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August 6, 1991

BY HAND

Eileen B. Claussen
Director, Office of Atmospheric and
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United States Environmental
Protection Agency
735 West Tower
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**Comments of the Utility Air Regulatory
Group on EPA's Draft Rules Under Title IV
of the Clean Air Act (40 C.F.R. Parts 72, 73, and 77)**

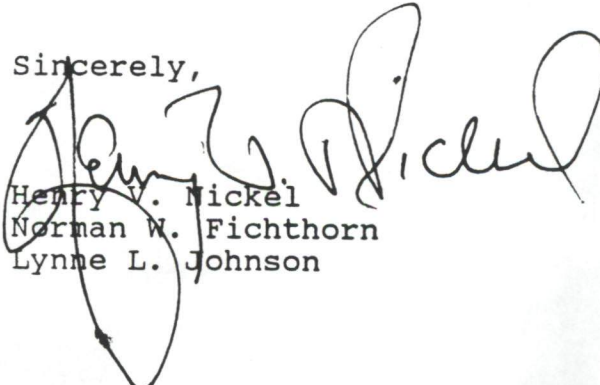
Dear Ms. Claussen:

Enclosed is a copy of comments of the Utility Air Regulatory Group (UARG) on EPA's draft proposed rules under 40 C.F.R. Parts 72, 73, and 77. We are submitting UARG's comments on 40 C.F.R. Part 75 in a separate letter to Larry Kertcher. We are also submitting these comments to the EPA Air Docket for inclusion in the rulemaking record.

UARG appreciates the opportunity to comment on the draft rules. UARG will submit additional comments when the Agency publishes the rules in proposed form in the Federal Register.

If you or your staff would like to discuss UARG's comments, please call one of us.

Sincerely,



Henry V. Nickel
Norman W. Fichthorn
Lynne L. Johnson

HUNTON & WILLIAMS

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Enclosure (with an attachment)

cc (w/encl.):

Mr. Brian J. McLean

Ms. Renee Rico

Mr. Larry Kertcher

Ms. Rachel Hopp

Joseph Goffman, Esq.

EPA Air Docket No. A-90-39

**COMMENTS OF THE
UTILITY AIR REGULATORY GROUP
ON EPA'S
DRAFT PROPOSED REGULATIONS
UNDER TITLE IV OF THE CLEAN AIR ACT
(40 C.F.R. PARTS 72, 73, AND 77)**

**Hunton & Williams
Washington, D.C.**

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August 6, 1991

COMMENTS OF THE UTILITY AIR REGULATORY GROUP
ON EPA'S DRAFT PROPOSED REGULATIONS UNDER
TITLE IV OF THE CLEAN AIR ACT (40 C.F.R. PARTS 72, 73, AND 77)

EXECUTIVE SUMMARY

EPA recently released draft proposed regulations to implement the acid deposition control program under Title IV of the Clean Air Act. The Utility Air Regulatory Group (UARG) -- an association of 71 electric utilities from the public and private sectors, the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Public Power Association -- submits the following comments on EPA's draft regulations on permits (draft 40 C.F.R. Part 72), the allowance tracking and trading system (draft 40 C.F.R. Part 73), and excess emission penalties and offsets (draft 40 C.F.R. Part 77). UARG will also comment on EPA's proposed regulations after the Agency publishes them in the Federal Register.

Permits. With respect to the Phase I extension program under section 404(d) of the Act, UARG recommends that EPA:

- * provide an estimate of the size of the allowance reserve as soon as possible;
- * make clear in the regulations that Phase II units that are brought into Phase I as substitution units or compensating units are eligible for the Phase I extension program;
- * specify in the regulations how the Agency will allocate reserve allowances to transfer units;
- * revise the definition of "projected emissions" to adhere to the statutory directive that the projections estimate expected 1995 and 1996 emission levels (not considering controls);
- * recognize that the 90 percent emission control requirement applies in Phase I only; and
- * revise the draft rules to reflect the statutory directive that Phase I extension units are not subject to nitrogen oxide (NOx) emission limitations until these units are required to meet sulfur dioxide (SO₂) emission reduction requirements.

With respect to the reduced utilization requirements under section 408(c)(1)(B) of the Clean Air Act, UARG recommends that EPA:

- * clarify or revise the criteria in draft section 72.43(d)(4) of the regulations regarding economic dispatch; system-wide downturns, forced outages, and efficiency improvements; the holding of allowances; aggregation of Phase I units' utilization levels; avoided NOx control costs (a criterion that should be deleted); and "other factors";
- * permit a utility to obtain a before-the-fact determination by the Agency as to whether a specific kind of utilization reduction would be subject to the reduced utilization planning requirements;
- * delete from the regulations provisions that would require compliance with NOx rate limitations where utilization reduction is deemed a method of compliance with SO₂ emission tonnage limitations;
- * clarify that the reduced utilization requirements do not apply where reduced utilization of a Phase I unit is compensated for by generation from a nonaffected unit;
- * require information on "utilization" levels in terms of kilowatt hours only to the extent that the Phase I unit relies, or plans to rely, on clean generation, energy conservation, or efficiency improvements;
- * delete the requirement that utilities provide information on NOx emission rates;
- * identify specifically what "other information" EPA may require in reduced utilization plans;
- * clarify that energy conservation in the system as a whole may provide energy savings that account for reduced utilization at a Phase I unit in the system;
- * use the 1985-1987 baseline as the benchmark for measuring whether and to what extent a utilization increase has occurred at a compensating unit, a clean generation source, or a nonaffected unit;
- * clarify the rules' treatment of clean generation sources as sources of compensating generation;
- * ensure that the compliance certification reporting requirements will be applied flexibly to reflect operational realities;
- * provide for a "banking" alternative to allowance-surrender requirements;

- * revise and clarify the allowance-surrender regulations in specified respects; and
- * adopt the five-year approach for the allowance-surrender and accounting system.

With respect to the substitution plan regulations, UARG recommends that EPA:

- * permit the designation of a nonaffected existing unit as a substitution unit;
- * not consider post-1985 SO₂ emission reductions required at a substitution unit; and
- * revise the formula for calculation of the required emission reductions at a Phase I unit to include any allowances allocated to the unit under section 404(a)(3) of the Act.

Regarding EPA's draft rules on permitting procedures, UARG recommends that the Agency:

- * allow certification of a designated representative for an individual affected unit rather than requiring one designated representative for all affected units at a source;
- * streamline the procedures for appealing an initial permitting decision; and
- * retain the draft regulatory provisions that prohibit state and local interference in allowance transactions.

Allowance Tracking and Trading System. On balance, UARG believes that EPA has done a good job in drafting Part 73, which generally appears to remain faithful to the market-oriented approach of Title IV. However, UARG continues to urge EPA to adopt a 45-day book-closing, or "true-up," period for completion of allowance transactions after the end of the calendar year. UARG believes that this approach would offer utilities and other market participants a reasonable period to conduct and complete negotiations for allowance transfers, without affecting attainment of the Act's emission reduction objectives.

Excess Emission Penalties and Offsets. UARG recommends that EPA revise the draft rules to permit payment of the excess emission penalty within 30 days after the allowance transfer deadline, and to delete the interest requirement for penalty payments. UARG also recommends that EPA revise the draft regulations to specify the period of time for public comment on an excess emission offset plan.

August 6, 1991

**COMMENTS OF THE UTILITY AIR REGULATORY GROUP
ON EPA'S DRAFT PROPOSED REGULATIONS UNDER
TITLE IV OF THE CLEAN AIR ACT (40 C.F.R. PARTS 72, 73, AND 77)**

EPA recently released draft proposed regulations to implement the acid deposition control program under Title IV of the Clean Air Act. The Utility Air Regulatory Group (UARG) -- an association of 71 electric utilities from the public and private sectors, the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Public Power Association -- submits the following comments on EPA's draft. UARG appreciates the opportunity to comment on this draft, and expects to comment extensively on EPA's proposed regulations after the Agency publishes them in the Federal Register.^{1/}

I. Phase I Extensions

**A. As Soon As Possible, EPA Should Provide
An Estimate of the Number of Reserve
Allowances that Will Be Available.**

Section 404(a)(2) of the Act directs EPA to calculate the Phase I extension reserve "[n]ot later than December 31, 1991" (emphasis added). This paragraph requires EPA to "determine the total tonnage of reductions in the emissions of sulfur dioxide from all utility units in calendar year 1995 that will occur as a result of compliance with the emissions limitation requirements

^{1/} The following comments do not address those provisions of the draft under 40 C.F.R. Part 72 that are designed to implement section 407 of the Act. UARG understands that all of these provisions are being considered by the Nitrogen Oxides Subcommittee of EPA's Acid Rain Advisory Committee (ARAC). The following comments do not address draft 40 C.F.R. Part 75, which concerns the emission monitoring requirements of Title IV. UARG is submitting its comments on draft Part 75 separately.

of [section 404]" and to "establish a reserve of allowances equal in amount to the number of tons determined thereby not to exceed a total of 3.50 million tons."

Neither the draft preamble nor the draft Phase I extension regulations mention calculation of the Phase I extension allowance reserve. The number of reserve allowances available may affect utilities' decisions whether or not to apply for Phase I extension allowances. Therefore, UARG requests that EPA inform affected unit owners and operators and the public of the estimated size of the Phase I extension allowance reserve as soon as possible.

B. EPA Should Make Clear in the Regulations that Phase II Units that Are Brought into Phase I As Substitution Units or Compensating Units Are Eligible for the Phase I Extension Program.

Draft section 72.42 of the proposed regulations addresses Phase I extensions under section 404(d) of the Act. In the draft preamble to its proposed rules, EPA notes that "[s]ection 72.42(a) states that the Phase I extension option may apply to: (1) all Appendix A units; and (2) Appendix B units which are designated as affected units during Phase I as a result of their inclusion in either a substitution plan or a reduced utilization plan."^{2/} The draft definition of "Phase I extension unit" and the applicability provisions of the draft Phase I extension regulations are not, however, clearly consistent with EPA's statement.

^{2/} Draft Preamble at 27. Proposed Appendix A lists all Phase I affected units, and Appendix B will list all existing affected units not listed in Appendix A and the new units listed in Table B of the Act.

The draft rules define "Phase I extension unit" as "an affected unit listed in 40 CFR Part 73, Appendix A that is either a control unit or a transfer unit pursuant to an approved compliance plan submitted under § 72.42 of this part."^{3/} On its face, this definition seems to limit Phase I extension units to those listed in Appendix A, which are Phase I units contained in Table A of section 404 of the Act. EPA should redraft this definition to make clear that Phase II units that are brought into Phase I as substitution units or compensating units are also eligible to become Phase I extension units.^{4/} EPA should make a corresponding revision to draft section 72.42(a), which describes the applicability of the Phase I extension program.^{5/}

^{3/} Draft § 72.2. The definition cites Appendix A incorrectly, since that appendix is in Part 72, not Part 73. To avoid confusion, EPA should correct this error.

^{4/} EPA should amend the definition of "Phase I extension unit" in draft section 72.2 to read as follows: "'Phase I extension unit' means an affected unit listed in Appendix A of this part or an affected unit listed in Appendix B of this part that is designated a substitution unit under § 72.41 or a compensating unit under § 72.43, if such unit is either a control unit or a transfer unit pursuant to an approved compliance plan submitted under § 72.42."

^{5/} Draft section 72.42(a)(2) states that "[t]his section shall apply to any affected unit listed in Appendix A of this part identified in a plan submitted pursuant to this section for which a Phase I extension is sought, and to any unit listed in Appendices A or B designated in a plan submitted under this section as a control unit." By itself, this statement does not make clear that only those units listed in Appendix B that are brought into Phase I as substitution units or compensating units may become control units. However, draft section 72.42(b)(5) implies this limitation on the eligibility of Phase II units by stating that "[a] substitution unit, designated in a plan under § 72.41, or a compensating unit, designated in a plan under § 72.43, may be designated as the control unit." In addition, draft section 72.2 states that "[a] control unit may be a Phase I
(continued...)

C. EPA Should Specify in the Phase I Extension Regulations How the Agency Will Allocate Reserve Allowances to Transfer Units.

Section 404(d)(1) of the Act states that "[t]o qualify for . . . [the Phase I] extension, . . . [an] affected unit must either employ a qualifying phase I technology, or transfer its phase I emissions reduction obligation to a unit employing a qualifying Phase I technology."^{5/} Read alone, this language might suggest that a unit transferring its emission reduction obligation to a unit employing qualifying Phase I technology would no longer have SO₂ emission reduction requirements in Phase I. However, as the Subcommittee on Permits and Technology of the Acid Rain Advisory Committee (ARAC) concluded after extensive discussions earlier this year, other provisions in section 404(d)

^{5/} (...continued)

unit, or a Phase II unit that has been designated as an affected unit during Phase I pursuant to a substitution plan under § 72.41 or a reduced utilization plan under § 72.43."

Therefore, these provisions clearly suggest that only those Appendix B units that are substitution units or compensating units are eligible for participation in the Phase I extension program as control units. Accordingly, EPA should revise draft section 72.42(a)(2) to read as follows: "This section shall apply to any affected unit listed in Appendix A of this part identified in a plan submitted pursuant to this section for which a Phase I extension is sought, and to any unit listed in Appendix B of this part designated as a substitution unit under § 72.41 or as a compensating unit under § 72.43 that is designated in a plan submitted under this section as a control unit."

^{6/} Section 402(19) defines "qualifying Phase I technology" as "a technological system of continuous emission reduction which achieves a 90 percent reduction in emissions of sulfur dioxide from the emissions that would have resulted from the use of fuels which were not subject to treatment prior to combustion."

indicate that transfer units must hold allowances to cover their emissions in each year of Phase I.^{7/}

Therefore, during the two-year extension period (1995-1996), a transfer unit must receive allowances in addition to its Phase I allowance allocation listed in Table A of section 404 from the Phase I extension reserve created under section 404(a)(2) of the Act. In 1997-1999, the transfer unit would no longer receive allowances from the reserve. During this period, the transfer unit's annual emissions that exceed its Table A allocation must be covered by the unused allowances freed up by the control unit's use of qualifying Phase I technology.

In the draft preamble, EPA confirms that this is an accurate description of the relationship between the transfer unit and the control unit. The Agency notes that its "rule proposes conditions which would govern the relationship between units which install control technology and units which transfer their emissions reduction obligations to that unit." EPA states that "transfer units could not receive more extension allowances during 1995 and 1996 than the tonnage of reductions that would be achieved by the control unit below its basic allowance allocations by installing 90% control technology."^{8/} The Agency then provides an example: "[I]f a control unit would receive 50,000 allowances during each year of Phase I and 90% control of the unit would reduce its emissions to 10,000 tons per

^{7/} See Clean Air Act §§ 404(d)(1), (2)(D), (5), (7).

^{8/} Draft Preamble at 28.

year, no more than 40,000 allowances could be allocated from the reserve to transfer unit(s) for 1995 and 1996 (i.e. the difference between the control unit's basic allocations and the unit's actual controlled emissions)."^{9/}

Thus, the preamble clearly describes the relationship between a transfer unit and a control unit. The regulations themselves, however, are far less clear. The regulations as currently drafted would do little more than codify the confusion inherent in section 404(d), apparently ignoring one of the major accomplishments of ARAC's Subcommittee on Permits and Technology in clarifying the treatment of control and transfer units.

For example, the draft regulations refer to the transfer of an Appendix A unit's "emissions reduction obligations" or "emissions reduction requirements" to a control unit, without clarifying that the transfer unit will receive allowances from the reserve in 1995-1996 and that the control unit will be responsible for the transfer unit's emission reduction requirements only in 1997-1999.^{10/} In addition, while the reserve allowance allocation formulas in the proposed regulations make clear that both control and transfer units will receive reserve allowances annually in 1995-1996,^{11/} the regulations do not clearly explain the relationship between these units or the

^{9/} Id.

^{10/} See draft § 72.42(b)(2), (4).

^{11/} Draft § 72.42(f)(3)(i), (ii).

limitation on the number of reserve allowances that transfer units may receive during this period.

Therefore, EPA should revise the draft regulations to make clear that a transfer unit must hold allowances to meet its emissions in 1995 and 1996 and will receive reserve allowances in each of those years for this purpose. EPA also should revise the draft regulations to make clear that the transfer unit transfers its emission reduction obligation only in the sense that the allowances freed up by the control unit through use of the qualifying Phase I technology must cover the transfer unit's annual emissions (above its Table A allocation) in 1997-1999.^{12/} EPA also should incorporate into the regulations specific examples of how the Agency would allocate reserve allowances to hypothetical control units with corresponding transfer units.

**D. EPA Should Revise the Definition of
"Projected Emissions" to Conform It
to the Statutory Approach.**

Section 404(d)(4) and (5) of the Act direct EPA to calculate reserve allowances for an eligible Phase I extension unit in 1995 and 1996 equal to the difference between (1) the lesser of the

^{12/} To clarify this point, EPA should amend the third line of draft section 72.42(b)(2) by inserting "annually in 1997 through 1999" after "control unit." Similarly, EPA should amend the third line of draft section 72.42(b)(4) by inserting "annually in 1997 through 1999" after "affected units." Other references to the emission reduction obligations of a transfer unit should be amended accordingly.

unit's average annual emissions in calendar years 1988-1989^{13/} or the unit's projected emissions for the year in question, and (2) 2.5 lbs/mmBtu multiplied by the unit's baseline, divided by 2000. These explicit formulas are designed to provide allowances sufficient to cover the unit's projected emissions that exceed its Table A allocation during the two-year extension period, as long as the projected emissions do not exceed the unit's average annual emissions in 1988-1989.

The Act defines "projected emissions" as projected emissions for 1995 and 1996. In its draft regulations, however, EPA proposes to define this term in a manner designed to make the number of reserve allowances insufficient to cover an eligible Phase I extension unit's emissions in 1995 and 1996.

In draft section 72.42(e)(1)(iii), EPA proposes to define "projected uncontrolled emissions" for a control unit in 1995 and 1996 as "(baseline (in mmBtu)) x (the lesser of: the actual 1985 emissions rate, the allowable 1985 emissions rate, or the

^{13/} The statute does not specify how EPA should determine "average annual emissions" for 1988-1989, giving the Agency broad discretion in this area. The definition of "baseline" in section 402(4) of the Act authorizes EPA to "exclude periods during which a unit is shutdown for a continuous period of four calendar months or longer, and make appropriate adjustments" in the unit's baseline. As UARG noted in its July 2, 1991, comments on the reduced utilization provision, this outage exclusion policy also is reflected in the allowance allocations for Phase I units listed in Table A in section 404 of the Act, which were calculated excluding from those units' baselines outages of four months or longer in duration. See Attachment at 18-21. In keeping with this policy, EPA should adopt a similar approach in calculating the 1988-1989 emissions of Phase I extension units, making adjustments in these calculations for prolonged outages (e.g., four months or longer). This approach will ensure that these calculations accurately reflect normal operations at a Phase I extension unit in those years.

allowable emissions rate at the time of application) ÷ 2000." For transfer units, draft section 72.42(e)(1)(v) would define "projected emissions" for all of Phase I as "(baseline (in mmBtu)) x (the lesser of: the actual 1985 emissions rate, the allowable 1985 emissions rate, the actual emissions rate at the time of application, or the allowable emissions rate at the time of application) ÷ 2000."

In most cases, these proposed definitions would limit an eligible Phase I extension unit's projected emissions in Phase I to the unit's baseline multiplied by its 1985 actual emission rate. This constraint has no statutory basis.

The formulas in section 404(d)(4) and (5) provide for allocation of reserve allowances equal to the difference between the unit's Table A allocation and the lesser of average emissions in 1988 and 1989 or projected emissions for 1995 and 1996. While several Phase II allocation formulas provide for the use of the lesser of a unit's 1985 actual or allowable emission rate, the section 404(d) formulas do not. Had Congress intended to base the reserve allowances on a unit's baseline and 1985 emission rate, the statutory formula would have so stated.

In addition, section 404(d)(2)(C) of the Act requires that an applicant's extension proposal "specify the unit's or units' . . . projected utilization for calendar years 1995 through 1999." Had Congress intended to constrain projected emissions as EPA proposes, it would not have included this requirement that utilities submit information on projected utilization levels.

At the July 15, 1991, meeting of ARAC's Subcommittee on Permits and Technology, EPA staff argued that the draft definition of projected emissions was necessary to ensure that utilities do not inflate their projected emissions to increase the number of reserve allowances received. Congress, however, guarded against that possibility by establishing average annual emissions in 1988-1989 as the ceiling on projected emissions.

EPA staff also contended that the Agency needed to be able to verify the accuracy of the projection of a unit's emissions. However, EPA could satisfy this concern by requiring applicants to include documentation supporting the projection in the Phase I extension application.

In sum, section 404(d) already provides a safeguard against inflated emission projections -- i.e., the 1988-1989 historical ceiling -- and the compliance planning requirements allow the Agency to verify the projected emissions for a Phase I extension unit. Therefore, EPA should delete the definition of "projected uncontrolled emissions" for control units and "projected emissions" for transfer units in proposed section 72.42(e)(1)(iii) and (v). If EPA remains concerned about adequate verification of projected emissions for Phase I extension units, the Agency should develop guidelines for emission projections for these units and require Phase I extension applicants to document their projections based on those guidelines.

E. EPA Has No Statutory Authority to Continue the 90 Percent SO₂ Emission Control Requirement Beyond Phase I.

Section 404(d)(7) of the Act provides that if any Phase I extension control unit or transfer unit exceeds the annual emission tonnage limit in its Phase I extension plan after January 1, 1997, EPA must, "in the calendar year following such excess, deduct allowances equal to the amount of such excess from such unit's annual allowance allocation." EPA interprets this provision to mean that "the annual tonnage limitation specified in a Phase I extension plan . . . represents a cap on the allowable tons of SO₂ for control and transfer units."^{14/}

In its draft preamble, EPA specifically solicits comment on whether the Phase I emission control requirement,^{15/} and

^{14/} Draft Preamble at 29; see draft § 72.42(e)(2)(i)(F). Draft section 72.42(e)(2)(i)(F) states that if a control unit fails to achieve the required 90 percent emission removal, "the designated representative shall surrender allowances, as provided for in section 404(d)(7) of the Act" in an amount equal to the tonnage of emissions above the 90-percent control level (emphasis added). However, rather than providing for the surrender of allowances by the designated representative, section 404(d)(7) of the Act requires that EPA, "in the calendar year following such excess, deduct allowances equal to the amount of such excess from such unit's annual allowance allocation." EPA should revise draft section 72.42(e)(2)(i)(F) to conform it to the statute by deleting "the designated representative shall surrender allowances" from the fourth and fifth lines and inserting in lieu thereof "the Administrator shall deduct allowances from the ATS subaccount for the calendar year following the year in which the violation occurred for the unit at which the violation occurred."

^{15/} EPA proposes unduly stringent requirements for documenting 90 percent continuous emission removal by the qualifying Phase I technology installed at a control unit. UARG intends to address these issues in comments on proposed 40 C.F.R. Part 75.

On a related point, EPA proposes in draft section 72.42(e)(2)(i)(A) to require the Phase I extension plan to
(continued...)

presumably the section 404(d)(7) penalty, should be permanent. The Agency suggests that "as a matter of equity, it may be appropriate that units be required to maintain the levels of SO₂ control and emissions reductions upon which their bonus allowance allocations were based past Phase I."^{16/} Although EPA may believe that "equity" may dictate that the 90 percent control requirement continue into perpetuity, the statute does not authorize an extension of this requirement past Phase I.

The Act's language demonstrates that Congress designed the section 404(d) program only as a Phase I program. Section 404(d) is entitled "ELIGIBLE PHASE I EXTENSION UNITS" (emphasis added), and section 404(d)(1) specifies that "[t]he owner or operator of any affected unit subject to an emissions limitation requirement under this section [section 404] may petition the Administrator in its permit application under section 408 for an extension of

^{15/} (...continued)
include "[a] copy of a fully executed contract . . . for the design engineering, construction, installation, and operation by not later than January 1, 1997, of qualifying Phase I extension technology" (emphasis added). However, section 404(d)(2)(B) of the Act requires the Phase I extension proposal to "provide a copy of an executed contract . . . for the design engineering, and construction of the qualifying phase I technology" (emphasis added). EPA should conform draft section 72.42(e)(2)(i)(A) to the statute by (1) deleting "installation, and operation" in the fourth line and (2) inserting "and" before, and deleting the comma after, the word "construction" in the third line.

Finally, in draft section 72.42(e)(2)(i)(B)(2), EPA should substitute the word "guaranteed" for the word "design" because the guaranteed removal efficiency of the qualifying Phase I technology is more relevant to compliance than the design removal efficiency. In practice, equipment vendors often do not supply design removal efficiency information to purchasers.

^{16/} Draft Preamble at 29.

2 years of the deadline for meeting such requirement" (emphasis added).

Thus, the statute envisions that the Phase I extension application would be incorporated into the extension unit's Phase I permit application and compliance plan, which would apply only through calendar year 1999. Section 404(d)(2) of the Act describes the information that a Phase I extension application must contain, and because the application applies only in Phase I, section 404(d)(2)(C) requires utilization information for extension units only for calendar years 1995 through 1999, i.e., only for Phase I.

EPA says that reserve allowances are a valuable asset from which "[u]tilities will receive substantial financial benefits."^{17/} However, the statute provides for the allocation of these allowances only through 1999, and the section 404(d)(7) penalty is designed to ensure that utilities that receive these allowances meet the Phase I emission limitations on which the allocation is to be based.

Extension of the Phase I emission control requirement and section 404(d)(7) penalty into Phase II, as the draft rules contemplate, would be contrary to the statute. UARG opposes this approach and urges the Agency to abandon it.

^{17/} Id.

F. EPA Should Revise the Draft Rules to Reflect the Statutory Directive that Phase I Extension Units Are Not Subject to Section 407 Requirements Until They Must Meet SO₂ Reduction Requirements.

Section 407(a) of the Act provides that "on the date a unit subject to the provisions of section 404(d) or 409(b) . . . must meet the SO₂ reduction requirements, each such unit . . . shall be subject to the emission limitations for nitrogen oxides." Consistent with the recommendation of ARAC's Permits and Technology Subcommittee, the draft rules properly implement section 407(a) by providing that the nitrogen oxide (NOx) emission limitations do not apply to units that receive an extension of the Phase II SO₂ emission limitation compliance deadline under section 409(b) during the extension period because such units need not "meet the SO₂ reduction requirements" during that period.^{18/}

UARG supports this provision of the draft rules. However, the Agency appears to have overlooked the fact that the language of section 407(a) quoted above applies equally to Phase I extension units under section 404(d).^{19/} Section 407(a) makes clear that because Phase I extension units need not "meet the SO₂ reduction requirements" during the Phase I extension period, the section 407 NOx limitations do not apply to those units during that period. EPA should revise the draft regulations to reflect the statutory provision.

^{18/} See draft § 72.44(e)(3)(i)(C).

^{19/} See draft § 72.42(e)(2)(ii)(A)(2).

II. Reduced Utilization

Section 72.43 of EPA's draft regulations effectively establishes three categories of reduced utilization:

- (1) reduced utilization of Phase I units that is planned as a method of compliance with Phase I requirements and is accompanied by designation of a compensating unit or submission of a clean generation plan, an energy conservation plan, or an improved unit efficiency plan;
- (2) reduced utilization that occurs other than as a method of compliance with Phase I requirements, e.g., as a result of forced outages or economic dispatch; and
- (3) reduced utilization that EPA retrospectively deems to have occurred as "a method of compliance" with Phase I requirements but that was not preceded by designation of a compensating unit or submission of a clean generation plan, an energy conservation plan, or an improved unit efficiency plan.

Where category 2 or 3 applies, or where category 1 applies but the compensating or clean unit or conservation or efficiency plan does not compensate fully for the reduced utilization, the utility is potentially subject to the allowance "surrender" requirements of section 72.409.

The distinction between category 2 and category 3 -- i.e., how the line between those categories is drawn -- is critically important to utilities. That distinction hinges on whether, in a given case, EPA makes a determination that the reduction in utilization was "a method of compliance." EPA's draft rules would give that distinction and that determination overriding importance because draft section 72.43(d)(4)(i) provides that "[i]t shall be a violation of the Act and of this part for the owners, operators, and designated representative of any Phase I

unit that reduces utilization in any calendar year as a method of compliance with the unit's Phase I emissions reduction obligations under the Acid Rain Program, to fail to submit a reduced utilization plan in accordance with this section" (emphasis added). Under section 113 of the Act, such a violation potentially is subject to criminal, civil, and administrative penalties.

Unfortunately, EPA's draft leaves it unclear whether the Agency in any given case will determine that the unit's designated representative, owners, and operators violated the planning requirements and should be subjected to these penalties. That is, EPA's draft fails to establish clear rules that tell utilities what will and what will not be considered a violation of the Act. EPA's draft fails to give meaningful direction as to how utilities are to conform their conduct to ensure that they will not be judged to have violated the regulations. This failure is particularly troubling because the draft contemplates that in each case, EPA would make its judgments after the fact.

EPA would make those judgments on a case-by-case basis by "tak[ing] into consideration" seven "criteria," as well as "other factors" that the draft does not describe.^{20/} The weight to be given to the seven criteria that are described is uncertain, and merely listing them does not tell the regulated community whether or not a given utilization reduction will be deemed to have violated the Act. The draft regulations' lack of clarity is particularly troubling because criminal sanctions, including

^{20/} Draft § 72.43(d)(4)(ii).

imprisonment, could result from knowing conduct that is deemed to violate the Act. Indeed, the vagueness of the criteria, and the lack of objective standards that utilities can use to conform their conduct to the law, raises potentially serious due process concerns.

Although some of the draft criteria, as well as other aspects of EPA's draft regulations, appear to represent a good-faith attempt to implement the Act's reduced utilization provision, UARG believes that changes are necessary to make the draft consistent with the Act and sound public policy. UARG's recommendations for changes are described below.^{21/}

A. EPA Should Clarify or Revise the Criteria in Draft Section 72.43(d)(4).

Assuming that EPA's regulations maintain a distinction between category 2 and category 3, it is essential that the Agency adopt a set of clear and consistently applied rules that will allow utilities to understand in advance how EPA will treat a given utilization reduction. The following comments address the changes to the draft regulations that UARG believes are necessary.

^{21/} On July 2, 1991, UARG submitted comments on implementation of this provision to EPA. A copy of this document, "Comments of the Utility Air Regulatory Group on Implementation of the Reduced Utilization Provision of the Clean Air Act," is an attachment to these comments.

Because EPA has not released a draft compliance plan form for reduced utilization, UARG's analysis of the draft rules may be incomplete. UARG urges EPA to publish a proposed reduced utilization plan form for public comment.

1. Economic Dispatch

UARG commends EPA on its inclusion of the economic dispatch criterion in draft section 72.43(a)(2) and (d)(4)(ii)(E). EPA properly recognizes that reductions in utilization that occur as a result of economic dispatch are not reductions in utilization for purposes of section 404 compliance.

UARG believes, however, that the draft's use of the adjective "random" to describe economic dispatching introduces unnecessary confusion, and urges EPA to delete that word. UARG also is concerned about the following clause in draft section 72.43(d)(4)(ii)(E): "except to the extent such change in dispatch order is attributable to the cost savings that would accrue to the utility system from the banking of allowances that would have otherwise been consumed." Depending on how EPA applies this clause, it may be inconsistent with normal principles of economic dispatch. At a minimum, it should not be interpreted as precluding a utility from satisfying the economic dispatch criterion if the utility's economic dispatch program takes into account the cost of acquiring allowances for a Phase I unit's emissions (and the fact that energy production at sources of generation other than Phase I units involve no such cost). Indeed, given the clause's reference to "cost savings . . . from the banking of allowances," it does not appear that the clause is intended to have that effect.

Finally, draft section 72.43(a)(2) -- with its statement that section 72.43 is inapplicable to units that reduce utilization as a result of economic dispatch -- provides that the

economic dispatch criterion, where it is satisfied, makes the reduced utilization planning requirements inapplicable. Draft section 72.43(a)(2) states: "The requirements of this section shall not apply to the designated representative, owners, and operators of any Phase I affected unit which has reduced utilization below its baseline in any calendar year during Phase I as a result of random economic dispatching" (emphasis added). Although section 72.43(d)(4)(ii)(E) simply lists economic dispatch as one of several "criteria," EPA should confirm that, consistent with section 72.43(a)(2), that criterion provides an absolute exclusion from the reduced utilization planning requirement without regard to any other criteria.

2. System-Wide Downturns, Forced Outages, and Efficiency Improvements

Draft section 72.43(d)(4)(ii)(D) recognizes that system-wide generation reductions, forced outages, and improvements in unit efficiency are "excusable circumstances." EPA should make clear that this criterion provides an exclusion. In other words, the Agency should confirm that, if utilization reduction of one or more Phase I units occurs in an amount no greater than the utilization reduction that results from these three factors, the owners, operators, and designated representatives would not have violated the Act or the regulations by not having submitted a reduced utilization compliance plan.

3. Holding Allowances

Draft section 72.43(d)(4)(ii)(A) establishes as a criterion "whether the unit is subject to, and was operated during the year in question in accordance with, one or more Acid Rain compliance

options specified in a compliance plan approved by the Administrator in accordance with this part, that is adequate to ensure full compliance by the unit with its Phase I emissions reduction requirements in the absence of any reduced utilization" (emphasis added). Draft section 72.40(b)(1), implementing section 408(b) of the Act, provides as a compliance option that "the designated representative will hold allowances in the . . . compliance subaccount for the unit . . . not less than the total annual emissions of sulfur dioxide from the unit."

In addition, draft section 72.43(d)(4)(ii)(B) addresses compliance through the purchase of allowances for a Phase I unit (in addition to those allocated to it by EPA) to cover the emissions that would have occurred if it had operated at the baseline utilization level. This criterion therefore appears to be a specific application of section 72.43(d)(4)(ii)(A) and 72.40(b)(1).

Thus, section 72.43(d)(4)(ii)(A) and (B), together with section 72.40(b)(1), recognize that the owners and operators of a unit have not "circumvent[ed] the emissions limitation requirements" of section 404^{22/} if they hold enough allowances in the unit's compliance subaccount to cover the emissions that would have occurred during the year if it had operated at the baseline utilization level. In other words, if the Phase I unit's compliance subaccount contains, as of the end of a year in Phase I, allowances in an amount equal to or greater than the baseline utilization level (in mmBtu) multiplied by the unit's

^{22/} S. Rep. No. 228, 101st Cong., 1st Sess. 334 (1989).

SO₂ emission rate (in lbs/mmBtu), divided by 2000, the unit should not be deemed to have violated the reduced utilization compliance planning requirement. UARG recommends that EPA make explicit that this criterion, where it is satisfied, provides an absolute exclusion from the reduced utilization requirements.

4. Phase I Aggregation

A basic feature of EPA's draft rules, and an issue upon which the members of the Agency's Acid Rain Advisory Committee were in full agreement, is the principle that no consequences under the reduced utilization rules should result where a system's Phase I units in the aggregate do not experience a reduction in utilization below their aggregate baseline. The draft rules implement this principle by providing, in section 72.43(a)(1)(ii)(B), that the reduced utilization provisions apply where generation is shifted from a Phase I unit to "a compensating unit that is not otherwise affected during Phase I" (emphasis added).^{23/} Thus, the draft rules recognize that any reduction in utilization of a Phase I unit that is compensated for by increased utilization of one or more other Phase I units should not trigger any of the requirements of section 72.43.

UARG strongly supports this provision of the draft rules, which provides an implicit exclusion from any finding of failure to comply with the reduced utilization planning requirements where a system's Phase I units' utilization in the aggregate

^{23/} Likewise, draft section 72.409(a)(2) and (c) properly exempt from the allowance surrender requirements any utilization reduction that is due to shifts of generation to other Phase I units.

equals or exceeds their aggregate baseline. UARG urges EPA to add language to section 72.43(d) to make this exclusion explicit.

5. Avoided Nitrogen Oxide Control Costs

Draft section 72.43(d)(4)(ii)(G) establishes as a criterion "[w]hether the unit is part of a utility system that would have a significant economic motivation to avoid designating a compensating unit within its system due to the cost of complying with the nitrogen oxides obligations that would apply to any such compensating unit." For the reasons discussed below, the NOx requirements of section 407 are not properly triggered by reduced utilization.^{24/} UARG therefore urges EPA to delete this criterion.

6. "Other Factors"

EPA should either delete the reference to unspecified "other factors" or clearly identify those factors. Utilities should not be left guessing about what EPA may consider in reaching an after-the-fact determination that they have violated the law and are subject to criminal, civil, or administrative penalties.^{25/}

7. Preclearance

Finally, EPA should permit, but not require, a utility to obtain a before-the-fact determination by the Agency as to whether a specific kind of utilization reduction would or would not be subject to the reduced utilization planning requirements.

^{24/} See infra pp. 23-27.

^{25/} At the same time, however, a utility should be allowed to demonstrate that it has not violated the law, based on any special circumstances that may not be covered by the specified criteria.

Having this alternative available could greatly reduce the uncertainty facing utilities as they try to ascertain whether or not a given course of conduct would be deemed by EPA to violate the law.

B. Reduced Utilization Does Not Trigger the Section 407 NOx Requirements.

The draft preamble to the regulations suggests that a principal reason for EPA's proposal to penalize utilities for failure to file a reduced utilization plan is the Agency's concern about utilities' possible "circumvent[ion]" of NOx requirements:

The underlying philosophy of EPA's approach towards units that fail to file a reduced utilization plan is to deter any such violations to the extent feasible. The Agency is particularly concerned that without these penalties, utilities might avoid filing a reduced utilization plan in order to circumvent NOx requirements.^{26/}

EPA believes that the Act requires the Agency to apply the section 407 NOx requirements to compensating units.^{27/}

Although EPA acknowledges that section 408(c)(1)(B) "does not state explicitly that these compensating units become affected under section 407,"^{28/} the Agency believes that other references to section 407 in section 408(c)(1)(B), and the

^{26/} Draft Preamble at 40 (emphasis added).

^{27/} See id. at 39-40.

^{28/} Id. at 39.

language of section 407(a), indicate that Congress intended to make compensating units subject to section 407.^{29/}

UARG believes that, for the reasons stated in its July 2 comments on implementation of the reduced utilization provisions, EPA has misread the statute. The Agency has given no compelling defense of its view that the Act's use of the phrase "be deemed an affected unit under section 404" is merely a "short-hand" expression^{30/} for "become an affected unit under sections 404 and 407." EPA's position is undercut by the fact that section 408(c)(1)(B) in two other places includes precisely the reference to section 407 that EPA would like to read in at the crucial part of the provision. Congress' use of words of limited scope in describing the status of a compensating unit is particularly telling in light of its use of broader language in describing the status of a substitute unit in section 404(c): "Upon approval of a substitution proposal, each substitute unit, and each source with such unit, shall be deemed affected under this title" (emphasis added).^{31/}

^{29/} Id. at 39-40.

^{30/} Id. at 39.

^{31/} Section 408(c)(1)(B) provides that "[t]he unit to be used for . . . compensating generation, which is not otherwise an affected unit under sections 404 and 407, shall be deemed an affected unit under section 404, subject to all of the requirements for such units under this title" (emphasis added). Given the conspicuous omission of any reference to section 407 in the statute's description of the status of a compensating unit, the "requirements . . . under this title" to which the compensating unit is subject are the requirements related to implementation and enforcement of section 404, not section 407. The requirements related to implementation and enforcement of
(continued...)

