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## Chapter 2

# Commission Recommendations

### Establishment of Public Health Standards

#### Primary Standard Setting Process

1. The current statutory criteria and requirements for setting air quality standards at the levels necessary to protect public health without consideration of economic factors should remain unchanged.
2. The Environmental Protection Agency should make certain that it complies with the Act's requirement to explain publicly and in detail the scientific information, major policy considerations, and legal interpretations it depended upon in proposing a new or revised air quality standard.
3. The Environmental Protection Agency, when setting or revising an air quality standard, should continue to conduct and publish analyses of the possible economic consequences of the various levels considered. In addition, if setting a new standard, the agency should provide an analysis of the economic consequences of setting no standard. The analyses should include all reasonably identifiable costs and benefits to society together with any assumptions and uncertainties; they should not be used to determine whether or at what level the standards should be established.
4. Procedures for selecting members of EPA's Science Advisory Board and the Board's relationship to EPA should continue unchanged.
5. The statutory limitation on the number of members of EPA's Clean Air Scientific Advisory Committee should be removed.
6. Congress should consider whether meetings to consider preliminary draft material for a criteria document prior to circulation of the first external draft of the document should be exempt from the Federal Advisory Committee Act's requirement of open public meetings.
7. The Environmental Protection Agency, when developing or revising criteria documents, should continue its evolving practice of repeating essential features of clinical or toxicological studies that have not been replicated if (1) results of the unconfirmed studies are very important but are controversial or ambiguous and (2) EPA can repeat the essential features and analyze the results within one year.
8. The Environmental Protection Agency should continue to refine the methodology of risk as-

assessment for use in setting air quality standards and hazardous pollutant emission standards. The results of the risk assessment should be only one among many factors upon which EPA bases these standards.

9. As required by the Act, EPA should consider the synergistic and antagonistic characteristics and all appropriate health effects of pollutants being considered in the standard-setting process.
10. Within one year, EPA should be required to determine whether a fine particle standard should be established in addition to or instead of the revised total suspended particulate standard.
11. The Environmental Protection Agency should proceed to re-evaluate within a reasonable time the secondary air quality standard for total suspended particulates.
12. The Environmental Protection Agency should expand its research on the health effects of chronic exposures to ozone and other photochemical oxidants, to determine whether an air quality standard for long-term ozone and photochemical oxidant concentrations should be established.
13. The Environmental Protection Agency should finalize its proposal to revise the terms in which the carbon monoxide air quality standard is officially expressed, from weight per volume of air to parts per million.
14. The Environmental Protection Agency should undertake health effects research to determine whether a separate carbon monoxide air quality standard should be established for high altitude areas.

## **Hazardous Emission Standards**

15. The Environmental Protection Agency should undertake an accelerated and continuing program to identify additional air pollutants, beyond those currently under assessment, which need additional study in order to determine whether they are hazardous air pollutants. Decisions as to whether or not such pollutants should be listed should follow the identification of such pollutants within a defined reasonable period of time. Within one year of enactment, EPA should be required to submit to Congress a report on the agency's efforts to identify such additional pollutants and the results thereof.

16. Congress should examine appropriate means, including whether to set additional statutory time limits, to expedite the listing of hazardous air pollutants and issuance of emissions standards for sources that emit a hazardous pollutant in significant amounts.
17. The Environmental Protection Agency should be given authority to require, upon listing a hazardous pollutant, the immediate implementation of economical, readily available control measures to reduce emissions of the pollutant from any source that constitutes a significant risk to public health.
18. The Act should be modified to allow EPA to set technology-based standards for hazardous pollutants. The level of control required should be higher than that required for less dangerous pollutants.

