph (c)(2) of this section including;

(i) For test results submitted as the supporting basis, a description of the test protocol followed and any problems encountered during the testing, a record of the raw test data, and a discussion of the validity of the method for measuring the subject emissions; and

(ii) For calculations based on emission factors, material balance, or engineering principles and submitted as the supporting basis, a step-by-step description of the calculations, including assumptions used, and a brief rationale for the validity of the calculation method used;

(7) Evidence that all emission reduction was achieved prior to proposal of an applicable standard issued under section 112(d) of the Act or, for sources subject to enforceable commitments, prior to January 1, 1994;

(8) Evidence that none of the emission reduction achieved was due to lower production rates or fewer hours of operation compared to the base year, unless such lower rates or hours are shown to be permanent and no compensating increases in rates or hours occur at other facilities within the contiguous area under common control which contains the source or, if they occur, do not result in emissions of hazardous air pollutants; and

(9) Evidence that emission reductions achieved due to shutdown of equipment within the source are permanent. If shutdown equipment is replaced by new equipment, any hazardous air pollutant emissions from the new equipment shall be counted in the post-control emission estimate for the source.

(d) An owner or operator shall provide calculations to show that the following groups of base year emissions from the source have been reduced by at least 90 percent (95 percent in the case of particulate hazardous air pollutants):

(1) Total base year emissions, as estimated under paragraph (b)(5) of this section;

(2) Category I hazardous air pollutant base year emissions, as estimated under paragraph (b)(6) of this section; and

(3) The sum of Category I and Category II hazardous air pollutant base year emissions, which is the sum of emission estimates from paragraphs (b)(6) and (b)(7) of this section.

(e) The best available estimate of actual emissions for the purpose of establishing base year or post-control emissions under this section shall consist of documented results from source tests using an EPA Reference Method, EPA Conditional Method, or the owner's or operator's source test method which has been validated pursuant to Method 301 of Appendix A of this part. Only if one of the following conditions exists may an owner or operator submit calculations based on engineering principles, emission factors, or material balance data as actual emission data for establishing base year or post-control emissions in lieu of results from source tests:

(1) No applicable EPA Reference Method, EPA Conditional Method, or other source test method exists;

(2) It is not technologically or economically feasible to perform source tests;

(3) It can be demonstrated to the satisfaction of the reviewing agency that the calculations will provide emission estimates of accuracy comparable

to that of any applicable source test method;

(4) For base year emission estimates only, the base year conditions no longer exist at an emission point in the source and an emission estimate could not be produced for such an emission point, by performing source tests under currently existing conditions and converting the test results to reflect base year conditions, that is more accurate than an estimate produced by using engineering principles, emission factors, or a material balance; or

(5) The emissions from one or a set of emission points in the source are small compared to total source emissions and errors in estimating emissions from such points will not have a significant effect on the accuracy of estimated total emissions from the source.

(f) For each base year or post-control emission estimate submitted under this section that is not supported by source test data, the source owner or operator shall include the reason source testing was not performed.

(g) In cases where emission control measures have been employed less than a year prior to demonstrating emission reductions under this section, an owner or operator shall extrapolate post-control emission rate estimates to an annual basis and shall describe the extrapolation method as part of the supporting basis required under subparagraph (c)(6) of this section.

(h) If gaseous and particulate hazardous air pollutants are emitted from the source, the source owner or operator shall make a separate demonstration of 90 percent reduction for the gaseous hazardous air pollutants and 95 percent reduction for the particulate hazardous air pollutants according to the procedures of this section.

(i) The EPA average emission factors for equipment leaks cannot be used under this subpart to estimate base year emissions for equipment leak sources.

§63.75 Enforceable commitments.

(a) To make an enforceable commitment an owner or operator shall submit a commitment to achieve the early reductions required under §63.72(a)(1) to the appropriate EPA Regional Office and a copy of the commitment to the appropriate State, except that the commitment shall be submitted to the State and a copy to the EPA Regional Office if the State has an approved permitting program under Title V of the Act. The commitment shall contain:

(1) The name and address of the source;

(2) The name and telephone number of the source owner or operator or other responsible official who can be contacted concerning the commitment;

(3) An alternative mailing address if correspondence is to be directed to a location other than that given in paragraph (a)(1) of this section;

(4) All information specified in §63.74(b)(1) through (b)(10), which defines and describes the source and provides the base year estimate of hazardous air pollutant emissions from the source;

(5) The general plan, for achieving the required hazardous air pollutant emissions reductions at the source including descriptions of emission control equipment to be employed, process changes or modifications to be made, and any other emission reduction measures to be used; and

(6) A statement of commitment, signed by a responsible official of the source, containing the following:

(i) A statement providing the post-control emission level for total hazardous air pollutant emissions, Category I hazardous air pollutant emissions, and Category I plus Category II hazardous air pollutant emissions, as applicable, from the source on an annual basis which reflects a 90 percent (95 percent for particulate pollutants) reduction from base year emissions and

would qualify the source for a compliance extension under this regulation;

(ii) A statement certifying that the base year emission estimates submitted as part of the enforceable commitment constitute the best available estimates of base year emissions from the source and are correct to the best of the responsible official's knowledge;

(iii) A statement that it is understood by the source owner or operator that submission of base year emission estimates constitutes a response to an EPA request under the authority of section 114 of the Act and that the commitment is subject to enforcement according to §63.80; and

(iv) A statement committing the source owner or operator to achieving the emission levels, listed in subparagraph (i) of this paragraph, at the source before January 1, 1994.

(b) The following language may be used to satisfy the requirements of subparagraphs (a)(6)(ii) through (a)(6)(iv) of this section:

"I certify to the best of my knowledge that the base year emissions given above are accurate and acknowledge that these estimates are being submitted in response to an EPA request under section 114 of the Act. Furthermore, I commit to achieve before January 1, 1994 the stated post-control emission level(s) at the source, which will provide the 90 (95) percent reduction required to qualify for the compliance extension, and acknowledge that this commitment is enforceable as specified in Title 40 Part 63 Subpart D of the Code of Federal Regulations."

(c) A commitment for a source shall be submitted prior to proposal of an applicable standard issued under section 112(d) of the Act. Commitments received after the proposal date shall be void.

(d) If test results for one or more emission points in a source are

required to support a base year emission estimate in an enforceable commitment but are not available prior to proposal of an applicable standard issued under section 112(d) of the Act, the test results may be submitted after the enforceable commitment is made but no later than 180 days after proposal of an applicable standard. In such cases, the enforceable commitment shall contain the best substitute estimates of emissions for the points in the source for which test results will be submitted later.

(e) If it becomes infeasible to meet a commitment made under this section, an owner or operator may rescind such a commitment prior to December 1, 1993 without penalty and forfeit the opportunity to obtain a six year compliance extension under this subpart. The submittal rescinding a commitment shall state the reasons that it is no longer feasible to meet the commitment.

§63.76 Review of base year emission estimates.

(a) Pursuant to the procedures of this section, the appropriate reviewing agency shall review and approve or disapprove a base year emission estimate submitted in an enforceable commitment under §63.75 or in a request letter from an applicant who wishes to participate in the early reduction program but who is not required to submit an enforceable commitment. For review requests submitted to a State agency as the appropriate reviewing agency, a copy of the request also shall be submitted to the applicable EPA Regional Office. For review requests submitted to the EPA Regional Office as the appropriate reviewing agency, a copy of the request also shall be sent to the applicable State agency.

(b) Within 30 days of receipt of an enforceable commitment or a base year emission estimate, the reviewing agency shall advise the applicant that:

- (1) The base year emission estimate is complete as submitted; or
- (2) The base year emission estimate is not complete and include a list of deficiencies that must be corrected before review can proceed.

(c) An EPA Regional Office will publish a notice in the FEDERAL REGISTER which contains a list, accumulated for the previous month, of the sources for which a complete base year emission estimate has been submitted and which is undergoing review either in the EPA Regional Office or a State agency within the EPA region. The notice will contain the name and location of each source and a contact in the EPA Regional Office for additional information.

(d) Within 60 days of receipt of a complete base year emission estimate, the reviewing agency shall evaluate the adequacy of the estimate with respect to the requirements of §63.74(b)(1) through (b)(10) and either:

- (1) Determine to approve the base year emission estimate and publish a notice, by advertisement in the area affected, providing the aggregate base year emission estimate for the source and the rationale for the proposed approval, noting the availability of the nonconfidential information contained in the base year emission estimate for public inspection in at least one location in the community in which the source is located, providing for a public hearing upon request by an interested party, and establishing a 30 day public comment period that can be extended to 60 days upon request by an interested party; or

- (2) Determine to disapprove the base year emission estimate and give notice to the applicant of the reasons for the disapproval. An applicant may correct a disapproved base year emission estimate and submit a revised estimate for review according to paragraph (d) of this section, except that the review of a revised estimate shall be accomplished within 30 days.

(e) If no adverse public comments are received on a base year emission estimate proposed for approval by the reviewing agency, the estimate shall be considered approved at the close of the public comment period and a notice of the approval shall be published by the reviewing agency by advertisement in the area affected.