On a more fundamental level, EPA's position ignores the fact that reducing utilization below baseline -- the method of compliance addressed by section 408(c)(1)(B) -- is not a method of compliance with the NOx limitations of section 407. Unlike the SO₂ emission allowance limitations of section 404, the NOx requirements of section 407 are emission rate limitations. Absent a shutdown, a utilization reduction is not a method of compliance with a NOx emission rate limitation.

Indeed, section 408(c)(1)(B) refers not to any utilization reduction by a unit, but only to a unit's utilization reduction "as compared with its baseline" (emphasis added). Neither section 407 nor EPA's draft regulations to implement section 407 have anything to do with the baseline. The baseline is germane only to the SO₂ program; it is the utilization level that the statute multiplies by 2.5 lbs/mmBtu to determine the Phase I SO₂

31/ (...continued)
section 404 include: the requirements for Phase I permits and compliance plans under section 408(a), (b), and (c) (including the reduced utilization provision itself); the excess emissions penalty and offset provisions of section 411(a) and (b), to the extent that those provisions address excess emissions of SO₂; and section 412(b) monitoring, reporting, and recordkeeping requirements for Phase I units. In contrast, the provisions of section 407 are not relevant to implementation and enforcement of the section 404 requirements.

In addition, section 407(a) states that a unit becomes subject to the NOx limitations on the date that it "becomes an affected unit pursuant to sections 404, 405, 409, or on the date a unit subject to the provisions of section 404(d) or 409(b), must meet the SO₂ reduction requirements" (emphasis added). Section 407(a) contains no reference to units that are deemed to be affected units pursuant to section 408(c)(1)(B). (i.e., compensating units). Compensating units do not become affected units pursuant to the provisions of section 404; they are deemed to be affected units pursuant to the provisions of section 408(c)(1)(B). Consequently, they are not within the scope of section 407(a).

allowance allocations. Accordingly, a unit can meet its Phase I SO₂ allowance allocation level by keeping its emission rate above 2.5 lbs/mmBtu and reducing its utilization below its baseline. The baseline utilization level has no such significance -- indeed, no significance at all -- for compliance with the NOx rate limitations of section 407, since a unit's emission rate is independent of its baseline utilization level (or any other utilization level). Had Congress intended section 408(c)(1)(B) to address compliance with the NOx limitations, it would not have made application of that provision contingent on a reduction in utilization below baseline.^{32/}

Congress' use of the baseline as the utilization reduction trigger for section 408(c)(1)(B) makes clear that that provision is aimed only at utilization reductions for SO₂ compliance. Section 408(c)(1)(B) applies where the owner or operator of an affected unit "proposes" to comply "by reducing utilization of the unit as compared with its baseline." Because reducing utilization below baseline is a method of compliance with the emission allowance and tonnage limitations of section 404 but not with the emission rate limitations of section 407, those emission

^{32/} Even with respect to a Phase I NOx averaging plan (compliance with which might in some cases be achieved by reducing utilization of one or more Phase I units), utilization reductions below baseline have none of the significance that utilization reductions below baseline have for compliance with SO₂ emission tonnage limitations and allowances. In other words, any argument that Congress intended section 408(c)(1)(B) to address utilization reduction for purposes of compliance with NOx averaging plans does not withstand analysis, since the reference in section 408(c)(1)(B) is to utilization reductions below baseline, a concept that has no relationship to compliance with NOx averaging plans.

rate limitations do not come into play where a utility plans to reduce a unit's utilization below baseline.

Further, EPA has not recognized the economic and policy implications of adopting and administering regulations that require compliance with NOx requirements where the Agency deems that utilization reduction has been used as a method of compliance in Phase I. The Agency has failed to address the disruption of utility planning, the threat to electric reliability, or the costs for utilities and their ratepayers of having to achieve compliance with NOx rate limitations at one or more compensating units on what apparently amounts to an instantaneous basis.^{33/}

In sum, Congress did not intend NOx requirements to be triggered by a Phase I unit's utilization reduction below baseline. UARG therefore urges EPA to delete from the regulations the provisions that would require compliance with NOx rate limitations where utilization reduction is a method of compliance with SO₂ tonnage limitations.

C. Comments on Other Provisions of Draft Section 72.43

UARG urges EPA to revise or clarify draft section 72.43 in several other respects.

^{33/} For example, the draft rules do not provide a reasonable compliance period (such as the 31-and-a-half months that section 407(b)(1) of the Act contemplates or the period of at least 36 months that section 407(b)(2) contemplates) for meeting a NOx rate requirement at a compensating unit when the Agency has made an after-the-fact determination that a utility has used utilization reduction as a method of compliance in Phase I.

1. Increased Utilization at Nonaffected Units

EPA should add language to the draft reduced utilization requirements to make clear that they do not apply where reduced utilization at a Phase I unit is made up for by generation from a nonaffected unit.^{34/} No reason exists to apply the reduced utilization rules to any Phase I reduced utilization that is accounted for by increased utilization of these sources of generation, since these sources will never be part of the SO₂ emission reduction program, either in Phase I or in Phase II.

Thus, shifts in utilization from a Phase I unit to a nonaffected unit should not trigger any requirement that either the nonaffected unit or any other unit be designated as a compensating unit.^{35/} Accordingly, EPA should revise draft section 72.43(a)(ii)(B)(1) to read: "Shift generation to a compensating unit that is not otherwise affected during Phase I, including any Appendix B or new unit (but not including any unit that is not, and will not become, an affected unit), or" (emphasis added).

^{34/} Nonaffected units include simple combustion turbines and units that serve generators with nameplate capacity of 25 MWe or less (if the turbine or unit commenced commercial operation before November 15, 1990) and qualifying small power production facilities, qualifying cogeneration facilities, and independent power production facilities covered by section 405(g)(6) of the Act.

^{35/} For example, in some cases, utilities may be compelled by state rate regulation authorities to shift generation to nonaffected units, such as independent power production facilities. This kind of load-shifting could not be considered a method of compliance with the Phase I requirements.

Alternatively, EPA should add a provision to draft section 72.43(d)(4)(ii) to make clear that shifts in utilization of a Phase I unit to a nonaffected unit will not be determined in any case to be a violation of the reduced utilization planning requirements.

At a minimum, if EPA does not provide a flat exception for load-shifting to nonaffected units, it should revise draft section 72.43(b) to establish a compliance plan category for "Nonaffected Unit Generation Plans." Under this approach, utilities could include in their compliance plans (on a conditional basis if they wish)^{36/} a plan to rely on generation to be supplied by one or more nonaffected units. Like sources of clean generation, such nonaffected units would not be treated as compensating units. The compliance plan would make the designated representative of the Phase I unit responsible for demonstrating an increase in utilization at the nonaffected unit above its 1985-1987 baseline for any year of Phase I in which the Phase I unit relies on compensating generation from the nonaffected unit.

2. Information on Kilowatt Hours

EPA should require information on "utilization" levels in terms of kilowatt hours only to the extent that the Phase I unit

^{36/} See draft § 72.32(g); see also draft § 72.43(a)(3). UARG does not understand EPA's rules to require utilities to define with precision the degree to which they will rely on generation from compensating units, clean units, nonaffected units, conservation, or efficiency improvements. It is impossible in many cases to predict accurately the amount and sources of generation or energy savings. Moreover, amendments to compliance plans must be freely permitted to take account of changing circumstances.

relies, or plans to rely, on clean generation, energy conservation, or efficiency improvements. Reporting kilowatt hours rather than (or in addition to) mmBtu's may make sense for some clean generation sources, for conservation, or for efficiency, but it would serve no purpose for compensating units (or for nonaffected units). For compensating units and nonaffected units, the relevant measure of utilization is heat input in mmBtu's, as is shown by the definition of "baseline" in section 402(4) of the Act.^{37/}

3. Information on NOx Emission Rates

Because the NOx requirements are not germane to the reduced utilization provision,^{38/} EPA should revise draft section 72.43(b)(1)(ii)(B) to delete the requirement that utilities provide information on NOx emission rates. For the same reason, draft section 72.43(b)(1)(viii)(B), requiring a NOx compliance certification, should be deleted; draft section 72.43(b)(7), addressing recordkeeping requirements, should omit any reference to requirements under 40 C.F.R. Part 76; and draft section 72.43(c)(2)(i) and draft section 72.43(d)(2), addressing

^{37/} Thus, for example, EPA should amend draft section 72.43(b)(1)(ii)(A) to require the proposed plan to include information on the kilowatt hours of reduced utilization below baseline that are planned only if the utility plans to rely on clean generation, conservation, or efficiency improvements. If the utility plans to rely only on compensating units, it should submit information on the mmBtu's of reduced utilization below baseline that are planned. Similarly, EPA should revise draft section 72.43(b)(6)(iii) to provide that a utility need verify utilization increases of a compensating unit only in terms of mmBtu's, while utilization increases of a clean generation source may appropriately be verified in terms of kilowatt hours.

^{38/} See supra pp. 23-27.

requirements applicable to compensating units, should be revised to delete references to Part 76.

4. "Other Information"

EPA should specifically identify what "other information" it may "require" under draft section 72.43(b)(1)(ix). The purpose of defining information collection requirements through regulations is to put the regulated community, the public, and the Office of Management and Budget on notice as to the extent of the paperwork burdens imposed by the regulations. If EPA does not specifically define "other information," it should delete this provision.

5. Treatment of Energy Conservation

EPA should revise draft section 72.43(b)(3) to make clear that energy conservation in the system as a whole may provide energy savings that account for reduced utilization at a Phase I unit in the system. As the energy conservation program under section 404(f) of the Act recognizes, conservation-related energy savings are not tied to individual units, but are achieved by a utility in its system as a whole. A given amount of energy savings from conservation would, of course, be credited only to one Phase I unit; double-counting among Phase I units would be prohibited.

6. "Shift in Generation" and the Statutory Baseline

Draft section 72.43(b)(6)(iii) on its face appears to allow credit against the Phase I unit's utilization reduction for utilization increases at clean sources and compensating units only where those increases occurred after "the shift in

generation." Given the statute's establishment of 1985-1987 as the baseline period from which Phase I units' utilization reductions are measured, this language could give rise to confusion.

For instance, if a utility system's Phase I unit reduced its utilization in 1990, and a nuclear power plant in the same system increased its utilization each year beginning in 1988, would "the shift in generation" be deemed to have occurred in 1988 or in 1990? If 1990, would the utility get credit for the increased utilization at the nuclear plant in 1988 and 1989?

EPA can, and should, avoid the confusion that may arise under this provision -- and clearly conform this provision to the approach that Congress took in the Act -- simply by deleting the phrase "prior to the shift in generation" and inserting in lieu thereof "in the baseline period of 1985-1987 (on an average annual basis)." The same baseline -- average annual utilization in 1985-1987 -- that Congress mandated as the benchmark for measuring whether and to what extent a utilization reduction has occurred at a Phase I unit must be used for measuring whether and to what extent a utilization increase has occurred at a compensating unit, a source of clean generation, or a nonaffected unit.^{39/}

^{39/} See, e.g., draft § 72.43(b)(6)(iii) (requiring a comparison of the increased utilization at a compensating unit or clean generation source with "the reduced utilization at the original unit below its baseline") (emphasis added).

7. Treatment of "Clean Units"

The draft rules use the phrase "clean unit" in describing a source of clean generation. This phrase may cause unnecessary confusion, since draft section 72.2 defines "unit" as "a fossil-fuel fired combustion device that serves a generator." Sources of clean generation, as the draft rules state, may include qualified renewable energy sources,^{40/} which are not fossil-fuel fired combustion devices. Moreover, section 72.2 states that clean generation may include "any other electrical energy generated by a process that does not have emissions of sulfur dioxide." For example, electrical energy generated by a nuclear power plant or a hydroelectric plant is clean generation. Like qualified renewable energy sources, these kinds of sources are not "units." Thus, EPA should replace the phrase "clean unit" with "source of clean generation" or "clean generation source."^{41/}

In addition, draft section 72.43(b)(6)(iii) provides that "each reduced utilization plan relying on increased generation at a clean generation unit or designated compensating unit shall require that the designated representative(s) for each clean generation or compensating unit and for the unit reducing its utilization demonstrate annually . . . an increase in utilization . . . at the clean generation or compensating unit" (emphasis added). At least for those clean generation sources that are not

^{40/} See draft §§ 72.2, 72.43(b)(2).

^{41/} Of course, some "units" -- e.g., units that burn natural gas -- may also be sources of clean generation.

units (and therefore not affected units), however, there will be no designated representative. Draft section 72.2 makes clear that the designated representative is "the natural person authorized by the owners and operators of an affected unit . . . to represent and legally bind the owners and operators" (emphasis added). Thus, EPA should revise draft section 72.43(b)(6)(iii) to require a demonstration of the utilization increase by the designated representatives of the Phase I unit and the compensating unit in the case of a utilization increase at a compensating unit, and by the designated representative of the Phase I unit only in the case of a utilization increase at a clean generation source.^{42/}

8. The Compliance Certification Reporting Requirement

Many utilities, including those that participate in power pools, may interchange electricity among their units and with other utilities' units in a way that makes it difficult or impossible to say definitively to which Phase I unit, or even to which utility, a given amount of purchased power from a given source was allocated. Such utilities with Phase I units that reduce their utilization below baseline should be able to divide

^{42/} If EPA provides for a reduced utilization compliance plan option for nonaffected unit generation, see supra p. 29, it should likewise require a demonstration of the utilization increase by the designated representative of the Phase I affected unit only, since the nonaffected unit by definition will have no designated representative.

Providing that only the designated representative for the Phase I unit is to demonstrate increased utilization at a clean generation source would clarify that Phase I units may rely for compensating generation on clean sources located outside the United States, such as Canadian hydroelectric facilities.

among themselves such purchased power for purposes of implementing the compliance certification reporting requirements of draft section 72.43(b), as long as no double-counting of increased utilization from sources of compensating generation occurs.

The regulatory language appears to be drafted in a way that would accommodate this approach. However, EPA may want to take note in the preamble of the circumstances facing power plant participants in particular, recognizing -- as section 403(d)(2) of the Act recognizes -- that to a significant extent, power pools function as centrally dispatched utility systems.^{43/}

D. EPA's Draft Rules Should Provide a "Banking" Alternative to Allowance-Surrender Requirements.

Draft section 72.409 requires the forfeiture, or forced "surrender," of allowances in certain cases of reduced utilization of Phase I units. EPA says in the draft preamble that utilities must not be allowed to bank allowances that are freed up by reduced utilization.^{44/} EPA believes that utilities should be prohibited from using these allowances in Phase II, even though the Act's reduced utilization provision addresses only utilization reductions for purposes of compliance with Phase I. EPA ignores the fact that only one provision of the Act expressly forbids the banking of allowances that are

^{43/} Of course, each utility, including a utility that does not participate in a power pool, would be able to make a similar distribution of purchased power among its Phase I units that reduce their utilization below baseline, since allocation of such power to a specific unit typically is impossible.

^{44/} See Draft Preamble at 34-35.

"produced as a result of reduced utilization": section 410(f). That provision governs reduced utilization of opt-in sources. Section 408(c)(1)(B), which governs reduced utilization of Phase I affected units, contains no such prohibition.

In addition, nothing in the Act mandates forced surrender of allowances in cases of reduced utilization of Phase I units. When Congress intended that EPA require surrender, or deduction, of allowances, it provided for it explicitly. Section 404(d)(7) of the Act, for example, provides for deduction of allowances from the account of a Phase I extension unit if the unit emits SO₂ in excess of the annual tonnage limitation specified in the extension plan. And section 411(b) requires allowance surrender where a utility does not hold enough allowances to cover its emissions. In contrast, neither section 408(c)(1)(B) nor any other provision of the Act requires or authorizes the forced surrender of allowances in cases of reduced utilization of Phase I units.

Moreover, section 403(a) of the Act provides that "[e]xcept as provided in sections 409 and 410, the removal of an existing affected unit or source from commercial operation [which is, of course, a reduction in utilization] at any time after the date of the enactment of the Clean Air Act Amendments of 1990 (whether before or after January 1, 1995, or January 1, 2000) shall not terminate or otherwise affect the allocation of allowances pursuant to section 404 or 405 to which the unit is entitled" (emphasis added). Indeed, section 408 itself ensures that it will not operate to force utilities to give up allowances:

section 408(b) provides that "[n]othing in this section regarding compliance plans or in title V shall be construed as affecting allowances."^{45/}

Section 403(a) also provides that in implementing the 8.9-million-ton "cap" for the sulfur dioxide program in Phase II, "the Administrator shall not take into account unused allowances carried forward by owners and operators of affected units or by other persons holding such allowances, following the year for which they were allocated." Thus, banking allowances and carrying them forward for use in Phase II cannot be viewed as a "cap-buster" because Congress determined that such allowances would not be included within the cap.

Furthermore, section 403(b) provides that EPA's rules must permit "unused allowances to be carried forward and added to allowances allocated in subsequent years, including allowances allocated to units subject to Phase I requirements (as described in section 404) which are applied to emissions limitations requirements in Phase II (as described in section 405)."

Thus, a utility that reduces its Phase I units' utilization should have the option of (1) surrendering that part of their freed-up allowances represented by the reduced utilization multiplied by the utility's non-Phase I units' Btu-weighted emission rate; or (2) banking until Phase II all of the freed-up allowances, calculated by multiplying the amount of the reduced utilization (in mmBtu's) by an emission rate of 2.5 lbs/mmBtu.

^{45/} The same language is in section 72.32(a)(6) of the draft rules.

If the utility chooses the second option, it would not be permitted to use any of those allowances for Phase I compliance, and, if it sells the allowances to another utility, that utility likewise could not use those allowances for Phase I compliance.

E. Additional Comments on Draft Section 72.409

First, draft section 72.409(b) addresses reduced utilization due to a system-wide decrease in electrical demand, and requires a calculation of "the percentage decline of aggregate annual kilowatt hour sales for the utility system, as identified in the permit application in accordance with § 72.31(a)(5)." Draft section 72.31(a)(5), in turn, requires the Phase I permit application to identify "each unit in the dispatch system of which the utility that owns the source is a part, including units owned by any other utility with which the utility that owns the source has a permanent and regular arrangement for power purchases." EPA should confirm that the phrase "permanent and regular" in this context means "ongoing," as provided in the strawman option paper on reduced utilization that EPA distributed at the Acid Rain Advisory Committee on April 29, 1991, and as shown by the draft preamble's use of the adjective "ongoing" to describe this provision.^{46/} Otherwise, the language in section 72.31(a)(5) might be viewed as unnecessarily restrictive.^{47/}

^{46/} Draft Preamble at 19.

^{47/} UARG supports EPA's decision not to require a common designated representative for each unit that is included in the system pursuant to section 72.31(a)(5). See draft § 72.32(a)(2); cf. draft § 72.32(a)(3). UARG also supports EPA's decision, embodied in section 72.32(a)(2), to allow multi-unit compliance
(continued...)

Second, draft section 72.409(d)(2) provides that if the designated representative "anticipates that the forced outage will continue in the following calendar year, and that the forced outage will cause the unit to permanently transfer generation to one or more unit that is not otherwise affected during Phase I, the designated representative shall amend the compliance plan for the unit by submitting a reduced utilization plan designating a compensating unit." To the extent that an outage is forced, rather than voluntary, it should never trigger a requirement to designate a compensating unit. A forced outage may be deemed to have become a voluntary utilization reduction only if it is clear that it is possible to restore the unit to normal service at reasonable cost and the utility fails to take reasonable measures to accomplish that. EPA should make clear that the scope of section 72.409(d)(2) is limited to these situations.

Third, the formula for allowance surrender calculations in draft section 72.409(e)(1) should be revised to make it consistent with the exclusion in draft section 72.409(a)(1) and (b) for utilization reductions due to a system-wide decrease in electrical demand. As drafted, the formula in section 72.409(e)(1) accounts for shifts in generation to other Phase I units but does not account for system-wide decreases. Thus, a

47/ (...continued)

plans for units located at more than one affected source. UARG agrees with EPA that this decision is essential if Title IV is to be properly implemented, see Draft Preamble at 16, and that multi-unit compliance plans will "provide utilities with flexibility in determining least-cost methods of compliance" and will "allow compliance plans that are consistent, for example, with preexisting power pooling arrangements," id. at 24.

new factor, "(A-E)," should be substituted for the factor "A," with "E" defined as the aggregate reduction in utilization of all Phase I units below their aggregate baseline that is attributable to the system-wide percentage decline in utilization as calculated pursuant to section 72.409(b)(1).

Finally, although it appears that, with the exception noted above, the formulas in section 72.409(e) have been properly drafted, EPA may want to include examples to show clearly how the formulas will be applied. These examples could be included in the preamble or, as with federal tax regulations, as part of the rules themselves.

F. Timing of Allowance Accounting Period

EPA responds to the proposed five-year approach for an allowance surrender and accounting system by saying that "[t]he environmental effects would plainly be adverse."^{48/} The Agency apparently assumes that it is an adequate response to a proposal to say that if that proposal would result in more emissions than would the Agency's draft, it is unacceptable. EPA's response assumes that its approach sets the standard of environmental neutrality against which all other proposals must be judged. UARG believes that the Act sets the standard, and that the five-year approach is "environmentally neutral" with regard to the requirements of the Act.

EPA argues that "a five-year accounting period would be inconsistent with the annual allowance allocation and compliance demonstration requirements mandated by the Act," and that "[t]he

^{48/} Draft Preamble at 43.

five-year approach does not account for increases in SO₂ or NO_x emissions due to reduced utilization and load shifting."^{49/}

For several reasons, EPA's argument is meritless. First, as even EPA acknowledges,^{50/} the five-year approach provides for annual allowance accounting. Second, the five-year approach does account for increases in SO₂ emissions due to reduced utilization and load-shifting; it simply does it in a way that differs from EPA's approach. Third, the five-year approach does not account for any NO_x emission increases because utilization reductions have nothing to do with compliance with the Act's NO_x provisions; the Act limits only NO_x emission rates, and reducing utilization is not a method of compliance with rate limitations.^{51/} Finally, EPA's proposal fails to address the need for some mechanism to take into account year-to-year variability in utilization levels, a need signaled by the Act's establishment of a multiyear utilization baseline from which utilization reductions are to be measured. For these reasons, and for the reasons stated in UARG's comments of July 2, 1991, UARG urges EPA to adopt the five-year approach.

^{49/} Id.

^{50/} See id. at 42.

^{51/} See supra pp. 23-27.

III. Substitution Units

A. EPA Should Allow a New Unit or a Nonaffected Existing Unit To Be Designated As a Substitution Unit.

EPA says that "[o]nly existing Phase II units would be eligible to participate in substitution plans with Phase I units."^{52/} Indeed, draft section 72.41(a) states that "[t]his section shall apply during Phase I only to existing units listed in Appendix A or B of this part" (emphasis added). This limitation would preclude the designation of a new unit or a nonaffected existing unit as a substitution unit.

While some statutory basis arguably may exist for excluding new units from participation in a substitution plan,^{53/} the Act does not support exclusion of nonaffected existing units. Section 404(b) of the Act allows the owner or operator of a Phase I affected unit to "include in its . . . permit application and proposed compliance plan a proposal to reassign, in whole or in part, the affected unit's sulfur dioxide reduction requirements

^{52/} Draft Preamble at 24.

^{53/} EPA justifies excluding a new affected unit from a substitution plan by asserting that "with limited exceptions, the Act prohibits the allocation of allowances to new units" and that "[a]ny allocation of allowances . . . to a new unit under a substitution plan would dilute the emissions reductions the Act intended to be achieved during Phase I." Id. at 25. UARG is not aware of any legislative history that suggests that Congress considered this point. However, section 404(b)(3) of the Act requires that the substitution plan include "the annual average [emission] tonnage for calendar years 1985, 1986, and 1987" for the substitution unit. The statute does not expressly provide a mechanism for measuring emission reductions for units not in commercial operation during 1985-87. Thus, a new unit, defined under section 402(10) of the Act as "a unit that commences commercial operation on or after [November 15, 1990]," arguably is precluded from participation in a substitution plan.

to any other unit(s) under the control of such owner or operator" (emphasis added).^{54/} The statute does not require that the unit be an affected unit, only that the unit be under the owner or operator's control.

To satisfy this "common control" criterion, EPA proposes to require that "the substitution unit be under the 'common control' of the same designated representative as the Appendix A unit for which the proposed plan is submitted."^{55/} UARG supports this reasonable approach to satisfying the common control requirement and believes that, as long as a nonaffected existing unit designated as a substitution unit has the same designated representative as the Appendix A unit and fulfills the other

^{54/} In draft section 72.50, EPA proposes to require a Phase II affected unit sharing a common stack with a Phase I affected unit, where the units' emissions are not monitored separately by monitoring systems certified under Part 75, to be brought into Phase I as a substitution unit. See draft § 72.50(b)(2). Similarly, draft section 72.50(b)(3) would require a nonaffected unit sharing a common stack with a Phase I unit to be brought into Phase I as an opt-in unit under section 410 of the Act. However, these steps may not always be appropriate. For example, to qualify for a substitution plan, the Phase I unit and Phase II unit sharing a common stack might have to reassign at least a portion of the Phase I unit's emission reduction requirements to the Phase II unit, which may not always be feasible or cost-effective. As UARG's consultant, Ralph L. Roberson of Systems Applications International, noted in his April 10, 1991, memorandum to Larry Kertcher, Chief of the Source Control Branch of EPA's Acid Rain Division, only nine stacks in the contiguous United States will be shared by a Phase I unit and a non-Phase I unit in Phase I, and EPA should determine the best monitoring solution for each of these units on a case-by-case basis. Rather than requiring a non-Phase I unit sharing a stack with a Phase I unit to be brought into Phase I as either a substitution unit or an opt-in unit, EPA's regulations should allow the designated representative to propose an emission monitoring alternative to ensure compliance with Phase I requirements at the Phase I unit.

^{55/} Draft Preamble at 25.

requirements of section 404(b) and (c) of the Act, EPA should allow its inclusion in a substitution plan.

EPA asserts in its draft preamble that "no added flexibility would be achieved by allowing opt-in units as substitution units since such units would be able to participate in the allowance program pursuant to section 410 of the Act."^{56/} In making this assertion, EPA ignores the restriction imposed under the first sentence of section 410(f) of the Act, which generally prohibits transfer or banking of allowances freed up by reduced utilization of opt-in units. This restriction would not apply to allowances received by substitution units. Thus, designation of a nonaffected unit as a substitution unit, which UARG believes is permitted by the statute, may be preferable in many circumstances to opting in under section 410. Therefore, EPA should revise its draft regulations to allow a nonaffected existing unit to be designated as a substitution unit.

B. EPA Should Not Consider Post-1985 Sulfur Dioxide Emission Reductions Required at a Substitution Unit in Determining the Emission Reductions that Would Have Occurred Without the Substitution Plan.

In the draft preamble, EPA interprets the statute as requiring the Agency to consider, in assessing the total reductions to be achieved under the substitution plan, "the reductions that would have been required of the Appendix B unit where the Phase II unit's applicable limitation (e.g. SIP limit) was made more stringent after 1985."^{57/} Accordingly, draft

^{56/} Id. at 24.

^{57/} Id. at 26.

section 72.41(d)(1)(iii)(B) requires the plan to account for emission reductions required under a more stringent "applicable federally enforceable" emission limit imposed after 1985.^{58/} In other words, EPA's draft would not give substitution units credit for emission reductions made since 1985 where those reductions are associated with federally enforceable limits.

EPA relies on section 404(b)(5) of the Act, which requires a proposed substitution plan to include "documentation, to the satisfaction of the Administrator, that the reassigned tonnage limits will, in total, achieve the same or greater emissions reduction than would have been achieved by the original affected unit and the substitute unit or units without such substitution." However, by requiring the substitution plan to include a calculation of annual average emission tonnage for a substitution unit using the unit's actual or allowable 1985 emissions rate, section 404(b)(3) strongly suggests that EPA should use 1985 emission rates for substitution units.

Had Congress intended that EPA account for reductions made after 1985 pursuant to a more stringent federally enforceable emission limit, section 404(b) would not have provided for inclusion of 1985 emissions data in the proposed substitution plan. At a minimum, this subsection would have made clear that units should not receive credit for reductions since 1985 required by other Clean Air Act programs.

^{58/} Id.; draft § 72.41(d)(1)(iii)(B). However, EPA requests comment on whether, in the alternative, the Agency should consider the sulfur dioxide reductions that would have been achieved by the substitution unit without the substitution plan to be zero. Draft Preamble at 26.

Where Congress intended to impose such a constraint, the statutory language is clear. For example, Congress included such a provision in section 410 of the Act governing the treatment of sources choosing to opt into the acid deposition control program. Section 410(f) prohibits EPA from issuing allowances to opt-in sources "in an amount greater than the emissions resulting from operation of the source in full compliance with the requirements of this Act." Had Congress intended to impose the limitation proposed by EPA on substitution units, section 404(b) or (c) would have contained language similar to this provision.

In EPA's words, therefore, "the rule, as proposed, would increase the overall Phase I reductions contemplated by the Act."^{59/} EPA's proposal would create a substantial disincentive for the owners or operators of Phase I units to designate substitution units, even though emission reductions could be made more cost-effectively at these units.

For these reasons, UARG recommends that EPA abandon its proposal to adjust the average annual emissions at a proposed substitution unit to account for post-1985 emission reductions required under other federally enforceable programs.

C. EPA Should Revise the Substitution Unit Rule on Calculation of the Required Emission Reductions at an Appendix A Unit to Include Any Allowances Allocated to the Unit Under Section 404(a)(3) of the Act.

Draft section 72.41(d)(1)(iii)(A) contains the proposed formula for calculating the required emission reductions at a Phase I unit in the absence of a substitution plan. It states

^{59/} Draft Preamble at 26.

that "Tons sulfur dioxide 1985 - Table A allocation = Phase I unit's annual emissions reduction without plan." This formula fails to take into account the additional Phase I allowances awarded to affected units in three states under section 404(a)(3) of the Act.

Section 404(a)(3) directs EPA to "allocate for each unit on Table A that is located in the States of Illinois, Indiana, or Ohio [with listed exceptions] . . . allowances in an amount equal to 200,000 multiplied by the unit's pro rata share of the total number of allowances allocated for all units on Table A in the 3 states." By including only the Table A allowances in the formula for determining a Phase I unit's annual emission reduction without a substitution plan, EPA fails to include the section 404(a)(3) allowances.

Therefore, this formula would overestimate the emission reductions required of units eligible to receive allowances under section 404(a)(3). EPA should revise draft section 72.41(d)(1)(iii)(A) to include in the "Table A allocation" factor any allowances allocated to a Phase I unit under section 404(a)(3).^{60/}

^{60/} EPA, therefore, should amend draft section 72.41(d)(1)(iii)(A) to read as follows:

"(A) Calculation of the required emissions reductions without a substitution plan for each Appendix A unit governed by the proposed substitution plan:

- Line 1 Tons sulfur dioxide 1985 - (Table A allocation + any allowance allocation pursuant to section 404(a)(3) of the Act) = Phase I unit's annual emissions reduction without plan
- Line 2 Tons sulfur dioxide 1985 = baseline x the lesser of actual or allowable 1985 emissions rate for sulfur dioxide/2000."

IV. Permitting Procedures

- A. EPA Should Allow Certification of a Designated Representative for an Individual Affected Unit Rather than Requiring One Designated Representative for All Affected Units at a Source.

Subpart B of EPA's draft Part 72 requires that there be one designated representative for each affected source under Title IV. EPA explains this approach in its preamble by noting that "permits would be issued to each affected source, and sources typically will have more than one unit," and stressing that "even though ownership of multiple units at a source might vary, the important programmatic need of dealing with one representative for the source would be preserved."^{61/}

UARG opposes this requirement because it is not called for by the Act and may impose unfair burdens on the owners and operators of affected units.

Section 402(26) defines "designated representative" as "a responsible person or official authorized by the owner or operator of a unit to represent the owner or operator in matters pertaining to the holding, transfer, or disposition of allowances allocated to a unit, and the submission of and compliance with permits, permit applications, and compliance plans for the unit" (emphasis added). This definition provides for the certification of a designated representative for a unit by the owners and operators of that unit, and makes no provision for certification of a designated representative by source.

^{61/} Draft Preamble at 15-16.

While EPA's proposal to require one designated representative for each source might prove administratively efficient where all units in the source have the same owners and the same operator, this approach could pose serious problems where different units at a given source have different owners or operators. As EPA makes clear in its draft regulations, the Agency will hold the designated representative and all owners and operators of a source jointly and severally liable for any violation of Title IV.^{62/} Making all owners and operators of each unit at a given source responsible for the actions of a designated representative for all of the other units at the source would expose these persons to potential liability for violations of the Act that they not only had no knowledge of but that might not have involved their units in any way.

In sum, EPA's proposal to require certification of designated representatives on a source-by-source basis is not contemplated by the statute and would unjustly affect multiple owners and operators of units at an individual source. For these reasons, EPA should revise its draft regulations to allow for the designation of a representative for an individual unit.

^{62/} Draft section 72.21(a) states that "[t]he designated representative shall represent and legally bind the owners and operators of each source with an affected unit jointly and severally in all matters pertaining to the Acid Rain Program" (emphasis added).

B. EPA Should Streamline the Procedures for Appealing an Initial Permitting Decision.

Draft Part 77 Subpart H establishes procedures for appealing EPA's initial permitting decisions. UARG urges EPA to streamline these procedures to avoid delay and uncertainty.

Specifically, the draft rules should require that:

- * a petition for review of an initial permitting decision be deemed denied, rather than granted, if EPA fails to act on the petition within 45 days of receipt (draft section 72.98(a));
- * an evidentiary hearing commence no later than three months, rather than six months, after the request for hearing is granted (draft section 72.98(c));
- * the presiding officer issue and file a proposed order within 30 days, rather than 60 days, after completion of a hearing (draft section 72.106(a)); and
- * the Administrator act within 30 days, rather than a "reasonable time," after the filing of an objection to the presiding officer's proposed order or the Administrator's issuance of a notice of intent to review the order sua sponte (draft section 72.108(c)).

Although allowing an evidentiary hearing on a petition for review of an initial permitting decision undoubtedly will cause delays, the foregoing recommendations, if adopted, would help streamline the appeals process.

C. EPA's Regulations Properly Prohibit State and Local Interference in Allowance Transactions.

A robust national SO₂ allowance market is essential to the success of the acid deposition control program. State and local restrictions on allowance transactions could cripple the allowance market and undermine the market-based approach to acid deposition control that Congress intended.

The Agency appears to recognize the importance of preserving the national integrity of the allowance system. Part 72 -- and, in particular, draft section 72.202(a) -- seeks to ensure national consistency in permitting requirements and to prevent state or local interference with allowance transactions. Draft section 72.202(a) provides that a state permitting program "shall not include or implement any measure that would interfere with the Acid Rain allowance program."^{63/}

UARG strongly supports this approach and urges EPA to retain this provision of the regulations.

V. Allowance Tracking and Trading System

On the whole, UARG believes that EPA has done a good job in drafting Part 73. This part of the draft regulations generally is faithful to the market-oriented approach of Title IV. For example, draft section 73.35(c) and (d) -- together with EPA's proposal to identify each allowance by a unique number^{64/} -- give utilities flexibility in compliance planning by allowing them to deduct identified allowances in the order of their choosing, with last-in-first-out as a default rule. This approach will reduce the program's costs without impairing achievement of the Act's environmental objectives.

UARG notes, however, that it continues to support a 45-day book-closing, or "true-up," period. This approach would give

^{63/} This prohibition also covers local permitting programs. See draft § 72.2 (defining "state" to include "local agencies").

^{64/} See Draft Preamble at 95-96. UARG believes that it makes sense for administrative purposes to include in each identification number the compliance use date. See *id.* at 97-98.

utilities and other market participants a reasonable period of time to conduct and complete negotiations for allowance transfers, without affecting attainment of the Act's emission reduction objectives. This period also is the minimum period that will be necessary to permit utilities to prepare and submit the annual compliance certification reports -- addressing numerous and detailed data on potentially complicated subjects -- that are required under draft Part 72 Subpart K and other provisions such as draft section 72.43(b)(6) (relating to reduced utilization).

UARG does not believe that EPA has a compelling need for 30 days "to record closing transfers and to resolve any associated errors."^{65/} Recordation of transfers should be a routine, ministerial task, and resolution of errors can proceed expeditiously. In cases where errors are not resolved in time, EPA could require submission of contingent excess emission offset plans (where such plans are necessary at all), and affected utilities could submit final plans shortly thereafter where a brief delay may be necessary due to late resolution of errors.

In addition, it is unlikely that utilities will need a month to prepare excess emission offset plans. Utilities that have not completed their allowance trades in advance of the 45-day

^{65/} Id. at 108.

deadline would bear the burden of having to complete any necessary excess emission offset plan within 15 days.^{66/}

VI. Excess Emission Penalties and Offset Plans

A. EPA Should Revise the Draft Rules To Permit Payment of the Excess Emission Penalty Within 60 Days After the End of the Calendar Year.

In Part 73, EPA proposes to establish an allowance transfer deadline of January 30. The Agency states that "a January 30 transfer deadline affords EPA one month in which to record closing transfers and to resolve any associated errors, and offers violating units one month from the submission of transfers to complete and submit excess emissions offset plans, prior to the time excess emissions plans must be submitted."^{67/} Thus, for example, on the transfer deadline, the authorized account representatives for a transferor and a transferee may submit an Allowance Transfer Form that seeks to transfer allowances to the transferee in an amount sufficient to prevent the transferee from having excess emissions for the preceding calendar year. In the succeeding 30 days, however, EPA might find that the transferor's

^{66/} Finally, UARG notes that draft section 73.31(a) would require EPA to establish allowance tracking system accounts for affected units by January 30, 1993. This appears to be satisfactory for most units, but could present problems for those Phase I units that may be eligible for allowance allocations due to early emission reductions under section 404(e) of the Act. EPA should allow for establishment of accounts for these units at an earlier date. Under the section 404(e) program, the utility would submit an annual certification to EPA to verify the level of emission reductions in the previous year. No permit would be necessary to implement this program, since EPA's role would be limited to determining what reductions took place and therefore how many allowances to allocate.

^{67/} Draft Preamble at 108 (emphasis added).

account did not in fact contain all or some of the allowances that were sought to be transferred.

EPA's draft Part 77, however, could be construed in a way that would result in the designated representative, owners, and operators of the transferee unit being held in violation of the Act for having failed to pay an excess emission penalty by "midnight of January 30,"^{68/} even though they had no reason to believe at that time that such a penalty was due. EPA states that

upon the close of the allowance transfer deadline, an affected unit with excess emissions (i.e. a unit that was not able to conform its account), would either pay the penalty plus interest or be deemed out of compliance. In this regard, sources relying on the allowance transfer deadline would do so at their own risk.^{69/}

As drafted, Part 77 fails to take into account the fact that the Agency must record transfers and correct any errors. It would be inequitable to hold someone liable for having failed to pay a penalty that he did not know he owed. Thus, EPA should extend the deadline for payment until 30 days (or some other reasonable time) after the allowance transfer deadline to allow for recordation of transfers and resolution of errors. Alternatively, at a minimum, EPA should make clear that no liability would exist for "late" payment of the penalty in cases such as that described above.