## **EPA Research**

19. The Environmental Protection Agency should take further action to strengthen long-term, anticipatory, and basic research through the research committees.
20. The Environmental Protection Agency should be appropriated a fund, separate from EPA's regular research budget, to be used solely for research on environmental emergencies. New appropriations should be made as needed to sustain the fund at an adequate level.
21. The Environmental Protection Agency should incorporate independent peer review into its internal research program through either the Science Advisory Board or independent consultants. EPA should be encouraged to increase its use of outside experts where they can provide, on a short-term basis, expertise that is otherwise unavailable to the agency and that is needed to assure proper execution of research.
22. The Environmental Protection Agency should retain its current research and regulatory functions, but should bolster and maintain reliance on independent peer review of all health effects research. The agency also should report to Congress on measures that could be employed to attract and retain scientists of high caliber.

## **Multimedia Pollutants**

23. The President, EPA, and other agencies should broaden the ongoing efforts to develop a consistent, unified approach to the regula-

tion of pollutants that exist in more than one medium by using the National Toxics Program, the Interagency Regulatory Liaison Group, and any other appropriate interagency groups as primary resources for the systematic identification and screening of potential toxic chemicals.

24. The President, EPA, and other agencies should continue efforts to improve coordination among agencies responsible for research into and regulation of substances that endanger human health. The agencies should help Congress identify statutory inhibitions, if any, to more effective, efficient, and equitable regulation of those substances.

## **Indoor Air Pollution**

25. Congress should clarify the jurisdictions of federal agencies over research, monitoring, and, if necessary, control of indoor air quality in nonindustrial settings, including public buildings such as office buildings, restaurants, indoor sports arenas, schools, hospitals, single- and multi-family residences, and theaters.
26. Congress should direct appropriate federal agencies to identify the resources necessary to undertake a systematic and coordinated program to develop more explicit information on the source-strengths for major pollutants, to improve the indoor monitoring data base, and to refine estimates of the relative public health risks caused by indoor exposure to pollutants regulated currently and in the future under Sections 109, 111, or 112 of the Act. Agencies with jurisdiction over environmental protection, product safety, energy conservation, and public health and housing authorities should participate in this interagency program.
27. Congress should direct an appropriate agency to report to Congress within 2 years of enactment of amendments to the Act on appropriate approaches to assuring healthful air quality in federal buildings throughout the United States, including office buildings and hospitals.

## **Institutional Relationships and Resources**

### **State Implementation Plan Process**

28. The Act should require that, as a criterion for approval of a state implementation plan, the state should assemble and make available to

the public a comprehensive document setting forth all the requirements of the plan.

29. EPA, in conjunction with state and local agencies, should submit to Congress during the congressional reauthorization of the Act an analysis of whether all current state implementation plan requirements should continue to be subject to federal rulemaking and enforceability. Congress should then consider appropriate revisions to Section 110 of the Act, beyond those recommended by the Commission, to eliminate unnecessary federal-state duplication and unnecessary federal oversight of the state implementation plan process.
30. Where state procedures for due process and public participation are consistent with the requirements of the Federal Administrative Procedures Act, the notification processes for state implementation plan revisions should be conducted jointly by the state and EPA. The proposal should be published both by the state and in the *Federal Register*. EPA should base its approval or disapproval on the state hearing record. Failure of EPA to act within 90 days following receipt of the state's hearing record and decision should constitute automatic approval of the state decision, unless (1) an objection to the state implementation plan revision has been filed with EPA, in which case the deadline automatically should be extended an additional 30 days, or (2) EPA, for good cause, extends the deadline for a maximum of an additional 90 days.
31. Those states that establish a program for the review and issuance of source construction and operating permits should be allowed to do so in a generic regulation. Any such program should include provision for public notice and comment, provision for permit renewal, a definition of source types or cases requiring EPA review and approval, emission requirements, and provision for federal enforceability. Where a program has not been delegated to a state, EPA should continue to conduct the permit review.
32. EPA should be required to approve only certain classes of construction and operating permits issued by states under generic rules and all state permits not in conformance with generic rule requirements. Failure of EPA to act within 90 days should constitute automatic approval of the permit, unless (1) an objection to the state implementation plan revision has been filed with EPA, in which case the dead-

line automatically should be extended an additional 30 days, or (2) EPA, for good cause, extends the deadline for a maximum of an additional 90 days. The categories of individual permits subject to EPA review should include all major sources of over 500 tons per year, any other sources that have an interstate impact, and any additional sources defined by EPA.