(f) If adverse comments are received and the reviewing agency agrees that corrections are needed, the reviewing agency shall give notice to the applicant of the disapproval and reasons for the disapproval. An applicant may correct a disapproved base year emission estimate and submit a revised estimate. If a revised base year emission estimate is submitted by the applicant that, to the satisfaction of the reviewing agency, takes into account the adverse comments, the reviewing agency will publish by advertisement in the area affected a notice containing the approved base year emission estimate for the source.

(g) If adverse comments are received and the reviewing agency determines that the comments do not warrant changes to the base year emission estimates, the reviewing agency will publish by advertisement in the area affected a notice containing the approved base year emission estimate for the source and the reasons for not accepting the adverse comments.

(h) If an applicant submits a revised base year emission estimate under paragraphs (d)(2) or (f) of this section for a source subject to an enforceable commitment, the applicant also shall submit an amended enforceable commitment which takes into account the revised emission estimate.

(i) If an applicant chooses not to revise a disapproved emission estimate for a source that is subject to an enforceable commitment, the applicant shall withdraw the enforceable commitment within 30 days of receipt

of the notice of disapproval.

§63.77 Application procedures.

(a) To apply for an alternative emission limitation under §63.72, an owner or operator of the source shall file a permit application with the appropriate permitting authority.

(b) If filed with a State agency, the permit application shall contain a demonstration of early reduction for the source as prescribed in §63.74 and the additional information required for a complete permit application as specified by the State's permitting program approved under Title V of the Act.

(c) If filed with an EPA Regional Office, the permit application shall contain a demonstration of early reduction for the source as prescribed in §63.74 and the additional information required for a complete permit application as specified by Federal permitting regulations under Part 71.

(d) Permit applications under this section shall be submitted no later than the date of proposal of an otherwise applicable standard issued under section 112(d) of the Act or, for sources for which an enforceable commitment previously was made under §63.75, no later than December 1, 1993.

(e) If a source test is the supporting basis for a post-control emission estimate for one or more emission points in the source but the test results are not available by the deadline for submittal of a permit application according to paragraph (d) of this section, the owner or operator shall provide the supporting basis no later than 90 days after the applicable deadline for submittal of the permit application or no later than March 31, 1994 for sources subject to an enforceable commitment.

(f) Review and disposition of permit applications submitted under this section will be accomplished according to Part 70 regulations where a State

agency is the appropriate permitting authority and according to Part 71 regulations where an EPA Regional Office is the appropriate permitting authority.

§63.78 Early reduction demonstration evaluation.

(a) The permitting authority will evaluate an early reduction demonstration submitted by the source owner or operator in a permit application with respect to the requirements of §63.74.

(b) An application for a compliance extension may be denied if, in the judgment of the permitting authority, the owner or operator has failed to demonstrate that the requirements of §63.74 have been met. Specific reasons for denial include, but are not limited to:

(1) The information supplied by the owner or operator is incomplete;

(2) The required 90 percent reduction (95 percent in cases where the hazardous air pollutant is particulate matter) has not been demonstrated;

(3) The base year or post-control emission estimates are incorrect, based on methods or assumptions that are not valid, or not sufficiently reliable or well documented to determine with reasonable certainty that required reductions have been achieved; or

(4) The emission of hazardous air pollutants or the performance of emission control measures is sufficiently variable or unreliable as to preclude determination that the required reductions have been or will continue to be achieved.

§63.79 Approval of applications.

(a) If an early reduction demonstration is approved and other requirements for a complete permit application are met, the permitting authority shall establish by a permit issued pursuant to Title V of the Act an

enforceable alternative emissions limitation for each emission point in the source reflecting the continued use of the control measures which qualified the source for the extension. However, if it is not feasible to prescribe a numerical emissions limitation for one or more emission points in the source, the permitting authority shall establish for such emission points design, equipment, work practice, or operational standards (which may include requirements for operator training or certification), or combination thereof, reflecting the continued use of the control measures which qualified the source for exemption.

(b) An alternative emissions limitation or design, equipment, work practice, or operational standard prescribed pursuant to paragraph (a) of this section shall be effective and enforceable immediately upon issuance of the permit for the source and shall expire exactly six years after the compliance date of an otherwise applicable standard issued pursuant to section 112(d) of the Act.

§63.80 Enforcement.

(a) All base year or post-control emissions information described in §63.74 and required to be submitted as part of a permit application under §63.77 or an enforceable commitment under §63.75 shall be considered to have been requested by the Administrator under the authority of section 114 of the Act.

(b) False statements contained in any base year or post-control emission estimates submitted to a State or EPA Regional Office under this subpart shall be considered violations of section 114 of the Act and of this regulation and, thus, actionable under section 113 of the Act and can be considered, in appropriate cases, violations of 18 U.S.C. §1001, the general false swearing

provision of the United States Code.

(c) If a permit application is not received by December 1, 1993 for a source subject to an enforceable commitment, the source shall be considered to be in violation of the commitment and shall be subject to enforcement action under section 113 of the Act.

(d) If an early reduction demonstration in a permit application filed under §63.77 is disapproved for a source not subject to an enforceable commitment, the owner or operator shall comply with an applicable standard issued under section 112(d) of the Act by the compliance date specified in such standard.

(e) If an early reduction demonstration in a permit application filed under §63.77 is disapproved for a source that is subject to an enforceable commitment, the owner or operator shall comply with an applicable standard issued under section 112(d) of the Act by the compliance date specified in such standard and will be subject to enforcement action under section 113 of the Act.

(f) A violation of an alternative emission limitation or design, equipment, work practice, or operational standard established by permit under §63.79(a) or (b) at any emission point in the source is enforceable pursuant to the authority of section 113 of the Act notwithstanding any demonstration of continuing 90 percent (95 percent for hazardous air pollutants which are particulates) emission reduction over the entire source.

§ 63.81 Rule for Special Situations

(a) If more than one standard issued under section 112(d) of the Act would be applicable to a source as defined under §63.73, then the date of proposal referred to in §63.72(a)(2), §63.72(c), §63.74(c)(7), §63.75(c), and

§63.77(d) is the date the first applicable standard is proposed.

Appendix A - Test Methods

Method 301--Field Validation of Emission Concentrations from Stationary Sources

1. Applicability and Principle

1.1 **Applicability.** This Method, as specified in the applicable subpart, is to be used whenever a source owner or operator (hereafter referred to as an "analyst") proposes a test method to meet a U.S. Environmental Protection Agency (EPA) requirement in the absence of a validated method. This Method includes procedures for determining and documenting the quality, i.e., systematic error (bias) and random error (precision), of the measured concentrations of the source emissions.

1.1.1 If EPA currently recognizes an appropriate test method or considers the analyst's test method to be satisfactory for a particular source, the Administrator may waive the use of this protocol or may specify a less rigorous validation procedure. A list of **validated methods** may be obtained by contacting the Emission Measurement Technical Information Center (EMTIC), Mail Drop 19, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, 919/541-0200. Procedures for obtaining a waiver are in Section 12.0.

1.1.2 This method includes optional procedures that may be used to expand the applicability of the proposed method. Section 7.0 involves ruggedness testing (Laboratory Evaluation), which demonstrates the sensitivity of the method to various parameters. Section 8.0 involves a procedure for including sample stability in bias and precision for assessing sample recovery and analysis times; Section 9.0 involves a procedure for the determination of the

practical limit of quantitation for determining the lower limit of the method. These optional procedures are required for waiver consideration method status, Section 12.0.

1.2 Principle. The purpose of these procedures is to determine bias and precision of a test method at a permissible emission concentration, e.g., emission standard, in the gas stream. The procedures involve (a) introducing known concentrations of an analyte or comparing the test method against a validated test method to determine the method's bias and (b) collecting multiple or collocated simultaneous samples to determine the method's precision.

1.2.1 Bias. Bias is established by comparing the method's results against a reference value and may be eliminated by dividing the measured concentration by an appropriate factor (i.e., average measured concentration/reference value). An offset bias may be handled accordingly. Methods that have bias correction factors outside 0.7 to 1.3 are unacceptable. Validated method to proposed method comparisons, Section 6.2, requires a more restrictive test of central tendency and a lower correction factor allowance of 0.90 to 1.10.

1.2.2 Precision. At least two (i.e., paired) sampling trains shall be used to establish precision. The precision of the method at the level of the emission standard shall not be greater than 50 percent relative standard deviation. For a validated method to proposed method equivalency comparisons, Section 6.2, the analyst must demonstrate that the precision of the proposed test method is as precise as the validated method for acceptance.

2. Definitions.

2.1 Negative bias. Bias Resulting when the measured result is less than the "true" value.

2.2 Paired trains. Two collocated and simultaneously operated sampling systems.

2.3 Positive bias. Bias resulting when the measured result is greater than the "true" value.

2.4 Proposed method. The sampling and analytical methodology selected for field validation using the method described herein.

2.5 Quadruplicate trains. Four collocated and simultaneously operated sampling train system.

2.6 Surrogate compound. A compound that serves as a model for the types of compound being analyzed. The model can be distinguished by the method from the compounds being analyzed.

3. **Reference Material**. The analyst shall obtain a known concentration of the reference material (i.e., analyte of concern) from an independent source such as a specialty gas manufacturer, specialty chemical company, or commercial laboratory. A list of vendors may be obtained from EMTIC (see Section 1.1.1). The analyst should obtain the manufacturer's stability data of the analyte concentration and recommendations for recertification. If the reference material is in the gaseous state, the concentration(s) [multiple levels may be required to expand a method's concentration applicability] shall be within 0.20 to 5 times the average concentration in the sample gas stream.