^{68/} Id. at 200.

^{69/} Id. (emphasis added); see draft § 77.3(a).

**B. EPA Should Not Charge Interest on
Excess Emission Penalties.**

Section 411(a) of the Act requires the owner or operator of any unit that emits SO₂ in excess of the allowances held for the unit or that emits NOx in excess of its annual emission limitation to pay an excess emission penalty of \$2,000 per ton, which "shall be due and payable without demand to the Administrator." This subsection neither specifies a date on which such payments are due nor authorizes EPA to require the payment of interest on penalty fees.

Nonetheless, EPA interprets the "without demand" phrase in section 411(a) as requiring the Agency to charge interest on penalty payments not received on January 1 of the year following the excess emission.^{70/} The Agency believes that section 411(a) imposes a "statutory mandate . . . that payments are due automatically (i.e. January 1 . . .)." ^{71/} Draft section 77.3(c) provides for the accrual of interest on excess emissions penalties "not paid in a timely manner" from January 1 until the date on which the payment is submitted.

As discussed above, because units need not demonstrate compliance for the year until the allowance transfer deadline, EPA proposes not to require payment until that time. Yet, even though the payment would not be due until January 30, interest would begin accruing on January 1.

^{70/} See Draft Preamble at 199-200.

^{71/} Id. at 199 (emphasis added); see id. at 201. EPA should delete the reference to "1991" in draft section 77.3(a). UARG assumes that that reference is an error.

EPA should not charge interest on excess emission penalty payments because the Act does not authorize the Agency to do so. EPA has presented no basis for its "statutory mandate" claim; unlike other statutory provisions that contain language authorizing federal agencies to charge interest, section 411(a) does not do so. Indeed, section 411(a) contains no language requiring payment "immediately after the end of the previous calendar year," as EPA asserts.^{72/} EPA says only that its draft proposal is "consistent" with "other statutory authorities," such as 28 U.S.C. § 1961, which do not govern here.^{73/}

Moreover, no compelling policy reason exists to charge interest. Failure to pay would be a separate violation of the Act punishable by civil, administrative, and (in appropriate cases) criminal penalties.^{74/} The additional penalty of interest would be unlikely to provide much further deterrent to violations.

If EPA nevertheless retains the interest payment requirement, the Agency should not require accrual of interest at least until expiration of the allowance transfer deadline. Affected units need not hold enough allowances to cover their emissions until that deadline expires and, therefore, have no liability to pay any excess emission penalty until that date.

^{72/} Id. at 201.

^{73/} See id.

^{74/} See Clean Air Act § 411(d); draft § 77.3(e), (f).

Therefore, EPA has no basis for charging interest on excess emission penalty payments for any period before that deadline.

C. Draft Section 77.2(f) Should Specify the Period of Time for Public Comment on an Excess Emission Offset Plan.

Draft section 77.2(f) provides that "[b]efore taking action on a proposed excess emissions offset plan, the Administrator shall provide notice and an opportunity for public comment." This subsection does not specify a period of time for public comment, however.

In the draft preamble, EPA states that "[i]t is intended that such public comment opportunity would be afforded . . . following procedures similar to those that would be required by 40 CFR Part 72, Subpart J, section 72.301 (permit modification procedures)."^{75/} Neither draft section 77.2(f) nor draft section 72.301 makes clear that the Agency's fast-track permit modification procedures would apply to excess emissions offset plans.

UARG questions whether public comment on an excess emissions offset plan is necessary, particularly given the need to have such plans approved and implemented quickly.^{76/} However, if EPA believes that an opportunity for public comment on excess

^{75/} Draft Preamble at 197.

^{76/} Draft section 77.2(g)(2) requires EPA to act on a proposed offset plan within six months after receiving it. Under this schedule, by the time EPA acted on the proposed plan, the year would be two-thirds over. Sixty -- or, at most, 90 -- days would be a more appropriate deadline for EPA action, since it would give the unit a reasonable period to implement the plan (or any revised version of the plan that EPA may require based on its review) after it is approved.

emissions offset plans is essential, the Agency should revise draft section 77.2(f) to make clear that the fast-track permit modification requirements would apply to these plans.^{17/}

^{17/} EPA should amend draft section 77.2(f) by inserting the following after the word "comment": "pursuant to the procedures outlined in 40 C.F.R. § 72.302 (Fast-Track Modifications)".

July 2, 1991

COMMENTS OF THE UTILITY AIR REGULATORY GROUP
ON IMPLEMENTATION OF THE REDUCED UTILIZATION
PROVISION OF THE CLEAN AIR ACT

EPA and its Acid Rain Advisory Committee (ARAC) are considering how the Agency should implement the reduced utilization provision of Title IV of the Clean Air Act, section 408(c)(1)(B). This provision raises several important issues that EPA will have to address as it develops regulations. To give the Agency its views on these issues, the Utility Air Regulatory Group (UARG)^{1/} offers the following comments.

- I. Section 408(c)(1)(B) Addresses Only the Sulfur Dioxide Tonnage Limitation and Does Not Implicate the Nitrogen Oxide Rate Requirements Under Section 407 of the Act

Section 408(c)(1)(B) recognizes that reduction in utilization of Phase I units is one way that such units could comply with the Phase I sulfur dioxide limitations. This is so because those limitations are expressed as emission tonnage limitations rather than emission rate limitations. In other words, because tons of emissions (and allowances) are a function of emission rate multiplied by utilization level, a Phase I unit could meet its Phase I sulfur dioxide requirements not by reducing its sulfur dioxide emission rate but by reducing its utilization level and keeping its emission rate high. If

^{1/} UARG is an ad hoc group of 72 electric utilities, the Edison Electric Institute (EEI), the National Rural Electric Cooperative Association (NRECA), and the American Public Power Association (APPA). UARG participates on behalf of its members in all of the major Clean Air Act rulemakings and related litigation affecting the electric utility industry. Several ARAC members are officials of companies or utility systems that are UARG members or members of EEI, NRECA, or APPA.

Congress had chosen to require each Phase I unit to meet a sulfur dioxide emission rate limitation rather than a sulfur dioxide emission tonnage limitation, utilization reduction would not have been a compliance option because it would have had no effect on the unit's emission rate.

Congress avoided the utilization reduction issue for the nitrogen oxide (NOx) program under section 407 of the Act because for NOx, it mandated emission rate requirements, not emission tonnage limitations. The Clean Air Act Amendments reported by the Senate Committee on Environment and Public Works would have established an emission tonnage limitation and allowance program for NOx, but the full Senate rejected this approach. Instead, the Senate approved a section 407 program that requires units to meet only rate limitations -- not tonnage limitations or allowances -- for NOx. The rate approach approved by the full Senate was agreed to by the House-Senate conferees and enacted into law.

Thus, reduction in utilization is not a method for compliance with the NOx requirements, since section 407 does not limit the tons of NOx that affected units may emit.

The purpose of section 408(c)(1)(B) is "to assure that owners or operators do not attempt to circumvent the emissions limitation requirements applicable to units simply by utilizing an affected unit less and a unit with no tonnage limitations in its place."^{2/} The purpose of section 408(c)(1)(B) -- i.e., preventing utilities from using load-shifting to circumvent

^{2/} S. Rep. No. 228, 101st Cong., 1st Sess. 334 (1989).

"tonnage limitations" -- has no relevance to section 407 because that section imposes no tonnage limitations.

Section 408(c)(1)(B) states: "The unit to be used for . . . compensating generation, which is not otherwise an affected unit under sections 404 and 407, shall be deemed an affected unit under section 404, subject to all of the requirements for such units under this title" (emphasis added). In light of the reference at two other places in section 408(c)(1)(B) to "an affected source [or "an affected unit"] under sections 404 and 407" (emphasis added), the statute's omission of any reference to section 407 when describing the status of a compensating unit is telling.

Given that omission, the "requirements . . . under this title" to which the compensating unit is subject are the requirements related to implementation and enforcement of section 404, not section 407. The requirements related to implementation and enforcement of section 404 include: the requirements for Phase I permits and compliance plans under section 408(a), (b), and (c) (including the reduced utilization provision itself); the excess emissions penalty and offset provisions of section 411(a) and (b), to the extent that those provisions address excess emissions of sulfur dioxide; and section 412(b) monitoring, reporting, and recordkeeping requirements for Phase I units. In contrast, the provisions of section 407 are not relevant to implementation and enforcement of the section 404 requirements.

That compensating units do not become affected units for purposes of section 407 is confirmed by section 407(a). That provision states that a unit becomes subject to the NOx

limitations on the date that it "becomes an affected unit pursuant to sections 404, 405, 409, or on the date a unit subject to the provisions of section 404(d) or 409(b), must meet the SO₂ reduction requirements" (emphasis added). Section 407(a) omits any reference to units that become affected units under section 408 (i.e., compensating units).

Moreover, a compensating unit does not literally "become" an affected unit, as that word is used in section 407(a). Section 408(c)(1)(B) says that a compensating unit is only to be "deemed an affected unit" for the purpose of compliance with the requirements of section 404. Because the unit does not "become" an affected unit under section 407, it should not be subject to the section 407 requirements.

For these reasons, EPA's rules should not provide for application of NOx requirements under section 407 in cases of reduced utilization.

II. Section 408(c)(1)(B) Contains No
Prohibition on Banking Allowances for
Phase II Where Those Allowances Were
Generated as a Result of Reduced Utilization

Section 408(c)(1)(B) of the Act contains no language mandating or authorizing involuntary surrender or forfeiture of allowances where allowances are "freed up" as the result of Phase I units' reduction in utilization below baseline. Indeed, the provision's language on its face contemplates entirely voluntary action; it simply offers the option of designating a compensating unit where the owner or operator of a source "proposes to meet the requirements" of section 404 (i.e., Phase I) "by reducing utilization of the unit as compared with its baseline or by

shutting down the unit." This statutorily authorized compliance option will be attractive to utilities that want to free up additional allowances for Phase I compliance by shifting generation from high-emitting Phase I units to lower-emitting Phase II units (or to non-emitting sources such as nuclear or hydroelectric plants).^{3/}

^{3/} Section 408(c)(1)(B) of the Act allows utilities to shift generation from Phase I affected units to Phase II affected units (and to nonaffected units) without any restrictions on use or transfer of allowances as long as a source of compensating generation has been designated. Because a given amount of electricity typically can be generated with fewer emissions at a non-Phase I source than at a Phase I unit, the statute contemplates that this kind of load-shifting in many cases will be a legitimate way of freeing up additional allowances for use in Phase I. This kind of load-shifting is consistent with Congress' recognition that a utility, in planning compliance with Title IV, may use least-emissions dispatching. See 136 Cong. Rec. S16979 (daily ed. Oct. 27, 1990) (statement of Sen. Baucus); S. Rep. No. 228, 101st Cong., 1st Sess. 316 (1989).

For example, assume that a utility system has one Phase I unit and one Phase II unit of equal baseline heat input (10,000,000 mmBtu each), and the utility designates the Phase II unit as a compensating unit. The Phase I unit's statutorily allocated allowances are 12,500 (10,000,000 mmBtu multiplied by 2.5 lbs/mmBtu, divided by 2,000 lbs/ton). The Phase I unit has an emission rate of 3.0 lbs/mmBtu, and the compensating unit has an emission rate of 1.0 lb/mmBtu. Until Phase I, both units maintain their baseline heat input and emission rates. In 1995, however, the utility reduces the Phase I unit's heat input by 4,000,000 mmBtu (to 6,000,000 mmBtu) but keeps its emission rate at 3.0 lbs/mmBtu. To cover the Phase I unit's emissions, the utility will need to use only 9,000 allowances (6,000,000 mmBtu x 3.0 lbs/mmBtu, divided by 2,000 lbs/ton), and 3,500 allowances therefore would be freed up for use elsewhere. To compensate for the reduction in utilization at the Phase I unit, the utility in 1995 increases the compensating unit's utilization above baseline by 4,000,000 mmBtu (to 14,000,000 mmBtu), thereby increasing emissions from that unit by 2,000 tons (4,000,000 mmBtu x 1.0 lb/mmBtu, divided by 2,000 lbs/ton). To cover these increased emissions, the utility transfers to the compensating unit 2,000 of the 3,500 allowances freed up by the Phase I unit's utilization reduction. The utility therefore has 1,500 allowances to sell to another utility, permitting that utility to increase its Phase I units' emissions by 1,500 tons above the level to which they would otherwise be limited. As indicated
(continued...)

At most, section 408(c)(1)(B) bars a utility from using certain allowances -- i.e., allowances freed up as a result of Phase I units' utilization reductions below baseline -- for purposes of compliance with the requirements of section 404 unless the utility has designated a compensating unit. The provision should not be read, however, as barring utilities from banking and using these allowances for purposes of compliance with the requirements of section 405 (i.e., Phase II).

Section 403(b) of the Act requires EPA's regulations to allow "unused allowances to be carried forward and added to allowances allocated in subsequent years, including allowances allocated to units subject to Phase I requirements (as described in section 404) which are applied to emissions limitations requirements in Phase II (as described in section 405)." In addition, section 403(a) of the Act makes clear that in implementing the 8.9-million-ton "cap" for the sulfur dioxide program in Phase II, "the Administrator shall not take into account unused allowances carried forward by owners and operators of affected units or by other persons holding such allowances, following the year for which they were allocated." In other words, banking allowances and carrying them forward for use in Phase II cannot be viewed as a "cap-buster" because Congress determined that such allowances would not be included within the cap.

^{3/} (...continued)

above, this increase in emissions would occur in full compliance with section 408(c)(1)(B).

Congress made one exception to the basic carry-forward, or "banking," authorization in section 403(b). This exception is not in section 408(c)(1)(B), but in section 410(f) of the Act. Section 410(f) provides that an "opt-in" unit that becomes an affected unit under section 410 ordinarily "shall not transfer or bank allowances produced as a result of reduced utilization or shutdown." Had Congress intended to prohibit allowances from being transferred or banked as a result of reduced utilization of Phase I units, it could easily have included in section 408(c)(1)(B) a prohibition like that in section 410(f). Congress did not do so.

Nothing in the Act requires EPA to force the surrender of Phase I units' allowances that are freed up by utilization reduction. The only "surrender" of allowances that section 408(c)(1)(B) contemplates is the use of allowances by Phase II units that increase their utilization due to Phase I units' underutilization and that are designated as compensating units. This "surrender" is, in reality, simply the effective consumption of allowances.

Where a source of compensating generation has not been designated, it makes sense to give a utility what has been referred to as a "surrender" option. Under this option, allowances would be removed from the utility's allowance account in an amount designed to reflect the number of allowances that

would be consumed by any increased generation at Phase II units to compensate for the Phase I units' reduced utilization.^{4/}

In light of the statutory language, EPA's regulatory response to section 408(c)(1)(B) can, and should, be very simple: a utility that wants to reduce utilization of Phase I units to free up allowances for use during Phase I must (1) designate a source of compensating generation in its compliance plan or (2) deem allowances consumed in an amount based on an appropriate measure of a Phase II unit's overutilization in compensation for the Phase I units' underutilization.

If a utility does not either designate a source of compensating generation in its compliance plan or "surrender" an appropriate number of allowances, the permits for the affected Phase I units should prohibit those units from using allowances freed up as a result of underutilization (or transferring those allowances to others) to meet the Phase I sulfur dioxide requirements.^{5/} Moreover, under this approach, EPA should

^{4/} As EPA's strawman paper recognizes, utilities should not have to give up allowances to reflect any increased generation due to increased load growth, because that increased generation is not compensating generation. See also Part III.C. of these comments.

^{5/} The number of allowances that could not be used for Phase I compliance would be determined by multiplying the number of mmBtu's of Phase I units' underutilization by 2.5 lbs/mmBtu. Thus, in the example given in note 3 above, if a source of compensating generation had not been designated, the Phase I unit's utilization reduction in the amount of 4,000,000 mmBtu would have foreclosed the utility from using 5,000 allowances (4,000,000 mmBtu x 2.5 lbs/mmBtu, divided by 2,000/lbs/ton) for Phase I compliance, unless the utility had "surrendered" an appropriate number of allowances. Because the number of allowances that would be prohibited from being used for Phase I compliance (but that could be "banked" for Phase II) would be
(continued...)

prohibit any other affected unit to which those allowances might be transferred from using them to meet its Phase I sulfur dioxide requirements during 1995-99. Consequently, such allowances could not be used by any unit in Phase I. Civil and criminal penalties could be imposed for violation of this prohibition in the permit.

This straightforward interpretation of section 408(c)(1)(B) as allowing banking for Phase II compliance clearly would result in fewer emissions in Phase I than would occur if Phase I units were utilized at their baseline levels. This interpretation also would probably result in fewer Phase I emissions than would occur if Phase I units reduced their utilization and utilities designated sources of compensating generation with emission rates below 2.5 lbs/mmBtu, thereby generating additional allowances for use in Phase I.^{5/} On the other hand, this interpretation likely would result in more emissions in Phase II, as will always be the case when Phase I units overcontrol, bank allowances, and carry forward those allowances for use in Phase II, as authorized by section 403. In other words, to the extent that utilities bank Phase I allowances for use in Phase II, fewer emissions would occur in Phase I and more would occur for some limited period of time in Phase II than would occur without banking.

^{5/} (...continued)
calculated based on a 2.5 lbs/mmBtu rate, and because the allowance "surrender" rate in most cases would be lower than that, the banking alternative outlined here would impose a comparatively stringent limitation on use of allowances during Phase I.

^{6/} See supra note 3.

As section 403 makes clear, however, this result is contemplated by Title IV. Moreover, as the legislative history of Title IV indicates, early emission reductions are to be preferred over later emission reductions.^{7/} In addition, Congress can make adjustments to the sulfur dioxide emission reduction program if the total emission reductions that will be achieved in Phase II, taking into account allowances banked in and carried forward from Phase I, are fewer than the reductions that Congress concludes are needed to protect the public welfare.

III. EPA's Rules Should Recognize the Variability of Utilization Levels By Adopting a Nationwide Averaging Approach and Five-Year Retrospective Approach, and Should Apply Any Allowance "Surrender" Rules Only to the Extent that Load-Shifting to Phase II Units Occurs

In implementing section 408(c)(1)(B), EPA must determine whether there has been a utilization reduction at Phase I units that gives rise to consequences under that provision. Moreover, where such a utilization reduction has occurred, EPA may have to determine what number of allowances the utility must (or may) deem to have been consumed and must (or may) "surrender."^{8/}

^{7/} See 136 Cong. Rec. S16979 (daily ed. Oct. 27, 1990) (statement of Sen. Baucus) ("[T]he transferability of allowances both between units and from current years to future years is the key both to strong environmental policy sought in this title and to the flexibility the title creates for sources in choosing the means for complying with their emissions obligations.") (emphasis added); S. Rep. No. 228, 101st Cong., 1st Sess. 316 (1989) (same).

^{8/} The strawman paper assumes that utilities must give up allowances if underutilization has occurred and no compensating unit has been designated. If EPA follows the interpretation described in Part II of these comments, "surrender" of a certain number of allowances would be required only if underutilization has occurred, no compensating unit has been designated, and the utility wants to use for Phase I compliance any allowances freed up by underutilization.

The strawman paper on reduced utilization (distributed by EPA at the ARAC meeting on April 29, 1991), and other proposals before ARAC, present some potentially useful alternative approaches to making these determinations.

This part of UARG's comments addresses, among other things, questions concerning two basic issues.

The first basic issue is whether there has been any below-baseline reduction in utilization of Phase I units during Phase I. If, over the Phase I period, Phase I units operate in the aggregate at or above their baseline, no allowances should be considered to have been freed up as a result of underutilization. In addressing this issue, EPA must recognize the importance of unit and system variability in determining whether underutilization produces any extra allowances over the five-year period of Phase I.

For example, although abnormally low utilization levels could result in reduced utilization of some Phase I units in one or more of the five years of Phase I, abnormally low utilization levels at Phase II units could result in increased utilization of Phase I units in other years. Moreover, lower utilization of one system's Phase I units might well be compensated for by higher utilization of another system's Phase I units. It can be expected that periods of low utilization will occur in varying degrees in different systems in different parts of the country over the five-year Phase I period. Thus, only a program that takes account of the aggregate nationwide utilization of Phase I units over that entire period will allow EPA to identify whether there has been underutilization that gives rise to consequences

for the sulfur dioxide allowance program under section 408(c)(1)(B).

The second basic issue is whether Phase II units have increased their utilization to compensate for reduced utilization of Phase I units. Section 408(c)(1)(B) is implicated only where Phase II units are utilized at a level higher than the level at which they would have operated without underutilization of Phase I units, because only in these circumstances would the load-shifting occur that section 408(c)(1)(B) was designed to prevent. As a result, any rules on allowance "surrender" should require utilities to give up allowances only to the extent that emissions increased at Phase II units above the levels associated with annual load growth.

A. The Strawman Paper Should Incorporate
a Nationwide Averaging Approach

The Title IV emission control program for sulfur dioxide is a national program, not a utility-by-utility program. The Act does not require each individual affected unit or each utility system to limit its sulfur dioxide emissions to its allowance level, but permits -- indeed, encourages -- utilities to buy and sell allowances on a national scale to achieve national emission control objectives in the most cost-effective way.^{2/} Thus, the Act does not require unit-by-unit or system-by-system attainment

^{2/} See 136 Cong. Rec. S16979 (daily ed. Oct. 27, 1990) (statement of Sen. Baucus) ("[T]he transferability of allowances both between units and from current years to future years is the key both to strong environmental policy sought in this title and to the flexibility the title creates for sources in choosing the means for complying with their emissions obligations."); S. Rep. No. 228, 101st Cong., 1st Sess. 316 (1989) (same).

of a given level of emission controls, but establishes a nationwide emission control plan.

EPA's rules therefore should recognize that if Phase I units in the aggregate nationwide do not reduce their utilization below their aggregate baseline, no reduction in utilization has occurred and there is no need to limit use of allowances. As a necessary corollary to this proposition, if Phase I units in one utility system experience a utilization reduction, there should be no consequences under section 408(c)(1)(B) if that reduction is fully offset by a utilization increase at another system's Phase I units.

Thus, for example, if EPA imposes annual allowance "surrender" requirements on a utility-by-utility basis, those requirements should be suspended for a given year of Phase I if the Agency determines in the book-closing period for that year that there was no overall national reduction in that year in Phase I units' utilization below the national aggregate baseline. Similarly, if EPA adopts a five-year approach as described in Part III.B. of these comments, and determines that the annual average utilization of Phase I units nationwide over the five-year Phase I period was not below their aggregate baseline utilization, any allowances that had been set aside in an escrow account to reflect a utility system's underutilization would not have to be "surrendered" but could be used in Phase II.

B. The Strawman Paper Should Incorporate
a Five-Year Retrospective Approach

UARG urges EPA to include in its rules a "five-year" approach that recognizes that if no underutilization of Phase I

units occurs over the five-year period of Phase I, section 408(c)(1)(B) is not implicated. The five-year approach recognizes that it is necessary to take into account the year-to-year variability in utilization levels that is inherent in power production and that will occur in Phase I units' utilization levels over the five years of Phase I.

As discussed in the papers presented by Paul Centolella of the Ohio Office of the Consumers' Counsel at the ARAC meeting on April 30, 1991, the five-year approach would provide more flexibility and impose fewer costs than would other proposals that have been advanced, without sacrificing achievement of the statute's environmental objectives.

Under the five-year proposal, if the utilization levels of the Phase I units in a utility system fall below their aggregate baseline in a given year of Phase I, that system would have to set aside allowances in an escrow account.^{10/} Allowances would have to be deposited in the escrow account in an amount equal to 2.5 lbs/mmBtu (or, if lower, the generation-weighted average emission rate of the system's non-Phase I sources of

^{10/} Under the five-year approach, a utility that did not set aside allowances in an escrow account in years in which its Phase I units' utilization dropped below their baseline should be foreclosed from using for Phase I compliance any allowances freed up as the result of that underutilization. As discussed above in Part II of these comments, the allowances freed up as the result of underutilization would be calculated by multiplying the amount of underutilized generation by 2.5 lbs/mmBtu. See supra note 5.

generation^{11/}) multiplied by the number of mmBtu's of the Phase I units' reduced utilization, divided by 2000 lbs/ton.

Allowances could not be used or transferred for any purpose as long as they remain in the escrow account. However, the number of escrowed allowances would be reduced -- i.e., the allowances in the escrow account would be released and transferred to the utility's regular allowance account -- to the extent that Phase I units in the system experienced a utilization level above their baseline in another year of Phase I.^{12/} This

^{11/} To be included in the generation-weighted average, the amount of generation from non-fossil-fuel-fired sources of electricity would have to be translated into mmBtu's.

^{12/} In the book-closing period for a given Phase I year, allowances could be released and transferred to the regular allowance account in an amount determined by multiplying the number of allowances in the escrow account by the ratio of (1) the mmBtu's of the Phase I units' actual above-baseline generation in that year to (2) the mmBtu's of those units' actual below-baseline generation in other years of Phase I (to the extent that those below-baseline mmBtu's had not previously been offset by above-baseline mmBtu's).

An example illustrates how this approach would work. In 1995, a Phase I unit (in a utility in which it is the only Phase I unit) emits at a level that is 10,000,000 mmBtu below its baseline level. In both 1996 and 1997, that unit emits at that same below-baseline level. In both 1998 and 1999, however, that unit emits at a level that is 15,000,000 mmBtu above its baseline.

In 1995, the unit would have had to set aside a number of allowances equal to the product of 10,000,000 mmBtu multiplied by the emission rate of the sources of compensating generation. In this example, the compensating generation is provided by Phase II units with a generation-weighted average emission rate of 2.0 lbs/mmBtu. Therefore, the number of set-aside allowances would be the product of 10,000,000 mmBtu multiplied by 2.0 lbs/mmBtu, divided by 2,000 lbs/ton, or 10,000 allowances. Another 10,000 allowances would have to be set aside in 1996, and the same number in 1997. Thus, a total of 30,000 allowances would have been set aside and could not be used for compliance purposes in the absence of overutilization.

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"overutilization credit" approach would not allow an increase in emissions in circumvention of the statutory emission limitations because overutilization of Phase I units would require those units either to obtain and consume additional Phase I allowances or to reduce their emission rates while they are increasing their utilization. Under this approach, at the end of Phase I, any allowances in the escrow account would have to be "surrendered" (unless, under nationwide-averaging rules, such as those described in Part III.A. of these comments, EPA determined that no net reduction in utilization on a nationwide basis had occurred over the five years of Phase I).

This five-year approach would take into account variations in utilization levels over a multi-year period. This approach is

12/ (...continued)

In 1998, however, the unit's above-baseline utilization of 15,000,000 mmBtu allows the "release" of 50 percent (a percentage derived by dividing the 15,000,000 mmBtu of overutilization by the 30,000,000 mmBtu of underutilization) of the 30,000 allowances that had been set aside in the three years of underutilization. Likewise, in 1999, the unit's above-baseline utilization of 15,000,000 mmBtu allows the release of 100 percent (a percentage derived by dividing the 15,000,000 mmBtu of overutilization by the 15,000,000 mmBtu of underutilization that had not previously been offset by overutilization) of the remaining 15,000 set-aside allowances. Thus, because the 30,000,000 mmBtu of overutilization in 1998 and 1999 matches the 30,000,000 mmBtu of underutilization in 1995-97, there would be no net underutilization and no allowances would be deemed to have been consumed as a result of Phase I underutilization.

If instead the utilization levels for 1995-98 were as stated above but 1999 utilization was at the baseline level, the unit owner or operator would have had no overutilization with which to release the remaining 15,000 allowances. As a result, in the absence of nationwide net underutilization over the five-year Phase I period (see Part III.A. of these comments), 15,000 allowances would be deemed to have been consumed -- and would be "surrendered" -- as a result of the Phase I unit's net underutilization.

consistent with the definition of "baseline" in section 402(4) of the Act, which directs EPA to calculate the baseline utilization level by determining the average annual heat input over a three-year period. The statutory "baseline" definition is not tied to the utilization level in any single year. Like the Act's definition of "baseline," any allowance-surrender rules should allow for averaging utilization levels over a multi-year period; but -- through an annual accounting and escrow system -- those rules should also ensure against use of allowances freed up by underutilization. For the reasons discussed above, UARG believes that the five-year approach is the proper way to satisfy the statutory intent.

C. EPA's Rules Should Recognize that the
Reduced Utilization Provision Applies Only
If the Utility Shifts Load from Phase I
Units to Phase II Units

As EPA's strawman paper states, the allowance "surrender" rules apply only where there is "an increase in utilization at Phase II unit(s) above system-wide annual load growth not less than the reduced utilization at the Phase I unit" (emphasis in original). This statement recognizes that if the Phase II units' utilization increased at an annual rate no higher than system-wide annual load growth, those units were, at most, responding to increased load on the system (which section 408(c)(1)(B) does not prevent), and did not have load shifted to them in circumvention of the Phase I sulfur dioxide tonnage limitation. EPA's rules on

reduced utilization therefore should apply only where the utility shifts generation from Phase I units to Phase II units.^{13/}

IV. Periods of Prolonged Forced Outages Should Be Excluded from Phase I Units' Utilization Levels

In enacting Title IV, Congress determined that an affected unit's utilization level should be adjusted to exclude periods during which the unit was shut down. Thus, section 402(4)(A) authorizes EPA, in establishing baseline utilization levels, to exclude from the 1985-87 baseline period those "periods during which a unit is shutdown for a continuous period of four calendar months or longer." Explaining this provision, the report of the House-Senate conference committee states that "[t]he Administrator shall adjust the baseline to account for forced and planned outages of 4 months or more between 1985 and 1987 as reported on the North American Electric Reliability Council's (NERC) Generating Availability Data System (GADS)."^{14/}

This outage-exclusion policy was carried forward when the allowance allocations for Phase I units were calculated and listed in Table A in section 404 of the Act. Those allocations were calculated excluding from the baseline outages (whether

^{13/} EPA's rules should permit utilities to use a given Btu-weighting of Phase II units other than the Btu-weighting that would result from considering only the Btu's above load growth. For example, a utility should generally be able to use Btu-weighting based on Phase II units' Btu's above their baseline, since this approach would in most cases more accurately reflect the emission rate of the generation that has compensated for Phase I units' utilization reductions below baseline.

^{14/} H.R. Conf. Rep. No. 952, 101st Cong., 2d Sess. 342 (1990) (emphasis added). Further, section 402(4)(A) provides that "[u]pon petition of the owner or operator of any unit, the Administrator may make appropriate baseline adjustments for accidents that caused prolonged outages."

forced or planned) of four months or more in duration. Accordingly, both baseline utilization levels and Phase I units' allowances are higher than they would have been had the outages not been excluded from the calculations. Thus, Phase I units would satisfy the emission reduction objective that Congress established if, on average, they emit SO₂ in Phase I at a rate of 2.5 lbs/mmBtu at their upwardly adjusted baseline utilization level calculated by factoring out prolonged outages.

The implications of the statute's outage-exclusion policy in the context of section 408(c)(1)(B) can be illustrated by an example. Assume that in the 36-month baseline period of 1985-87, a Phase I unit was utilized at a uniform monthly rate of 1,000,000 mmBtu, except for a six-month period in 1985, when it was shut down due to a forced outage. Its utilization in 1985 (with the six months of shutdown) was 6,000,000 mmBtu; its utilization in 1986 was 12,000,000 mmBtu; and its utilization in 1987 was 12,000,000 mmBtu. Thus, the total utilization over the three-year period was 30,000,000 mmBtu.

If the outage period were not excluded, the unit's average annual utilization (i.e., its "baseline") would be 30,000,000 mmBtu divided by 3 years, or 10,000,000 mmBtu per year. If the outage period were excluded, however, its average utilization would be calculated as 30,000,000 mmBtu over 30 months of operation, or 1,000,000 mmBtu per month, or 12,000,000 mmBtu per year. Thus, excluding the outage increases the unit's baseline utilization level -- and therefore its allowances -- by 20 percent.

To give meaning to its definition of "baseline," the statute allocates allowances to Phase I units using the outage-exclusion method. In the example above, the Act would allocate allowances based on the 12,000,000-mmBtu level, not the 10,000,000-mmBtu level. In this example, Congress would have allocated 2,500 allowances (2,000,000 mmBtu x 2.5 lbs/mmBtu, divided by 2,000 lbs/ton) in excess of the number of allowances that it would have allocated had it not excluded the outage period.

In the example above, the Phase I unit experienced zero utilization during a six-month period, or one-sixth of the total 36-month baseline period. If in the 12 months of 1995, that unit experiences a proportionate period of zero utilization due to an outage, it would have zero utilization for a two-month period. Assuming that its normal monthly utilization level is the same in 1995 as in 1985-87, its 1995 utilization level without exclusion of the two-month outage would be 10,000,000 mmBtu (2,000,000 mmBtu less than the level with exclusion of the outage). If 10,000,000 mmBtu were the utilization level used to determine whether the unit has run afoul of the reduced utilization provision, the unit could be required to "surrender" (or at least be barred from using in Phase I) some or all of these 2,500 allowances.

If EPA implements the reduced utilization provision in a way that fails to reflect the statute's outage-exclusion policy, that policy would effectively be nullified. That is, a unit would face the possibility of having allowances taken away from it if that unit experiences the same utilization levels under identical

circumstances in Phase I that it experienced in the baseline period.

EPA's rules should not have the effect of taking away or limiting use of allowances as the result of an event that the statutory scheme makes clear should not cause a reduction of allowance allocations. If EPA's rules did take away or limit allowances in this way, the rules would negate a decision embodied in the Act to treat prolonged outages as not reducing the number of allowances Phase I units should be able to use, transfer, or bank for Phase I compliance.

Consequently, EPA's rules should exclude periods of prolonged^{15/} outages -- where those outages occur for reasons beyond the utility's control -- from Phase I units' utilization levels in determining whether and to what extent a reduction in those levels has occurred.^{16/}

^{15/} EPA's rules should define "prolonged" in this context in a way that is consistent with the four-month threshold that was used in determining which outages should be excluded from the baseline for Phase I allowance allocation purposes. The four-month threshold applied to a three-calendar-year baseline period; thus, the threshold for a one-calendar-year period in Phase I should be one-third of four months, or about 40 days. Under this approach, any outage at a Phase I unit that occurs in any year of Phase I for reasons beyond the owner or operator's control should be excluded from calculation of that unit's utilization level in that year if the outage was for a continuous period of 40 days or longer.

^{16/} Alternatively, for purposes of implementing the reduced utilization provision only, EPA might readjust a Phase I unit's baseline downward in a way that would include the prolonged outages that were excluded from calculation of the unit's allowances.

V. EPA's Rules Should Recognize that the Reduced Utilization Provision Should Not Apply to Any Unit that Complies with Section 404 by Reducing Its Emission Rate to 2.5 lbs/mmBtu or Less

The section 404 emission tonnage limitation for a Phase I unit -- i.e., its Phase I allowance allocation -- is the product of its baseline utilization level in mmBtu's multiplied by 2.5 lbs/mmBtu. Section 408(c)(1)(B) of the Act applies to the extent that an owner or operator of an affected unit proposes to meet that limitation by reducing utilization below the baseline utilization level. If a unit does not rely on a reduction in utilization below baseline but instead reduces its emission rate to 2.5 lbs/mmBtu or below, it should not be subject to rules governing reduced utilization.

Accordingly, if the owner or operator of any Phase I unit (or any unit designated as a compensating unit) that reduces its utilization below baseline in a given year demonstrates that its sulfur dioxide emission rate for that year was 2.5 lbs/mmBtu or less, that unit should not be subject to any requirements under section 408(c)(1)(B). That unit's utilization level would not have to be included in any aggregation of Phase I and compensating units' utilization for purposes of determining whether a utilization reduction had occurred at such units in the aggregate.

VI. Specific Comments on the Strawman Paper

The following are additional comments of UARG on specific elements of the strawman paper on reduced utilization.

A. The Strawman Paper Should Make
Explicit that Utilities May Rely on
Sources of Compensating Generation
Other than Fossil Fuel Fired Combustion Devices

The strawman paper states that "[u]tilities could demonstrate a shift to non-SO₂ emitting sources in the compliance plan." This is an extremely important statement that should be reflected in EPA's rules. UARG urges EPA to make clear that utilities may indicate that generation will or may be shifted from Phase I units to sources of electricity, such as nuclear and hydroelectric plants, that emit no sulfur dioxide.^{17/}

Shifting generation to these non-emitting sources does not implicate the purpose of section 408(c)(1)(B), i.e., preventing circumvention of tonnage limitations through load-shifting from Phase I affected units to Phase II affected units. Accordingly, shifting generation to non-emitting sources should not give rise to any consequences under section 408(c)(1)(B). EPA's rules therefore should explicitly recognize that utilities may rely on compensating generation from non-emitting sources to offset reduced utilization at Phase I units.^{18/}

^{17/} This is a logical extension of the provision in section 408(c)(1)(B) that reduced utilization associated with energy conservation or improved unit efficiency should not subject utilities to any consequences under section 408(c)(1)(B). The basic principle underlying this provision -- that Phase I units' utilization reductions that are due to non-emitting activities should not be subject to section 408(c)(1)(B) restrictions -- fully applies to load-shifting to nuclear, hydroelectric, and other non-emitting sources.

^{18/} Likewise, shifting generation to units that are neither Phase I nor Phase II affected units (e.g., existing units of 25 MW or less and existing simple combustion turbines of all sizes) should not give rise to any consequences under section 408(c)(1)(B) because those units are intended never to be part of
(continued...)

B. The Strawman Paper's Threshold Tests in Cases of "Unplanned Reduced Utilization" May Not Provide Sufficient Flexibility

The strawman paper's suggested threshold tests for unplanned reduced utilization raise two concerns. First, the paper does not adequately define the proposed "system-wide threshold." For example, it is not clear what criteria would govern a determination whether "reduced utilization at a Phase I unit" exceeds "the system-wide reduction." Second, although the strawman paper commendably incorporates the aggregate Phase I utilization test, its "common designated representative" requirement appears to impose an unnecessary constraint on inclusion in a utility's system of appropriate off-system units. These concerns are addressed below.

1. The System-Wide Threshold

The strawman paper states: "If system-wide generation and purchases have declined, no further demonstration is necessary to show reasons for reduced utilization at a Phase I unit except to the extent it exceeds the system-wide reduction" (emphasis

18/ (...continued)

the Title IV program and will never be required to hold allowances to cover their emissions (unless they opt in under section 410 of the Act). Therefore, load-shifting to such units is not subject to any restrictions under the statute at any time. Because load-shifting to such units is unrestricted after Phase I, when the statutory tonnage cap will be in place, there is no reason to believe that it should be restricted during Phase I, when no tonnage cap will be in place.

added).^{19/} Although this appears to be a reasonable test, it raises two issues that EPA should address.

First, the statement's reference to "a Phase I unit" should be taken to mean net aggregate reduced utilization at all Phase I units in the system, given that the Phase I unit aggregation principle is central to the approach taken in the strawman paper.^{20/}

Second, the strawman paper's phrase "except to the extent it exceeds the system-wide reduction" may need clarification. Presumably, "it" refers to the Phase I units' aggregate utilization reduction. If this understanding is correct, a demonstration of the reason for the utilization reduction would be necessary only to the extent that the aggregate reduction of Phase I units' utilization exceeds the system-wide aggregate utilization reduction. A system-wide threshold test therefore should allow (1) any mmBtu of reduced utilization at the system's Phase I units to be offset by (2) any mmBtu of reduced utilization in the system as a whole.^{21/}

^{19/} UARG assumes that this system-wide threshold applies to planned as well as unplanned reduced utilization, since it is listed as one of the provisions applicable to the "planned reduced utilization" options. UARG encourages EPA to make this clear.