## **Federal Support of Federal, State, and Local Programs**

33. Congress should authorize increased funding for federal, state, and local air pollution control efforts, particularly for enforcement. The Act should be amended to authorize increased funding, and the administration and congressional appropriations committees should provide the needed funds.
34. Federal funding for research efforts on air pollution effects, causes, and means of control should be increased.
35. Funds under Section 105 of the Act should be appropriated and allocated based on the degree of responsibility that the states have assumed.
36. Assignments of EPA personnel to the states should be increased to support recently assumed state responsibilities as well as surveillance and enforcement programs.
37. States should accept their responsibility to adequately train their personnel to carry out an effective air quality program.

## **Role of Indian Tribes**

38. The Act should be amended to identify explicitly the authorities of Indian tribes and EPA under the Act. The Environmental Protection Agency should have authority over all existing and proposed sources within Indian reservations and should be authorized to delegate, when requested and approved, appropriate responsibilities to Indian tribes.
39. Indian tribes should have the opportunity to develop their own reservation regulatory program to manage air quality, with sufficient mechanisms to ensure coordination with adjacent state air quality management programs.
40. Indian tribes should be eligible for Section 105 grants for planning, enforcement, and training programs.

41. The Environmental Protection Agency, in conjunction with the Department of the Interior, should promulgate regulations for the establishment of reservation air quality programs. The regulations should authorize intertribal programs, when appropriate, to allow economies in management and technical expertise among neighboring reservations.

## **Public Participation**

42. Section 101(b) of the Act should be amended to include, as a purpose of the Act, that public participation be provided for, encouraged, and assisted by EPA and the states with language similar to that set forth in the Clean Water Act and the Resource Conservation and Recovery Act.
43. The Environmental Protection Agency and states should establish public participation processes that include:
  - An investigation of the current level of public understanding about air quality issues;
  - The timely provision of information tailored to meet the needs of the various publics;
  - Opportunities for discussion of the issues by groups with different perspectives, including, but not limited to, business and industry groups, public interest organizations, public health organizations, governmental entities, labor organizations, and other interested parties;
  - Mechanisms for providing the results of these discussions to decisionmakers; and
  - Mechanisms for decisionmakers to respond as to how these results were considered in making final decisions.

## **Air Quality Status Designation**

44. Section 107(d)(5) should be amended to impose requirements on states in which areas change from nonattainment to unclassified status or in which unclassified areas experience growth. Following EPA approval of the redesignation of an area to unclassified status or a state's approval of a permit for a source with significant emissions (amount to be defined by EPA) to locate in an unclassified area, states should be given 2 years to monitor

or model and recommend for EPA approval redesignation to either attainment or nonattainment.

45. Congress should consider providing that if a state fails to make a recommendation to EPA within 2 years, either (1) the area automatically be classified as a nonattainment area, or (2) EPA be given discretionary authority to impose against the state on a graduated basis, depending on the significance of the failure to propose a designation of the area, sanctions similar to the withholding of federal funds and construction moratorium authorized for areas not meeting the Act's requirements for nonattainment areas.
46. For populated areas that are determined to be nonattainment in 1981 or thereafter for carbon monoxide or ozone, EPA should require that boundaries for the area encompass, at a minimum, urbanized areas as defined by the U.S. Bureau of the Census.