3.1 **Surrogate Reference Materials**. The analyst may use surrogate compounds, e.g., for highly toxic or reactive organic compounds, provided the analyst can demonstrate to the Administrator's satisfaction that the surrogate compound behaves as the analyte. A surrogate may be an isotope or one that contains a unique element (e.g., chlorine) that is not present in the stack

gas or a derivative of the toxic or reactive compound, if the derivative formation is part of the method's procedure. Laboratory experiments or literature data may be used to show behavioral acceptability.

3.2 Isotopically Labeled Materials. Isotope mixtures may contain the isotope and the natural analyte. For best results, the isotope labeled analyte concentration should be more than five times the natural concentration of the analyte. Deuterated compounds of interest may be in gaseous or liquid states. The gaseous form should be obtained in compressed-gas cylinders in high-purity nitrogen.

4. EPA Performance Audit Material

4.1 To assess the method bias independently, the analyst shall use (in addition to the reference material) an EPA performance audit material, if it is available. The analyst may contact EMTIC (see Section 1.1.1) to receive a list of currently available EPA audit materials. If the analyte is listed, the analyst should request the audit material at least 30 days before the validation test. If an EPA audit material is not available, request documentation from the validation report reviewing authority that the audit material is currently not available from EPA. Include this documentation with the field validation report.

4.2 The analyst shall sample and analyze the performance audit sample three times according to the instructions provided with the audit sample. The analyst shall submit the three results with the field validation report. Although no acceptance criteria are set for these performance audit results, the analyst and reviewing authority may use them to assess the relative error of sample recovery, sample preparation, and analytical procedures and then

consider the relative error in evaluating the measured emissions.

5. Procedure for Determination of Bias and Precision in the Field. The analyst shall select one of the sampling approaches below to determine the bias and precision of the data. After analyzing the samples, the analyst shall calculate the bias and precision according to the procedure described in Section 6.0.

5.1 Isotopic Spiking. This approach shall be used only for methods that require gas chromatography/mass spectrometry (GC/MS) analysis. Bias and precision are calculated by procedures described in Section 6.1.

5.1.1 Number of Samples and Sampling Runs. Collect a total of 12 samples using either paired (2) or quadruplet (4) collocated sampling trains. For paired trains, conduct six sampling runs. For quadruplet trains, conduct three sampling runs.

5.1.2 Spiking Procedure. Spike all 12 sampling trains with the reference material as follows. The spike shall be introduced as close to the tip of the probe as possible.

5.1.2.1 Gaseous Reference Material with Sorbent or Impinger Trains. Sample the reference material (in the laboratory or in the field) at a concentration equal to the level of the emission standard for the time required by the method, and then sample the gas stream for an equal amount of time. The time for sampling both the reference material and gas stream should be equal; however, the time should be adjusted to avoid sorbent breakthrough.

5.1.2.2 Gaseous Reference Material with Sample Container (Bag or Canister). Spike the containers after completion of the test run with an amount equal to the level of emission standards. The final concentration of

the reference material shall approximate the level of the emission standard. The volume amount of reference material shall be less than 10 percent of the sample volume.

5.1.2.3 Liquid and Solid Reference Material with Sorbent or Impinger Trains. Spike the trains with an amount equal to the level of the emission standard before sampling the stack gas. The spiking should be done in the field; however, it may be done in the laboratory.

5.1.2.4 Liquid and Solid Reference Material with Sample Container (Bag or Canister). Spike the containers at the completion of each test run with an amount equal to the level of the emission standard.

5.2 Comparison Against a Validated Test Method. Bias and precision are calculated using the procedures described in Section 6.2. This approach shall be used when a validated method is available and an alternative method is being proposed.

5.2.1 Number of Samples and Sampling Runs. Collect a total of 18 samples using paired trains or 16 samples using quadruplet sampling trains. For paired trains, conduct nine sampling runs. For quadruplet trains, conduct four sampling runs. In each run, the validated test method shall be used to collect and analyze half of the samples.

5.2.2 Performance Audit Exception. Conduct the performance audit as required in Section 4.0 for the validated test method. Conducting a performance audit on the test method being evaluated is recommended.

5.2.3 Probe Placement and Arrangement. The probes should be placed in the same horizontal plane. For paired sample probes the arrangement should be that the probe tip is 2.5 cm from the outside edge of the other with the pitot tube on the outside of each probe. For quad probes, the tips shall be in a

6.0 cm x 6.0 cm square area measured from the inside edge of the probe tip with the pitot tube in the center.

5.3 Analyte Spiking. Bias and precision are calculated using the procedures described in Section 6.3.

5.3.1 Number of Samples and Sampling Runs. Collect a total of 24 samples using quadruplet sampling trains. Conduct six sampling runs.

5.3.2 In each run, spike half of the sampling trains (two out of the four) according to the applicable procedure in Sections 5.1.2.1 through 5.1.2.4.

6. Calculations.

Data resulting from the procedures specified in Section 5.0 shall be treated as follows to determine bias, correction factors, relative standard deviations, precision, and data acceptance.

6.1 Isotopic Spiking. Analyze the data for isotopic spiking tests as outlined in Sections 6.1.1 through 6.1.6.

6.1.1 Calculate the numerical value of the bias using the results from the analysis of the isotopically spiked field samples and the calculated value of the isotopically labeled spike:

$$B = S_m - CS \qquad \text{Eq. 301-1}$$

where:

B = bias at the spike level;

S_m = mean of the measured values of the isotopically spiked samples;

CS = calculated value of the isotopically labeled spike.

6.1.2 Calculate the standard deviation of the S_i values as follows:

$$SD = \sqrt{\frac{\sum (S_i - S_m)^2}{(n-1)}} \quad \text{Eq. 301-2}$$

where:

S_i = The measured value of the isotopically labeled analyte in the i th field sample;

n = The number of isotopically spiked samples, 12.

6.1.3 Calculate the standard deviation of the mean (SDM) as follows:

$$SDM = \frac{SD}{\sqrt{n}} \quad \text{Eq. 301-3}$$

6.1.4 Test the bias for statistical significance by calculating the t -statistic,

$$t = \frac{|B|}{SDM} \quad \text{Eq. 301-4}$$

and compare it with the critical value of the two-sided t-distribution at the 95-percent confidence level and n-1 degrees of freedom. This critical value is 1.80 for the eleven degrees of freedom when the procedure specified in Section 5.1.2 is followed. If the calculated t-value is greater than the critical value the bias is statistically significant and the analyst should proceed to evaluate the correction factor.

6.1.5 Calculation of a correction factor. If the t-test does not show that the bias is statistically significant, proceed to the precision evaluation. If the method's bias is statistically significant, calculate the correction factor, CF using the following equation:

$$CF = \frac{1}{1 + \frac{B}{CS}} \quad \text{Eq. 301-5}$$

Multiply all analytical results by CF to obtain the final values.

6.1.6 Calculation of the relative standard deviation (precision).

Calculate the relative standard deviation as follows:

$$RSD = \left(\frac{SD}{S_m} \right) \times 100 \quad \text{Eq. 301-6}$$

where S_m is the measured mean of the isotopically labeled spiked samples.

6.2 Comparison with Validated Method.

Analyze the data for comparison with a validated method as outlined in

Sections 6.2.1 through 6.2.2.5. Conduct the following to determine if a proposed method produces results equivalent to a validated method. Make all necessary bias corrections for the validated method, as appropriate. If the proposed method fails either test, the method results are unacceptable, and conclude that the proposed method is not as precise or accurate as the validated method.

6.2.1 Paired sampling trains.

6.2.1.1 Precision. Determine the acceptance of the proposed method's variance with respect to the variability of the validated method results. If a significant difference is determined, the proposed method and the results are rejected. Proposed methods demonstrating F-values equal to or less than the critical value have acceptable precision.

6.2.1.2 Calculate the Variance of the validated method, S_v^2 , and the proposed method, S_p^2 , using the following equation:

$$S^2 = \frac{\sum (e_i - e_m)^2}{n-1} \quad \text{Eq. 301-7}$$

where:

e_i = The measured values of either the validated
or proposed method;

e_m = The mean of either the validated or proposed
method values.

6.2.1.3 The F-test. Determine if the variance of the proposed method is

significantly different from that of the validated method by calculating the F-value using the following equation:

$$F = \frac{S_p^2}{S_v^2} \quad \text{Eq. 301-8}$$

Compare the experimental F-value with the critical value of F at the 95-percent confidence level with n-1 degrees of freedom. The critical value is 3.44 for the eight degrees of freedom when the procedure specified in Section 5.2.1 for paired trains is followed. If the calculated F is greater than the critical value, the difference in precision is significant and the data and proposed method are unacceptable.

6.2.1.4 Bias analysis. Test the bias for statistical significance by calculating the t-statistic and determine if the mean of the differences between the proposed method and the validated method is significant at the 80-percent confidence level. Determine the mean of the differences, d_m , and the standard deviation, SD_d , of the differences. Calculate the standard deviation of the mean of the differences, SD_d , using Equation 301-2

where:

d_i replaces S_i

d_m replaces S_m .