^{20/} It should be noted that where a compensating unit has been designated, it will be deemed a Phase I unit for purposes of calculating whether and to what extent a utilization reduction at Phase I units in the aggregate has occurred. For purposes of this calculation, the compensating unit's utilization level would be added to the Phase I units' utilization level.

^{21/} For example, if a system reduces its utilization by 20,000,000 mmBtu (from 200,000,000 mmBtu to 180,000,000 mmBtu), and the system's Phase I units reduce their utilization by
(continued...)

2. The "Common Designated Representative"
Requirement

The strawman paper allows for inclusion in a system's compliance plans of "units owned by other utilities" with which the system has "an ongoing arrangement for power purchases." Although this is an important and valuable feature of the strawman paper, it appears to be unnecessarily limited by the requirement that the utilities have a "common designated representative." For legitimate reasons, many utilities will want to avoid designating a common representative, since doing so would require the utilities to coordinate and agree on many important decisions under other provisions of Title IV completely unrelated to compliance with section 408(c)(1)(B). Instead of requiring a common designated representative, EPA's rules should require certification by the utilities' designated representatives that the utilities have an ongoing arrangement for power purchases.^{22/}

^{21/} (...continued)

30,000,000 mmBtu (from 100,000,000 mmBtu to 70,000,000 mmBtu), then the 20,000,000 mmBtu of system-wide reduction accounts for 20,000,000 of the 30,000,000 mmBtu of the Phase I units' reduction. Ten million mmBtu of the Phase I units' reduction would be presumed to have been compensated for by increased utilization elsewhere in the system (i.e., by Phase II units, by nonaffected units, or by other electric generating facilities such as nuclear or hydroelectric plants); only this part of the utilization reduction would be subject to restrictions on use of allowances if the compensating generation came from Phase II units and no compensating unit had been designated.

^{22/} The "ongoing arrangement" prerequisite should be read to include (but not be limited to) arrangements under which utilities agree in advance to buy, sell, or transfer power from or to one or more other utilities on an ad hoc basis to address emergencies or other unforeseen circumstances.

C. The Strawman Paper's Discussion of
"Forced Outages" Should Be Clarified

The strawman paper's discussion of treatment of "forced outages" is generally helpful. Its intent is to provide relief where the "reduced utilization was beyond [the] utility's control, i.e., could not have been anticipated." UARG believes that EPA should therefore confirm that this discussion applies to any utilization reduction -- not only to utilization reductions due to damage to an electric generating facility that causes the facility to shut down -- that result from factors beyond the utility's control.

For example, where a transmission line goes down due to an act of God, a utility may have to shut down or reduce utilization of an affected unit for a period of time until the line can be repaired or replaced. This kind of reduction should be subject to the same treatment as a forced outage that is caused by the unforeseen failure of the electric generating equipment.

In short, as the strawman paper seems to recognize, the governing criterion should be that the utilization reduction occurred for reasons that were beyond the utility's control or that could not reasonably have been foreseen by the utility.

In addition, the strawman paper states that "NOx requirements would not apply to compensating generation if a forced outage was demonstrated to have caused reduced utilization." Thus, although the strawman paper -- wrongly, in UARG's view^{23/} -- generally would provide that Phase I NOx requirements are triggered by reduced utilization, it recognizes

^{23/} See Part I of these comments.

that it would be inequitable to apply those requirements after the fact where a utilization reduction occurred for reasons beyond the utility's control.

In this kind of situation, the utility would be unable to prepare for compliance with NOx emission rate limitations. Retroactive application of the NOx requirements would demand instantaneous compliance, eliminating the period for achieving compliance with the Phase I NOx requirements -- more than 31 months -- that the Act contemplates.^{24/} Moreover, the utility would be given no opportunity to apply for, obtain, and comply with Phase I NOx deadline extensions or alternative NOx rate limitations under section 407(d) or NOx emission rate averaging plans under section 407(e) for which it might otherwise be eligible.^{25/}

For these reasons, even if EPA's rules apply NOx requirements to planned utilization reductions, they should not apply those requirements where the utilization reduction is unplanned and the utility had no opportunity to prepare for compliance.

^{24/} Section 407(b) requires EPA to promulgate the NOx rate limitations for Phase I tangentially fired and dry bottom wall-fired boilers by May 15, 1992. Those boilers must meet those limitations by January 1, 1995, 31-and-a-half months after the promulgation deadline. This is a demanding enough schedule for utilities to meet without expecting them in addition to meet NOx limitations for retrospectively designated units on an instantaneous basis, something that the statute does not contemplate.

^{25/} The lack of flexibility that would exist in this situation contrasts sharply with the flexibility that utilities have in choosing compliance options (e.g., allowance purchases or fuel switching) that are available under section 404 for sulfur dioxide.

D. No Enforcement Consequences Other than
Limitations on Use of Allowances Should
Result from Unplanned Utilization Reductions

The strawman paper suggests that a "failure to plan" or a "failure to comply scenario" would give rise to enforcement action under section 113 of the Act. Presumably, this enforcement action could be administrative or civil enforcement action or, in the case of a knowing violation, criminal enforcement action. In addition, allowances would have to be "surrendered" in an amount equal to the mmBtu's of compensating generation multiplied by the greater of (1) 2.5 lbs/mmBtu, or (2) the rate of the system's highest-emitting Phase II unit. Furthermore, excess emission penalties and emission offset requirements for nitrogen oxides apparently would be imposed where the utilization reduction was deemed to have resulted in an increase in NOx emissions above the emission level represented by the Phase I units' required NOx rate under section 407.

This part of the strawman paper is unwarranted and should be deleted for the following reasons.

First, the only consequence of Phase I units' utilization reduction below their baseline (where a compensating unit has not been designated) should be appropriate limitations on the use of allowances. The purpose of the Title IV sulfur dioxide control program is to set upper limits -- and to have EPA enforce those limits -- on affected units' tons of emissions of SO₂. The program's purpose is not to set and enforce lower limits on affected units' utilization levels. Title IV establishes an emission control, not a utilization control, program.

Thus, it may be appropriate for EPA to impose constraints on the use of allowances that are freed up by underutilization. Once circumvention of the SO₂ emission control requirements has been prevented by limiting use of allowances, however, there is no need for further enforcement actions or penalties. EPA's rules should not require planning for the sake of planning, but should recognize that when the consequences of underutilization -- whether that underutilization is deemed "planned" or "unplanned" -- have been accounted for through appropriate limitations on the use of allowances, no additional penalties are warranted.

Moreover, because, as the strawman paper recognizes, allowance limitations can be imposed retroactively during the book-closing period, the objective of preventing use of freed-up allowances to circumvent emission tonnage controls would not be furthered by mandating advance planning on pain of administrative, civil, or criminal penalties. To implement a retrospective approach to the reduced utilization provision, EPA will have to require units to submit data on annual utilization levels during the book-closing period. The same kinds of utilization data would have to be submitted regardless of whether a given unit had indicated in its compliance plan that it would or might rely on reduced utilization for purposes of Phase I compliance.

Second, for the same reason, if utilization reduction occurred that EPA deemed to be the result of a "failure to plan," the allowance limitation consequences should be no different from the allowance limitation consequences of planned utilization

reduction. To the extent that EPA's rules require surrender of allowances, there is no reason for the terms of surrender to be especially harsh where a unit has not included in its compliance plan what the Agency judges to be acceptably precise or definite statements about its plans to provide compensating generation. Thus, the strawman paper's suggestion that allowances would have to be surrendered at a 2.5 lbs/mmBtu or higher rate is unwarranted; the surrender rate should be the same as that used in other cases (e.g., the average emission rate of the system's Phase II units or of its non-Phase I sources of generation).

Third, for the reasons discussed in Part I of these comments, Congress did not intend that utilization reductions would trigger NOx emission rate requirements. Thus, the strawman should be revised to delete references to NOx penalties where underutilization results from "failure to plan."

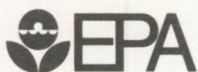
At a minimum, the strawman paper's reference to offsets for "excess" NOx emissions must be deleted. Section 411(b) of the Act authorizes imposition of emission offsets only for excess emissions of SO₂. Nothing in the Act authorizes imposition of excess emission offsets for NOx.

In addition, if EPA's rules do impose NOx requirements as a consequence of reduced utilization, the rules should make clear that -- in lieu of paying penalties for, and offsetting, excess NOx emissions that EPA may deem to have been produced by underutilization -- a utility could follow either of the other two procedures that the strawman suggests: (1) retroactive designation of a compensating unit that meets any Phase I NOx limit that applies to the type of boiler at that unit; or (2)

compliance with a reasonable schedule for meeting any applicable NOx limit at a compensating unit. A utility also should be permitted, consistent with the strawman paper's discussion, to show compliance by NOx averaging of the compensating generation (or, at the utility's option, the compensating generation together with the Phase I generation) on a Btu-weighted basis.

Finally, a utility should not be required to meet any NOx requirements at Phase II units if the utility shows that (1) the total tons of NOx emitted where load is shifted to Phase II units from those Phase I units that are subject to Phase I NOx requirements^{26/} does not exceed (2) the total tons that would have been emitted in the absence of that load-shifting.

^{26/} The only Phase I units that are subject to Phase I NOx requirements are tangentially fired boilers and dry bottom wall-fired boilers (but not units applying cell burner technology). If EPA determines that NOx requirements should be triggered by reduced utilization, its rules should make clear that only reduced utilization at Phase I units subject to Phase I NOx controls that is compensated for by increased utilization of Phase II units (above load growth) should give rise to any NOx requirements. Of course, as the strawman paper recognizes, if the system's Phase I units have not experienced a utilization reduction in the aggregate below baseline, there would be no consequences -- with regard to either the SO₂ requirements or the NOx requirements -- under the reduced utilization provision.



Implementation Strategy for the Clean Air Act Amendments of 1990



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

JAN 15 1991

OFFICE OF
AIR AND RADIATION

Honorable William K. Reilly
Administrator
U.S. Environmental Protection Agency
401 M. Street, S.W.
Washington, D.C. 20460

Dear Mr. Reilly:

The Clean Air Act Amendments of 1990 were signed into law by President Bush on November 15, 1990. These Amendments direct the Environmental Protection Agency to implement strong environmental policies and regulations that will ensure cleaner air for all Americans.

As you requested, the Office of Air and Radiation has developed the enclosed implementation strategy for the Clean Air Act Amendments of 1990 within 60 days of enactment. It reflects the steps that EPA plans to take over the next two years to meet the challenge presented by this landmark environmental legislation.

The strategy summarizes our plans to ensure the effective implementation of the Clean Air Act Amendments of 1990 within the timeframes set by Congress. Implementation principles have been designed to apply to the guidelines and regulations that will be developed to meet statutory requirements. These principles are presented in Enclosure I and reflect three themes:

- (1) Building on the President's goal to balance environmental protection and economic growth, market-based approaches and innovative strategies will be utilized, where appropriate. Policies will be structured to offer incentives, choice, and flexibility to find the best solutions for obtaining environmental benefits at the lowest cost.

Communications Focus

Regulatory Activities

	AUG 1992	Title I - Nonattainment: Publish 1991 Air Quality Data Title VII - Enforcement: Finalize Guidance/Rules for Citizen Suits
	SEPT 1992	
	OCT 1992	Title III - Air Toxics: Finalize Maximum Achievable Control Technology for Coke Ovens
<i>Meeting the Deadlines in the Clean Air Act</i>	NOV 1992	Title I - Nonattainment: Finalize Tank Vessel Rule Finalize Rules for Economic Incentives Program Propose First Set of NSPS Rules STATES Submit RACT Catch-up Rules, NSR Rules, CO Attainment Demonstration, and Contingency Measures STATES Submit Base Year Ozone/CO Emission Inventories Title II - Mobile Sources: Finalize Clean-Fuel Vehicle Standards Determine Significance of Non-road Engine Emissions Title III - Air Toxics: Finalize Maximum Achievable Control Technology for Dry Cleaners (per court order) Finalize Maximum Achievable Control Technology for Hazardous Organic Chemical Manufacturing Finalize Regulatory Schedule for All Source Categories Finalize List of Substances for Accidental Releases Prevention Program Title VI - CFCs: Finalize Safe Alternatives Program Title VII - Enforcement: Finalize Guidance/Rules for Field Citation Program Finalize Guidance/Rules for Contractor Listing Finalize Rules for Monetary Awards
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**IMPLEMENTATION
STRATEGY
FOR THE
CLEAN AIR ACT AMENDMENTS
OF 1990**

**United States Environmental Protection Agency
Office of Air and Radiation**

January 15, 1991

(Printed on recycled paper)

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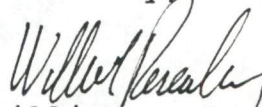
(2) Because of the ambitious regulatory agenda outlined by the statute, broad consultation will be undertaken to build, where possible, consensus with interested organizations. Efforts to receive timely input include: consulting with several Clean Air Act advisory committees; using, where appropriate, formal regulatory negotiation procedures; and scheduling informal discussions with industry, environmental, state and local, labor, and federal organizations to discuss specific issues and to receive input early in the rulemaking process.

(3) Meeting deadlines is essential! The implementation strategy outlines the groundwork underway to ensure that commitments will be met.

The implementation strategy emphasizes the regulatory and communication activities that will be undertaken during the first two years after enactment. Highlights of these activities are presented in Enclosure II. The strategy briefly summarizes a number of major activities and issues associated with each title of the Amendments. In addition, timelines illustrating the principal statutory requirements through the year 2010 are included.

Planning for implementing the Clean Air Act Amendments of 1990 will be a dynamic process. We will continually review the implementation activities for effectiveness, and make corrections as necessary. The Office of Air and Radiation will update the enclosed implementation strategy on an annual basis, focusing on the forthcoming two year period.

Sincerely,



William G. Rosenberg
Assistant Administrator
for Air and Radiation

Enclosures (3)



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

IMPLEMENTATION PRINCIPLES
FOR THE CLEAN AIR ACT AMENDMENTS OF 1990

OFFICE OF
AIR AND RADIATION

PROMISE OF THE CLEAN AIR ACT

- o "Every American expects and deserves to breathe clean air..."
President Bush
- o These principles will guide us as we turn the promise of the Act into a legacy of clean air.

POLICY

- o E³: Achieve and maintain a healthy environment, while supporting strong and sustainable economic growth and sound energy policy.
- o Market-based: Use market-based approaches and other innovative strategies to creatively solve environmental problems.

BUILD CONSENSUS

- o Joint Venture: Recognize the essential role played by state and local governments.
- o Consultation: Conduct early and frequent discussions with interested parties, including other government organizations, industry, environmental groups, and academics. Where appropriate, use negotiation techniques to resolve critical issues.
- o Federal Coordination: Work closely with other EPA offices, other Federal agencies, and Congress to ensure a coordinated approach that will achieve environmental objectives in the most efficient manner possible.

MANAGEMENT

- o Deadlines: Establish and meet commitments to effectively implement key provisions of the Act.
- o Team Effort: Work together; attract and retain a diverse and talented workforce.

Enclosure 2

CLEAN AIR ACT AMENDMENTS OF 1990
IMPLEMENTATION SCHEDULE HIGHLIGHTS: THE FIRST TWO
YEARS

Communications Focus	Regulatory Activities	
<i>Getting Started</i>	DEC 1990	Title I - Nonattainment: Issue "Getting Started" Letter to Governors STATES Submit Request/Justification for 5% Classification Adjustments
<i>State & Local Responsibilities</i>	JAN 1991	Publish Two-Year Implementation Strategy Title I - Nonattainment: Publish Notice of Initial PM-10 Moderate Nonattainment Areas Initiate Additional PM-10, SO ₂ , Lead Designation Process
<i>Building Consensus</i>	FEB 1991	Title I - Nonattainment: Act on 5% Classification Adjustment Requests
<i>Voluntary Reductions</i>	MAR 1991	Title I - Nonattainment: STATES Submit Nonattainment Area Designations Title III - Air Toxics: Publish Draft Chemical List Petition Procedures Publish 90/95% Early Reduction Guidance Propose List of High Risk Pollutants (Lesser Quantity Cutoffs, 90-95% Early Reduction)
<i>Permit Program</i>	APR 1991	Title I - Nonattainment: STATES Submit PM-10 Areas Unable to Attain by 1994 STATES Respond to List of PM-10, SO ₂ , Lead Nonattainment Areas Title III - Air Toxics: Publish Draft List of Source Categories Title V - Permits: Propose State Permit Regulations

Communications Focus	Regulatory Activities
<i>Cleaner Cars and Cleaner Fuels</i>	MAY 1991 Title I - Nonattainment: STATES' Deadline for Reasonably Available Control Technology Requirements (Deficiency Corrections) Notify STATES of Intent to Modify Suggested Boundaries Publish Guidance on Stationary Source CO Contributions Finalize Criteria to Measure Ozone Transport Title II - Mobile Sources: Finalize Gasoline Reid Vapor Pressure Regulations Finalize Tier I Car and Truck Standards Propose Reformulated Gasoline Requirements Propose Clean Fuels Fleet and California Pilot Credit Programs Propose Urban Bus Regulations Propose Emission Control Diagnostic Rule Title III - Air Toxics: Propose Standards for Large Municipal Waste Combustors Publish Final Chemical List Petition Procedures Title IV - Acid Rain: Propose Regulations for Auctions and Sales Title VI - CFCs: Propose CFC Phase-out Regulations
<i>Protecting the Ozone Layer</i>	JUNE 1991 Title I - Nonattainment: Propose PM-10 Area Reclassifications Title VI - CFCs: Propose Mobile Air Conditioning Recycling Regulations
<i>Assisting Small Businesses</i>	JULY 1991 Title I - Nonattainment: Propose Revisions to New Source Review Program Finalize Ozone, CO Nonattainment Boundaries Finalize List of Additional PM-10 Nonattainment Areas and SO₂, Lead Designations Title V - Permits: Publish Guidance on State Assistance to Small Businesses Title VII - Enforcement: Propose Administrative Penalties Rules of Practice

Communications Focus		Regulatory Activities
<i>Attainment of Air Quality Standards</i>	AUG 1991	Title I - Nonattainment: - Propose PM-10 Reasonably Available Control Measures/ Best Available Control Measures Guidance - Issue Transportation Planning Guidance - Publish Title I General Preamble - Publish 1990 Air Quality Data Title II - Mobile Sources: - Publish Marketable Gasoline Oxygen Credit Guidelines Title VII - Enforcement: - Propose Rules for Citizen Suits
<i>Acid Rain</i>	SEPT 1991	Title IV - Acid Rain: - Propose Emission Trading System - Propose Acid Rain Permit Program - Propose Continuous Emission Monitor Requirements - Propose NOx Requirements for Utility Boilers - Propose Conservation and Renewable Incentives Title VI - CFCs: - Finalize CFC Phase-out Regulations
<i>Business Opportunities in the Clean Air Act</i>	OCT 1991	Title I - Nonattainment: - Publish VOC and CO Emission Inventory Guidance Title II - Mobile Sources: - Finalize Cold Temperature CO Standards - Publish Study on Non-road Engines Title III - Air Toxics: - Propose Maximum Achievable Control Technology for Coke Ovens

Communications Focus

Regulatory Activities

<i>One Year of Progress Toward Cleaner Air</i>	NOV 1991	Title I - Nonattainment: Propose Tank Vessel Rule Publish Conformity Criteria Publish Guidance on Control Cost-effectiveness STATES Submit PM-10 State Implementation Plans Publish Outer Continental Shelf Rule Publish Guidance on Inspection/Maintenance Programs Publish Guidance on Transportation Control Measures Title II - Mobile Sources: Propose Clean Fuel Vehicle Standard Finalize Vehicle Evaporative Emissions Regulations Finalize Onboard Controls Finalize Reformulated Gasoline Requirements Finalize Urban Bus Regulations Finalize Clean Fuels Fleet and California Pilot Credit Program Title III - Air Toxics: Publish Final List of Source Categories Propose Guidance for Modification Provisions Publish Draft Regulatory Schedule for All Source Categories Finalize Standards for Large Municipal Waste Combustors Propose List of Substances for Accidental Releases Prevention Program Propose Maximum Achievable Control Technology for Hazardous Organic Chemical Manufacturing Propose Maximum Achievable Control Technology for Dry Cleaners (per court order) Finalize List of High Risk Pollutants (Lesser Quantity Cutoff, 90%/95% Early Reductions) Title IV - Acid Rain: Finalize Regulations for Auctions and Sales Title V - Permits: Finalize State Permit Regulations Propose Federal Permit Regulations Title VI - CFCs: Ban Nonessential Uses Finalize Mobile Air Conditioning Recycling Regulations Title VII - Enforcement: Propose Rules for Field Citation Program Propose Rules for Contractor Listing
<i>Air Toxics</i>	DEC 1991	Revise Two-Year Implementation Strategy Title I - Nonattainment: Finalize PM-10 Area Reclassifications Title IV - Acid Rain: Propose List of Phase II Utility Allowances

Communications Focus

Regulatory Activities

Enforcement	JAN 1992	Title III - Air Toxics: Propose Standards for Small Municipal Waste Combustors Title VII - Enforcement: Finalize Administrative Penalties Rules of Practice
	FEB 1992	Title III - Air Toxics: Propose Maximum Achievable Control Technology for Chromium Electroplating Title VII - Enforcement: Propose Monetary Awards Rules
	MAR 1992	Title III - Air Toxics: Propose Maximum Achievable Control Technology for Commercial Sterilizers
	APR 1992	Title III - Air Toxics: Propose Maximum Achievable Control Technology for Asbestos
	MAY 1992	Title I - Nonattainment: Finalize PM-10 Reasonably Available Control Measures/Best Available Control Measures Guidance Finalize Revisions to New Source Review Program Finalize Rules for Ozone, NOx, VOC Enhanced Monitoring Title II - Mobile Sources: Finalize Emission Control Diagnostic Rule Publish Mobile-Source Related Air Toxics Study Title III - Air Toxics: Finalize Guidance for Modification Provisions Title IV - Acid Rain: Finalize Emission Trading System Finalize Continuous Emission Monitor Requirements Finalize NOx Requirements for Utility Boilers Finalize Conservation and Renewable Incentives Finalize Acid Rain Permit Program Title V - Permits: Finalize Federal Permit Program Title VI - CFCs: Finalize CFC and HCFC Labelling Regulations Title VII - Enforcement: Propose Rules for Compliance Certification
	JUNE 1992	
	JULY 1992	

Communications Focus

Regulatory Activities

	AUG 1992	Title I - Nonattainment: Publish 1991 Air Quality Data Title VII - Enforcement: Finalize Guidance/Rules for Citizen Suits
	SEPT 1992	
	OCT 1992	Title III - Air Toxics: Finalize Maximum Achievable Control Technology for Coke Ovens
<i>Meeting the Deadlines in the Clean Air Act</i>	NOV 1992	Title I - Nonattainment: Finalize Tank Vessel Rule Finalize Rules for Economic Incentives Program Propose First Set of NSPS Rules STATES Submit RACT Catch-up Rules, NSR Rules, CO Attainment Demonstration, and Contingency Measures STATES Submit Base Year Ozone/CO Emission Inventories Title II - Mobile Sources: Finalize Clean-Fuel Vehicle Standards Determine Significance of Non-road Engine Emissions Title III - Air Toxics: Finalize Maximum Achievable Control Technology for Dry Cleaners (per court order) Finalize Maximum Achievable Control Technology for Hazardous Organic Chemical Manufacturing Finalize Regulatory Schedule for All Source Categories Finalize List of Substances for Accidental Releases Prevention Program Title VI - CFCs: Finalize Safe Alternatives Program Title VII - Enforcement: Finalize Guidance/Rules for Field Citation Program Finalize Guidance/Rules for Contractor Listing Finalize Rules for Monetary Awards
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Appendix C

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IMPLEMENTATION STRATEGY FOR THE CLEAN AIR ACT AMENDMENTS OF 1990

1.0 IMPLEMENTATION OVERVIEW

When President Bush signed into law the Clean Air Act Amendments of 1990 on November 15, 1990, he stated, " Today, we add a long-awaited and long-needed chapter in our environmental history, and we begin a new era for clean air." Truly, this law represents the most significant piece of environmental legislation ever passed to control air pollution. It directs the United States to implement strong environmental policies and regulations that will ensure cleaner air for all Americans. To achieve this goal, the Environmental Protection Agency's (EPA) implementation strategy will not only employ traditional approaches for controlling air pollution, but also strive to harness the power of the marketplace, encourage local initiatives, and emphasize pollution prevention. These efforts will be structured to achieve environmental benefits in a cost-effective manner, ensuring consistency with national energy and economic policies.

The Clean Air Act Amendments of 1990 signify a new era in environmental regulation, offering solutions to some of the most resistant environmental problems by promoting the use of innovative regulatory approaches. The EPA Administrator, William K. Reilly, has stated that, once fully implemented, the Amendments will:

- o Remove 56 billion pounds/year of pollution from the air (224 pounds/year for every man, woman, and child in the United States);
- o Reduce by 50% emissions causing acid rain;
- o Reduce by 75% emissions and resulting risks from toxic air pollutants;
- o Result in cleaner cars, fuels, factories, and powerplants;
- o Assure that all areas of the country meet the national ambient air quality standards;
- o Reduce damage to lakes, streams, parks, and forests;

Implementation Strategy for the Clean Air Act Amendments of 1990

- o Reduce oil imports significantly; and
- o Reverse the historical degradation of visibility in the country's most scenic areas.

This document outlines the overall implementation schedule for the statutory requirements, summarizes regulatory efforts currently underway, identifies some of the major issues that will be addressed early in the implementation process, and describes the steps that the Agency is undertaking to ensure the efficient and effective implementation of the legislation. Emphasis has been placed upon the first two years after enactment. More than 25 rules will be developed in the first year and more than 55 in the first two years. Thus, activities undertaken in these years are critical: they will lay the foundation for effective implementation of the Clean Air Act Amendments of 1990.

Planning to implement the Clean Air Act Amendments of 1990 is a dynamic process. The EPA intends to review continually all activities undertaken to implement the Amendments, assess their effectiveness, and make modifications as necessary. This implementation strategy will be updated on an annual basis, with each revision focusing on the forthcoming two-year period.

2.0 CLEAN AIR ACT IMPLEMENTATION PRINCIPLES

The EPA is committed to implementing the Clean Air Act Amendments of 1990 wisely, quickly, and effectively. To meet this goal, EPA has developed implementation principles to guide the Agency as it turns the promise of the Clean Air Act Amendments of 1990 into reality.

These implementation principles are presented in Figure 1. They emphasize three areas. First, the Agency's policies will be developed to ensure a healthy environment while supporting national economic and energy policies. Whenever possible, traditional approaches to solving environmental problems will be supplemented with broader use of market incentives and other innovative approaches. Second, EPA recognizes that it cannot implement the Clean Air Act Amendments of 1990 alone; effective rulemaking requires the greatest possible consultation and consensus. Many steps are being initiated to ensure that the views of interested parties (e.g., state and local governments, industry, environmental groups) will be presented to the Agency early in the rulemaking process. Finally, internal Agency procedures will be modified to ensure effective management of the implementation activities to meet the deadlines specified by Congress.



Figure 1

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

IMPLEMENTATION PRINCIPLES FOR THE CLEAN AIR ACT AMENDMENTS OF 1990

OFFICE OF
AIR AND RADIATION

PROMISE OF THE CLEAN AIR ACT

- o "Every American expects and deserves to breathe clean air..."
President Bush
- o These principles will guide us as we turn the promise of the Act into a legacy of clean air.

POLICY

- o E³: Achieve and maintain a healthy environment, while supporting strong and sustainable economic growth and sound energy policy.
- o Market-based: Use market-based approaches and other innovative strategies to creatively solve environmental problems.

BUILD CONSENSUS

- o Joint Venture: Recognize the essential role played by state and local governments.
- o Consultation: Conduct early and frequent discussions with interested parties, including other government organizations, industry, environmental groups, and academics. Where appropriate, use negotiation techniques to resolve critical issues.
- o Federal Coordination: Work closely with other EPA offices, other Federal agencies, and Congress to ensure a coordinated approach that will achieve environmental objectives in the most efficient manner possible.

MANAGEMENT

- o Deadlines: Establish and meet commitments to effectively implement key provisions of the Act.
- o Team Effort: Work together; attract and retain a diverse and talented workforce.

3.0 POLICY

A major challenge of the Clean Air Act Amendments of 1990 will be to develop programs that provide environmental protection while fostering continued economic growth and sound energy policy. The Clean Air Act Amendments of 1990 offer incentives, choice, and flexibility to achieve ambitious environmental goals at the lowest cost to society. The EPA's policies will include making full use of innovative market-based approaches. The Amendments create incentives to utilize resources in the cleanest, technologically feasible manner; at the same time, they offer inducements to increase energy conservation. If successfully implemented, the law will serve as a model for regulatory reform, leading to the widespread use of market approaches here and abroad.

Several progressive and creative new themes are embodied in the Clean Air Act Amendments of 1990. Specifically, the new law:

- o Encourages the use of market-based principles and other innovative approaches, such as performance-based standards and the banking and trading of emissions;
- o Provides a framework to promote the use of cleaner fuels by setting standards that can be met through the most cost-effective combination of fuels and technology in centrally-fueled fleets in the worst nonattainment areas and in a California pilot program;
- o Promotes the use of clean low sulfur coal and natural gas, as well as innovative technologies to clean high sulfur coal through the acid rain program; and
- o Promotes energy conservation.

Implementation Strategy for the Clean Air Act Amendments of 1990

Pollution prevention activities as well as early emission reductions will be emphasized throughout the implementation of the Clean Air Act Amendments of 1990. For example, in controlling emissions of hazardous air pollutants, industries will be encouraged to use the provisions which allow an alternative compliance date in exchange for voluntarily implementing an early emission reduction program. Effective implementation of this provision will allow industry flexibility in achieving emission reductions and will result in early environmental benefits.

4.0 BUILDING CONSENSUS

The regulatory timeframes identified in the Clean Air Act Amendments of 1990 are ambitious, but achievable. These timeframes, however, can only be effectively met if consultation with interested parties on regulatory issues is begun early. The EPA recognizes that it cannot achieve the goals of the Amendments alone; effective rulemaking on tight timetables requires the greatest possible consensus. Standard notice and comment procedures will, of course, be the principal avenue for formal public participation in developing regulations. A number of additional activities, however, are planned to ensure that all possible routes of consultation are used. Critical players will include state and local governments, Administration officials, labor, industry, academia, and environmental groups. Many steps have been initiated to educate and involve all interested parties who wish to participate in the regulatory process. These activities are briefly described below.

4.1 Communication Activities

A key first step in building consensus is educating the public about the statutory requirements of the Clean Air Act Amendments of 1990. The EPA has initiated a series of efforts to communicate information to all key audiences, including state and local officials (including, but not limited to, air pollution control officials, governors, state legislators, state attorneys general, mayors, and other local officials); regulated and affected businesses (both small and large); public interest groups, environmentalists, labor unions, citizen groups and members of the general public; other federal agencies; Members of Congress and their staffs; the international community; and the research and academic communities.

Critical to the outreach effort is a series of national and regional workshops to explain the Clean Air Act Amendments of 1990 to target audiences. In November 1990, EPA cosponsored a national videoconference with the Public Broadcasting System to discuss the impacts of the Amendments on small businesses. The EPA is currently working with the Air and Waste Management Association and the American Bar Association to hold a similar videoconference for business and other interested parties on February 21, 1991. The EPA is also cosponsoring a series of at least ten regional workshops with the American Lung Association and the State and Territorial Air

Pollution Program Administrators/Association of Local Air Pollution Control Officials. Beginning in January 1991, these one and one-half day long conferences will enable state and local officials, the general public, members of the regulated community and others to discuss the Clean Air Act Amendments of 1990 and issues related to its implementation.

The EPA's communication efforts also include the development and dissemination of documents outlining the provisions in the Clean Air Act Amendments of 1990. These include detailed and summary overviews of the new law. A list of the documents that are currently available is presented in Appendix A. The EPA is also exploring other methods of outreach to the interested public, including citizen guides, videotapes, and journal articles.

In addition to its initial educational efforts, EPA recognizes the need for communication activities to continue throughout implementation of the Clean Air Act Amendments of 1990. Thus, EPA officials will continue making many presentations around the country about the new law and the Agency's efforts to implement it. To the extent possible, many of the outreach efforts will focus on upcoming regulatory efforts and the need to build consensus and educate the public about impending regulatory actions.

4.2 Joint Venture

A critical role will be played by state and local governments during the implementation of the Clean Air Act Amendments of 1990. Successful implementation requires a joint effort by federal, state, and local governments. The Agency will work closely with state and local agencies in all aspects of implementation, particularly in those programs for which state and local governments are responsible. The EPA plans to develop the tools, guidance, training and rules, as well as provide funds, that will enable states to perform such critical activities as developing operating permit programs and creating emissions inventories. The EPA recognizes that state and local agencies have valuable and extensive experience in many areas (e.g., permitting). Therefore, the Agency will request state and local participation in many EPA work groups on specific regulations, guidelines, and studies.

As appropriate, model legislation will be developed to assist state agencies that will require new legislative authority in order to implement various requirements of the new law. In addition, EPA will continue to provide technical assistance to states through

such programs as the National Air Toxics Information Clearinghouse, the Control Technology Center, and the Air Risk Information Support Center.

4.3 Consultation

In order to meet tight timelines required by statute, consultation with critical players must begin early. The EPA is planning to conduct early and frequent discussions with interested parties in three ways: (1) committees established under the Federal Advisory Committee Act (FACA); (2) formal negotiated rulemakings; and (3) informal discussions. Representatives for various groups will be selected from all interested sectors, including industry, state and local governments, labor, agriculture, environmental groups, citizen groups, and academia. These consultations are not intended to obviate the standard notices of proposed rulemakings and comment periods undertaken through the Administrative Procedures Act. Rather, these efforts will supplement and enhance standard procedures.

The EPA is currently involved in several committees constituted under FACA. These committees are divided by the primary type of advice that is given: technical or policy. All meetings held by FACA committees are open to the public.

The technical advisory groups utilized by EPA include: the National Air Pollution Control Techniques Advisory Committee (NAPCTAC), the Clean Air Scientific Advisory Committee (CASAC), and the Science Advisory Board (SAB). The NAPCTAC advises EPA on the economic and technological feasibility of alternative air pollution control techniques. It also reviews EPA information documents on control techniques for sources regulated under sections 111 and 112 of the Clean Air Act. The CASAC advises the Agency on technical issues relating to the national ambient air quality standards (NAAQS). It reviews the scientific basis for the levels of the primary and secondary NAAQS, advises EPA on the effects of various attainment strategies, and suggests research projects. This committee is part of a broader Science Advisory Board which provides scientific and technical advice on a variety of subjects including, but not limited to, risk assessment, exposure modeling, and monitoring.

The Stratospheric Ozone Protection Advisory Committee (SOPAC) and two new committees established by EPA for the Clean Air Act Amendments of 1990 - the Clean Air Act Advisory Committee (CAAAC) and the Acid Rain Advisory Committee (ARAC) - have been established primarily to provide policy advice to the Agency. The SOPAC provides policy and technical advice to EPA on its program to implement the

Montreal Protocol and protect the stratospheric ozone layer. The CAAAC is currently being established. It will provide policy advice on EPA's regulatory and programmatic strategies for implementing the Clean Air Act Amendments of 1990. Finally, the ARAC will provide policy and technical advice to EPA to aid in the development of the new acid rain program. An initial meeting was held in mid-December 1990 with the full ARAC. Four ARAC subcommittees have been established to focus on the following areas: (1) the allowance trading and tracking system; (2) permitting and technology; (3) emissions monitoring and tracking; and (4) energy conservation and renewables.

The Agency may also elect to use a formal negotiated rulemaking procedure, commonly referred to as "reg neg". Under this process, a committee is established under FACA that fairly represents all interest groups. Issues are identified and resolved in a collective manner. The regulatory negotiation process allows interested parties to have a more direct input into the drafting of regulations, thus ensuring that the rule is more sensitive to the needs and restrictions of both the parties and EPA. Rules drafted by negotiation have been found to be more pragmatic and more easily implemented at an earlier date, thus providing the public with the benefits of the rule while minimizing the negative impact of a poorly conceived or drafted regulation.

The regulatory negotiation process is usually effective where the standard(s) have a broad impact, where the participants have an incentive to negotiate, where issues are complex, and where interest can be identified and represented. In the past, EPA has successfully used this process to develop air pollution control standards for woodstoves and equipment leaks at chemical plants.

Finally, a third forum for consultation will be informal discussions with interested parties. The EPA is committed to sharing information with, and soliciting information from, interested parties early in the regulatory development process. Therefore, informal meetings will be held on specific issues on an ad hoc basis. For example, a meeting was held in early December with representatives from industry, state and local governments, as well as environmental groups, to discuss the permit regulations being developed under Title V. Similar meetings will be held in the future, as appropriate, to discuss specific regulations and associated issues, and to provide public perspectives to EPA as it deliberates on proposed regulations.

5.0 THE REGULATORY PROCESS

The EPA has traditionally followed a standard process for developing regulations. This process is illustrated in Figure 2. The public is informed of a proposed Agency action through a notice of proposed rulemaking. Public comments are solicited at the time this notice is published in the Federal Register. These comments are considered as EPA finalizes the regulations.

The Clean Air Act Amendments of 1990 require publication of over 25 rules in the first year and over 55 rules within the first two years. The EPA's traditional process will not suffice to meet the demands of issuing such a large number of regulations so quickly. To meet the timeline required by the Clean Air Act Amendments of 1990, the Agency has modified its internal process for reviewing regulations attendant to the Amendments. The process changes include providing four different types of regulatory review, eliminating a duplicative step in the process of achieving final Agency concurrence on rulemakings, and using the EPA Steering Committee to resolve issues. Early identification and resolution of issues is critical to meet the tight timetables included in the Clean Air Act Amendments of 1990. The new rulemaking processes are described fully in a report to the EPA Deputy Administrator identified in Appendix A.