## Nonattainment Program

47. All state implementation plans as revised in 1979 and approved by EPA should remain in effect and be implemented on the schedule specified in the plans to the extent such plans are consistent with the Commission's recommendations. States should be required to continue to fulfill those responsibilities required by EPA in 1979 and 1980 conditional approvals that are consistent with the Commission's recommendations.
48. State plan revisions should continue to be required in 1982 for all areas determined to exceed air quality standards as of December 31, 1981. The revisions should be required to include requirements for the installation of reasonably available control technology on existing sources or measures that would lead to equivalent emission reductions, except in areas that EPA determines will meet the air quality standards by December 31, 1983, and requirements for the implementation of the offset policy. Transportation control measures in ozone and carbon monoxide plan revisions should no longer be mandatory.
49. Motor vehicle inspection and maintenance programs should be required only in urban areas with populations greater than 500,000 where peak 1981 air pollution levels (using existing EPA designation guidance) are 50 percent greater than either the ozone or the carbon monoxide ambient air quality standard, instead of in all areas exceeding the ozone or carbon monoxide air quality standard by December 31, 1982.
50. Areas exceeding the ozone or carbon monoxide air quality standard but not required to implement inspection and maintenance programs should be permitted to implement inspection and maintenance programs instead of the offset policy for ozone and carbon monoxide.
51. Every 3 years, all areas exceeding air quality standards should be required to implement additional reasonably available control technology identified by EPA or measures that would lead to equivalent reductions. States should be required to submit plan revisions that incorporate such technology requirements to EPA for review and approval.
52. The process for 3-year reviews described in the Commission's recommendations should be substituted for the 1982 and 1987 deadlines for meeting air quality standards. This change does not affect approved dates of compliance for sources in state implementation plans. The states should continue to be required to meet air quality standards in all areas as expeditiously as practicable. The state should specify a date by which it intends to meet the standards. This date will not be subject to EPA and judicial review and will not be federally enforceable.
53. The Environmental Protection Agency should ensure that reasonably available control technology or offsets or other measures to achieve equivalent emission reductions are included in state plans where necessary to maintain air quality standards in areas meeting the standards.
54. As required by the Act, EPA should continue to be authorized to adopt requirements of reasonably available control technology in states not meeting air quality standards and failing to require that technology or equivalent measures.
55. The statutory system of withholding federal funds as sanctions in areas not meeting the Act's requirements for pollution controls in areas exceeding air quality standards should be replaced by a graduated system of sanctions. The sanctions should include those now mandated and authorized by the Act. EPA should be given discretionary authority to

- impose the sanctions based on the degree of failure to implement measures.
56. Existing sources that have been required to install equipment to control a particular pollutant should not be required during the next 10 years to install additional control equipment for that pollutant if the additional equipment would supplant the initial equipment. However, this exemption should not apply if new controls are needed to meet an air quality standard for a newly regulated pollutant or to comply with new regulations for a hazardous pollutant.
  57. The Act's requirement that new sources in areas exceeding air quality standards install controls providing for the lowest achievable emission rate should be repealed and replaced by identical requirements for all new sources (in areas either violating or meeting standards), requiring best available control technology, the same type of technology now required in areas meeting air quality standards. The determination of best available control technology should be made on a case-by-case basis in accordance with the requirements under the Act's current definition of best available control technology with the following exceptions:
    - A source that emits less than 500 tons of a pollutant per year and for which a new source performance standard has been established should be subject only to the new source performance standard; and
    - A source that will emit 1,000 tons or more of a pollutant per year should be required to provide at least the same level of control that has been required in the same federal region for a source in the same category that emits 1,000 tons or more per year of the pollutant, unless the operator of the new source demonstrates that such previously determined control level will not provide sufficient air quality benefits to justify the incremental control over alternative best available control technology levels. In no case should emissions be allowed to exceed applicable new source performance standards. The Administrator would be authorized to modify the boundaries of a region, for the purposes of determining previously applicable best available control technology levels, to take into account regional air quality values.
  58. New sources should not be required to install additional control equipment during the 10-year period after the source started operations, unless new controls are needed to meet an air quality standard for a newly regulated pollutant or to comply with new regulations for a hazardous pollutant.
  59. The emissions offset policy should be revised to allow a state to require a new source in an area violating air quality standards to pay a fee instead of securing offsets, if the state develops and agrees to implement a plan to use such fees to reduce other emissions of the same pollutant. The Environmental Protection Agency should set the fees on a national basis for each pollutant, based upon the emission control costs of new source performance standards.
  60. If EPA sets an air quality standard for a new pollutant, states should have 3 years to adopt and implement reasonably available control technology in areas exceeding the standard.
  61. The Environmental Protection Agency should determine by December 31, 1982, which areas of the country do not meet each air quality standard based on air quality information through December 31, 1981.
  62. The Environmental Protection Agency should continue to issue, and should revise every 6 years, control technique guideline documents to help states determine reasonably available control technology for categories of sources contributing significantly to violations of air quality standards.
  63. By January 30, 1984, and then at least once every 3 years, EPA should review each state's progress in meeting air quality standards. The Environmental Protection Agency should use this review after consultation with state officials, to determine whether an area continues to exceed an air quality standard, and if so, to provide necessary guidance to ensure that additional reasonably available control technologies and new revisions of the state's plans are adopted.
  64. By July 30, 1984, and then every 3 years, EPA and appropriate state and local agencies should develop jointly a program plan for coordinated future federal, state, and local actions. The program plan should include additional reasonably available control technology necessary to meet and maintain standards, other necessary state procedural and admin-