Calculate the t-statistic using the following equation:

where n is the total number of paired samples. For the procedure in Section

$$t = \frac{d_m}{\left(\frac{SD_d}{\sqrt{n}} \right)} \quad \text{Eq.301-9}$$

5.2.1, n equals nine. Compare the calculated t-statistic with the corresponding value from the table of the t-statistic. When nine runs are conducted, as specified in Section 5.2.1, the critical value of the t-statistic is 0.889 for eight degrees of freedom. If the calculated t-value is greater than the critical value the bias is statistically significant and the analyst should proceed to evaluate the correction factor.

6.2.1.5 Calculation of a correction factor. If the method's bias is statistically significant, calculate the correction factor, CF, as follows:

$$CF = \frac{1}{1 + \frac{d_m}{V_m}} \quad \text{Eq. 301-10}$$

where V_m is the mean of the validated method's values. Multiply all analytical results by CF to obtain the final values. The method results, and the method, are unacceptable if the correction factor is outside the range of 0.9 to 1.10.

6.2.2 Quadruplet sampling trains.

6.2.2.1 Acceptable precision for equivalency. Determine the acceptance of the proposed method's variance with respect to the variability of the validated method results. If a significant difference is determined the proposed method and the results are rejected.

6.2.2.2 Calculate the Variance of the validated method, S_v^2 , and the proposed method, S_p^2 , using Equation 301-7.

6.2.2.3 The F-test. Determine if the variance of the proposed method is significantly different from that of the validated method by calculating the F-value using Equation 301-8. Compare the experimental F-value with the critical value of F at the 95-percent confidence level with n-1 degrees of freedom. The critical value is 7.00 for the seven degrees of freedom when the procedure specified in Section 5.2.2 for quadruplet trains is followed. If the calculated F is greater than the critical value, the difference in precision is significant the results and the proposed method are unacceptable.

6.2.2.4 Bias Analysis. Test the bias for statistical significance at the 80 percent confidence level by calculating the t-statistic. Determine the mean of the differences between the proposed method and the validated method, d_m , and the standard deviation, SD_d , of the differences (d_i). Calculate the standard deviation of the mean of the differences, SD_d , using Equation 301-7 where:

$$d_i = \frac{(V_{1i} - V_{2i})}{2} - \frac{(P_{1i} - P_{2i})}{2} \quad \text{Eq. 301-11}$$

and: V_{1i} = The first measured value of the validated method in the ith test sample;

P_{1i} = The first measured value of the proposed method in the ith test sample.

Calculate the t-statistic using Equation 301-9 where n is the total number of test sample differences (d_i). For the procedure in Section 5.2.2, n equals four. Compare the calculated t-statistic with the corresponding value from the table of the t-statistic and determine if the mean is significant at the 80-percent confidence level. When four runs are conducted, as specified in Section 5.2.2, the critical value of the t-statistic is 0.978 for three degrees of freedom.

If the calculated t-value is greater than the critical value the bias is statistically significant and the analyst should proceed to evaluate the correction factor.

6.2.2.4 Correction factor calculation. If the method's bias is statistically significant, calculate the correction factor, CF, using Equation 301-10. Multiply all analytical results by CF to obtain the final values. The method results, and the method, are unacceptable if the correction factor is outside the range of 0.9 to 1.10.

6.3 Analyte Spiking. Conduct sampling as described in Section 5.3, and analyze the data for analyte spike testing as outlined in Sections 6.3.1 through 6.3.6.

6.3.1 Bias. Calculate the numerical value of the bias using the results from the analysis of the spiked field samples, the unspiked field samples, and the calculated value of the spike:

$$B = S_m - M_m - CS \quad \text{Eq. 301-12}$$

where

B = bias at the spike level

S_m = mean of the spiked samples

M_m = mean of the unspiked samples

CS = calculated value of the spiked level.

6.3.2 Determine the precision of the spiked samples. Calculate the difference, d_i , between the pairs of the spiked proposed method measurements for each sampling run. Determine the standard deviation (SD_s) of the spiked values using the following equation:

$$SD_s = \sqrt{\frac{\sum d_i^2}{2n}} \quad \text{Eq. 301-13}$$

where: n = the number of samples.

6.3.3 Calculate the standard deviation of the mean using Equation 301-3.

6.3.4 Test the bias for statistical significance by calculating the t-statistic using Equation 301-4 and comparing it with the critical value of the two-sided t-distribution at the 95-percent confidence level and $n-1$ degrees of freedom. This critical value is 1.80 for the eleven degrees of freedom.

6.3.5 Calculation of a correction factor. If the t-test does not show that the bias is statistically significant use all analytical results without correction. If the method's bias is statistically significant, calculate the correction factor using Equation 301-5. Multiply all analytical results by CF to obtain the final values.

6.3.6 Determination of precision of the unspiked samples. Calculate the

standard deviation of the unspiked values using Equation 301-13 and the relative standard deviation of the proposed unspiked method using Equation 301-6.

7. Ruggedness Testing (Optional).

7.1 Laboratory Evaluation.

7.1.1 Ruggedness testing is a useful and cost-effective laboratory study to determine the sensitivity of a method to certain parameters such as sample collection rate, interferant concentration, collecting medium temperature, or sample recovery temperature. This Section generally discusses the principle of the ruggedness test. A more detailed description is presented in citation 10 of Section 13.0.

7.1.2 In a ruggedness test, several variables are changed simultaneously rather than one variable at a time. This reduces the number of experiments required to evaluate the effect of a variable. For example, the effect of seven variables can be determined in eight experiments rather than 128 (W.J. Youden, **Statistical Manual of the Association of Official Analytical Chemists**, Association of Official Analytical Chemists, Washington, DC, 1975, pp. 33-36).

7.1.3 Data from ruggedness tests are helpful in extending the applicability of a test method to different source concentrations or source categories.

8. Procedure for Including Sample Stability in Bias and Precision Evaluations (Optional).

8.1 Sample Stability.

8.1.1 The test method being evaluated must include procedures for sample

storage and the time within which the collected samples shall be analyzed.

8.1.2 This Section discusses the procedures for including the effect of storage time in bias and precision evaluations. The evaluation may be deleted if the test method specifies a time for sample storage.

8.2 **Stability Test Design.** The following procedures should be conducted to identify the effect of storage times on analyte samples. Store the samples according to the procedure specified in the test method.

8.2.1 For sample container (bag or canister) and impinger sampling systems set up in regards to Section 5.1 and 5.3, analyze six of the samples at the minimum storage time. Then analyze the same six samples at the maximum storage time.

8.2.2 For sorbent sampling systems set up in regards to Section 5.1 and 5.3 that require liquid extraction, extract six of the samples at the minimum storage time and extract six other samples at the maximum storage time. Analyze an aliquot of the first six extracts at both the minimum and maximum storage times. This will provide some freedom to analyze extract storage impacts.

8.2.3 For sorbent sampling systems set up in reference to Section 5.1 and 5.3 that require thermal desorption, analyze six samples at the minimum storage time. Analyze another set of six samples at the maximum storage time.

8.2.4 For systems set up in accordance with Section 5.2, the number of samples analyzed at the minimum and maximum storage times shall be half those collected (8 or 9).

9. Procedure for Determination of Practical Limit of Quantitation (Optional).

9.1 Practical Limit of Quantitation.

9.1.1 The practical limit of quantitation (PLQ) is the lowest level above which quantitative results may be obtained with an acceptable degree of confidence. For this protocol, the PLQ is defined as 10 times the standard deviation, s_o , at the blank level. This PLQ corresponds to an uncertainty of ± 30 percent at the 99-percent confidence level.

9.1.2 The PLQ will be used to establish the lower limit of the test method.

9.2 Procedure I for Estimating s_o . This procedure is acceptable if the estimated PLQ is no more than twice the calculated PLQ. If the PLQ is greater than twice the calculated PLQ use Procedure II.

9.2.1 Estimate the PLQ and prepare a test standard at this level. The test standard could consist of a dilution of the reference material described in Section 4.0.

9.2.2 Using the normal sampling and analytical procedures for the method, sample and analyze this standard at least seven times in the laboratory.

9.2.3 Calculate the standard deviation, s_o , of the measured values.

9.2.4 Calculate the PLQ as 10 times s_o .

9.3 Procedure II for Estimating s_o . This procedure is to be used if the estimated PLQ is more than twice the calculated PLQ.

9.3.1 Prepare two additional standards at concentration levels lower than the standard used in Procedure I.

9.3.2 Sample and analyze each of these standards at least seven times.

9.3.3 Calculate the standard deviation for each concentration level.

9.3.4 Plot the standard deviations of the three test standards as a function of the standard concentrations.

9.3.5 Draw a best-fit straight line through the data points and

extrapolate to zero concentration. The standard deviation at zero concentration is s_0 .

9.3.6 Calculate the PLQ as 10 times s_0 .

10.0 Field Validation Report Requirements. The field validation results shall include:

10.1 Summary of the results and calculations shown in Section 6.0.

10.2 Reference material certification and value(s).

10.3 Performance audit results or letter from the reviewing authority stating the audit material is currently not available.