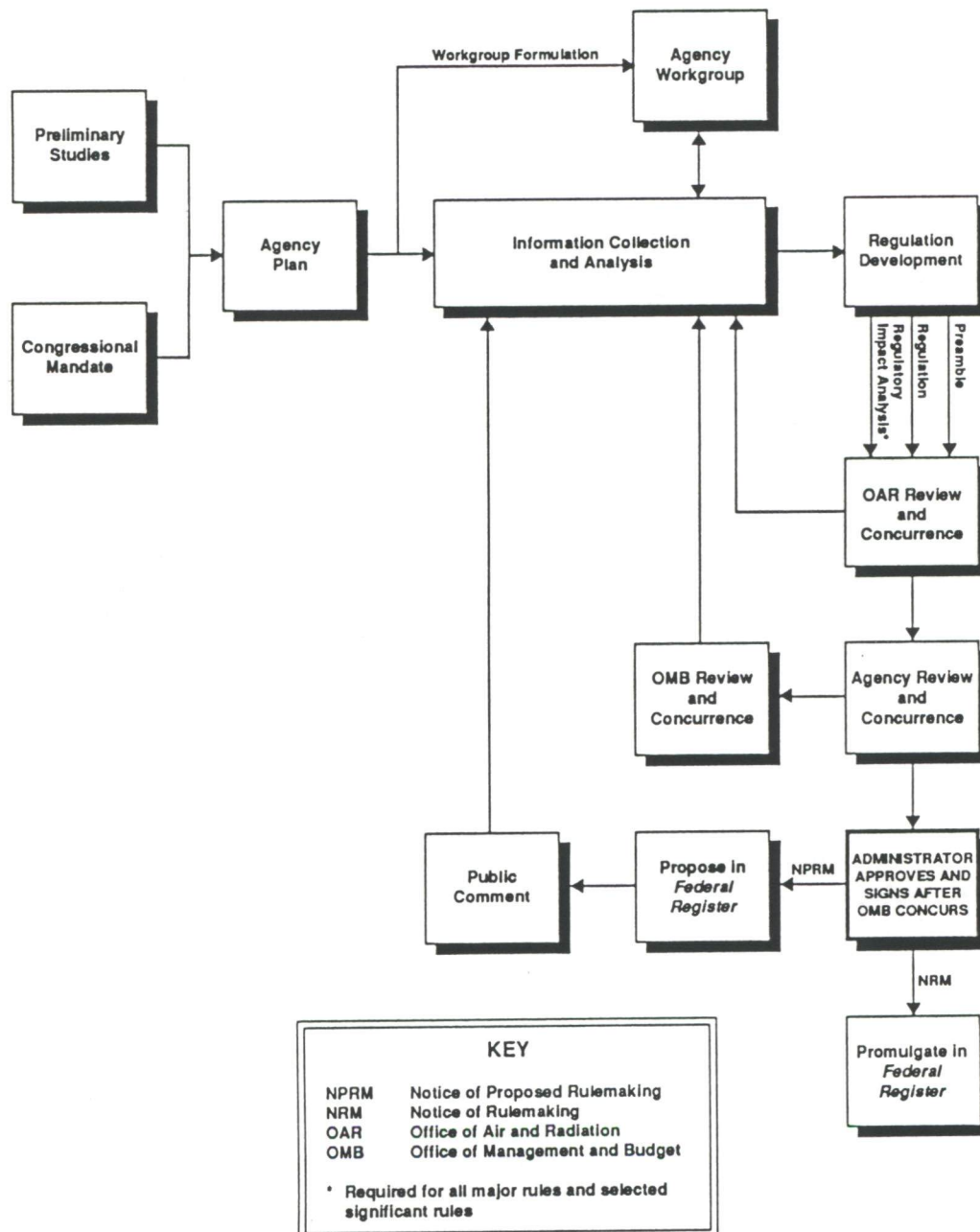
The Agency has also developed an internal process for coordinating the multiple regulations being developed by its various program offices that affect a given industry sector (e.g., petroleum refineries), contaminant (e.g., lead), environmental resource (e.g., groundwater), or geographic area. This process, referred to as "regulatory clustering," is designed to shift the regulatory development process from producing individual rules in isolation to developing more integrated strategies for addressing environmental problems. The goal is to "cluster" regulations and policies around well-defined environmental problem areas and to develop an integrated strategy for each problem area.

Implementation Strategy for the Clean Air Act Amendments of 1990

As in the past, review of proposed and final regulations will be conducted by the Office of Management and Budget (OMB) under Executive Order 12291. Given the large number of rulemakings to be reviewed, EPA will make every effort to involve OMB early in the rulemaking cycle by providing briefings and early drafts of rules whenever possible. In addition, OMB officials will be invited to participate in the aforementioned informal discussions throughout the rulemaking cycle.

Figure 2

REGULATORY DEVELOPMENT OVERVIEW



6.0 THE REGULATORY AGENDA: THE FIRST TWO YEARS

The Clean Air Act Amendments of 1990 outline an enormous amount of regulatory activity. Figure 3 indicates the major regulatory activities that will occur over the next two years. As indicated in this figure, EPA's communication activities each month will focus on the major regulatory activities proposed or finalized during that timeframe.

Title-by-title timelines of the requirements of the Clean Air Act Amendments of 1990 are presented in Appendix B. All regulations identified will be proposed and public comments will be solicited. Where a proposal date is not indicated in a timeline contained in Appendix B, the regulation may have been proposed prior to enactment of the Amendments, or a proposal date may not yet have been established by EPA. In developing an implementation strategy, many specific requirements have been grouped into broad work areas. Agency work groups with widespread participation have been formed to address the activities within these broad work areas. To foster the activities of the work groups, planning materials have been prepared for each of the major work areas. Examples of these planning materials are shown in Appendix B following the initial title-specific timelines. These planning charts provide work groups a means of focusing their attention on developing overall programs to implement specific titles. Planning charts have been developed for all major work areas. As work groups address the various work areas, major issues are identified and surfaced for discussion and resolution.

In addition to the timelines presented in Appendix B, a compilation of fact sheets for the regulatory activities that will begin in the first two years is currently being developed by the Agency. This compilation will be available by February 15, 1991.

Planning to implement the Clean Air Act Amendments of 1990 is a dynamic process. The EPA intends to continually review all activities undertaken to implement this law, assess their effectiveness, and make modifications as necessary. This implementation strategy will be updated on an annual basis with each revision focusing on the forthcoming two-year period.

Figure 3

CLEAN AIR ACT AMENDMENTS OF 1990
IMPLEMENTATION SCHEDULE HIGHLIGHTS: THE FIRST TWO
YEARS

Communications Focus	Regulatory Activities	
<i>Getting Started</i>	DEC 1990	Title I - Nonattainment: Issue "Getting Started" Letter to Governors STATES Submit Request/Justification for 5% Classification Adjustments
<i>State & Local Responsibilities</i>	JAN 1991	Publish Two-Year Implementation Strategy Title I - Nonattainment: Publish Notice of Initial PM-10 Moderate Nonattainment Areas Initiate Additional PM-10, SO ₂ , Lead Designation Process
<i>Building Consensus</i>	FEB 1991	Title I - Nonattainment: Act on 5% Classification Adjustment Requests
<i>Voluntary Reductions</i>	MAR 1991	Title I - Nonattainment: STATES Submit Nonattainment Area Designations Title III - Air Toxics: Publish Draft Chemical List Petition Procedures Publish 90/95% Early Reduction Guidance Propose List of High Risk Pollutants (Lesser Quantity Cutoffs, 90-95% Early Reduction)
<i>Permit Program</i>	APR 1991	Title I - Nonattainment: STATES Submit PM-10 Areas Unable to Attain by 1994 STATES Respond to List of PM-10, SO ₂ , Lead Nonattainment Areas Title III - Air Toxics: Publish Draft List of Source Categories Title V - Permits: Propose State Permit Regulations

Implementation Strategy for the Clean Air Act Amendments of 1990

Communications Focus		Regulatory Activities
<i>Cleaner Cars and Cleaner Fuels</i>	MAY 1991	Title I - Nonattainment: STATES' Deadline for Reasonably Available Control Technology Requirements (Deficiency Corrections) Notify STATES of Intent to Modify Suggested Boundaries Publish Guidance on Stationary Source CO Contributions Finalize Criteria to Measure Ozone Transport Title II - Mobile Sources: Finalize Gasoline Reid Vapor Pressure Regulations Finalize Tier I Car and Truck Standards Propose Reformulated Gasoline Requirements Propose Clean Fuels Fleet and California Pilot Credit Programs Propose Urban Bus Regulations Propose Emission Control Diagnostic Rule Title III - Air Toxics: Propose Standards for Large Municipal Waste Combustors Publish Final Chemical List Petition Procedures Title IV - Acid Rain: Propose Regulations for Auctions and Sales Title VI - CFCs: Propose CFC Phase-out Regulations
<i>Protecting the Ozone Layer</i>	JUNE 1991	Title I - Nonattainment: Propose PM-10 Area Reclassifications Title VI - CFCs: Propose Mobile Air Conditioning Recycling Regulations
<i>Assisting Small Businesses</i>	JULY 1991	Title I - Nonattainment: Propose Revisions to New Source Review Program Finalize Ozone, CO Nonattainment Boundaries Finalize List of Additional PM-10 Nonattainment Areas and SO₂, Lead Designations Title V - Permits: Publish Guidance on State Assistance to Small Businesses Title VII - Enforcement: Propose Administrative Penalties Rules of Practice

The Regulatory Agenda: The First Two Years

Communications Focus	Regulatory Activities
<i>Attainment of Air Quality Standards</i>	AUG 1991
	Title I - Nonattainment: Propose PM-10 Reasonably Available Control Measures/ Best Available Control Measures Guidance Issue Transportation Planning Guidance Publish Title I General Preamble Publish 1990 Air Quality Data Title II - Mobile Sources: Publish Marketable Gasoline Oxygen Credit Guidelines Title VII - Enforcement: Propose Rules for Citizen Suits
<i>Acid Rain</i>	SEPT 1991
	Title IV - Acid Rain: Propose Emission Trading System Propose Acid Rain Permit Program Propose Continuous Emission Monitor Requirements Propose NOx Requirements for Utility Boilers Propose Conservation and Renewable Incentives Title VI - CFCs: Finalize CFC Phase-out Regulations
<i>Business Opportunities in the Clean Air Act</i>	OCT 1991
	Title I - Nonattainment: Publish VOC and CO Emission Inventory Guidance Title II - Mobile Sources: Finalize Cold Temperature CO Standards Publish Study on Non-road Engines Title III - Air Toxics: Propose Maximum Achievable Control Technology for Coke Ovens

Communications Focus

Regulatory Activities

<i>One Year of Progress Toward Cleaner Air</i>	NOV 1991	Title I - Nonattainment: Propose Tank Vessel Rule Publish Conformity Criteria Publish Guidance on Control Cost-effectiveness STATES Submit PM-10 State Implementation Plans Publish Outer Continental Shelf Rule Publish Guidance on Inspection/Maintenance Programs Publish Guidance on Transportation Control Measures Title II - Mobile Sources: Propose Clean Fuel Vehicle Standard Finalize Vehicle Evaporative Emissions Regulations Finalize Onboard Controls Finalize Reformulated Gasoline Requirements Finalize Urban Bus Regulations Finalize Clean Fuels Fleet and California Pilot Credit Program Title III - Air Toxics: Publish Final List of Source Categories Propose Guidance for Modification Provisions Publish Draft Regulatory Schedule for All Source Categories Finalize Standards for Large Municipal Waste Combustors Propose List of Substances for Accidental Releases Prevention Program Propose Maximum Achievable Control Technology for Hazardous Organic Chemical Manufacturing Propose Maximum Achievable Control Technology for Dry Cleaners (per court order) Finalize List of High Risk Pollutants (Lesser Quantity Cutoff, 90%/95% Early Reductions) Title IV - Acid Rain: Finalize Regulations for Auctions and Sales Title V - Permits: Finalize State Permit Regulations Propose Federal Permit Regulations Title VI - CFCs: Ban Nonessential Uses Finalize Mobile Air Conditioning Recycling Regulations Title VII - Enforcement: Propose Rules for Field Citation Program Propose Rules for Contractor Listing
<i>Air Toxics</i>	DEC 1991	Revise Two-Year Implementation Strategy Title I - Nonattainment: Finalize PM-10 Area Reclassifications Title IV - Acid Rain: Propose List of Phase II Utility Allowances

Communications Focus

Regulatory Activities

Enforcement	JAN 1992	Title III - Air Toxics: Propose Standards for Small Municipal Waste Combustors Title VII - Enforcement: Finalize Administrative Penalties Rules of Practice
	FEB 1992	Title III - Air Toxics: Propose Maximum Achievable Control Technology for Chromium Electroplating Title VII - Enforcement: Propose Monetary Awards Rules
	MAR 1992	Title III - Air Toxics: Propose Maximum Achievable Control Technology for Commercial Sterilizers
	APR 1992	Title III - Air Toxics: Propose Maximum Achievable Control Technology for Asbestos
	MAY 1992	Title I - Nonattainment: Finalize PM-10 Reasonably Available Control Measures/Best Available Control Measures Guidance Finalize Revisions to New Source Review Program Finalize Rules for Ozone, NOx, VOC Enhanced Monitoring Title II - Mobile Sources: Finalize Emission Control Diagnostic Rule Publish Mobile-Source Related Air Toxics Study Title III - Air Toxics: Finalize Guidance for Modification Provisions Title IV - Acid Rain: Finalize Emission Trading System Finalize Continuous Emission Monitor Requirements Finalize NOx Requirements for Utility Boilers Finalize Conservation and Renewable Incentives Finalize Acid Rain Permit Program Title V - Permits: Finalize Federal Permit Program Title VI - CFCs: Finalize CFC and HCFC Labelling Regulations Title VII - Enforcement: Propose Rules for Compliance Certification
	JUNE 1992	
	JULY 1992	

Communications Focus		Regulatory Activities
	AUG 1992	Title I - Nonattainment: Publish 1991 Air Quality Data Title VII - Enforcement: Finalize Guidance/Rules for Citizen Suits
	SEPT 1992	
	OCT 1992	Title III - Air Toxics: Finalize Maximum Achievable Control Technology for Coke Ovens
<i>Meeting the Deadlines in the Clean Air Act</i>	NOV 1992	Title I - Nonattainment: Finalize Tank Vessel Rule Finalize Rules for Economic Incentives Program Propose First Set of NSPS Rules STATES Submit RACT Catch-up Rules, NSR Rules, CO Attainment Demonstration, and Contingency Measures STATES Submit Base Year Ozone/CO Emission Inventories Title II - Mobile Sources: Finalize Clean-Fuel Vehicle Standards Determine Significance of Non-road Engine Emissions Title III - Air Toxics: Finalize Maximum Achievable Control Technology for Dry Cleaners (per court order) Finalize Maximum Achievable Control Technology for Hazardous Organic Chemical Manufacturing Finalize Regulatory Schedule for All Source Categories Finalize List of Substances for Accidental Releases Prevention Program Title VI - CFCs: Finalize Safe Alternatives Program Title VII - Enforcement: Finalize Guidance/Rules for Field Citation Program Finalize Guidance/Rules for Contractor Listing Finalize Rules for Monetary Awards
	DEC 1992	Title III - Air Toxics: Finalize Standards for Small Municipal Waste Combustors Title IV - Acid Rain: Finalize List of Phase II Utility Allowances

In the subsections to follow, regulatory highlights and major issues that EPA will focus on over the next two years are presented for each title. Additional information on the statutory requirements have been summarized in several documents developed by EPA as listed in Appendix A. For more information, a Headquarters or Regional EPA office may be contacted (see Appendix C).

6.1 Title I - Nonattainment

Title I includes provisions for attaining and maintaining the national ambient air quality standards (NAAQS). The NAAQS are set to protect public health and welfare and have been established for six criteria pollutants (ozone, carbon monoxide, particulate matter, lead, sulfur dioxide, and nitrogen dioxide). Although significant improvements in air quality have occurred since the Agency was created twenty years ago, millions of people still live in urban areas which do not meet the NAAQS. This results in adverse human health effects such as respiratory illness and premature mortality, and in adverse environmental effects such as impairment of visibility, reduction in crop yields, and forest damage. A summary of the actions required by the title between now and the year 2010 is presented in Figure B-1 found in Appendix B.

The various actions required under Title I have been grouped into several major work areas, as follows:

- o Designation and classification of areas;
- o State implementation plan (SIP) control strategy development;
- o Emission inventory and modeling;
- o SIP procedures and permits;
- o Federal measures;
- o Tracking progress/sanctions and federal implementation plans;
- o Ozone Transport Commission; and
- o Special studies.

Two of these work areas have been selected to illustrate EPA's planning efforts for Title I: designation and classification of areas and SIP control strategy development.

The Clean Air Act Amendments of 1990 clarify how areas will be designated as nonattainment and specify procedures to define the boundaries of these areas. Figure B-2, found in Appendix B, presents an example of the planning materials developed for the designation/classification process. The various regulatory activities required by the

Clean Air Act Amendments of 1990 have been identified *below* the timeline. Activities needed to make the required regulatory activity happen are identified *above* the timeline.

Nonattainment areas are classified for ozone, carbon monoxide, and particulate matter in accordance with the severity of the air pollution problem. (See Table B-1 in Appendix B.) Depending upon the degree to which an area exceeds the standard, that area will be required to implement various control programs and achieve attainment of the NAAQS within a specified timeframe. For example, Figures B-3 and B-4 in Appendix B identify the state implementation plan (SIP) requirements for the various ozone and carbon monoxide nonattainment areas, respectively.

The Amendments allow some discretion in the classification of areas (5 percent adjustment criteria) and the setting of geographical boundaries for the nonattainment area. In applying this discretion, EPA must address several issues, including:

- o How can consistency be ensured in boundary determinations across the country and for different pollutants?
- o Should these boundaries conform to recognized political/administrative boundaries?
- o What criteria will be used to approve or disapprove requests to change area classifications?

Figure B-5 in Appendix B presents activities over the next several years related to ozone and carbon monoxide SIPs. An important early deadline for state air pollution control agencies is six months after enactment - May 15, 1991. At this time, all states with ozone nonattainment areas designated before November 15, 1990, must revise their SIPs to reflect required stationary and mobile sources and submit them to EPA. Stationary source control measures required are the reasonably available control technology (RACT) "fix-ups".

Mobile source control measures include vehicle inspection and maintenance (I/M) programs to reduce carbon monoxide and precursors to ozone. Under the new law, I/M programs will be required in approximately 110 nonattainment areas. Forty of these areas do not presently have an I/M program. Basic I/M programs will be required in all moderate ozone nonattainment areas and enhanced I/M programs will be required in serious, severe, and extreme nonattainment areas. Enhanced I/M programs will be

required to achieve emissions reductions greater than the current, or basic, programs. One of the most common ways to enhance a program is, in addition to the usual tailpipe emissions test, to check whether emissions control components have been tampered with or removed.

Annual inspections and centralized programs are required by the Clean Air Act Amendments of 1990 unless a state can demonstrate that biennial or decentralized programs are equally or more effective. The EPA is required to review, revise, and republish Federal guidance on I/M programs within 12 months of enactment. The Agency currently anticipates publishing this guidance earlier than required in order to provide state agencies more time to obtain additional legislative authority, if needed.

Major near-term issues that surface with respect to the required SIP revisions include:

- o How can those states which earlier failed to effectively implement similar requirements, be encouraged, within the short timeframe allowed, to adopt major SIP revisions?
- o How should EPA effectively deal with an area which fails to meet the required deadline?

Several issues will need to be resolved by EPA with respect to I/M programs, including:

- o Can decentralized programs be established so that they are as effective as centralized programs?
- o What is the best mechanism to implement the "on-road testing" required by the Amendments?
- o Can biennial inspection programs be established so that they are as effective as annual programs?

6.2 Title II - Mobile Sources

Title II of the Clean Air Act Amendments of 1990 contains provisions relating to the control of mobile source emissions. Cars and trucks currently account for approximately 50% of the ozone precursors (volatile organic compounds and nitrogen

oxides) and up to 90% of the carbon monoxide emissions in urban areas. The principal reason for this problem is the rapid growth in the number of vehicles on the roadways and the total miles driven. This growth has offset a large portion of the emission reductions gained from motor vehicle controls in effect to date.

Figure B-6 in Appendix B illustrates the deadlines for the mobile source requirements identified in the Clean Air Act Amendments of 1990. Specific areas that will be addressed in the first few years by EPA include: more stringent tailpipe standards, reformulated gasoline, an oxygenated fuels program for carbon monoxide nonattainment areas, a California clean car pilot program, and a clean fuels program for vehicle fleets in 22 of the worst air pollution areas.

Passenger car standards have not changed since 1981, though control technology and reliability have advanced dramatically. Therefore, the new law establishes tighter tailpipe emissions standards for hydrocarbons, carbon monoxide, and nitrogen oxides. The Tier I standards are to be phased-in beginning with vehicles produced in model year 1994. By the end of 1999, the Agency will determine the need, cost, and feasibility of additional Tier II standards for vehicles produced in model year 2004 and later. The new law also extends the useful life requirements for passenger cars from 5 years/50,000 miles to 10 years/100,000 miles. In addition, for the first time, EPA will establish a tailpipe standard for carbon monoxide under cold temperature conditions.

Vehicle emissions resulting from gasoline evaporation during refueling will be controlled. The EPA must also issue regulations to improve the systems which control evaporative emissions when vehicles are in operation or parked.

New programs requiring cleaner (reformulated) gasoline will be initiated in nine U.S. cities beginning in 1995. These cities are those with the worst ozone problems. Additional ozone nonattainment areas may elect to "opt-in" to this reformulated fuels program. Within one year of enactment, the Agency must promulgate regulations for reformulated gasoline to be used in gasoline-fueled vehicles. These regulations must require the greatest reduction in emissions of volatile organic compounds and toxic air pollutants achievable considering costs, any air- or nonair-quality related health and environmental impacts, and energy requirements.

The major issues to be addressed for reformulated gasoline include:

- o How can an accurate baseline fuel best be established?

- o How can an adequate supply and distribution infrastructure for the reformulated gasoline best be assured?

Fuel quality will also be controlled in 41 carbon monoxide nonattainment areas during the winter months. This program is scheduled to begin November 1, 1992 and will require fuel with a 2.7% oxygen content. However, EPA may delay the start of the program by two years if the domestic supply and distribution capacity is insufficient. The oxygenated fuels are to be sold for a minimum of four months of the year unless EPA reduces the timeframe in response to a state request. Such a request must demonstrate that, because of meteorological conditions, a reduced period will assure that there will be no exceedences of the carbon monoxide standard outside of the reduced period. A key issue to be addressed by the Agency in implementing this program will be the establishment of the criteria EPA will use to modify the effective months of the oxygenated fuels program.

Two clean fuel programs are identified in the Clean Air Act Amendments of 1990. "Clean fuels" include: compressed natural gas, ethanol, methanol, liquified petroleum gas, electricity, reformulated gasoline, and possibly other fuels. The first program is a California Clean Car pilot program. Requirements for this program will be established by rule within two years of enactment. The law establishes emission standards and allows the auto and fuel industries to determine whether to meet the standards by vehicle controls, new fuels, or a combination of both technologies. The program will be phased in beginning in 1996 with 150,000 cars and light duty trucks. By 1999, the program will expand to cover 300,000 cars per year. More stringent standards (Phase II) will begin in 2001. States with serious, severe, or extreme ozone nonattainment areas may elect to "opt-in" to the California program.

The second clean fuels program requires 22 areas having the worst air quality to limit the mobile source emissions from centrally-fueled fleets of 10 or more. This program will be phased-in beginning in 1998 unless the vehicles meeting these standards are not being sold in California, in which case, the program will be delayed until 2001. The EPA is to develop regulations on the general fleet program and credits program by November 15, 1991. Through the credit program, credits may be issued for: (1) the purchase of more clean-fuel vehicles than required; (2) the purchase of clean fuel vehicles which meet more stringent standards; and (3) the purchase of vehicles in additional vehicle categories. Within 24 months of enactment, the Agency will issue regulations with respect to converting conventional vehicles to clean fuel vehicles.

Section 177 of the Amendments allows states to adopt California's more stringent tailpipe standards for cars sold within their boundaries. This option, currently being considered by a number of states, may raise production and distribution problems for the auto industry, as well as potential enforcement and compliance monitoring problems for EPA and the states.

6.3 Title III - Hazardous Air Pollutants

According to industry estimates, more than 2.4 billion pounds of toxic pollutants were emitted into the atmosphere in 1988. These emissions may result in a variety of adverse health effects including cancer, reproductive effects, birth defects, and respiratory illness. Only seven hazardous air pollutants were regulated under the previous Clean Air Act.

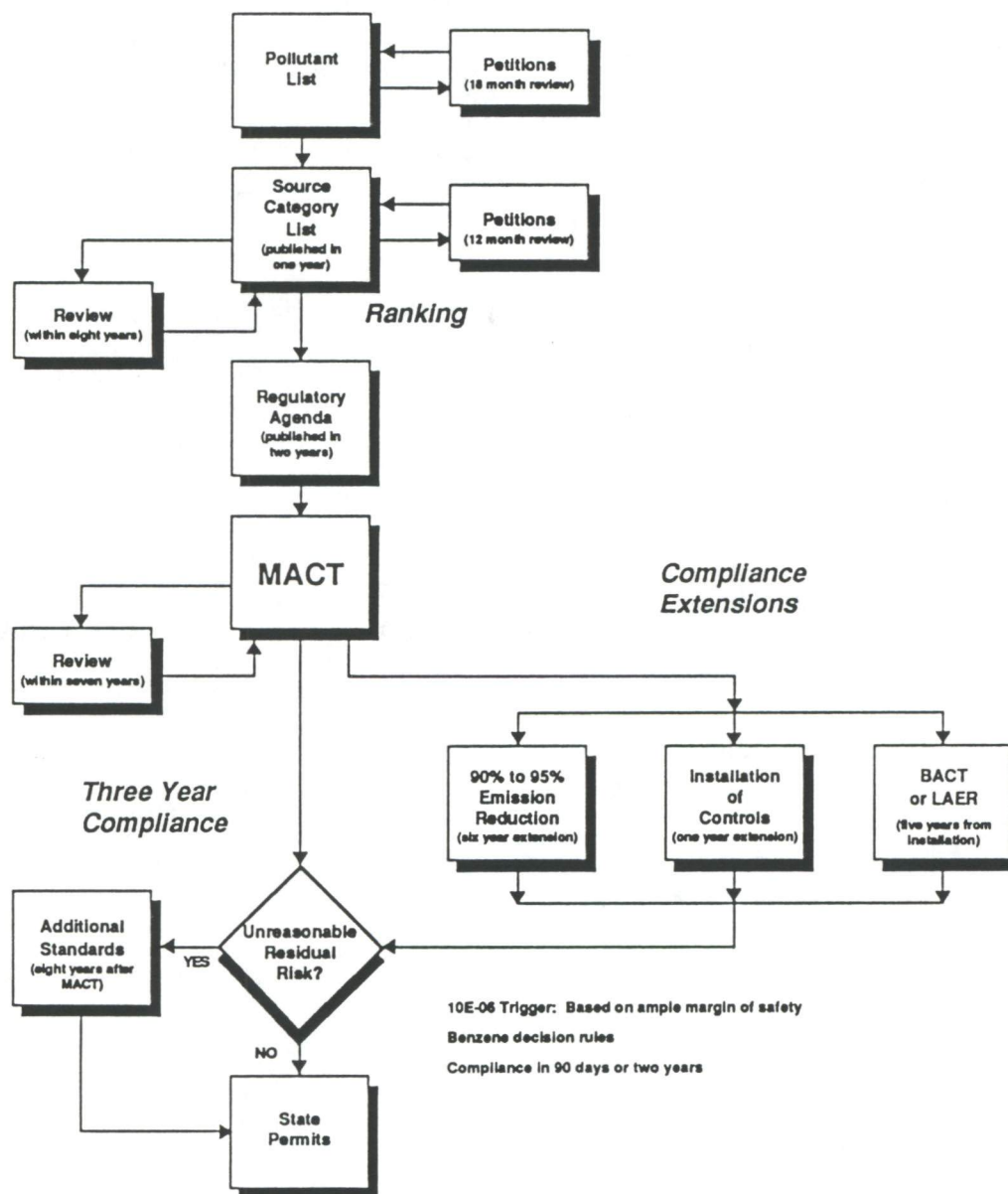
Title III of the Clean Air Act Amendments of 1990 provides new tools for controlling emissions of these pollutants. The title addresses not only routine but also accidental releases of hazardous air pollutants. An overview of its basic requirement is found in Figure B-7 in Appendix B. Emissions both from large and small facilities that contribute to air toxics problems in urban areas will be addressed. As illustrated in Figure 4, the new law restructures the process for developing hazardous air pollutant emission standards for routine releases from stationary sources. For planning purposes, implementation of this title over the next several years has been divided into seven major work areas:

- o Section 112 - Implementation and Guidance;
- o Maximum Achievable Control Technology (MACT)/Generally Available Control Technologies (GACT) (2-year standards);
- o MACT/GACT (4-year standards) ;
- o Air Toxics Studies;
- o Section 129 - Solid Waste Incineration;
- o State Enabling Activities; and
- o Accidental Releases and Chemical Safety Board.

Planning materials to assist in structuring the work under Title III have been prepared. Figure B-7 in Appendix B presents, over a five-year horizon, an example of the planning materials developed for the two-year MACT/GACT standards. The various regulatory activities required by the Clean Air Act Amendments of 1990 have

Figure 4

TITLE III: AIR TOXICS



been identified *below* the timeline. Activities needed to make the required regulatory activity happen are identified *above* the timeline.

The statute establishes an initial list of 189 hazardous air pollutants. Petitions to add or delete pollutants from this list may be submitted to the Agency beginning May 15, 1991. Using this list of pollutants, the Agency will publish, within one year of enactment, a list of the source categories (major and area sources) for which emission standards will be developed. Within two years of enactment, it will publish a schedule establishing a date for the promulgation of these standards. Petitions may also be submitted to the Agency to remove source categories.

For each listed source category, EPA will issue standards requiring the maximum degree of emissions reduction that has been demonstrated to be achievable. These are commonly referred to as maximum achievable control technology (MACT) standards. The primary consideration in establishing these standards must be demonstrated technology. Other considerations which may play some role in standard selection include: costs, non-air quality health and environmental impacts, and energy requirements. For area sources, EPA may elect to promulgate standards which provide for the use of generally available control technologies or management practices (GACT). As indicated in Figure 3, the first MACT/GACT standards will be proposed for coke ovens in October 1991 and for chemical manufacturing and dry cleaners in November, 1991.

Efforts to achieve early environmental benefits are encouraged in Title III. For example, industries will be encouraged to use the provisions which allow an alternative compliance date in exchange for the implementation of an early emission reduction program. Effective use of these provisions will allow industry flexibility in achieving emission reductions and will result in early environmental benefits. As indicated in Figure 3, EPA plans to issue guidance for sources interested in exercising this option in the Spring of 1991. In addition, other compliance extensions may be granted as indicated in Figure 4.

The standards developed under Title III to control hazardous air pollutants will be enforced under the operating permit program required under Title V. Several issues associated with developing emission standards include:

- o What is the definition of "source" as it applies to the various provisions of Title III?

- o What factors should be considered in differentiating between different types and classes of sources in setting MACT/GACT standards?
- o When should GACT versus MACT be used for area sources?
- o How should guidance be developed on how to use the early emission reduction provisions effectively in order to secure early emission reductions in air toxic emissions?
- o How "high" or "low" should the hurdle be for granting petitions to add or delete pollutants from the list of hazardous air pollutants or to remove a listed source category?

Title III contains provisions for EPA to perform studies on a variety of air toxics problems such as deposition of toxic air pollutants into the Great Lakes, urban air toxics concentrations, and the emissions of toxic air pollutants from electric utilities. Within the first two years, EPA will establish an air toxics monitoring network around the Great Lakes.

Section 129 of Title III includes provisions for a comprehensive regulatory program for solid waste incinerators. In January 1991, the Agency promulgated standards for large capacity (> 250 tons per day) municipal waste combustors (MWCs) for most pollutants. Regulations for lead, mercury, and cadmium emissions from these MWCs will be promulgated by November 1991. Standards for small capacity (< 250 tons per day) MWCs will be promulgated by November 1992. The EPA efforts will also emphasize the development of regulations for medical waste incinerators, commercial/industrial waste incinerators, and all other waste incinerators.

Title III also includes provisions to prevent accidental releases of hazardous air pollutants. Implementation of the accidental release provisions will be the responsibility of EPA's Chemical Emergency Preparedness and Prevention Office within the Office of Solid Waste and Emergency Response. Within two years, the Agency will promulgate a list of at least 100 chemicals which, if accidentally released, can seriously damage human health or the environment. Threshold quantities will be established for these pollutants taking into consideration toxicity, reactivity, volatility, dispersibility, combustibility, or flammability. Based upon regulations finalized within three years of enactment, any facility at which a listed pollutant is present at greater than a threshold quantity will be

required to prepare and implement a risk management plan. The plan must address how the facility will detect and prevent, or minimize, accidental releases.

Title III also creates the Chemical Safety and Hazard Investigation Board, an independent safety board. The board will be responsible for investigating any accidental release that results in a fatality or substantial property damage. It will also report regularly to Congress and make recommendations to EPA and the Department of Labor related to the preparation for, or prevention of, accidental releases.

Several major issues related to chemical accident prevention include:

- o How best can overlapping issues be coordinated with the Department of Labor?
- o What is the best way to interface the requirements of Title III of the Clean Air Act Amendments of 1990 with related provisions contained in Title III of the Emergency Planning and Community Right-to-Know Act?

6.4 Title IV - Acid Deposition Control

Title IV of the Clean Air Act Amendments of 1990 addresses the control of the pollutants associated with acid rain. The goal of this title of the Amendments is to achieve a 10 million ton reduction of sulfur dioxide (SO₂) and an approximately 2 million ton reduction in nitrogen oxides (NO_x), relative to 1980 levels. The focus of the acid rain program is an innovative market-based emission allowance program which will provide affected sources flexibility in meeting the mandated emission reductions. The acid rain allowance trading program will be the first large-scale regulatory use of market incentives, and is already being seen as a model for regulatory reform efforts here and abroad. Figure B-9 in Appendix B illustrates the statutory requirements of this title. Figure B-10 presents a timeline for activities related to the SO₂ allowance and trading provisions.

The EPA will allocate SO₂ allowances to utilities in two phases:

- o Phase I: Beginning in 1995, large, high-emitting coal-fired utility units will be affected.

- o Phase II: Beginning in 2000, an additional 2000 utility units with an output capacity of greater than or equal to 25 megawatts are included.
- o Both phases require facilities to install continuous emission monitoring systems to track progress and assure compliance. Figure B-11 in Appendix B identifies the regulatory events associated with emissions monitoring.

The new law allows utilities to trade allowances within their systems and/or buy or sell allowances to and from other affected sources. Each source must have sufficient allowances to cover its annual emissions; if it does not, it becomes subject to excess emissions fees and must offset the excess emissions in the following year. The EPA will promulgate regulations for the allowance system within 18 months of enactment. The Agency will take all available steps to facilitate active trading of allowances. This will serve to minimize compliance costs, maximize economic efficiency, and allow for growth. In addition, the allowance trading system incorporates an incentive for energy conservation and technology innovation, both of which can lower the cost of compliance and yield pollution prevention benefits.

When effectively implemented, Title IV of the Clean Air Act Amendments of 1990 will achieve a reduction in NO_x of approximately 2 million tons. Specifically, the statute requires EPA to establish stringent new NO_x emissions rates for various types of utility boilers. The rates are to be set at a level expected to be achievable through the use of low NO_x burner technology and will be phased-in. Figure B-12 presents the major activities and timing associated with the NO_x provisions.

Key issues associated with implementing Title IV include:

- o What is the most effective way to use allowance trading and tracking procedures, as well as emissions monitoring, to achieve the economic, technological innovation, and energy efficiency benefits of the program?
- o How best can permitting procedures and emissions monitoring provisions be established to ensure accountability and confidence that emissions reductions are occurring on time?

6.5 Title V - Permits

The Clean Air Act Amendments of 1990 establish a comprehensive operating permit program for air emissions. It is modelled after a similar program established

under the Federal National Pollution Elimination Discharge System (NPDES), and brings air pollution legislation in line with other environmental statutes (e.g., the Clean Water Act).

The purpose of the operating program is to put in one place all of the requirements concerning air emissions that apply to affected sources. When fully in place, these permits will ensure that sources are not being subjected to conflicting requirements and that all parties have a clear picture of those requirements.

The permit program contained in Title V provides the building block for implementing major portions of the Clean Air Act Amendments of 1990. Figure 5 provides an illustration of the links between the permit program, several titles of the new legislation, and ongoing air pollution control programs. Implementing the permit program must entail close coordination with all of these programs.

Figure B-13 presents a timeline for Title V regulatory activities (see Appendix B). Major work group areas through which EPA plans to implement these activities include:

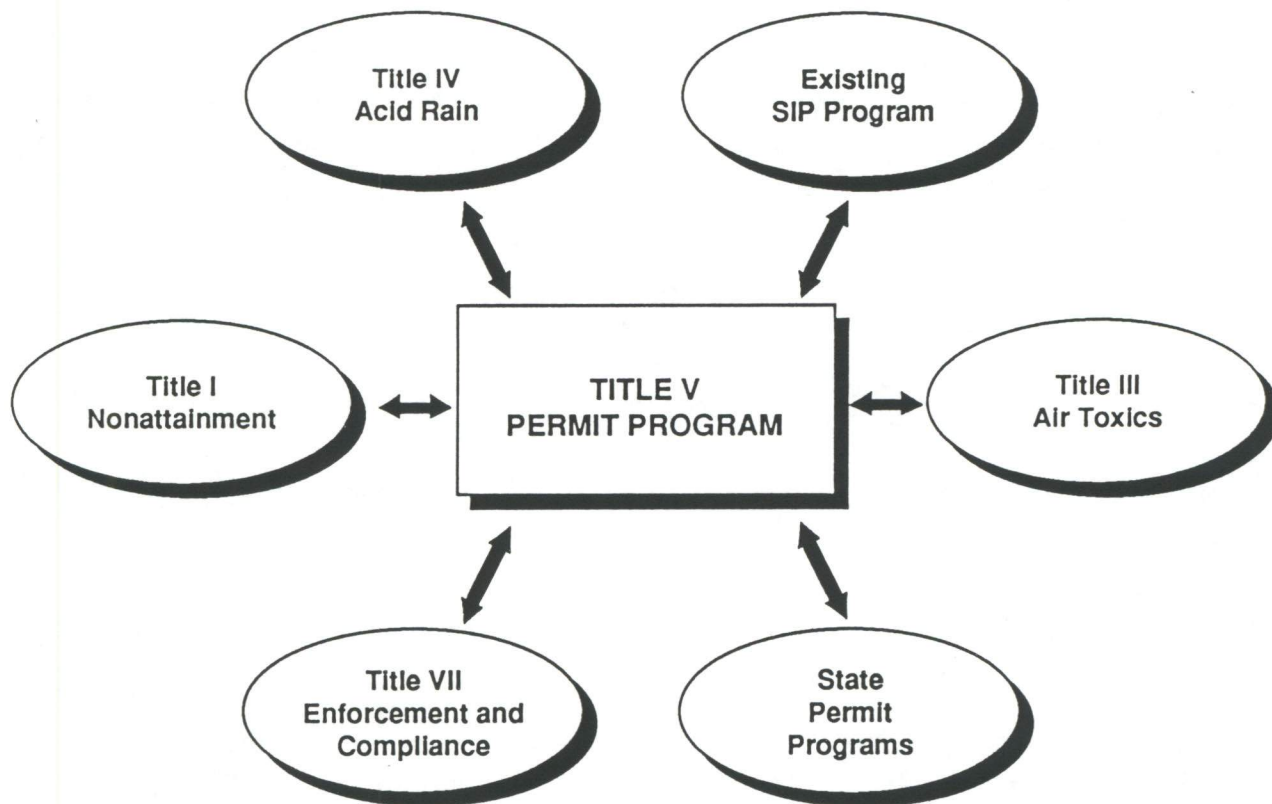
- o Permit Regulation Development
- o Permit Program Start-Up
- o Permit Program Oversight
- o Permit Program Implementation Support

Planning material for carrying out these major work areas are contained in Appendix B, Figures B-14, B-15, B-16, and B-17.