istrative requirements, and an indication of state and federal funding and resource commitments. Funds for federal program grants should be made available upon completion of this program plan.

## Prevention of Significant Deterioration Program

65. The preconstruction review requirements of the Act's prevention of significant deterioration (PSD) provisions should apply to all new major sources, as currently defined in the Act, and to modifications of existing major sources that increase net emissions from the source by more than *de minimis* levels. *De minimis* emission rates for nitrogen oxides, sulfur dioxide, particulate matter, and hydrocarbons should be increased to 100 tons.
66. Sources subject to preconstruction review should continue to be required to apply the best available control technology to control the emissions of any criteria or noncriteria pollutant that exceed *de minimis* levels after the application of pollution controls. The determination of best available control technology should be made on a case-by-case basis in accordance with the requirements under the Act's definitions, with the following exceptions:
  - A source that emits less than 500 tons of a pollutant per year and for which a new source performance standard has been established should be subject only to the new source performance standard; and
  - A source that will emit 1,000 tons or more of a pollutant per year should be required to provide at least the same level of control that has been required in the same federal region for a source in the same category that emits 1,000 tons or more per year of the pollutant, unless the operator of the new source demonstrates that such previously determined control level will not provide sufficient air quality benefits to justify the incremental control over alternative best available control technology levels. In no case should emissions be allowed to exceed applicable new source performance standards. The Administrator would be authorized to modify the boundaries of a region, for the purposes of determining previously applicable best available control technology levels, to take into account regional air quality values.
67. New sources should not be required to install additional control equipment during the 10-year period after the source started operations, unless new controls are needed to meet air quality standards for a newly regulated pollutant or to comply with new regulations for a hazardous pollutant.
68. The statutory requirement that proposed new sources submit air quality monitoring data gathered over a period of up to one calendar year should be eliminated. Instead, the reviewing agency should be given the discretion to require preconstruction monitoring for up to one year and postconstruction monitoring data. The Environmental Protection Agency should continue to publish guidelines for state use in determining the need for actual on-site monitoring.
69. The reviewing agency should be required to process permit applications within 6 months of receiving a complete permit application for sources that do not have the potential to emit more than 500 tons per year of any pollutant. Processing of permits for sources above the 500 tons per year threshold should continue to be required within one year. The reviewing agency should be authorized one 60-day extension of either deadline. The reviewing agency also should be required to notify the permit applicant within 2 months of receipt of the application whether the application is complete. If the agency determines that the application is not complete, the agency must inform the applicant of what additional information is required.
70. The Environmental Protection Agency should be required to publish a biannual list of best available control technology determinations, regional best available control technology determinations, and other control technology (for source categories that contribute significant amounts of pollution) that has been installed on various sources where such information is available. This information should include sufficient details to make it useful to reviewing agency personnel.
71. a. The existing Class I increment system should be retained without change. In addition, the federal land manager for each Class I area should be authorized to establish a monitoring network for detecting the effects