10.4 Laboratory demonstration of the quality of the spiking system.

10.5 Discussion of laboratory evaluations.

10.6 Discussion of field sampling.

10.7 Discussion of sample preparations and analysis.

10.8 Storage times of samples (and extracts, if applicable).

10.9 Reasons for eliminating any results.

11. Followup Testing.

The correction factor calculated in Section 6.0 shall be used to adjust the sample concentrations in all followup tests conducted at the same source. These tests shall consist of at least three sample collections, and the average shall be used to determine the emission rate. The number of samples per sample collection period (run) of the method shall be as follows, depending on the validated method precision level:

11.1 Validated relative standard deviation (RSD) $\leq \pm 15$ Percent. One sample per run or three total samples.

11.2 Validated RSD $\leq \pm 30$ Percent. Two samples per run or six total samples.

11.3 Validated RSD $\leq \pm 50$ Percent. Three samples per run or nine total samples.

11.4 Equivalent method. One sample per run or three total samples.

12. Procedure for Obtaining a Waiver.

12.1 **Waivers.** These procedures may be waived or a less rigorous protocol may be granted for site-specific applications. The following are three example situations for which a waiver may be considered.

12.1.1 **"Similar" sources.** If the test method has been validated previously at a "similar" source, the procedures may be waived provided the requester can demonstrate to the satisfaction of the Administrator that the emission characteristics are "similar." The methods's applicability to the "similar" source may be demonstrated by conducting a ruggedness test as described in Section 6.0.

12.1.2 **"Documented " methods.** In some cases, bias and precision may have been documented through laboratory tests or protocols different from this method. If the analyst can demonstrate to the satisfaction of the Administrator that the bias and precision apply to a particular application, the Administrator may waive these procedures or parts of the procedures.

12.1.3 **"Conditional" test methods.** When the method has been demonstrated to be valid at several sources, the analyst may seek a "conditional" method designation from the Administrator. "Conditional" method status provides an automatic waiver from the procedures provided the test method is used within the stated applicability.

12.2 **Application for Waiver.** In general, the requester shall provide a

thorough description of the test method, the intended application, and results of any validation or other supporting documents. Because of the many potential situations in which the Administrator may grant a waiver, it is neither possible nor desirable to prescribe the exact criteria for a waiver. At a minimum, the requester is responsible for providing the following.

12.2.1 A clearly written test method, preferably in the format of 40 CFR 60, Appendix A Reference Methods. The method must include an applicability statement, concentration range, precision, bias (accuracy), and time in which samples must be analyzed.

12.2.2.2 Summaries (see Section 10.0) of previous validation tests or other supporting documents. If a different procedure from that described in this method was used, the requester shall provide appropriate documents substantiating (to the satisfaction of the Administrator) the bias and precision values.

12.2.2.3 Results of testing conducted with respect to Sections 7.0, 8.0, and 9.0.

12.2.3 Discussion of the applicability statement and arguments for approval of the waiver. This discussion should address as applicable the following: Applicable regulation, emission standards, effluent characteristics, and process operations.

12.3 **Requests for Waiver.** Each request shall be in writing and signed by the analyst. Submit requests to the Director, OAQPS, Technical Support Division, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711.

13. Bibliography.

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13.11 Youdon, W.J. Statistical Manual of the Association of Official Analytical Chemists, Association of Official Analytical Chemists, Washington, DC, 1975, pp. 33-36).



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 14 1991

OFFICE OF
GENERAL COUNSEL

MEMORANDUM

SUBJECT: Legal Opinion on Definition of "Source" for Early
Reductions Program (Clean Air Act Sec. 112(i)(5)).

FROM: E. Donald Elliott, *ED Elliott*
Assistant Administrator
and General Counsel

TO: William Rosenberg,
Assistant Administrator
Office of Air and Radiation

This memorandum responds to your request for a legal opinion concerning the questions that have been raised recently regarding the extent of the Agency's legal discretion to define the term "source" broadly for purposes of the Early Reduction Program under Sec. 112(i)(5) of the Clean Air Act.

The obvious starting point for any analysis of the term "source" under the Clean Air Act is that EPA has very broad legal discretion to adopt a definition which, in the Agency's reasonable judgment, will advance the policies of the Act. Chevron v. NRDC, 467 U.S. 837 (1984). After careful consideration, the Office of General Counsel ("OGC") has concluded that in one important respect, the outer limits of the Agency's legal discretion are broader than the 4-14-91 draft preamble. On reflection, OGC believes that EPA could defensibly allow two or more sources to be grouped together or "bubbled", for purposes of the Early Reduction Program without regard to whether these groups are "logically or functionally related."

Specifically, the Office of the General Counsel ("OGC") has concluded that it is permissible to "bubble" unrelated process units, equipment units or other units that EPA considers a "discrete but integrated operation which pollutes", but only to the extent that the combined reductions from such units are in amounts determined by EPA to be significant.

BACKGROUND

Sec. 112(i)(5)(A) of the Act specifies that the Administrator or a State with an approved permit program "shall issue a permit allowing an existing source ... which ... has achieved a reduction of 90 per centum or more in emissions of hazardous air pollutants ... to meet an alternative emissions limitation ... for a period of 6 years". The term "existing source" is defined in Sec. 112(a)(10) as "any stationary source other than a new source". The term "stationary source" is given the same meaning under Sec. 112 as under Sec. 111(a) -- that is, it is defined as "any building, structure, facility or installation which emits or may emit any air pollutant." Sec. 112(a)(3). Thus, any analysis of the term "source" for purposes of the Early Reduction Program must start with the phrase "building, structure, facility or installation."

It is "[a] fundamental canon of statutory construction ... that, unless otherwise defined, words will be interpreted as taking their ordinary, contemporary, common meaning". Perrin v. U.S., 100 S.Ct. 311, 314 (1979) citing Burns v. Alcala, 420 U.S. 575, 580-81 (1975). "[L]egislation when not expressed in technical terms is addressed to the common run of men and is therefore to be understood according to the sense of the thing, as the ordinary man has a right to rely on ordinary words addressed to him." Addison v. Holly Hill Fruit Products, 64 S.Ct. 1215, 1221 (1944). Because the terms "building, structure, facility or installation" are not further defined in the statute, they are assumed to possess their ordinary meanings.¹ Therefore, any emissions point or collection of emissions points, that fall within the ordinary meaning of the terms "building, structure, facility or installation", and from which emissions of hazardous air pollutants are reduced by 90%, would be entitled to the 6 year extension.

Under Chevron v. NRDC, 467 U.S. 837 (1984), however, EPA has very broad legal discretion to adopt reasonable interpretations to achieve the policies underlying the statute. If, in the Agency's reasonable judgment, an interpretation other than the ordinary meaning better advances the statutory policies, EPA may adopt a definition that broadens or narrows the ordinary meaning of the language. OGC has determined that it is within the

¹ According to standard dictionary definitions, the term "building" would refer to "a usually roofed and walled structure built for permanent use", the term "structure" would refer to "something that is constructed [i.e., made or formed by combining or arranging parts or elements] or arranged in a definite pattern of organization"; the term "facility" would refer to "something built, installed or established for a particular purpose"; and the term "installation" would refer to something that is "set up for use or service", such as "an exhaust fan [installed] in a kitchen". Webster's Ninth New Collegiate Dictionary (1986).

Agency's discretion to broaden the meaning of the term "source" for purposes of the Early Reduction Program to include any individual emissions points and any "bubbled" combination of unrelated emissions points, buildings, structures, facilities and installations, provided that the reductions achieved from such individual emissions points and unrelated combinations are "significant" as defined by EPA.

A. EPA MAY DEFINE "SOURCE" AS A COLLECTION OF UNRELATED PROCESS OR EQUIPMENT UNITS FROM WHICH THE COMBINED REDUCTIONS ARE IN AN AMOUNT THAT EPA DETERMINES TO BE SIGNIFICANT.

OGC has concluded that it is legally permissible to afford polluters flexibility, while promoting the goals of the Early Reduction Program, by interpreting "source" to include any collection of unrelated process or equipment units the combined reductions from which are in amounts EPA determines to be significant. Thus, for example, the grouping which is shown in Figure 9 of the current draft as "unacceptable" could be considered acceptable if the Agency were willing to exercise its discretionary legal authority to allow one process unit or piece of equipment to be grouped together or "bubbled" with one or more other process units or pieces of equipment, so long as the "significant reductions" threshold was met.

The conclusion that EPA may legally group together, or "bubble," sources without regard to whether each individual source is "functionally-related or geographically-contiguous" to the others is suggested not only by the result in Chevron itself, but is also clearly implicit in the definition of "major source" in Sec. 112(a)(1). This definition of "major source" for purposes of the Title III air toxics program states that "any ... group of stationary sources" may be considered as a single major "source," provided that they are "located within a contiguous area and under common control."² Thus, it follows that EPA may

² It is not beyond the limits of legal ingenuity to argue that something can be a "major source" without being a "source." This tortured reading is implausible, however. The language of Sec. 112(a)(2) clearly suggests that, after Chevron, Congress contemplated that a group of unrelated sources in a common area under common control could be considered a single source.