The permit program is one of the most important procedural reforms contained in the new law. The EPA will develop program regulations within one year following enactment defining the minimum elements required in a state operating permit program. State agencies have three years from enactment to submit a permit program to EPA for approval. The EPA has one year to approve or disapprove a program. The operating permit program will enable states to collect permit fees from the affected sources to cover reasonable direct and indirect operating costs for the permit program. A permit is to be issued for a fixed term, not to exceed five years. Though administration will be conducted by states with approved programs, EPA will still assume federal oversight responsibilities and all permits will be subject to public comment.

Figure 5

TITLE V: OPERATING PERMITS



Title V also includes a provision requiring states to establish, as part of the SIP, a small business stationary source technical and environmental compliance assistance program. The program must be in place by November 1992. Within nine months of enactment (August 1991), EPA will: (1) establish a program to assist states in developing these small business assistance programs; (2) issue guidance for the states to use during implementation of the programs, including guidance on alternative control technologies and pollution prevention methods for small stationary sources; and (3) provide for the implementation of the program if a state fails to submit a program. The EPA Small Business Ombudsman will monitor the program and report to Congress on its effectiveness.

Some of the major issues which must be addressed in implementing Title V include:

- o Program Scope - What sources should be considered and when?
- o Program Startup - How can EPA effectively encourage early development and approval of state programs?
- o Operational Flexibility - What is the best way to ensure that the requirements to issue operating permits do not unduly interfere with the day-to-day operations of a source?
- o SIP/Permit Program - How can EPA best ensure that permits will not erode SIP demonstrations and that SIPs will not gridlock the permit process?
- o EPA Oversight - What is the most effective mechanism for EPA to provide adequate oversight of permit programs managed by state agencies?

6.6 Title VI - Stratospheric Ozone Protection

In Title VI, the Clean Air Act Amendments of 1990 essentially codify and expand upon the Revised Montreal Protocol that was negotiated by the United States to address the depletion of the stratospheric ozone layer. Figure B-18 in Appendix B presents the statutory requirements of this title. The law requires a complete phase-out of chlorofluorocarbons (CFCs) and halons with interim reductions. Ozone-depleting

substances will be grouped into two classes. Class I chemicals (CFCs, halons, and carbon tetrachloride, and methyl chloroform) will be phased out by 2000, with the exception of a methyl chloroform phaseout by 2002. Class II chemicals (hydrochlorofluorocarbons (HCFCs)) will be phased out by 2030.

Regulations are required to reduce the use and emissions of Class I and Class II substances to the "lowest achievable level" and to maximize the recapture and recycling of these chemicals. The EPA will develop a regulation for the use and disposal of Class I chemicals during the service, repair, or disposal of appliances and industrial process refrigeration. This rule is scheduled to be promulgated by January 1, 1992 and to become effective on July 1, 1992. A subsequent rule promulgated by November 15, 1994 will establish standards and requirements regarding all other uses and disposal of Class I and II chemicals. In addition, the Clean Air Act Amendments of 1990 require EPA to establish standards by November 15, 1991 for the recapture and recycling of refrigerant during the service of motor vehicle air conditioners (MACs). By November 15, 1992, the Agency will promulgate rules with respect to safe alternatives for Class I and II chemicals. At this time, EPA will also publish a list of the substitutes prohibited for specific uses and the safe alternatives identified for specific uses. Of key importance in this program is the need to evaluate each alternative based on its overall impact on the environment. The EPA will attempt to select alternatives that will maximize benefits, minimize costs, avoid double chemical shifts, ensure safety, and enhance energy efficiency.

Critical issues that must be assessed include:

- o How may HCFCs be used to lower chlorine levels?
- o How may the energy efficiency of substitutes be improved?
- o How can disruptions to key user sectors be minimized?
- o How can the global warming potential of substitutes be minimized?

In addition, EPA will develop labeling regulations for products made with or containing Class I and Class II chemicals. The Agency is also required to promulgate a ban on nonessential products containing Class I chemicals by November 15, 1991.

Title VI also requires EPA to prepare several reports on methane emissions, technologies available to control these emissions, and the cost-effectiveness of various control options.

6.7 Title VII - Enforcement

The EPA is committed to strong enforcement, and the Clean Air Act Amendments of 1990 expand and enhance the tools available to the Agency. The new law incorporates enforcement features of other recent environmental statutes, including felony penalties for knowing violations of the Act and misdemeanor penalties for negligent releases of hazardous pollutants. Figure B-19 in Appendix B presents a timeline illustrating the statutory deadlines included in Title VII. Figures B-20, B-21, and B-22 in Appendix B illustrate additional enforcement activities required by the statute.

Under Title VII, EPA will have more administrative enforcement procedures available to enable the Agency to respond more quickly to violations. The EPA will be able to issue administrative enforcement penalties orders of up to \$200,000, and to issue administrative orders with compliance schedules of up to 12 months. Additionally, EPA has the authority to establish, through regulation, a field citation program for minor violations. These field citations for minor violations may be issued on site during an inspection, for up to \$5,000 per day of violation. Development of the field citation program will involve identifying violation types suited for field enforcement and establishing the appropriate penalty levels.

The EPA also has expanded authority in the contractor listing program. For example, the authority which excludes Clean Air Act violators from federal government contracts, grants, and loans has been expanded to apply to any facility owned or operated by the violator. This could have broad implications for violating companies, as well as for other Federal agencies which use those companies.

The Clean Air Act Amendments of 1990 have strengthened EPA's authority to obtain reliable compliance data from the regulated industries. Titles V and VII of the statute provide for certifications of compliance from sources, and give explicit authority to EPA to develop regulations which require enhanced monitoring of stationary sources. The EPA will need to define appropriate source categories to target for this enhanced monitoring program, as well as appropriate monitoring methods. These requirements, as implemented in part through the operating permit program, will facilitate compliance

determinations, and give a more accurate picture of the compliance status of the regulated community.

Finally, the Amendments significantly expand a citizen's authority to enforce Clean Air Act requirements. Citizen suits may now include the assessment of civil penalties, and EPA will be provided with sufficient notice to intervene in these suits. A fund will be established from the ensuing penalties which EPA can use for air compliance and enforcement activities. Hence, the Agency will need to establish guidelines on the appropriate use of this fund. Further, the Clean Air Act Amendments of 1990 provide for monetary awards of up to \$10,000 to citizens who provide information leading to a criminal conviction or a civil penalty.

Major issues associated with Title VII include:

- o How should criteria for categorizing violations and setting penalties be defined?
- o What will be the scope of the field citation program?
- o What should the criteria be for enhanced monitoring requirements and over what timeframe will they be implemented?
- o What will be the criteria for utilizing monies gained from citizen suits?

6.8 Title VIII - Miscellaneous

Title VIII of the Clean Air Act Amendments of 1990 includes various miscellaneous provisions. Figure B-23 in Appendix B illustrates the requirements of this title. Two key provisions address visibility and emissions from sources on the Outer Continental Shelf. The visibility provision requires EPA to: (1) conduct research to identify and evaluate those sources and source regions that either impair visibility or provide predominantly clean air for Class I areas; and (2) assess the impacts of the implementation of provisions of the Clean Air Act Amendments of 1990 as to the progress and improvement of visibility in Class I areas. A visibility transport region may be established when the Agency determines that current or projected interstate transport of air pollutants from one or more states contributes significantly to visibility impairment in Class I areas located in the affected states. A Grand Canyon Visibility Transport Commission must be established by November 15, 1991.

The Outer Continental Shelf provisions require EPA to promulgate regulations to control air pollution for sources located offshore of the states along the Pacific, Atlantic, and Arctic coasts as well as sources offshore of Florida on the United States Gulf Coast.

Title VIII also includes provisions related to several studies and reports. Examples include a study of renewable energy and energy conservation incentives, a study and test program on the development of a hydrogen fuel cell electric vehicle, and an analysis of costs and benefits. For many of these efforts, EPA will consult with other federal agencies. This title also establishes a program to monitor and improve air quality in regions along the U.S./Mexico border.

6.9 Title IX - Clean Air Research

Title IX of the Clean Air Act Amendments of 1990 addresses air pollution research areas including monitoring and modelling, health effects, ecological effects, accidental releases, pollution prevention and emissions control, acid rain, and alternative motor vehicle fuels. Figure B-24 in Appendix B presents the statutory requirements of Title IX. The provisions require ecosystem studies on the effects of air pollutants on water quality, forests, biological diversity and other terrestrial and aquatic systems exposed to air pollutants; call for the continuation of National Acid Precipitation Assessment Program (NAPAP); mandate the development of technologies and strategies for air pollution prevention from stationary and area sources; and call for several major studies. The EPA must improve methods and techniques for measuring individual air pollutants and complex mixtures, and conduct research on long- and short-term health effects, including the requirement for a new interagency task force to coordinate these research programs. Finally, the Agency must develop improved monitoring and modeling methods to increase the understanding of tropospheric ozone formation and control.

To implement the research provisions, the EPA plans to conduct research in emissions inventories, atmospheric modeling, source/ambient monitoring, control technologies, health, and ecological monitoring. Both ecological and ambient monitoring will be done jointly with other agencies who also need these data to meet their mission. Other proposed work includes developing improved risk assessment methods, maintaining existing networks or establishing new ones for aquatic and terrestrial effects monitoring, and continuing work on deposition chemistry as required for the NAPAP confirmation. Again, these efforts in particular will be supported, in part, by other agencies.

6.10 Other Titles

Title X addresses disadvantaged business concerns, and Title XI contains provisions to provide additional unemployment benefits to workers laid off because of compliance with the Clean Air Act through the Job Training Partnership Act. Figure B-25 in Appendix B presents the requirements of Title XI.

APPENDIX A

ADDITIONAL INFORMATION SOURCES FOR THE CLEAN AIR ACT AMENDMENTS OF 1990

To obtain a copy of any of the references mentioned below, please circle the item number and complete the following information:

NAME: _____

ORGANIZATION: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

General References Available

1. The Clean Air Act Amendments of 1990: Summary Materials. U.S. EPA, November 15, 1990. (20 pages; includes glossary, one page title summaries, legislative chronology)
2. Clean Air Act Amendments of 1990: Detailed Summary of Titles. U.S. EPA, November 30, 1990. (approximately 150 pages; includes a detailed summary for all titles)
3. Report to the Deputy Administrator: Clean Air Act Implementation Task Force (July 1990)

Enforcement

4. Impact of Title VII on EPA Enforcement (10/26/90).
5. Provisions Related to Enforcement (11/8/90).
6. Immediately Effective Provisions of Title VII (12/12/90).

To receive copies of these documents, please send this form to:

U.S. EPA - Office of Air and Radiation
ANR - 443
401 M. Street, S.W.
Washington, D.C. 20460

APPENDIX A

ADDITIONAL INFORMATION SOURCES

APPENDIX B

TITLE-BY-TITLE STATUTORY REQUIREMENTS

Figure B - 1

Title I - Nonattainment

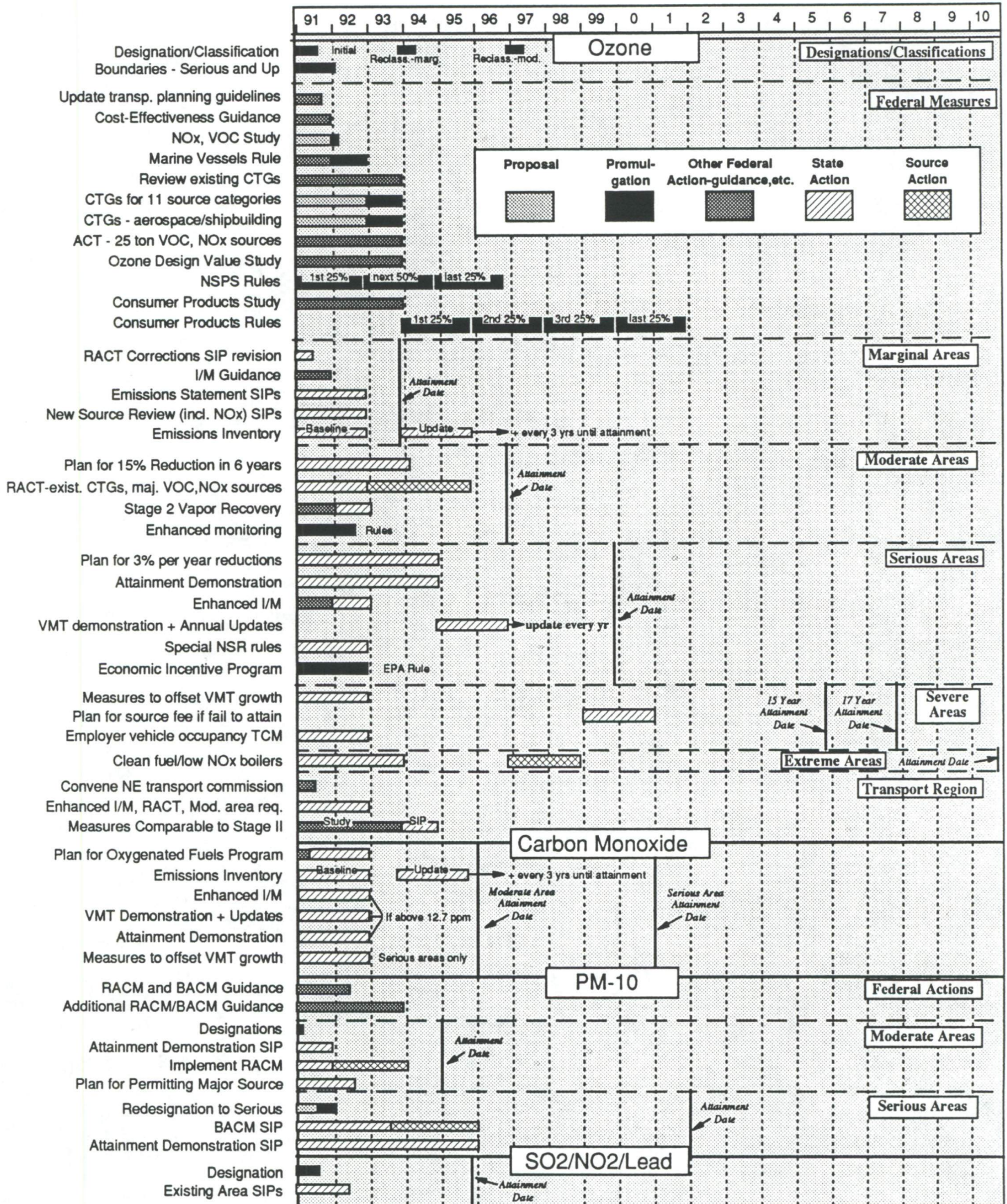


Figure B - 2

TITLE I OZONE/CO DESIGNATION AND CLASSIFICATION

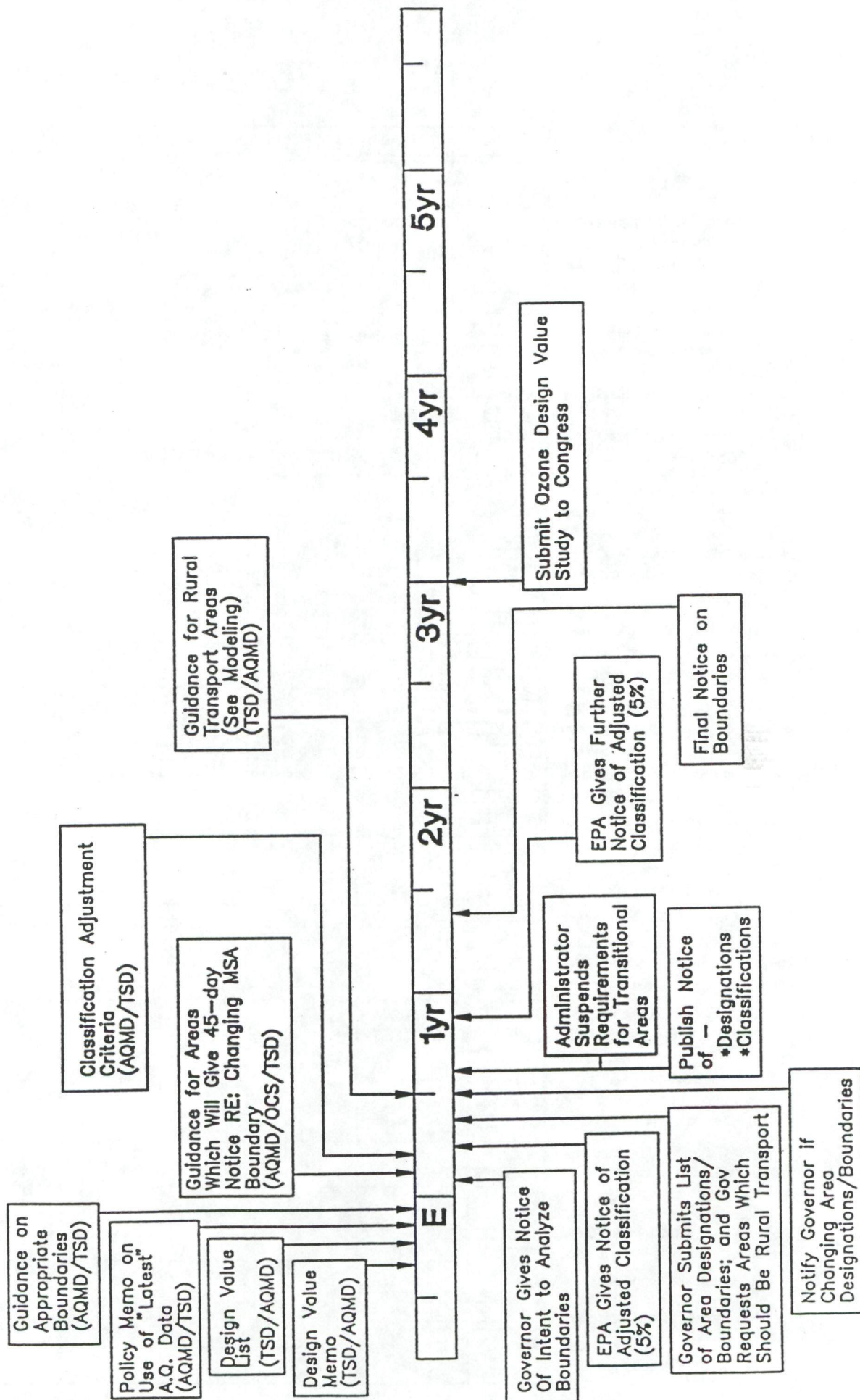


Table B-1

CLASSIFICATION OF AREAS

	CLASS	LEVEL - PPM	ATTAINMENT DATE
Ozone	Marginal	.121 to .138	3 years
	Moderate	.138 to .160	6 years
	Serious	.160 to .180	9 years
	Severe 1	.180 to .190	15 years
	Severe 2	.190 to .280	17 years
	Extreme	.280 and above	20 years
Carbon Monoxide	Moderate	9.1 to 16.4	12/31/95
	Serious	16.5 and up	12/31/00
<i>For ozone and CO: Adjustment Possible Based On 5% Rule; EPA May Grant Two One-Year Extensions of Attainment Date</i>			
PM-10	Moderate	N/A	12/31/94
			6 years for future areas
	Serious	N/A	12/31/01
			10 years for future areas
<i>Possible Extension of Attainment Date Up to Five Years for Serious Areas</i>			

Figure B - 3

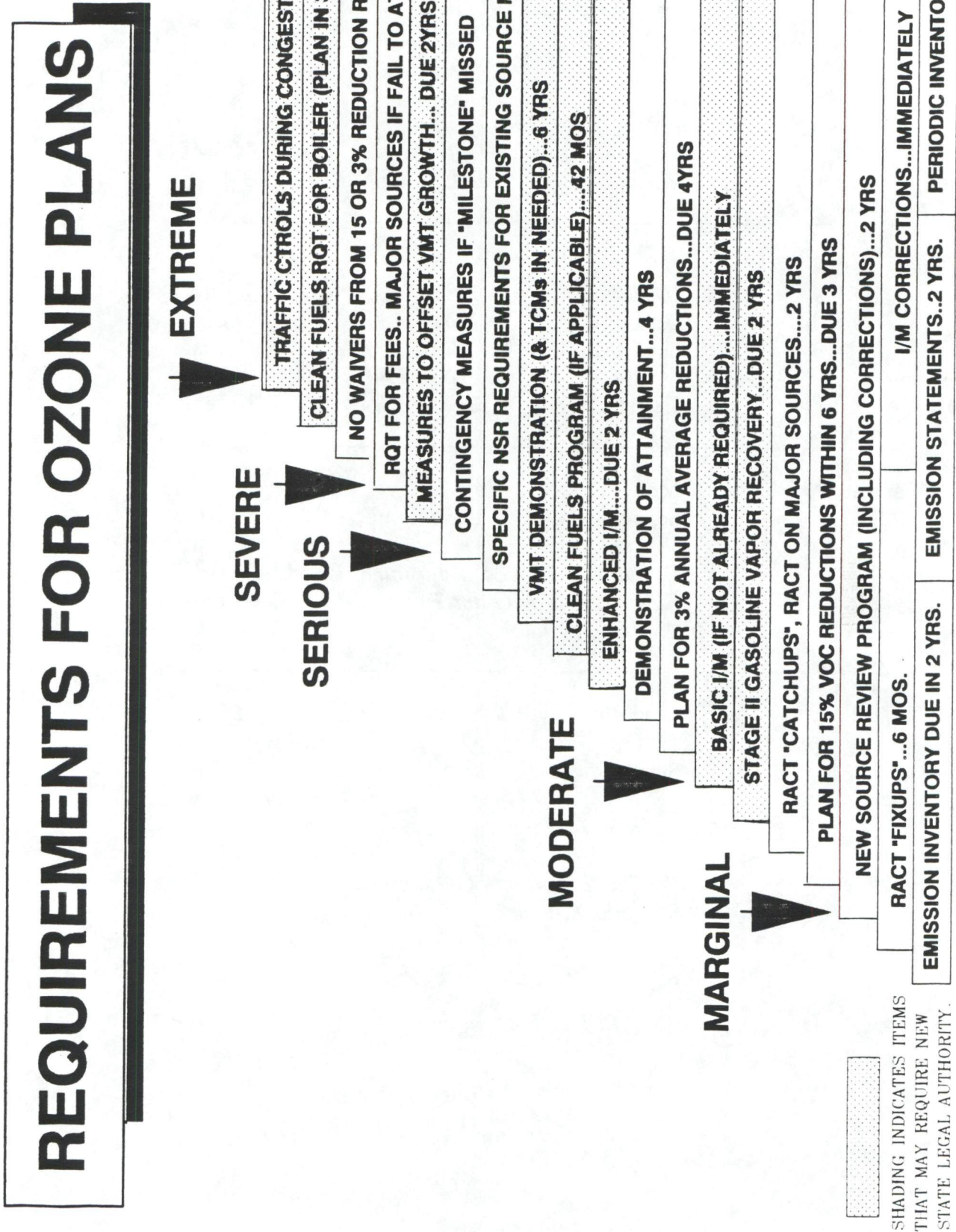
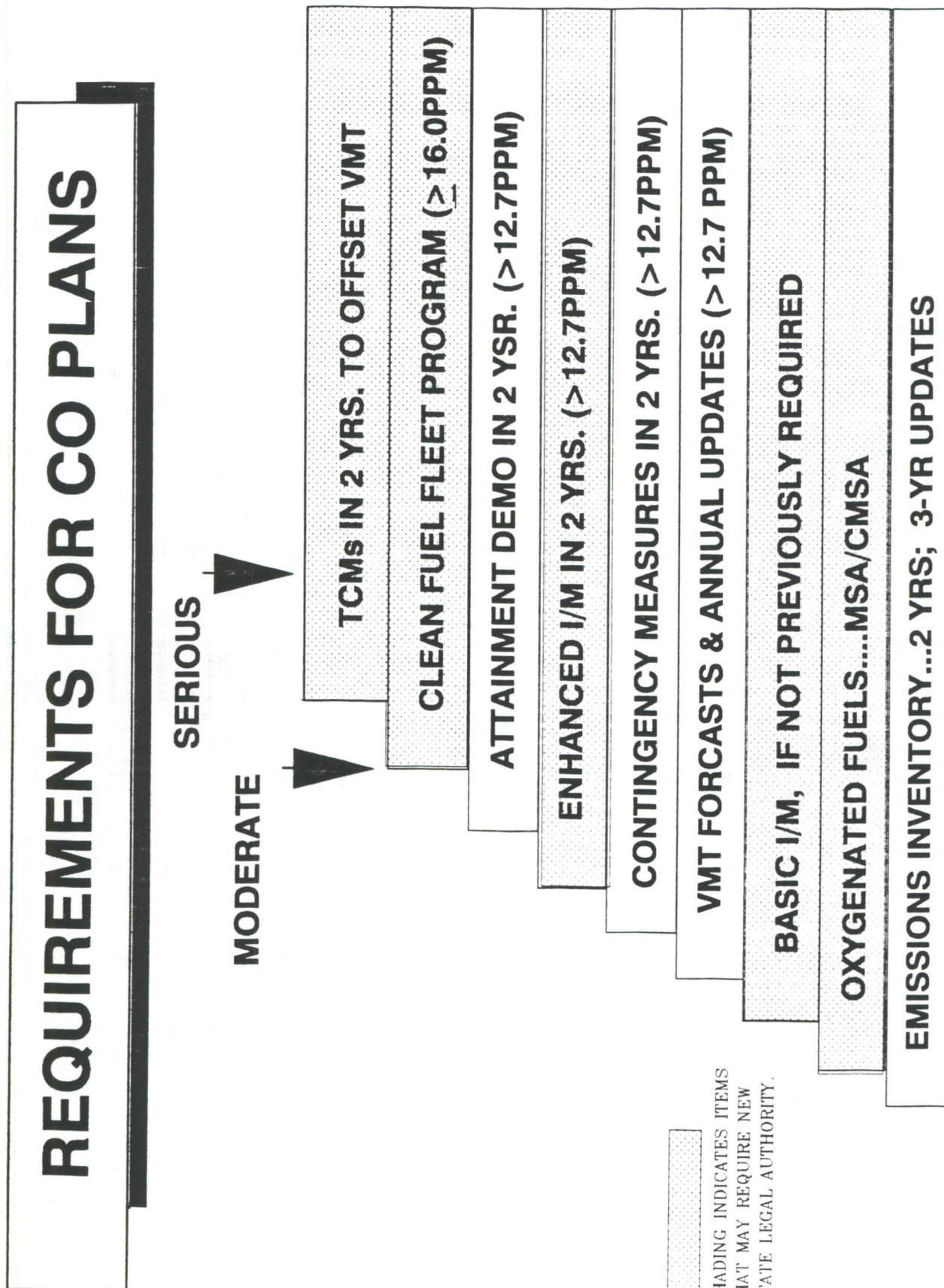


Figure B - 4



B - 6

B - 6

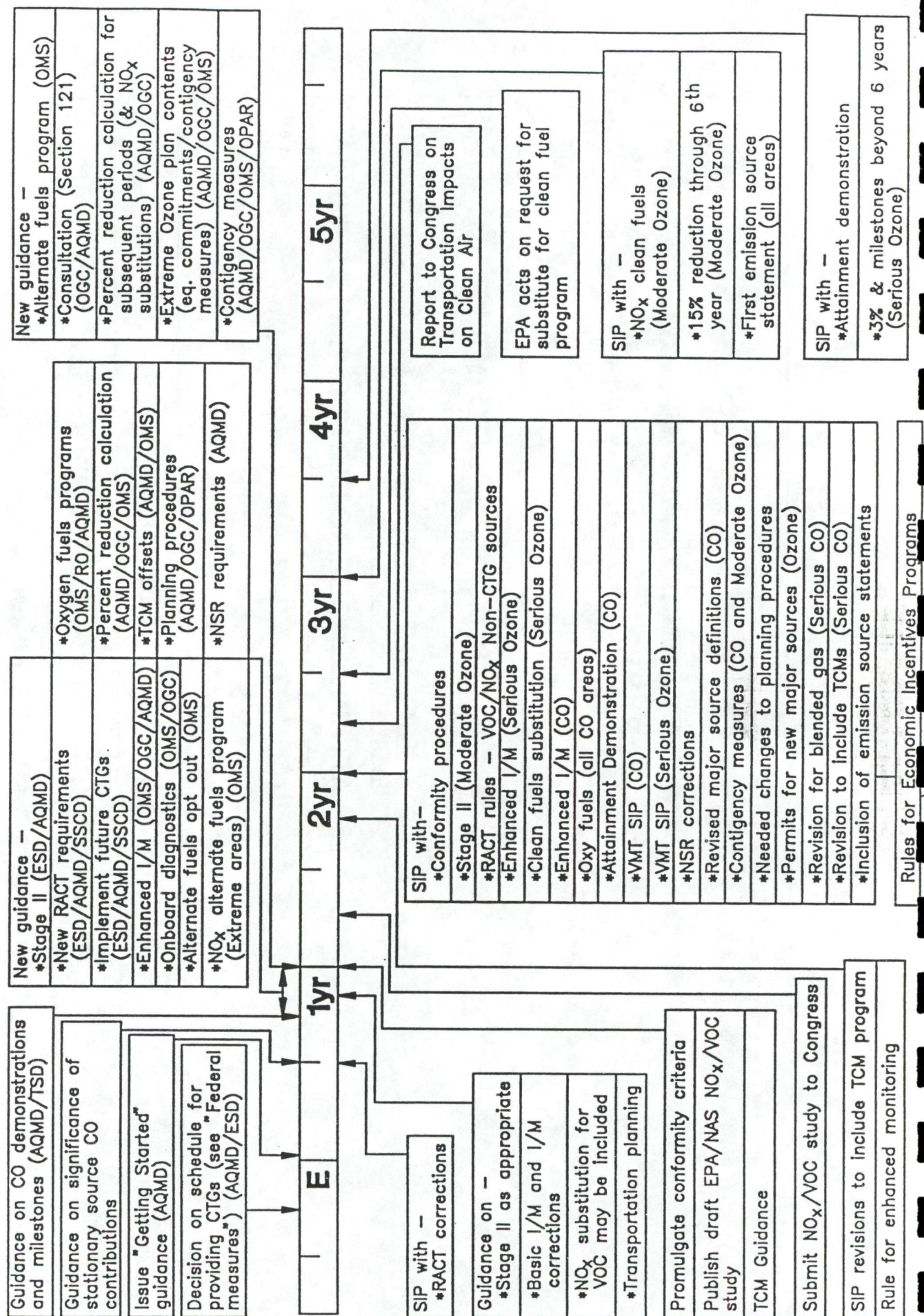


Figure B - 6

Title II - Mobile Sources

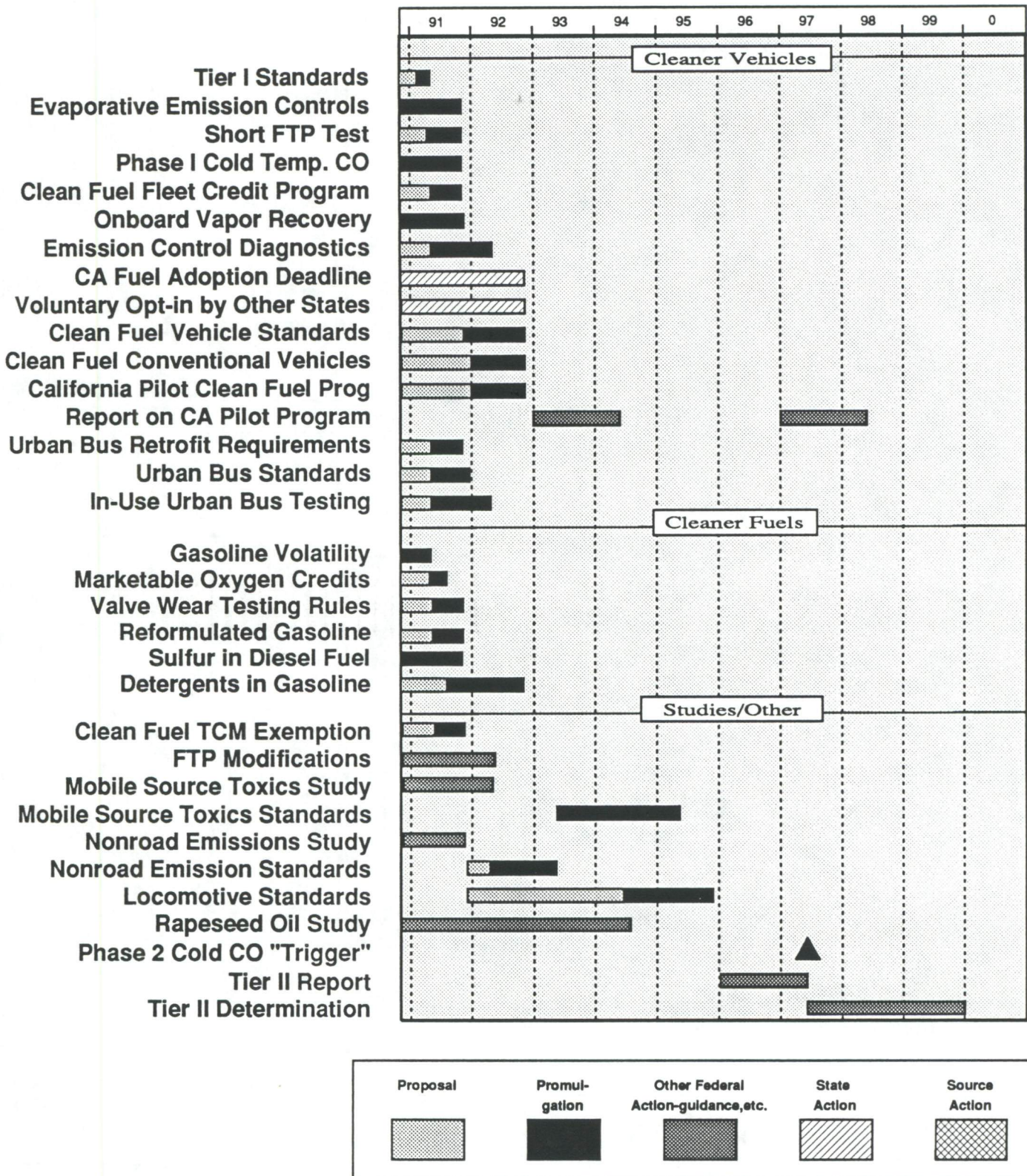


Figure B - 7

Title III Hazardous Air Pollutants

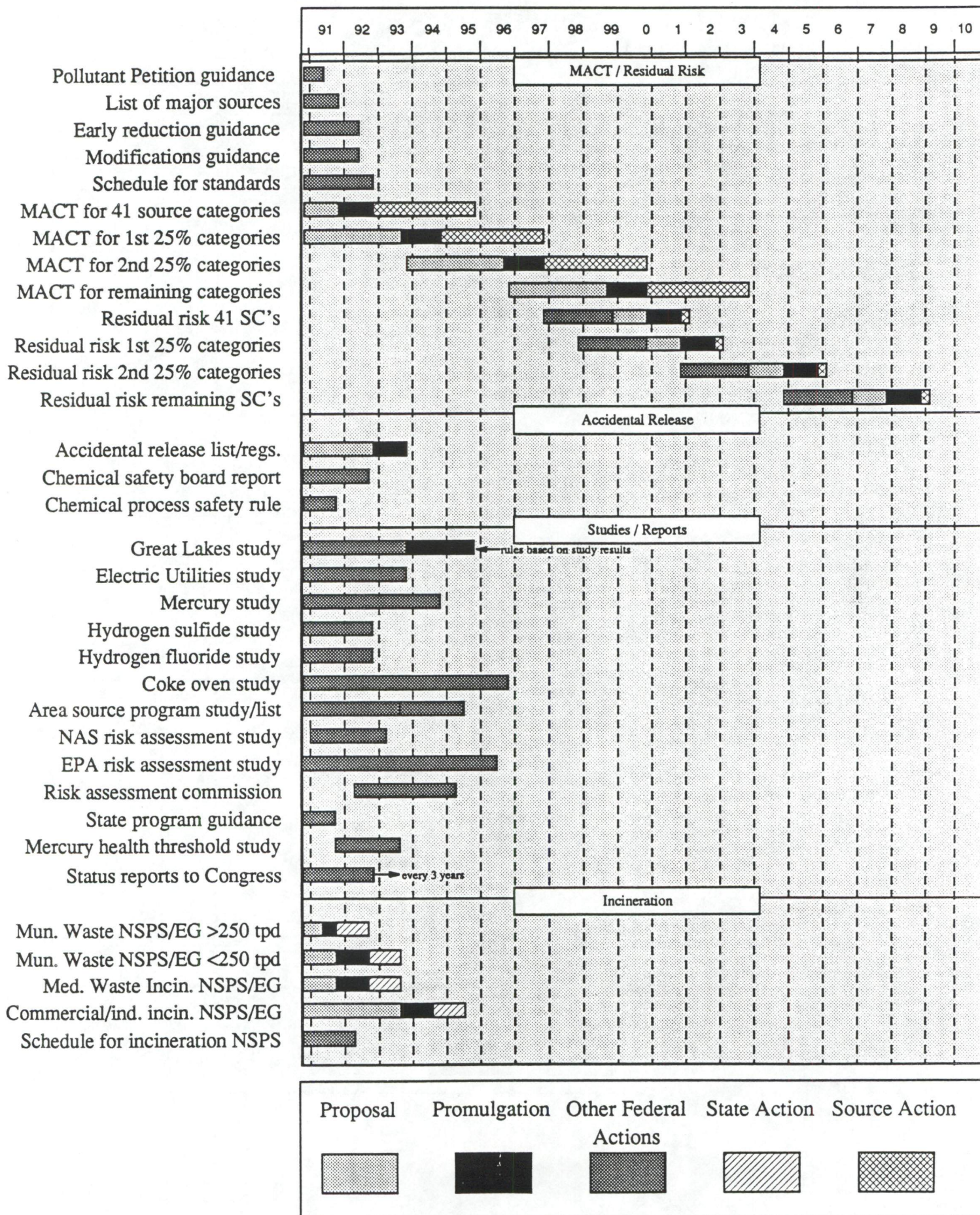


Figure B - 8

TITLE III MACT/GACT (2-YEAR STANDARDS)