It is irrelevant for present purposes that, in applying the limits for determining whether a source is "major," emissions from all of the collocated sources within common control must be considered. The important point for present purposes is that Congress clearly contemplated that a "group" of sources could be considered as a single "source" even though they were not a single "building, structure, facility or installation".

consider unrelated process units or equipment units as a single "source" for purposes of the Early Reduction Program,³ provided that the units are under common control and located "within a contiguous area", such as a common plant-site; contrary to the position taken in the 4-14-91 draft preamble, groups of individual sources such as equipment units, process units, tanks or buildings do not have to be located next to one another or functionally-related in order to be "bubbled," provided that they are all located within the same geographic area which is under common control, such as a plant-site.

The conclusion that bubbling between unrelated process units is permissible for purposes of the Early Reduction Program is confirmed not only by the statutory language and case law discussed above, but also by the statutory policies and legislative history of the Early Reduction Program. Sec. 112(i)(5)(E) clearly indicates that Congress contemplated offsetting early reductions of one hazardous air pollutant against reductions of other hazardous air pollutants for purposes of the Early Reduction Program, except for a separate category of "high risk" pollutants, such as dioxins and furans which are to be treated differently.

In addition, the legislative history indicates that Congress wanted EPA to encourage participation in the program. See H.R. Rep. No. 101-490, 101st Cong., 2d Sess. 332 (May 17, 1990) ("In the administration of this provision EPA thus should strive to encourage companies to take advantage of this incentive to reduce emissions early.") The flexibility afforded through aggregating process or equipment units offers greater incentive to participate in the Early Reduction Program. Under Chevron, EPA could justifiably conclude that this flexibility will facilitate greater overall participation in the Early Reductions Program and that environmental benefits will be maximized.

³ OGC's conclusions are limited to the context of the Early Reductions Program for several reasons. In particular, Congress specifically contemplated netting one hazardous pollutant against another for purposes of this program; Congress indicated in the legislative history that it wishes EPA to encourage participation in this program to obtain early reductions; and the statutory requirement for 90% reductions raises quite different factual and policy questions than might be applicable elsewhere.

B. EPA MAY ALSO DEFINE "SOURCE" AS A SINGLE EMISSIONS POINT OR A COLLECTION OF INDIVIDUAL EMISSIONS POINTS FROM WHICH REDUCTIONS ARE IN AN AMOUNT THAT EPA DETERMINES TO BE SIGNIFICANT.

OGC has also concluded that it is legally permissible to promote the goals of the Early Reduction Program by interpreting "source" to include a single emissions point or any collection of emissions points, provided that the reductions achieved are significant. Such an approach is within the range of reasonable interpretations that may be adopted by the Agency through its exercise of Chevron discretion.

Perhaps most importantly, defining "source" to include a single emissions point or a collection of emissions points is consistent with Chevron's holding that EPA has discretion to designate as a "source" any "discrete, but integrated, operation which pollutes" to further the policies of the Act, Chevron v. NRDC, 467 U.S. at 861 (emphasis supplied).

Presumably, Congress was aware of the Chevron decision, construing a "discrete, but integrated, operation which pollutes" as the scope of EPA's discretion to define "source," when it enacted Title III in 1990. By using a familiar term of art, "source," after the Chevron decision had authoritatively interpreted its scope, Congress must have intended to incorporate the range of meanings that EPA and the Supreme Court had placed on the term. "[L]egislative language will be interpreted on the assumption that the legislature was aware of ... judicial decisions ... and that reenactment of a statute without change in its language indicates approval of interpretations rendered prior to the reenactment." Sutherland Statutory Construction §45.12 at 55 (4th ed.). "Congress is deemed to know the ... judicial gloss given to certain language and thus adopts the existing interpretation unless it affirmatively acts to change the meaning." Blitz v. Donovan, 740 F.2d 1241, 1245 (D.C. 1984), citing Florida National Guard v. FLRA, 699 F.2d 1082, 1087 (11th 1983).

C. POLLUTERS MAY NOT DEFINE "SOURCE" AS ANY ARBITRARY AGGREGATION OF INDIVIDUAL EMISSIONS POINTS.

Some have suggested that EPA should go beyond allowing "bubbling" among pieces of equipment, process units and emissions points to delegate to polluters unlimited discretion to select for themselves any collection of emission points they choose; such aggregations would be considered on an ad hoc basis as a "source" solely for purposes of satisfying the statutory requirement for 90% reductions, which Congress imposed as a condition for obtaining a six-year extension of the deadline for

complying with standards based on Maximum Achievable Control Technology ("MACT"). Sec. 112(i)(5)(A).

This proposal (also called "the random pooling approach") goes far beyond "bubbling" among recognizable process units, equipment units or emissions points that meet the "significant reductions" threshold. It would give polluters a free hand to combine emission points together into arbitrary and unique combinations that would never conceivably have been considered by EPA or Congress as a "source." For example, rather than being required to obtain a 90% reduction in emissions from an identifiable piece of process machinery as a whole in order to qualify for the six year MACT delay, a polluter could pick and choose various emission points on the unit and claim the benefit of a six-year MACT extension by making a 90% reduction from them, even though the reduction from the unit as a whole was much less.

Of course, no one questions EPA's broad discretion to construe the statute under Chevron.⁴ But the existence of broad discretion under Chevron for EPA to construe "source" is immaterial, since the random pooling approach contemplates that individual polluters, not EPA, would choose the individual emissions points comprising the "source." (Of course, as discussed in the preceding section, EPA could itself define "source" for early reduction purposes to include one or more individual emission points, so long as the amount of reductions actually achieved is consistent with the statutory policies, which EPA interprets as favoring participation but requiring reductions in a significant amount in addition to 90% of "the source".) In addition, EPA has serious objections on a policy level to adopting the random pooling approach, including enforceability and trivializing the Early Reductions Program.

1. EPA's Discretion To Define "Source" Under Chevron Is Not the Issue.

In an attempt to justify allowing polluters to select whatever collection of emission points they choose as the "source," much emphasis has been placed on EPA's broad discretion to interpret statutory terms under Chevron. This reliance is beside the point. It might well be that a particular collection of emission points selected by a polluter could be upheld if it had been selected by EPA, applied even-handedly and justified in

⁴ Schuck & Elliott, To the Chevron Station: An Empirical Study of Federal Administrative Law, 1990 DUKE L. J. 984 (1991); Starr, Judicial Review in the Post-Chevron Era, 3 YALE J. REG. 283 (1986).

terms of the statutory policies.⁵ But the proposal to allow polluters to pick whatever emission points they choose on an ad hoc basis as "the source" for purposes of making the 90% reductions required to qualify⁶ does not contemplate that EPA would make any judgment whatsoever concerning whether the particular configuration of emission points selected by the polluter furthers the policies of the Act. Rather, what is proposed is that EPA should make a wholesale delegation of EPA's broad Chevron discretion to define "the source" to individual polluters without any guidance, review, or attempt to connect their choices to the statutory language or purposes.⁷

Under Chevron, EPA may devise a definition of source that will "effectuate the policies of the Act." 467 U.S. at 862. The purported justification for a wholesale delegation of EPA's discretion to interpret the term "source" to regulated parties is that Congress wanted to facilitate broad participation in the Early Reduction Program. See H.R. Rep. No. 101-490, 101st Cong., 2d Sess. 332 (May 17, 1990) ("In the administration of this provision EPA thus should strive to encourage companies to take advantage of this incentive to reduce emissions early.")

Encouraging participation was certainly one of Congress's purposes, but this section of the Act involves a more complex mix of policies than merely encouraging participation at any price. On its face, the statutory scheme strikes a balance between

⁵ Much has been made of EPA's prior decision to regulate "equipment leaks" as part of its SOCOMI NSPS standards. However, unlike the "any collection of emission points" approach, EPA did not allow polluters to choose to cover some equipment leaks but ignore others. Rather, EPA defined a category of sources which applied consistently and even-handedly.

⁶ Of course, nothing in the statute in any way precludes a polluter from reducing its emissions of pollution from any emission point at any time. The issue here is whether an applicant can qualify for the statutory benefit of a six year delay in the effective date of MACT standards by making reductions on a basis other than that which was contemplated by Congress when it passed the statute.

⁷ As a matter of constitutional theory, broad discretion in the Executive branch to interpret statutory terms is acceptable in part because the Chief Executive is accountable to the people (Chevron, 467 U.S. at 865); delegating this broad discretion to interpret statutory terms and policies to private parties raises quite different issues. See United States v. Rock Royal Co-op., 307 U.S. 533, 577 (1939); Carter v. Carter Coal Co., 298 U.S. 238 (1936) (delegation of legislative authority to private parties held impermissible).

competing goals. Congress decided, after all, to make the six year extension of MACT requirements contingent upon obtaining a "90 percent reduction ... in emissions of hazardous air pollutants from ... an existing source."⁸ If Congress's only goal had been to maximize participation in the Early Reduction Program, it could have offered to postpone MACT standards for sources making smaller percentage reductions, or in emissions from smaller subportions of the "source." (Indeed, EPA has recently announced a separate program which calls for voluntary reductions in toxic emissions of 33% by 1992 and 50% by 1995.) The statute does not say that a polluter may delay MACT by making a 90% reduction in any emissions anywhere in his facility; it says, on the contrary, that a 90% reduction of total emissions of hazardous air pollutants from the "existing source" as defined by EPA must be achieved.