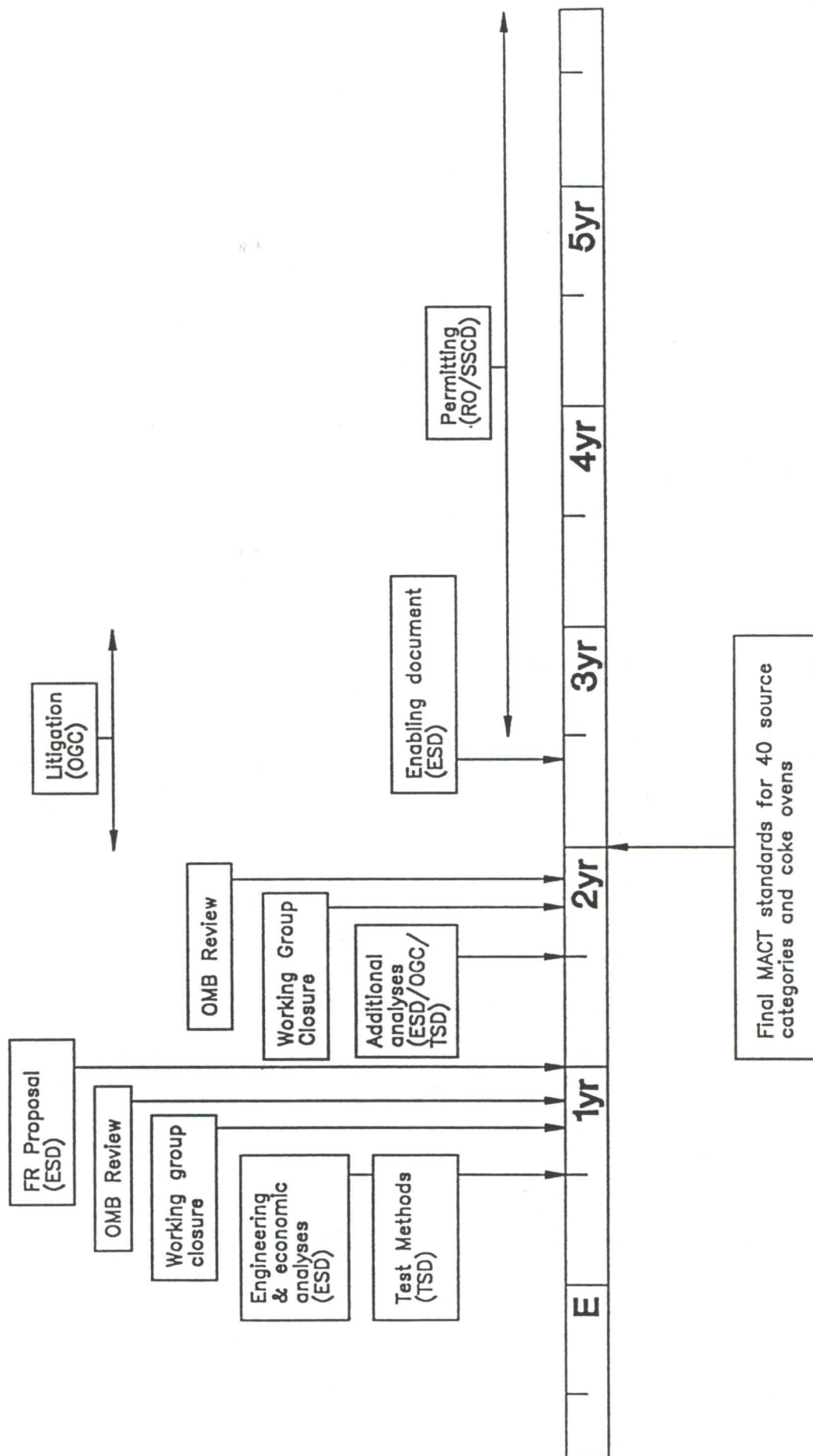
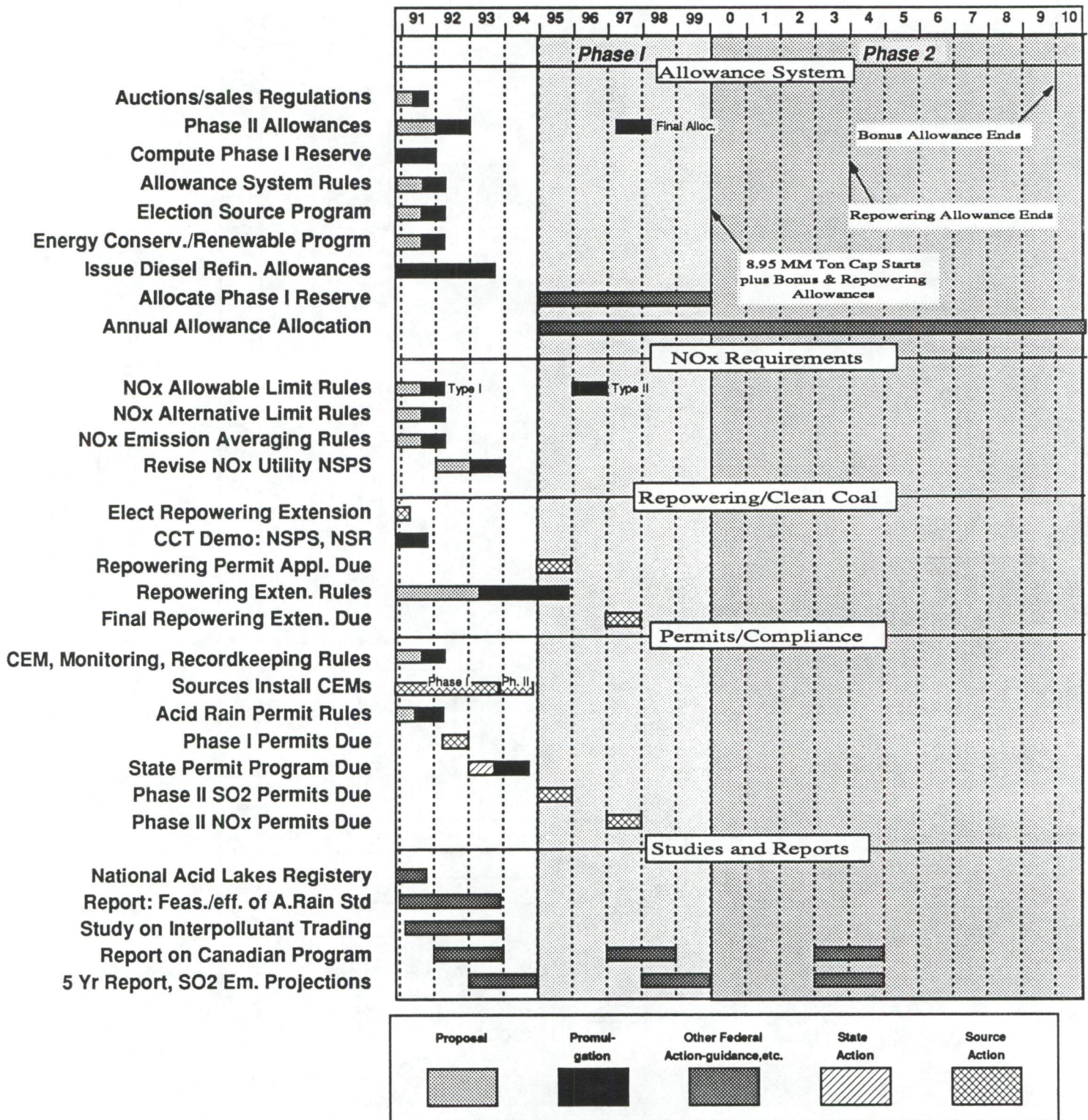