This reading of the Act is confirmed by the legislative history. The only place in the legislative history where the meaning of the term "source" for purposes of the Early Reductions Program was addressed specifically is a statement that Senator Durenberger, one of the Senate managers, inserted into the record. 126 CONG. REC. S.16928 (daily ed. Oct. 27, 1990). Senator Durenberger discussed at length his views of how EPA should interpret the term "source" for purposes of the air toxics title, including the Early Reductions Program. While, of course, "such statements by individual legislators should not be given controlling effect, ... when they are consistent with the statutory language and other legislative history, they provide evidence of Congress' intent".⁹

The Durenberger statement specifically considered and rejected the idea that "the source" could be subdivided into various emission points and a MACT deferral obtained by making 90% reductions from individual emission points rather than the source as defined by EPA:

⁸ Sec. 112(i)(5)(A). Thus, there is a fundamental difference in the statutory context for the use of the term "source" at issue in the Chevron case, and the context in which the term is used in the Early Reductions Program in Sec. 112(i)(5). Here a benefit, in the form of a six year delay in the applicability of MACT standards, is conditioned upon making a 90% reduction in emission from an "existing source." In this context, the concept of "source" cannot be interpreted as being infinitely elastic (particularly not at the will of the polluter); it must have some pre-defined scope which can be used to determine whether the 90% requirement has been met.

⁹ Brock v. Pierce County, 476 U.S. 253, 263 (1986).

The EPA paper posits a source type with several emission points -- for example, stack emissions and fugitive emissions. The source category is subject to a MACT standard which applies to any source of that type and specifies emission limitations for each of the emission points within the source. Under this alternative, an owner could obtain an extension from one portion of the standard -- for example, the stack emission limit -- by making a 90-percent reduction of stack emissions. ... The difficulty with this option, as the paper points out, is that by subdividing a source in this manner, the owner could get an extension from a part of the MACT standard's requirements without making a 90-percent reduction in overall emissions. This is not consistent with our intent and we reject this alternative."

126 CONG. REC. S16928 (Oct. 27, 1990) (2d col.) (emphasis supplied).

Of course, a statement by an individual legislator would not be effective to impose requirements that are not grounded in the statute or to limit the Agency's discretion under the statute. But here Senator Durenberger is merely explaining the meaning of the statutory provision that the 90% emission reduction requirement applies to "the source," not to "any combination of emission points that the polluter chooses within the source." While EPA has concluded that it is impractical to follow other aspects of Senator Durenberger's approach to the Early Reductions Program because EPA has not done sufficient work on future MACT standards to issue a final definition of the MACT "source" at this time, the Durenberger statement does show how one of the Senate managers who was involved in drafting Title III understood the term "source". The Durenberger legislative history elaborates on a policy that is clearly implicit in the statutory design: that in order to obtain a six year deferral, early reductions must be significant in amount, in addition to satisfying the 90% reduction requirement based on EPA's interpretation of "source." EPA's interpretation that bubbling of unrelated emission points is permissible if, but only if, the overall reductions achieved are significant as defined by EPA is consistent with the statutory policies under Chevron.

CONCLUSION

Any emissions point or collection of emissions points, that fall within the ordinary meaning of the terms "building, structure, facility or installation", constitute a "source" for purposes of the Early Reduction Program. Each such source that achieves at least a 90% reduction in emissions of hazardous air pollutants is eligible for the 6-year extension. In addition,

the Agency has discretion under Chevron to broaden the definition of "source" to include any individual emissions point and any combination of unrelated emissions points, buildings, structures, facilities and installations, provided that the reductions achieved from such individual emissions point and unrelated combinations are significant. This construction of the term "source" is consistent with Chevron and with the Clean Air Act's Early Reduction Program and its legislative history.



Department of Energy
Washington, DC 20585

April 16, 1991

MEMORANDUM

TO: E. Donald Elliott
Assistant Administrator
and General Counsel
Environmental Protection Agency

FROM: DBR David B. Rivkin, Jr.
Associate General Counsel
for Legal Policy & Analysis
Department of Energy

SUBJECT: Definition of "source" for early reductions
under section 112(1)(5) of the Clean Air Act
Amendments of 1990.

As per our conversation last Friday, provided below is our analysis of the MACT/early reduction source definition issue. I appreciate this opportunity to provide our views, and I am grateful for your interest in them. Our conclusion is that the Environmental Protection Agency ("EPA" or "Agency") does have the discretion to allow any constellation of emission points selected by an applicant to constitute a "source" for purposes of early reductions under section 112(1)(5) of the Clean Air Act Amendments of 1990 ("CAAA or Act").¹

1. Background.

As you know, Title III of the CAAA requires EPA to establish maximum achievable control technology ("MACT") standards for "each category or subcategory of major sources and area sources" of

¹ To be sure, one can argue that such a constellation has to be drawn entirely from points located within a "source," as that term is defined for purposes of Title V of the CAAA. We do not advocate, for example, pooling of emission points located at non-contiguous facilities, or facilities not under the same ownership, or not belonging to the same SIC code, etc. Stated differently, the key limitation on pooling of emission points is that they must be drawn only from those locations that can be "bubbled" into a source for Title V purposes.

listed hazardous air pollutants.² MACT standards will be formulated for both new sources and existing sources. Existing sources, however, can defer for six years the date for compliance with MACT standards by achieving "early reductions" in emissions.³ To get the benefit of this deferral, an existing source must demonstrate that it "has achieved a reduction of 90 per centum or more in emissions of hazardous air pollutants (95 per centum in the case of hazardous air pollutants which are particulates)" before the relevant MACT standard is actually proposed.⁴ Section 112(i)(5) additionally allows an owner or operator to secure a MACT extension if he achieves the reduction after its proposal, but before January 1, 1994, and he enters into an enforceable commitment to achieve the reduction before EPA proposes the standard.

In his draft memorandum of April 11, 1991,⁵ one of your attorneys takes the position that the Agency has no discretion to allow random pooling of emission points to constitute a "source." In addition to the reasons listed in that memorandum, you also informally suggested an additional justification for his position.⁶ The discussion which follows both responds to these arguments and articulates our own views on the subject.

2. Discussion.

As you know, there is no precise definition of "source" in the Act for purposes of the early reduction program. Instead, the relevant statutory language states that section 112(i)(5) applies to "existing sources." The term "existing source" is defined in section 112(a)(10) as "any stationary source other than a new source," and section 112(a)(3) provides that "stationary source is given the same meaning under section 112 as under section 111."

Robert Martineau's memorandum takes the position that EPA cannot define "source" for early reduction purposes as any collection of emission points selected by the owner or operator of

² 42 U.S.C. § 7412(d)(1).

³ 42 U.S.C. § 7412(i)(5).

⁴ Id.

⁵ This memorandum responds to the draft memorandum from Robert J. Martineau, Jr., dated April 11, 1991, 8:56 a.m. The draft is designated as "draft 4.3."

⁶ Since I have not had the benefit of seeing your additional thoughts reduced to writing, I apologize in advance if I mischaracterize them. Please let me know if my restatement of your views does not do them justice.

an emitting plant. It bases this position on two assertions: (1) the statutory term "building, structure, facility or installation" allegedly requires some functional relationship between the emissions points; (2) the Chevron⁷ case confirms this view because it defined "source" as "any discrete but integrated operation which pollutes." In addition, your thinking on the matter, as I understand it, is that Congress intended the source to be defined for the purposes of section 112(i)(5) in such a way as to obtain a bonafide 90 per centum early reductions, and that this fact constrains EPA's otherwise considerable discretion in drafting a reasonable definition of what constitutes a "source" for these purposes. In my view, all of these assertions are incorrect.

At the outset, I want to stress the importance of this whole exercise. Indeed, I see the proper resolution of the source definition quandary to be far more important than even the success of the early reduction program itself. The reason for this is that, as I understand it, the Agency has no policy objections to random pooling of emission points.⁸ Moreover, we have been told that the Agency is committed to utilizing, to the maximum extent possible, its Chevron discretion so as to promulgate the most flexible source definition. Given this articulation of the task at hand, we are dealing with nothing less than a highly authoritative EPA inquiry into how far the ambit of its Chevron discretion extends. Clearly, should the Agency conclude that it cannot define the term source for early reduction purposes the way, based on its policy preferences, it wants, in a situation where Congress has not provided any clear limitations on EPA's flexibility, a most unfortunate precedent would be set.

As far as Robert's specific arguments are concerned, our views are as follows:

First, we are not convinced that the literal meanings of the statutory terms "building, structure, facility or installation" operate to constrain EPA's discretion to define the term source for purposes of section 112(i)(5). Indeed, we believe that, given the relevant legislative history of these terms that certainly precedes the enactment of the CAAA, the only valid restraint on EPA's

⁷ Chevron Inc. v. NRDC, 467 U.S. 837 (1984).