Figure B - 9

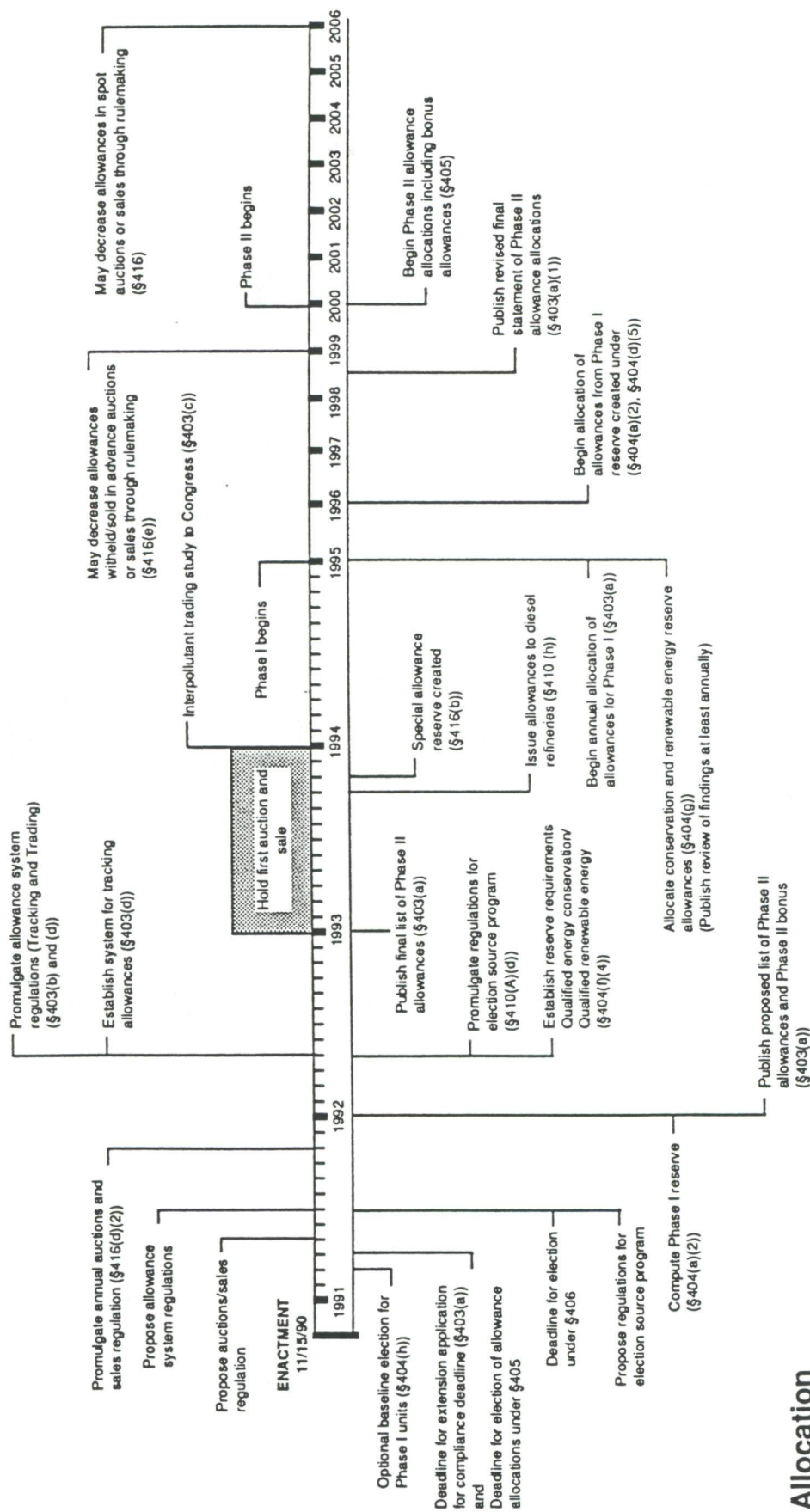
Title IV - Acid Rain



SO2 Allowances Allocation/Trading

Figure B - 10

Trading



Allocation

Figure B - 11

Emissions Monitoring

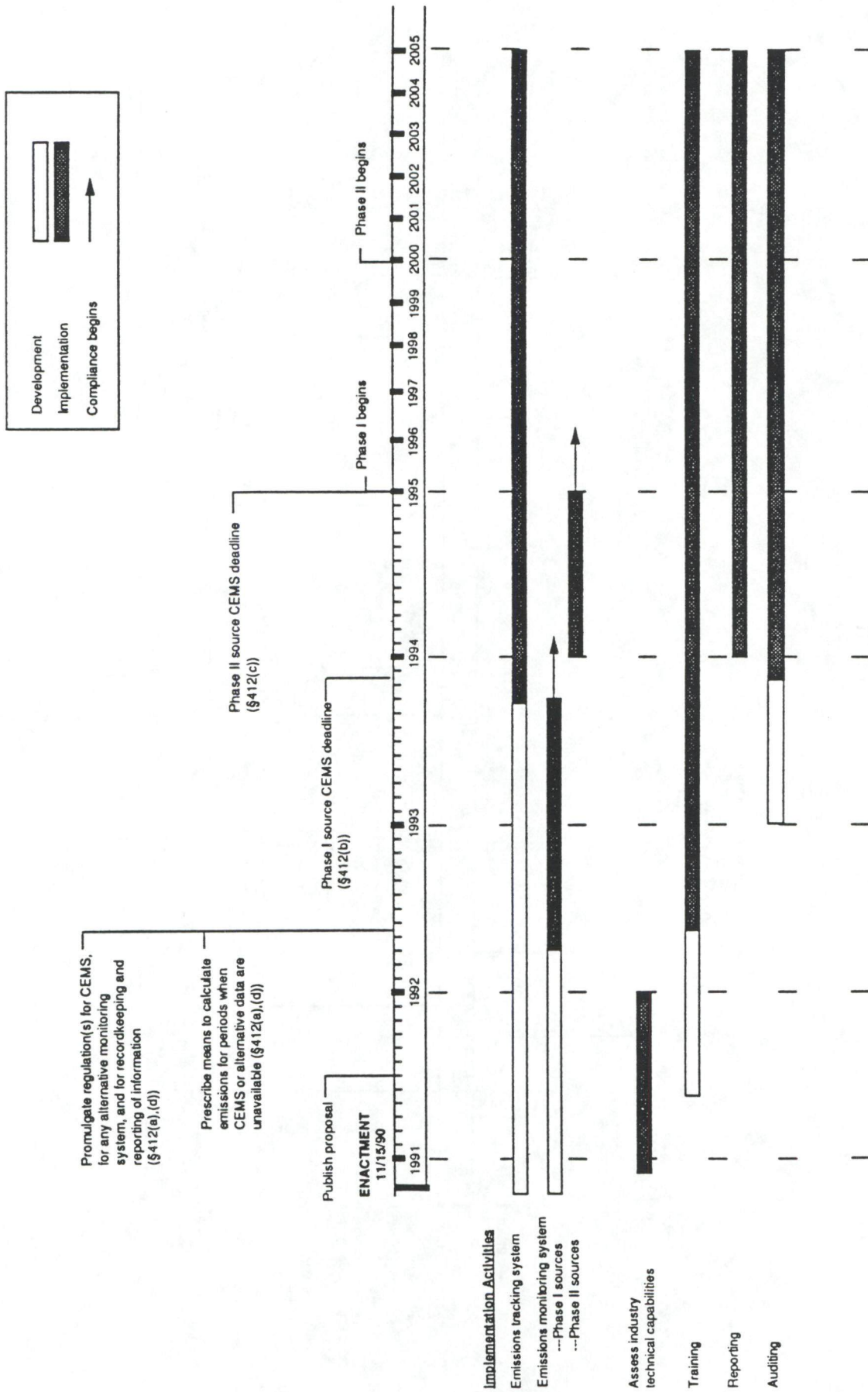


Figure B - 12

NOx Reductions

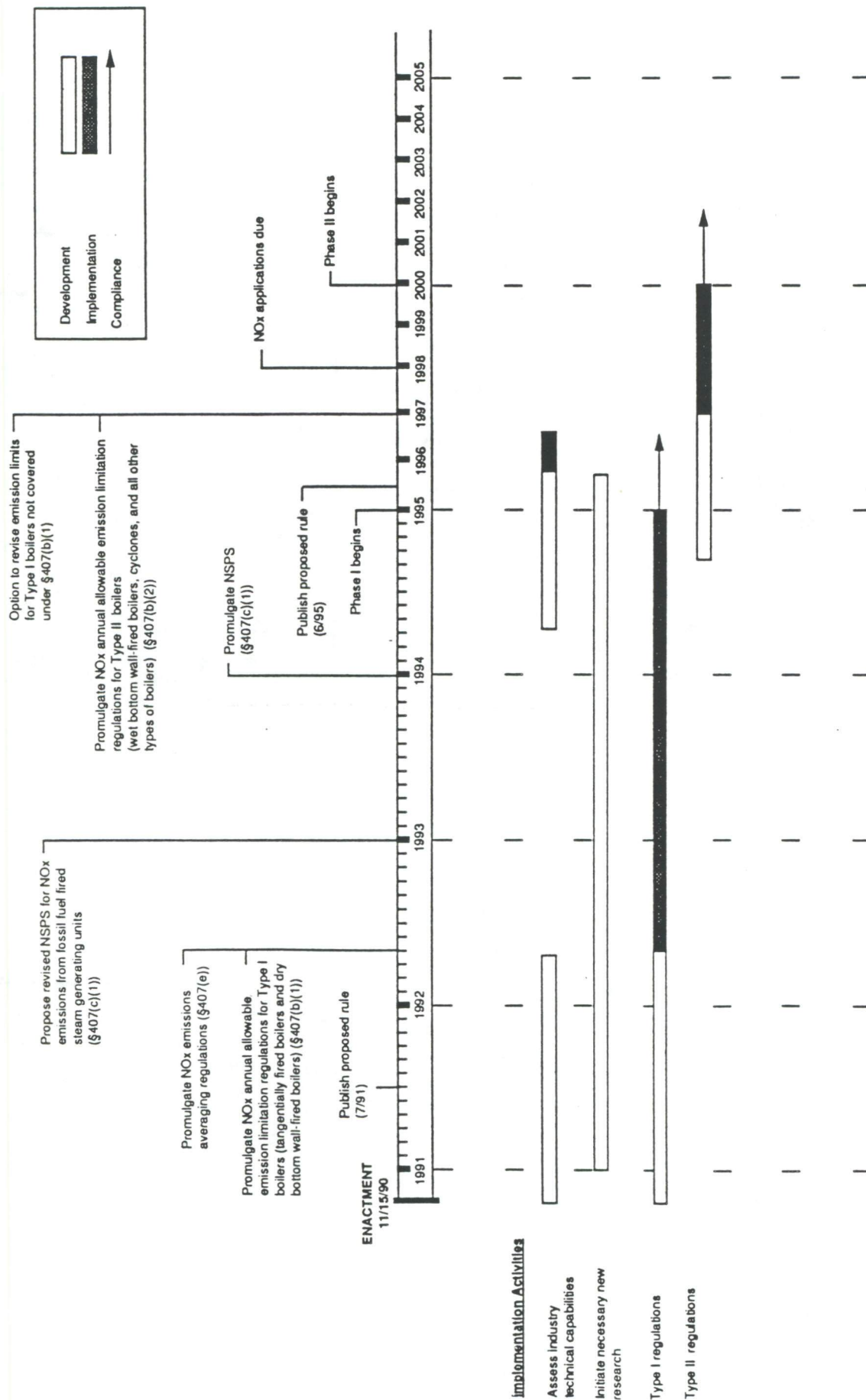


Figure B - 13

Title V - Permits

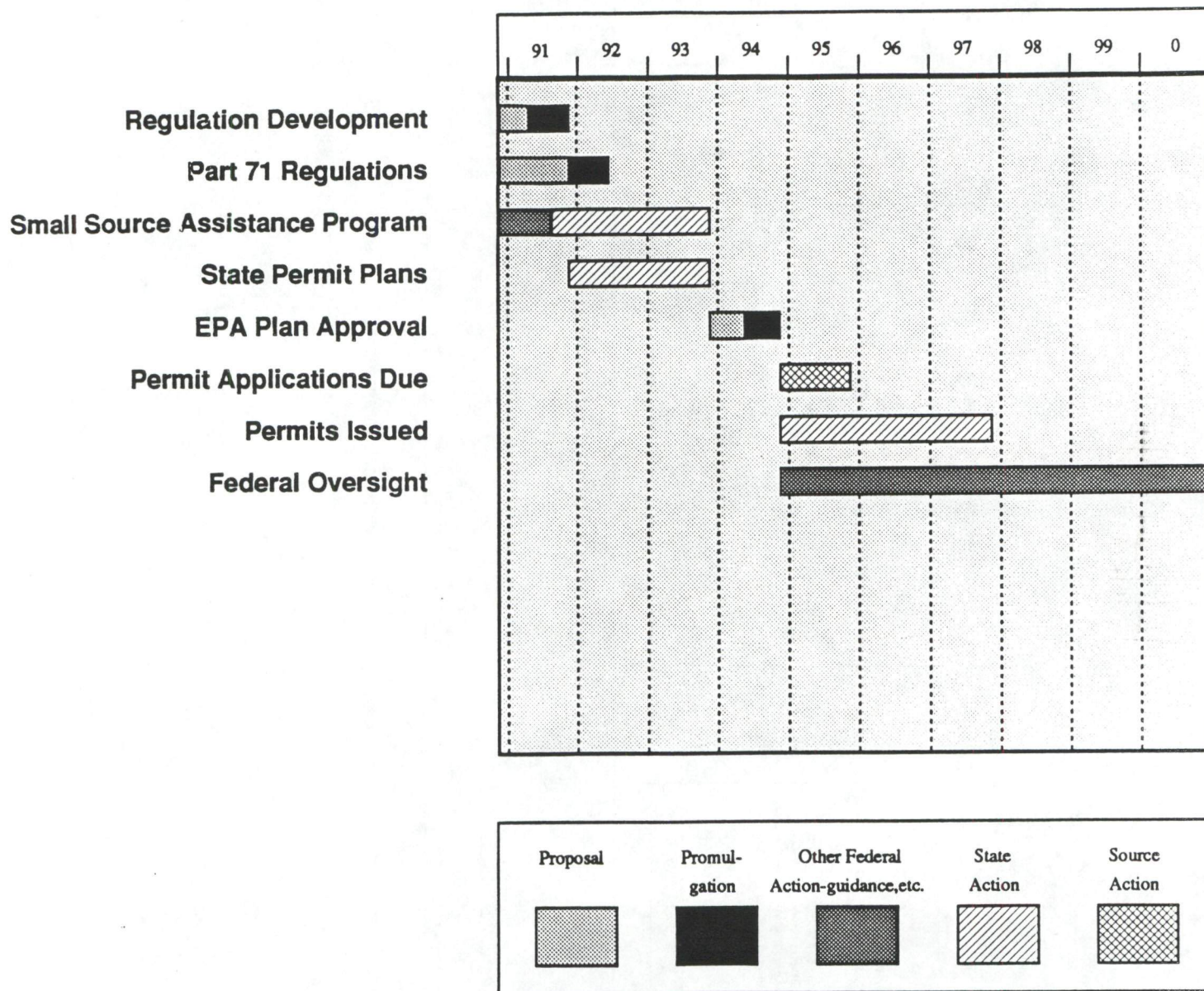


Figure B - 14

TITLE V PERMIT PROGRAM STARTUP

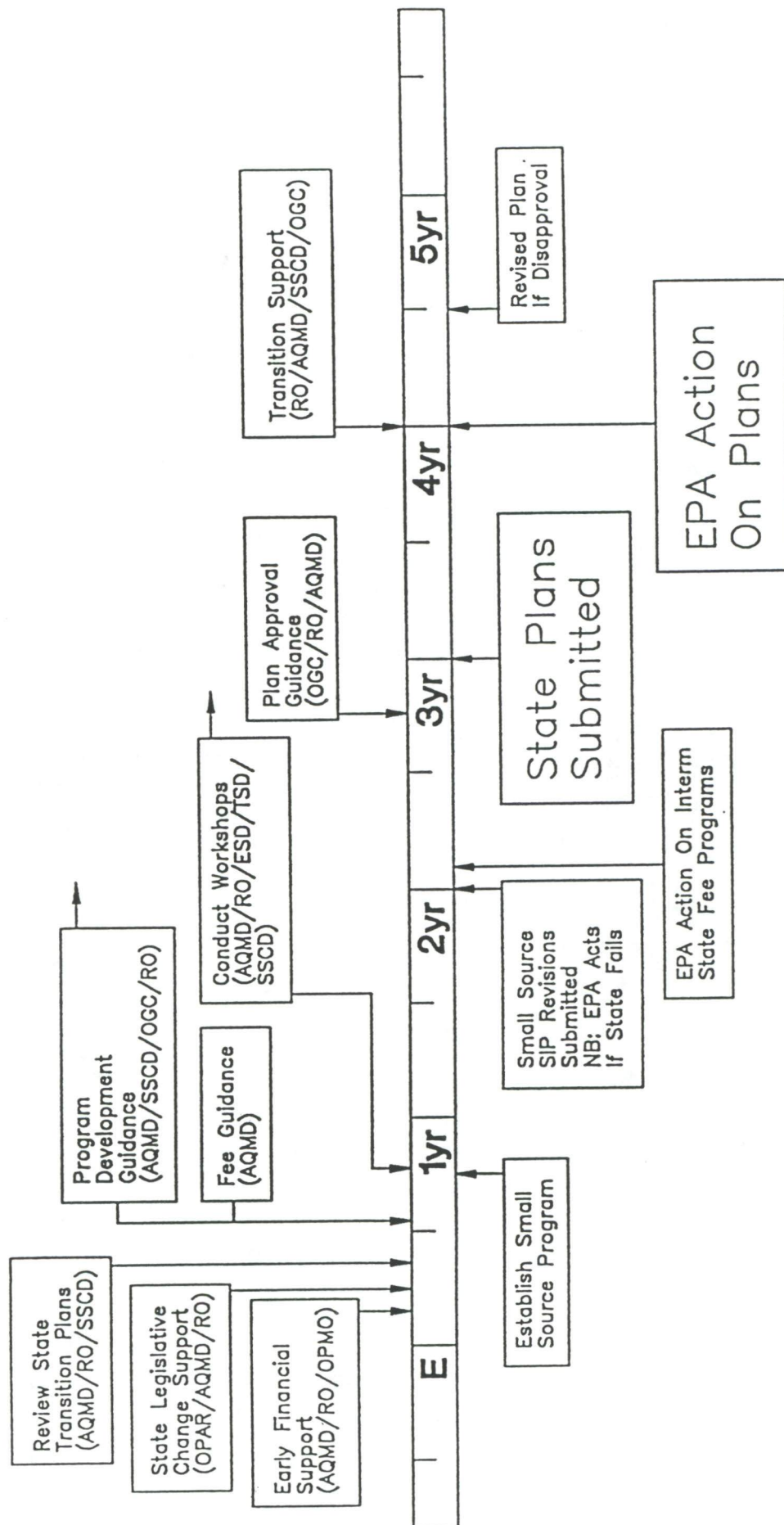


Figure B - 15

TITLE V PERMIT PROGRAM OVERSIGHT

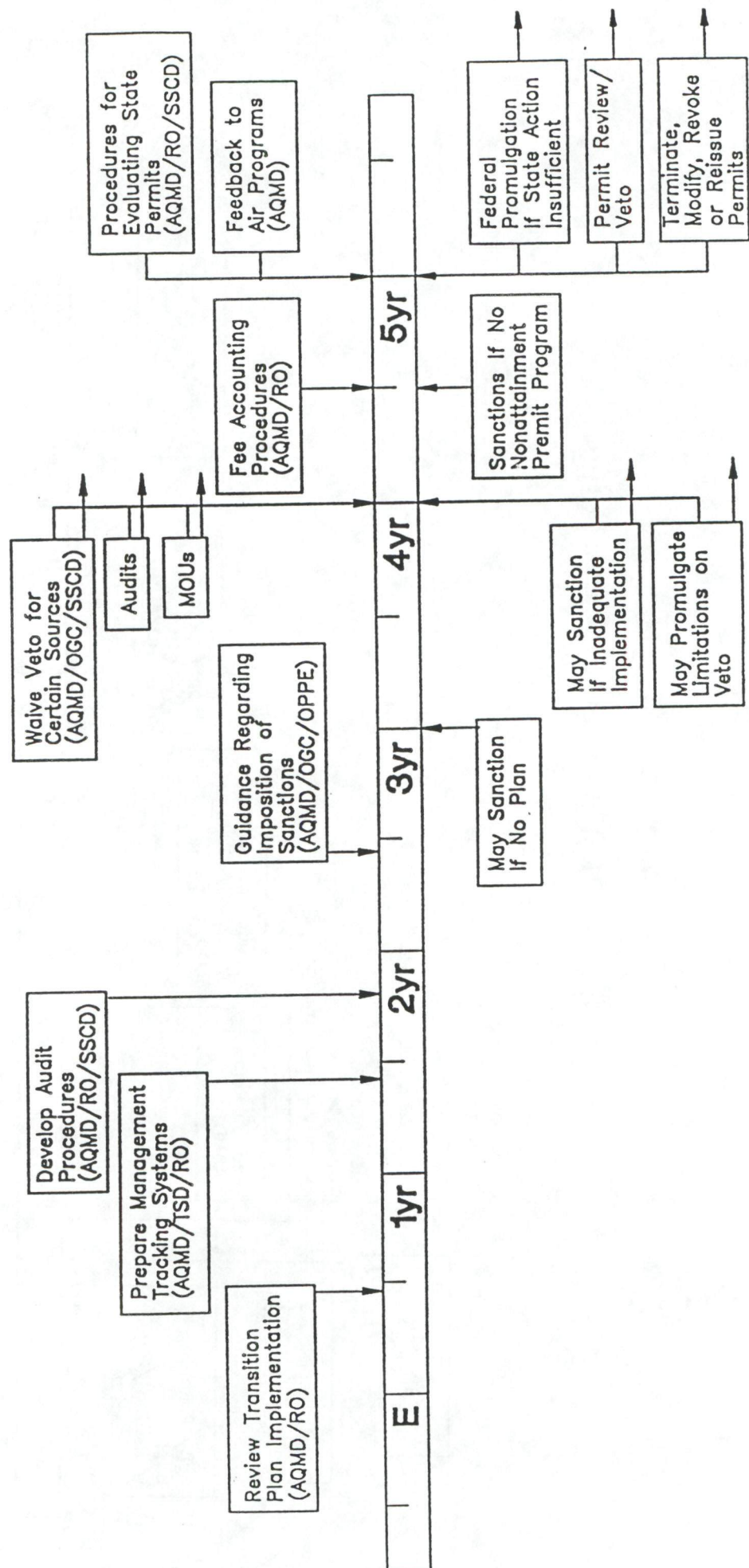


Figure B - 16

TITLE V PERMIT REGULATION DEVELOPMENT

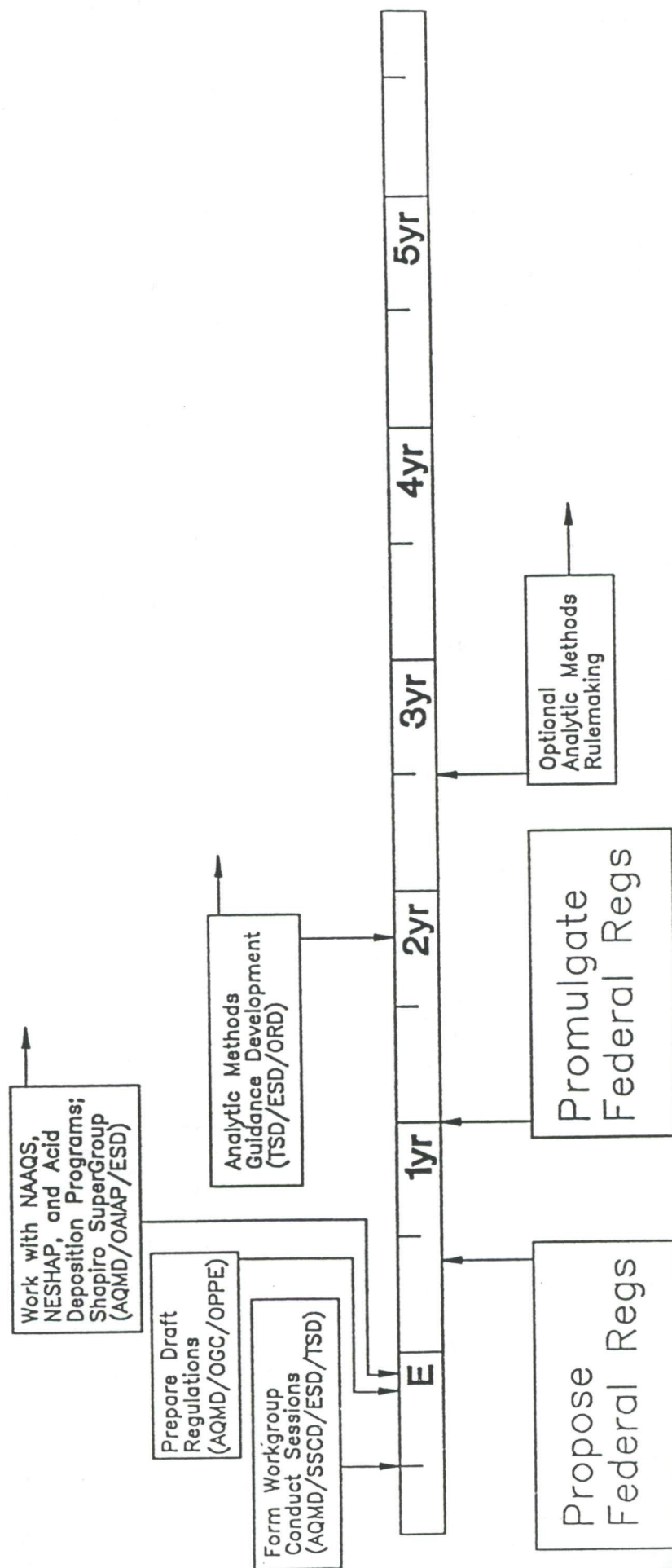


Figure B - 17

TITLE V PERMIT PROGRAM IMPLEMENTATION SUPPORT

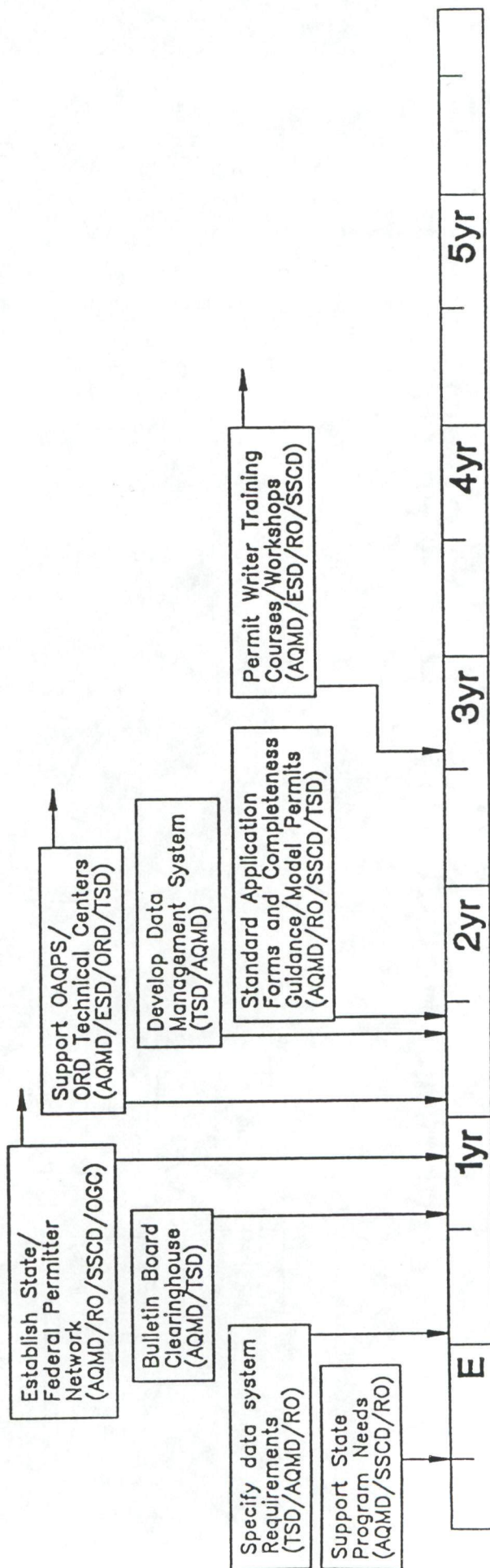


Figure B - 18

Title VI - Stratospheric Ozone Protection

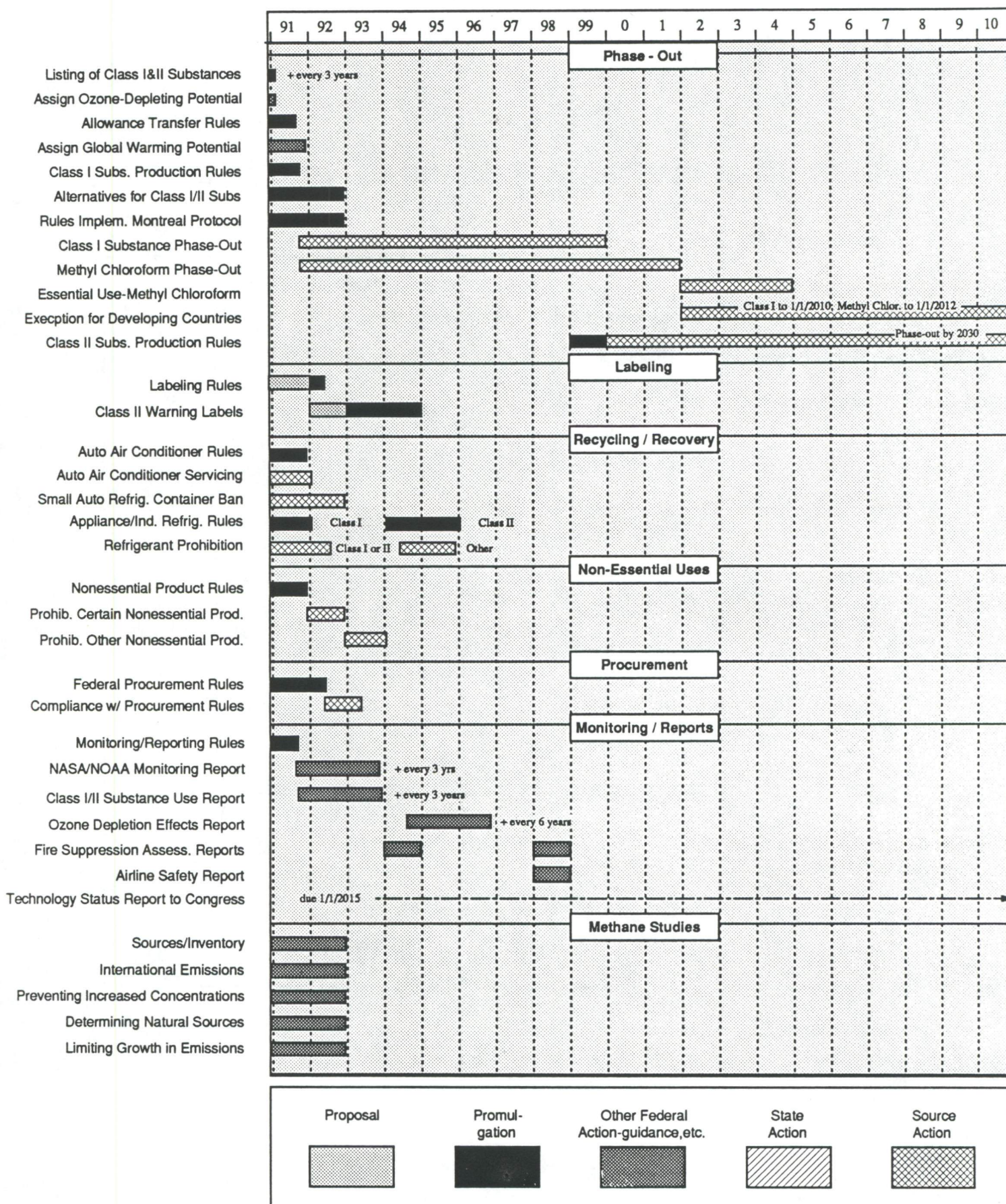


Figure B - 19

Title VII - Provisions Relating to Enforcement

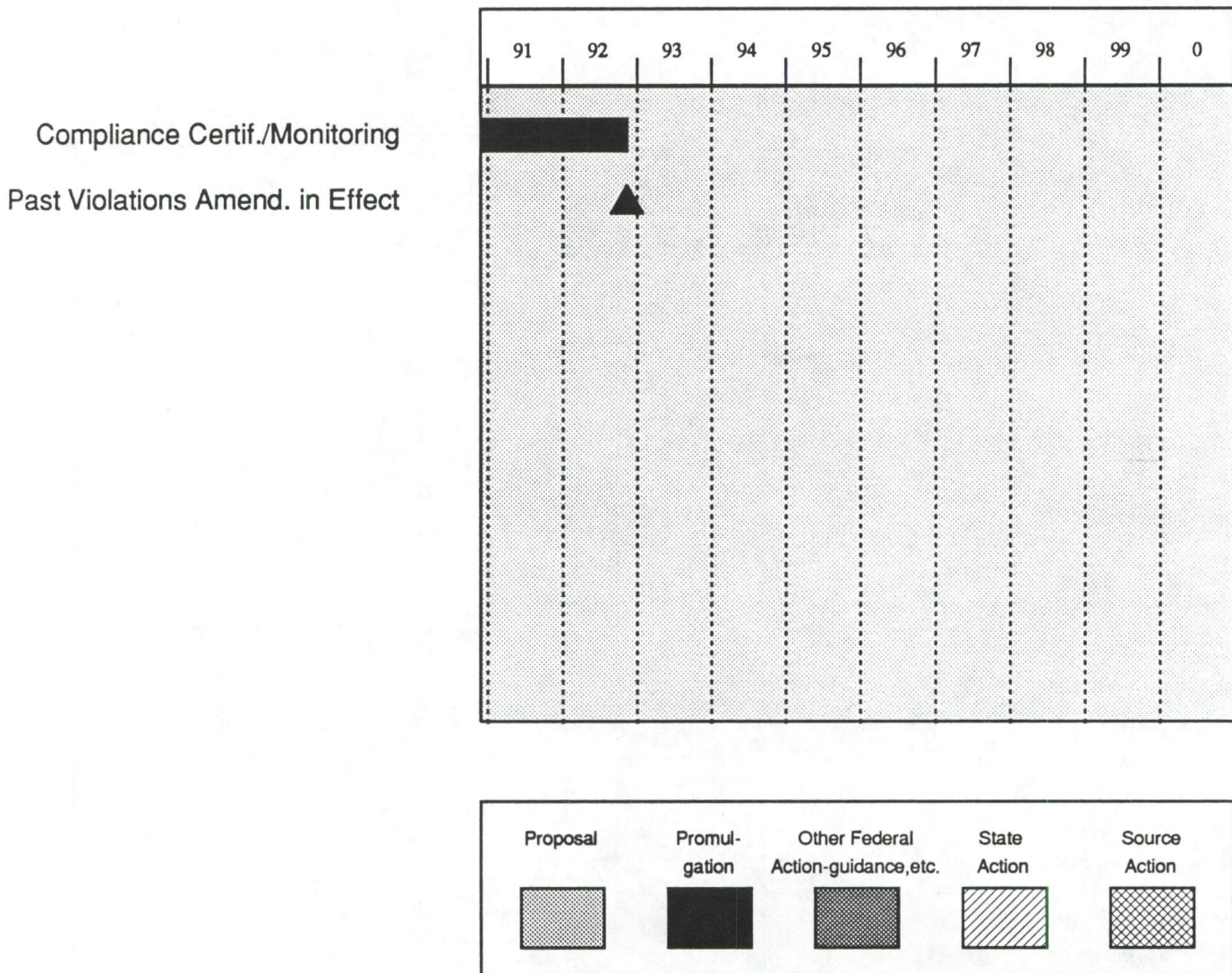
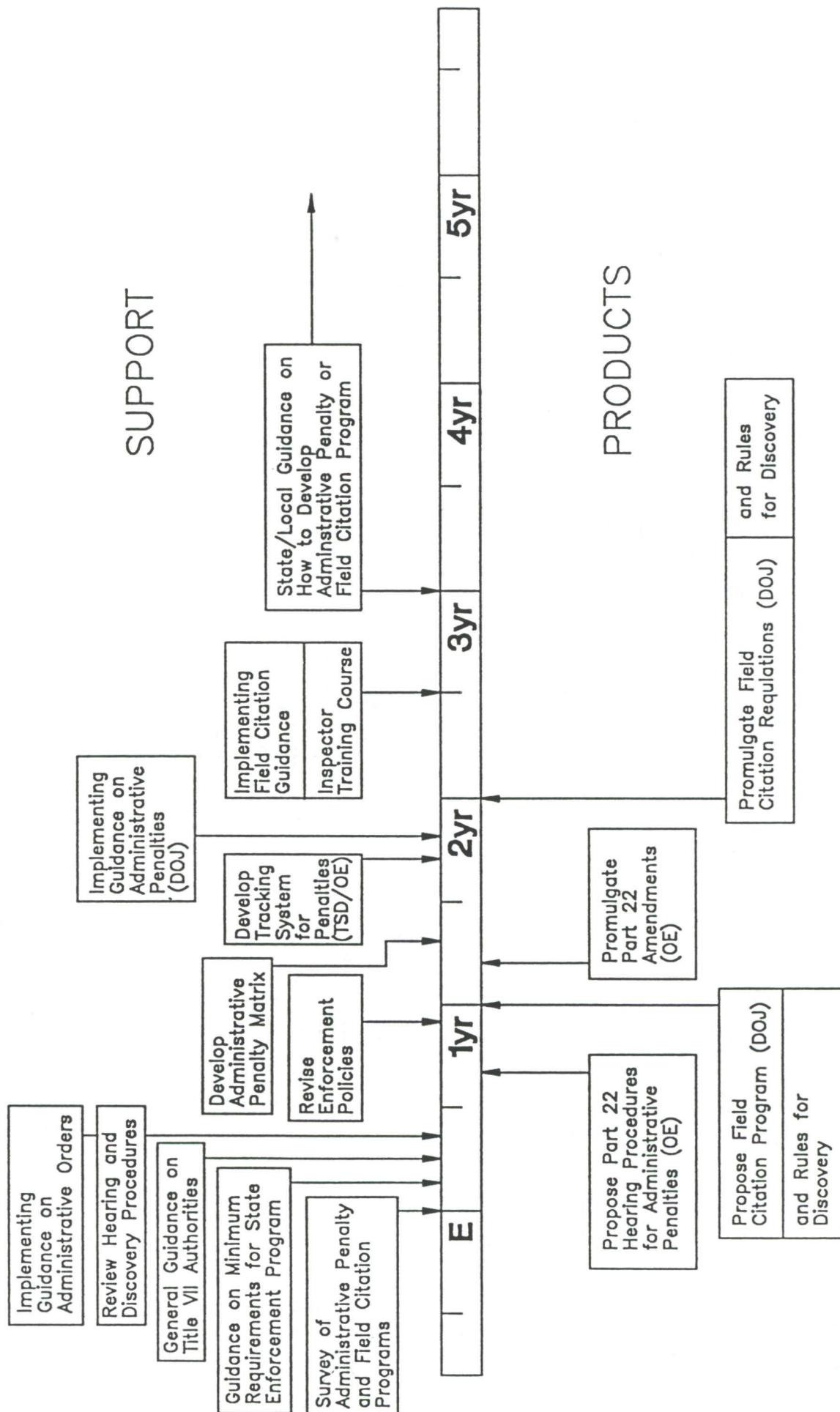


Figure B - 20

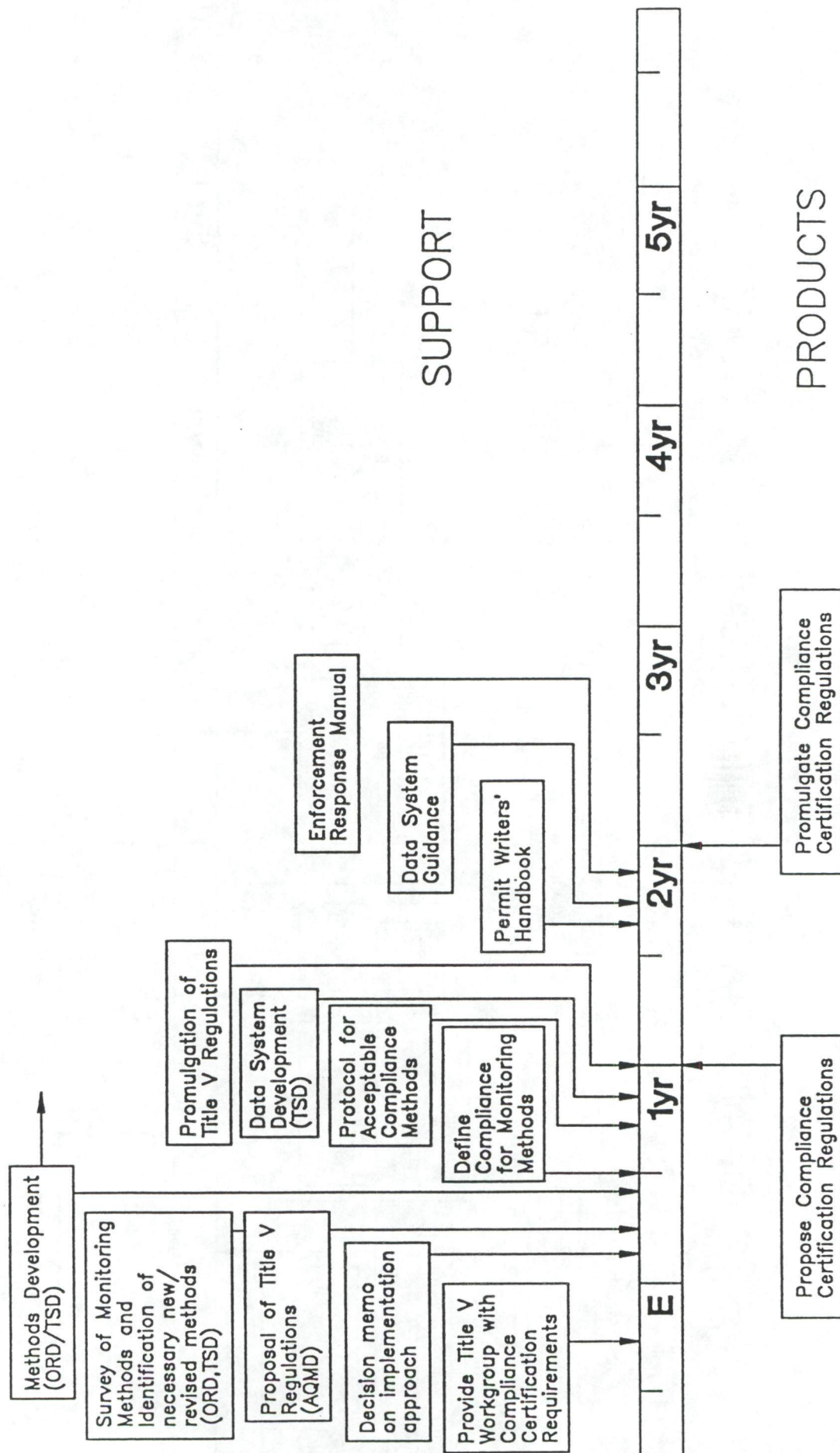
TITLE VII ADMINISTRATIVE ENFORCEMENT PROGRAM



(All products and support require SSCD and AED/OE development)

Figure B - 21

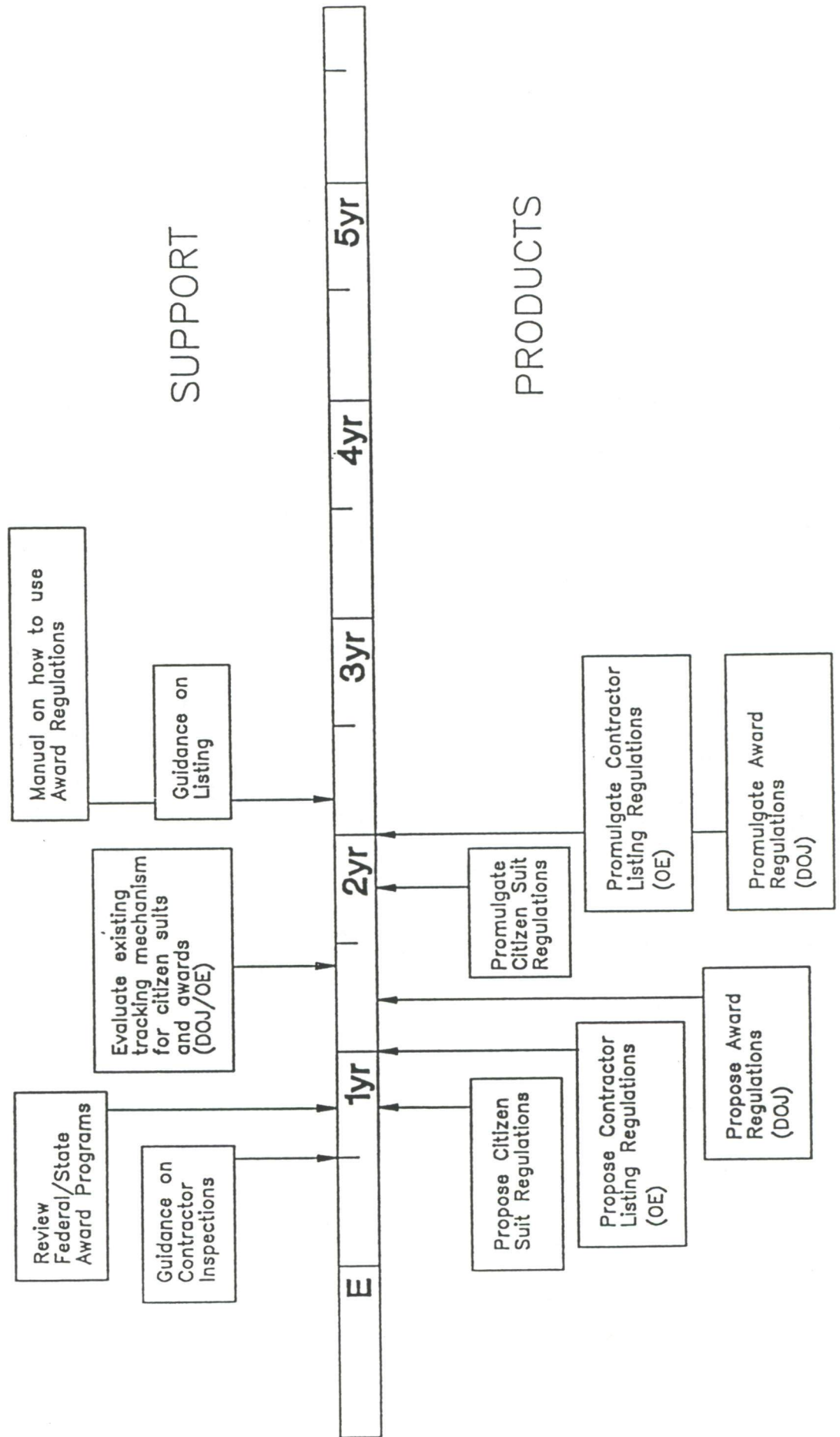
TITLE VII COMPLIANCE CERTIFICATION PROGRAM



(All products and support require SSCD development)

Figure B - 22

TITLE VII OTHER ENFORCEMENT PROGRAMS



(All products and support require SSCD and AED/OE development)

Figure B - 23

Title VIII - Miscellaneous

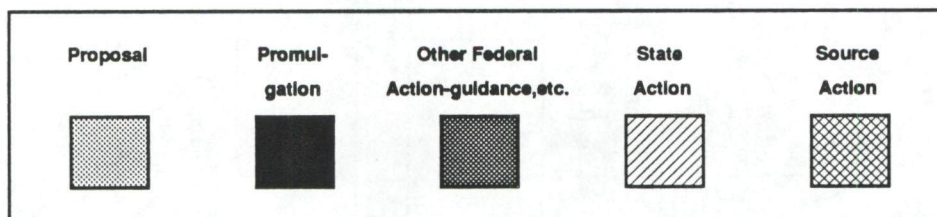
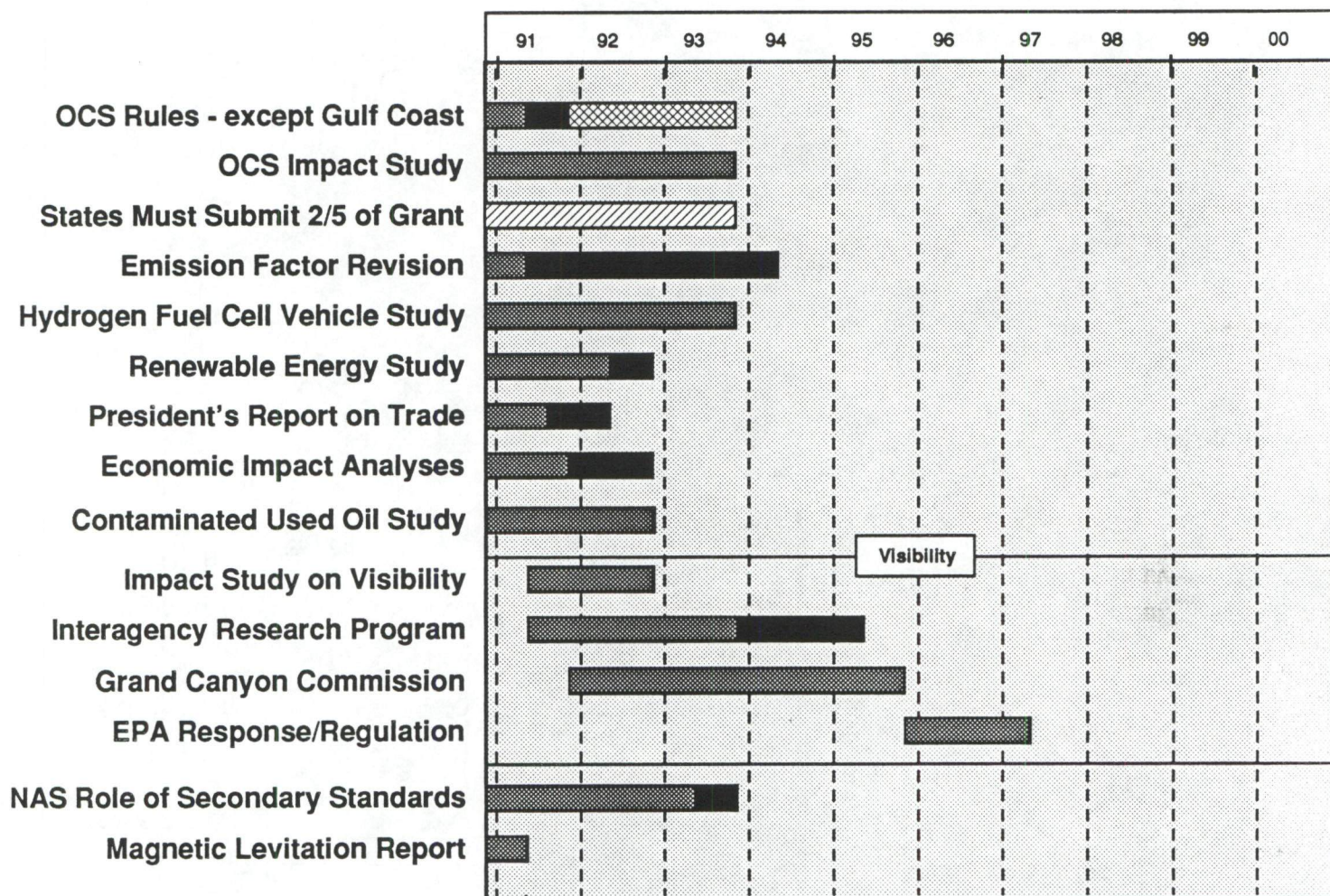


Figure B - 24

Title IX - Clean Air Research

Mon., Modeling, Inventory Research
 Effectiveness of Nat'l Network
 Env. Health Effects Research
 Create Health Effects Task Force
 Rank 189 Chem. for Assessment
 24 Assessments/Yr for 8 Yrs
 Ecosystem Research
 Liquefied Gaseous Fuels Facility
 Control/Prevention Research
 NIEHS Studies
 Interagency Research Plan
 EPA Report on Implementing Plan
 Revised NAPAP Plan
 Biannual NAPAP Report to Congress
 NAPAP Report on Critical Loads
 Clean Alternative Fuels
 Int'l Control Technologies Report
 Adirondacks Effects Assessment
 Western Acid Deposition

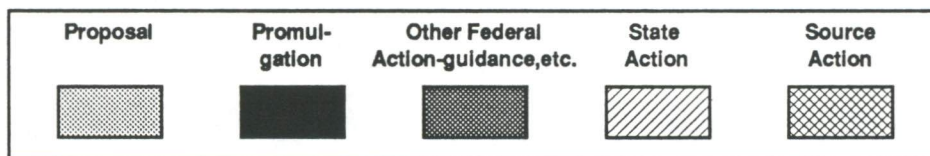
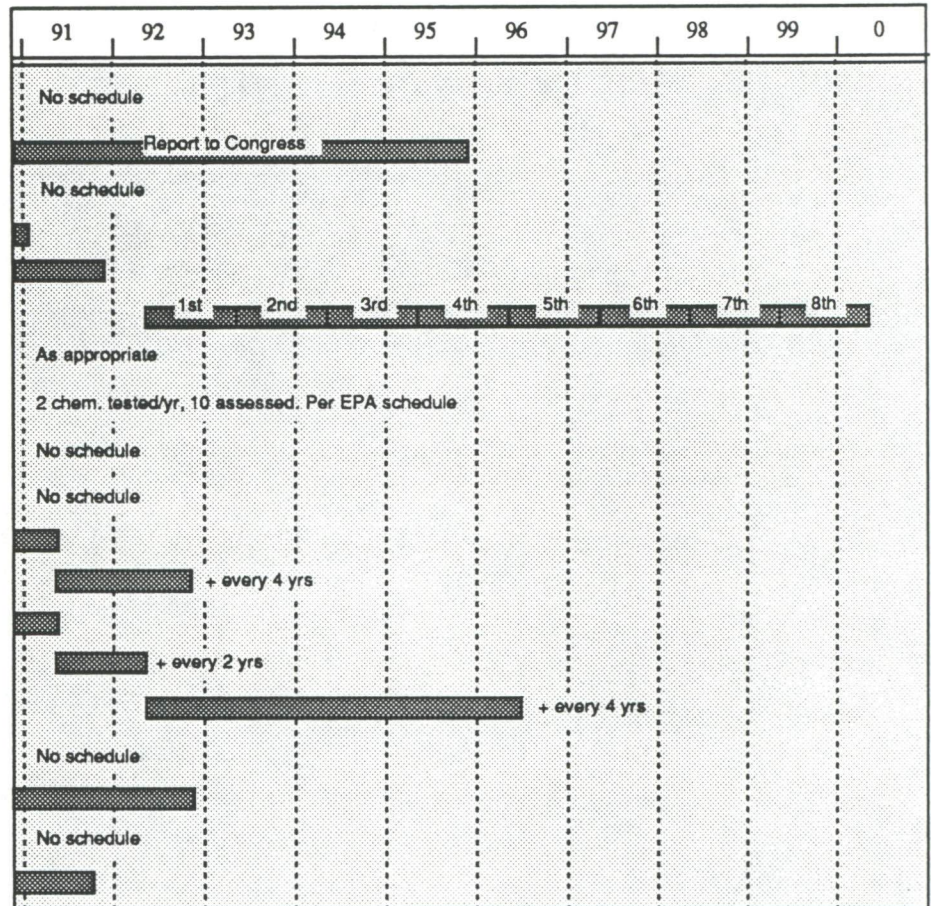
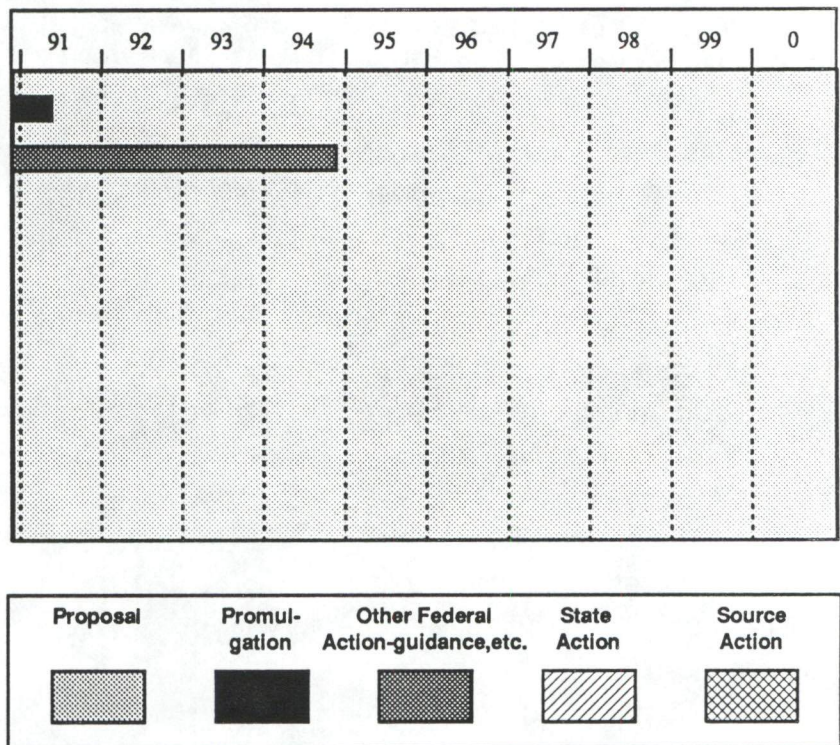


Figure B - 25

Title XI - Clean Air Employment Transition Assistance

DOL Rules to Implement Sec. 326
GAO Report on Employment Effects



APPENDIX C

EPA HEADQUARTERS AND REGIONAL AIR OFFICES

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EPA HEADQUARTERS AND REGIONAL AIR OFFICES

The responsibility for implementing the Clean Air Act Amendments of 1990 is held primarily by EPA's Office of Air and Radiation (OAR). The OAR will utilize the expertise of many EPA offices as it undertakes this challenge, including, the Office of General Counsel, the Office of Research and Development, the Office of Solid Waste and Emergency Response, and the Office of Pesticides and Toxic Substances.

The OAR is organized into six offices. The structure of OAR is presented in Figure C-1 and a brief description of each program offices' responsibilities is presented below. In addition, EPA has ten regional offices, each with a division that focuses on air issues. Addresses and telephone numbers for appropriate headquarters and regional offices are identified following the description of the OAR program offices.

OFFICE OF PROGRAM MANAGEMENT AND OPERATIONS

The Office of Program Management Operations (OPMO) supports the Assistant Administrator for Air and Radiation in the areas of budget formulation, resource allocation, strategic planning, information management, and program evaluation. The OPMO staff provides advice and recommendations to the AA and serves as a liaison with OAR program offices. This office coordinates its activities with other EPA offices, the Office of Management and Budget, Congressional Staffs, state and local agencies, and other federal agencies.

OFFICE OF POLICY ANALYSIS AND REVIEW

The Office of Policy Analysis and Review (OPAR) coordinates and reviews the analytical basis of all major OAR regulations and policies. The office is responsible for development, formulation, and implementation of analytical studies, both in-house and through contracts, to support the policy decisions of the Assistant Administrator. In addition, OPAR reviews and analyzes the major regulatory and policy actions of the program offices as well as those developed in other media programs. The OPAR staff also provides analytical support on legislative initiatives related to the Clean Air Act. Interagency coordination of OAR regulations and policy analysis of relevant pollution

control programs, including those proposed in international forums, is another function of OPAR. The office provides direction or is otherwise substantially involved when comprehensive reviews of major policies take place.

OFFICE OF RADIATION PROGRAMS

The Office of Radiation Programs (ORP) coordinates the Agency's radiation protection activities. This office will be involved in developing specific regulations for radionuclides developed under Title III of the Clean Air Act Amendments of 1990. The ORP has developed seven programs that each carry out specific objectives. The Radon Action Program provides technical and educational assistance to the states, industry and the public. The Nuclear Accident Response Program monitors and assesses offsite radiation exposures, and provides guidance during any coordinated federal response to nuclear accidents. In the area of radioactive waste disposal, ORP sets generally applicable environmental standards for the safe disposal of radioactive waste. The Radioactively Contaminated Site Program supports Superfund cleanup activities. The ORP has developed an extensive Industrial Radiation Sources Program to help the states implement regulations covering radionuclide emissions from industrial facilities. The Nonionizing Electromagnetic Fields Program takes measurements of these facilities and analyzes and distributes the data. Finally, in the area of technical assistance, ORP laboratories perform radiochemical analyses, site surveys, and evaluations of radon measuring devices.

OFFICE OF AIR QUALITY PLANNING AND STANDARDS

The Office of Air Quality Planning and Standards (OAQPS) is responsible for the development of national air quality programs, technical policies, regulations, guidelines, and criteria for air pollution control. It supports many varied state and local government programs in preventing and controlling air pollution. With respect to the implementation of the Clean Air Act Amendments of 1990, OAQPS has primary responsibility for Titles I, III, V, and VII.

The OAQPS is divided into four divisions. The Air Quality Management Division is responsible for assuring that the various air quality management programs and objectives required by the Clean Air Act are implemented and that the national ambient air quality standards (NAAQS) are maintained. The Emission Standards Division has responsibility for evaluating the need to regulate potential air pollutants, developing national emission standards for stationary sources, and providing consultation to other segments of the Agency and state and local programs. The Technical Support Division

directs a national program to provide scientific and technical guidance to EPA headquarters and regional offices, and state and local agencies regarding air quality monitoring, emissions factors, and source test methods. The Stationary Source Compliance Division is the only headquarter-based component of the office responsible for ensuring that stationary sources achieve and maintain compliance with the Clean Air Act.

OFFICE OF MOBILE SOURCES

The Office of Mobile Sources (OMS) sets and enforces emission standards for motor vehicles, engines, and fuels, and provides guidance and technical support to state and local programs for the control of motor vehicle emissions. As such, it has the lead in implementing Title II of the Clean Air Act Amendments of 1990. Engineering and other scientific assessments of control technologies and fuel economy are conducted in this office. Assessments of the economic aspects of control requirements, including the identification and development of market-based alternative control mechanisms are carried out. The office conducts investigations to determine compliance with EPA regulations and develops and carries out studies for assessing sources of air pollutants from motor vehicles. New or emerging pollution control technologies for motor vehicles and fuels are analyzed to determine, for example, emissions of toxic substances.

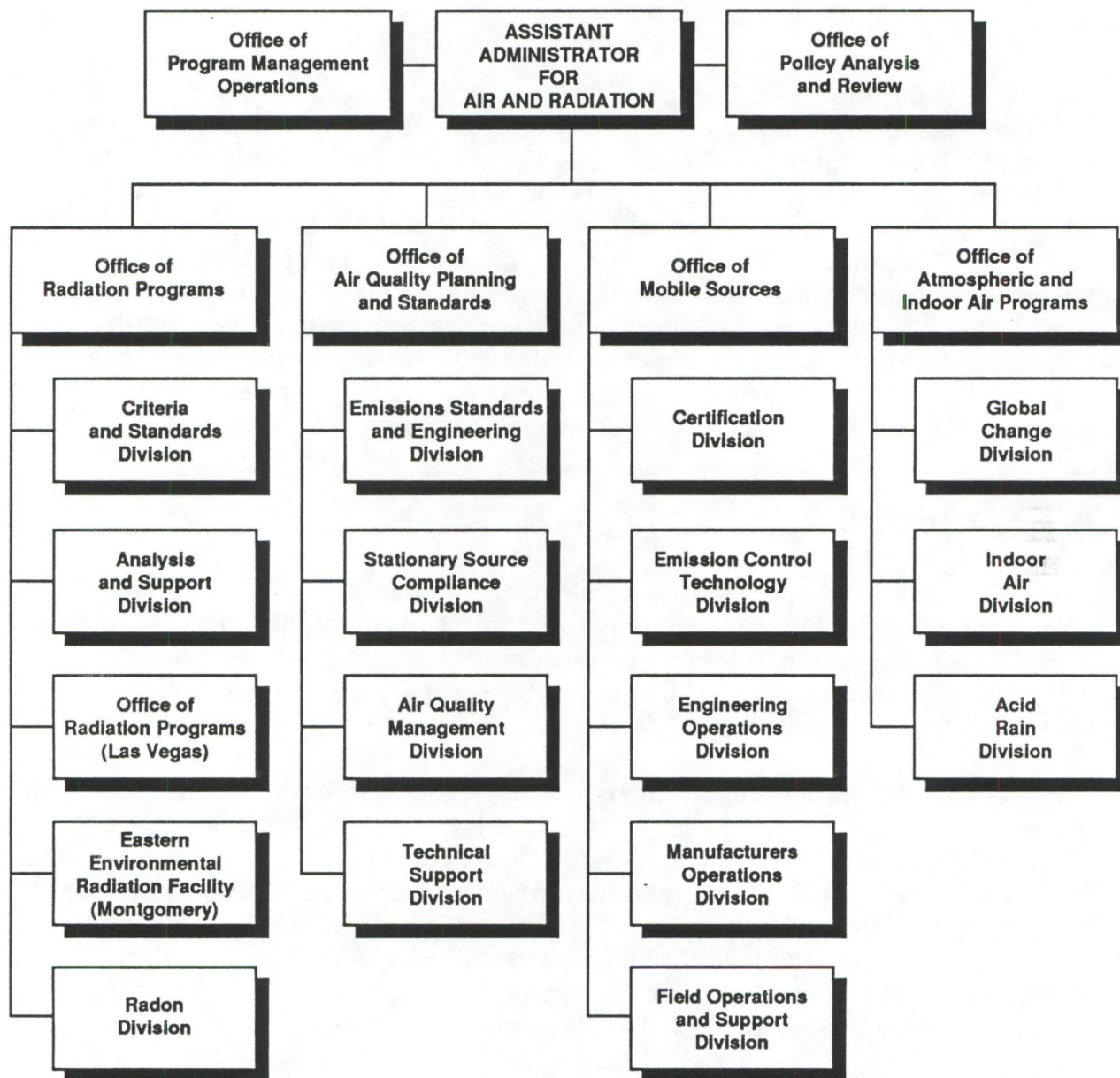
OFFICE OF ATMOSPHERIC AND INDOOR AIR PROGRAMS

The Office of Atmospheric and Indoor Air Programs (OAIAP) has lead responsibility for the Agency's acid rain, indoor air, and stratospheric ozone programs. In addition, OAIAP examines various strategies for mitigating climate change. With respect to implementation of the Clean Air Act Amendments of 1990, OAIAP has responsibility for Titles IV and VI.

The OAIAP is divided into three divisions. The Acid Rain Division was recently created to respond to the acid rain provisions in the Clean Air Act Amendments of 1990. The Global Climate Change Division has responsibility for reducing atmospheric change through the stratospheric ozone protection program, energy initiatives, and pollution prevention strategies. The Indoor Air Division is responsible for overall Agency indoor air policy, coordination of federal and private sector efforts to characterize and mitigate pollution problems in buildings, and development and dissemination of information on indoor air quality to a wide range of audiences.

Figure C-1

OFFICE OF AIR AND RADIATION ORGANIZATIONAL CHART



OFFICE TELEPHONE NUMBERS AND ADDRESSES

HEADQUARTERS OFFICES

<u>Office and Address</u>	<u>Telephone Number</u>
Office of Air and Radiation	
Office of the Assistant Administrator U.S. EPA, ANR-443 401 M. Street, S.W. Washington, D.C. 20460	(202) 382-7400 FTS 382-7400
Office of Program Management Operations U.S. EPA, ANR-443 401 M. Street, S.W. Washington, D.C. 20460	(202) 382-7415 FTS 382-7415
Office of Policy Analysis and Review U.S. EPA, ANR-443 401 M. Street, S.W. Washington, D.C. 20460	(202) 382-5580 FTS 382-5580
Office of Radiation Programs U.S. EPA, ANR-458 401 M. Street, S.W. Washington, D.C. 20460	(202) 475-9600 FTS 475-9600
Office of Air Quality Planning and Standards U.S. EPA, MD-10 Research Triangle Park, North Carolina 27711	(919) 541-5616 FTS 629-5615
Office of Mobile Sources U.S. EPA, ANR-455 401 M. Street, S.W. Washington, D.C. 20460	(202) 382-7645 FTS 382-7645
Office of Atmospheric and Indoor Air Programs U.S. EPA, ANR-445 401 M. Street, S.W. Washington, D.C. 20460	(202) 382-7407 FTS 382-7407

Office and Address**Telephone Number****Office of Solid Waste and Emergency Response**

Chemical Emergency Preparedness and
Prevention Office
U.S. EPA, OS-120
401 M. Street, S.W.
Washington, D.C. 20460

(202) 475-8600
FTS 475-8600

Office of General Counsel

Air and Radiation Division
U.S. EPA, LE-132A
401 M. Street, S.W.
Washington, D.C. 20460

(202) 382-7606
FTS 382-7606

Office of Research and Development

Office of the Assistant Administrator
U.S. EPA, RD-672
401 M. Street, S.W.
Washington, D.C. 20460

(202) 382-7676
FTS 382-7676

REGIONAL OFFICES**Office and Address****Telephone Number**

Region I - Air Management Division
U.S. EPA - Region I
John F. Kennedy Building
Boston, MA 02203

(617) 565-3800
FTS 835-3800

Region II - Air and Waste Management Division
U.S. EPA - Region II
Jacob K. Javitz Federal Building
26 Federal Plaza
New York, NY 10278

(212) 264-2301
FTS 264-2301

Office and AddressTelephone Number

Region III -	Air, Toxics, and Radiation Division U.S. EPA - Region III 841 Chestnut Building Philadelphia, PA 19107	(215) 597-9390 FTS 597-9390
Region IV -	Air, Pesticides, and Toxics Management Division U.S. EPA - Region IV 345 Courtland Street, N.E. Atlanta, GA 30365	(404) 347-3043 FTS 257-3043
Region V -	Air and Radiation Division U.S. EPA - Region V 230 South Dearborn Street Chicago, IL 60604	(312) 353-2212 FTS 353-2212
Region VI -	Air, Pesticides, and Toxics Division U.S. EPA - Region VI First Interstate Bank Tower at Fountain Place 1445 Ross Avenue, 12th Floor, Suite 1200 Dallas, TX 75202-2733	(214) 655-7200 FTS 225-7200
Region VII -	Air and Toxics Division U.S. EPA - Region VII 726 Minnesota Avenue Kansas City, KS 66101	(913) 551-7020 FTS 276-7020
Region VIII -	Air and Toxics Division U.S. EPA - Region VIII 999 18th Street, Suite 500 Denver, CO 80202-2405	(303) 293-1438 FTS 330-1438
Region IX -	Air and Toxics Division U.S. EPA - Region IX 75 Hawthorne Street San Francisco, CA 94105	(415) 744-1219 FTS 484-1219

Office and Address

Telephone Number

Region X - Air and Toxics Division
U.S. EPA - Region X
1200 Sixth Avenue
Seattle, WA 98101

(206) 442-4152
FTS 399-4152