⁸ I have been told by Tom Kiernan that the Air Office prefers that to qualify for a MACT deferral, early reductions surpass some specified threshold, e.g., 10 tons. This, of course, is a policy preference that has nothing to do with the issue of random v. non-random pooling. Indeed, one can easily envision a situation in which the early reductions of all emission points located within a particular building yield fewer than 10 tons worth of pollutants.

discretion is that its definition, whatever it may be, must be shown to effectuate reasonably the congressional intent that underlies the specific statutory provision involved. Stated differently, EPA can legitimately construe the same collection of statutory terms -- building, structure, facility or installation -- to mean different things for purposes of different provisions of the Act. Moreover, the resulting source definitions may be appropriately quite different from an ordinary dictionary meaning of these terms. This is hardly a novel observation. Indeed, as the Chevron Court noted in discussing the language of section 111(a)(3) of the Clean Air Act:

We are not persuaded that parsing of general terms in the text of the statute will reveal an actual intent of Congress. We know full well that this language is not dispositive; the terms are overlapping and the language is not precisely directed to the question of the applicability of a given term in the context of a larger operation. To the extent any congressional "intent" can be discerned from this language, it would appear that the listing of overlapping, illustrative terms was intended to enlarge, rather than to confine, the scope of the agency's power to regulate particular sources in order to effectuate the policies of the Act.⁹

This passage is notable in two critical respects. First, it points out the balance the D.C. Circuit has struck between statutory language and agency policy discretion. Second, it articulates the policy arguments that can justify a different interpretation of "source" than that suggested by the dictionary meaning. Indeed, EPA is no stranger to departing from a literal reading of various statutory terms, whether for purposes of the Clean Air Act or other statutes.

For example, the NSPS for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry defines the "affected facility" as the group of all "pumps, compressors, compressor relief devices, sampling connection systems, open-ended valves or lines, valves and flanges or other connectors in VOC service" at any process unit.¹⁰ It is hard to see how such a group can be considered "integrated" in any sense, beyond being located at the same process unit and being used to handle VOCs. Indeed, with this approach to the present issue, one can argue that any points selected by a plant's management constitute a source since they are all be located at the same "major source" and would be used in connection with hazardous air pollutant control.

Furthermore, courts have applied Chevron -- at EPA's own

⁹ 467 U.S. 837.

¹⁰ 40 C.F.R. 60.480, 481.

request -- to uphold the validity of far more drastic departures from the language of the statute than any at issue here. For example, in promulgating RCRA regulations, the Agency saw fit to interpret a statutory provision, banning land disposal of hazardous wastes unless it had been demonstrated there would be no migration of "hazardous constituents" from disposal unit or injection zone for as long as "wastes" remained hazardous, to allow such migration if part of a zone or site contained hazardous waste, but the constituents actually escaping were non-hazardous. Significantly, this view was upheld by the D.C. Circuit.¹¹

My point in reciting these two instances is not, of course, to claim that the specific language employed by the court or by the EPA is relevant to our source definition issue. Rather, it is to point out that Robert's position appears to represent, whether intentionally or unintentionally, a major departure from EPA's past practice. In the same vein, I find Robert's invocation of ASARCO¹² and Chevron to be unpersuasive. It is precisely because EPA's discretion to interpret statutory provisions is so wide that all Chevron-related cases, that scrutinize the exercise of that discretion, are highly fact specific. Stated differently, it is not helpful to point out that, in a given case, the court struck down an EPA definition of "source," without explaining what was the relevant congressional intent and how EPA's definition failed to comport with it. For example, the fact that, in ASARCO, the D.C. Circuit rejected EPA's effort to permit plant-wide bubbling of NSPS units does not add anything to our understanding of the restrictions on EPA's Chevron discretion, unless we consider what would be a proper unit for purposes of applying new source performance standards. Likewise, Chevron's own language describing a "source" as "any discrete but integrated operation which pollutes,"¹³ as distinct from Chevron's more general holding, is relevant only in the context of new source review, where combining functionally unrelated operations would have been absurd.

Here, of course, our suggested broad reading of the source definition is not only consistent with congressional intent, but will effectuate it best. It is clear that Congress wanted to maximize the amount of early reductions. Both House and Senate reports say expressly that EPA should administer the early reduction program so as to foster its widespread use. The House report provides, for example, that "early reductions achieved before emission controls are required by MACT will benefit the environment and communities near the facilities that make early

¹¹ See NRDC v. EPA, 907 F.2d 1146 (D.C. Cir. 1990).

¹² ASARCO v. EPA, 578 F.2d 319, 327 (D.C. Cir. 1978).

¹³ 467 U.S. at 861.

reductions. In the administration of this provision, EPA thus should strive to encourage companies to take advantage of this incentive to reduce emissions early."¹⁴ In like manner, the Senate Report states as follows:

Owners and operators have an incentive to use this option [early reductions] as it allows companies greater flexibility to choose the means by which they will reduce their air toxics emissions and to do it earlier, rather than wait for prescribed standards which must be installed on a regulatory schedule.¹⁵

EPA's own draft preamble to the rule in issue here highlights the dramatic environmental gains widespread participation in the program will bring to the environment. We believe that a "choose your points" approach would be most likely to bring about that widespread use, and thus best serves the statutory policy.

To be fair to Robert's arguments, I should acknowledge that, in my meeting with him, Alan Eckert, and several of your other staffers, they took issue with my assertion that the random pooling approach would promote the widest usage of early reduction provisions. Specifically, I argued that this was so, since, by definition, a random pooling approach incorporates within it a non-random pooling approach. Accordingly, it would be used by whoever would have used a non-random pooling approach and then some. Their response, as I understood it, was that Congress wanted to stimulate genuine early reductions and not those reductions that would have happened anyway. They also pointed out that, under random pooling, one could take an emission point, where controls could be installed relatively inexpensively, control it tightly, combine it with another emission point, on which installation of new controls was very expensive, and, by averaging the two, qualify for early reduction/MACT deferral benefits. Frankly, I was somewhat puzzled by these observations, and the passage of time has not made them any less puzzling to me.

My reading of the legislative history indicates that all that Congress was concerned about was promoting early reductions; it was not troubled by the motivations of the people engaged in the early reductions process, or by the possibility that the least-cost approach to early reductions would be chosen. In fact, as you well

¹⁴ Clean Air Act Amendments of 1990, Report of the House Committee on Energy and Commerce on H.R. 3030, H.R. Rep. No. 101-490, 101st Cong., 2d Sess. 332 (May 17, 1990).

¹⁵ Clean Air Act Amendments of 1989, Report of the Senate Comm. on Environment and Public Works on S. 1630, Sen. Rpt. 101-228, 101st Cong., 1st Sess. 176-77 (Dec. 20, 1989).

know, an amendment adopted on the Senate floor specifically indicated that reductions mandated by state and local law were just as qualified for early reduction/MACT deferral purposes as purely altruistic/voluntary reductions.¹⁶ Furthermore, as far as the angst about the least-cost reduction is concerned, even assuming arguendo that it is justified,¹⁷ I fail to see how Robert's non-random pooling approach helps to address it. After all, a building or a functionally-unified structure may well contain precisely the universe of expensive and inexpensive to control emission sources that is so troubling to your staff. Indeed, under their approach, you may have a somewhat silly situation, whereby an exactly identical constellation of emission points will, or will not, constitute a source depending on whether they are located in a building or out in an open area.

Last, but not least, I am troubled by the practical difficulties that applying Robert's definition would cause. The restrictions it contains would lead to arbitrary and unpredictable decisions and would take a lot of effort to apply.¹⁸ I know that your staff has sought to come up with examples to help dispel the uncertainty. However, as the somewhat heated discussion at the White House demonstrates, confusion still persists. In any case, I can see no discernable environmental purpose that would be served by insisting on Robert's approach. Indeed, a reading of the statute that leads to such a policy result may itself be vulnerable under Chevron, especially without a more compelling "black letter" law justification than that adduced in Robert's April 11 memorandum. To be sure, I am not prepared to argue that our random pooling approach is legally compelled. However, in my view, it certainly effectuates congressional intent to secure a maximum amount of early reductions far better than a non-random pooling.¹⁹

¹⁶ This amendment was adopted unanimously. See 136 Cong. Rec. S2240-2243 (daily ed. March 7, 1990).

¹⁷ I, of course, believe that combining inexpensive and expensive to control emission points is not only permissible under the Act, but also is the right way to proceed, fully consistent with the oft-articulated Administration's commitment to least-cost pollution reductions.

¹⁸ I acknowledge your kind offer to consider any language we might propose that would alleviate this problem. Upon reflection, however, I cannot conceive of any such language, that might fix the inherently unpredictable, case-by-case nature, of Robert's approach.

¹⁹ My guess is that the case specific nature of Robert's approach, inevitable delays associated with applying it, and other factors will make it likely that the industry

This brings me finally to your comment that the definition of source is somehow constrained by the requirement that 90 per centum reduction actually be achieved. I should confess that, upon reflection, I do not quite understand it. It seems to me that any constellation of emission points, to which appropriate controls are applied, will either lead to a 90 percent reduction in emissions from these points or not. In the former case, they certainly could amount to being a source for section 112(i)(5) purposes and qualify for a MACT deferral. Significantly, if it later turns out that the relevant MACT standard applies to these, as well as some additional points, the MACT deferral would cover only those points from which early reductions were secured. Stated differently, your argument would hold only if, for example, having secured early reductions on 5 emissions points - part of an integrated production train, consisting of 100 emission points -- one could secure MACT deferral for all 100 points. But, this simply is not the case.

cc: Steve Wakefield
Jeff Holmstead
Bill Rosenberg

will either opt for "safe harbor" applications--early reductions covering an entire facility or at least a building -- or would not participate in a program at all. This will lead to an early reductions program with fewer participants.