of new pollution sources on air quality within the area. The federal land manager should be authorized to establish a baseline (for determining increments) if and when the federal land manager determines that new sources are likely to affect air quality-related values within the area. EPA, in consultation with the federal land manager, should publish guidelines adopted pursuant to public notice and comment procedures applicable to EPA, describing criteria for these determinations. In the absence of a determination by the federal land manager, the baseline should be determined according to the current provisions of the Act.

b. States and Indian governing bodies also should be authorized to establish a baseline under the same conditions as federal land managers, for Class I lands within their jurisdiction other than those federal lands for which the federal land manager has direct management responsibility. The Environmental Protection Agency, in consultation with the states and Indian governing bodies, should publish guidelines adopted pursuant to public notice and comment procedures applicable to EPA, describing criteria for these determinations. In the absence of a determination by a state or Indian governing body, the baseline should be determined according to the current provisions of the Act.

72. a. Class III should be eliminated.
  - b. Class II should be limited to (1) those areas that cannot be redesignated as Class III under the current Act; and (2) those clean air areas which states or Indian tribes choose to designate as Class II.
  - c. Tracking of short-term Class II increment consumption should be eliminated, but all major new and modified sources (as defined in paragraph 1) subject to PSD review should still be required to demonstrate that the new source itself will not exceed short-term increments and that emissions from the major sources and other sources in the area will not cause or contribute to violation of annual increments.
73. The current visibility protection program, which is designed to protect visibility in Class I areas and in specified "integral vista" areas adjacent to some Class I areas, should be retained.
  74. Surface mining of coal should be included in the list of sources subject to the visibility pro-

visions of the Act. Congress should consider whether other types of surface mining should be included.

## Mobile Source Controls

75. The statutory gasoline and diesel automobile hydrocarbon standard of 0.41 grams per mile should be retained.
76. The statutory nitrogen oxides standard of 1.0 grams per mile should be retained for gasoline automobiles. The Act should be amended to replace the waiver provision for light diesel automobiles through the 1984 model year with a 1.5 gram per mile standard through the 1984 model year. The existing provisions for exemptions from the nitrogen oxides standard for low volume manufacturers and innovative technology on automobiles should be retained.
77. The final statutory carbon monoxide automobile standard of 3.4 grams per mile should be changed to 7.0 grams per mile, to be effective as soon as practicable after enactment of amendments to the Act, and remain in effect through the 1986 model year. The Environmental Protection Agency should be given authority to continue the 7.0 grams per mile standard beyond model year 1986 or establish a standard between 3.4 and 7.0 grams per mile if it is found that protection of public health can be achieved as expeditiously and effectively with a 7.0 grams per mile or an intermediate standard as with the 3.4 grams per mile standard.
78. The Environmental Protection Agency should continue to evaluate the 0.2 gram per mile particulate standard for diesel automobiles and the 0.26 gram per mile standard for light diesel trucks currently scheduled to take effect in 1985, and report to Congress within 6 months of enactment of amendments to the Act.
79. The statutory carbon monoxide and hydrocarbon standards for heavy gasoline trucks, and the carbon monoxide and hydrocarbon standards established by EPA for light trucks, should be retained. The acceptable quality level for heavy gasoline trucks weighing 8,500 pounds and over should be revised to be consistent with those that apply to automobiles.

80. The Act's provisions on nitrogen oxides emission standards for light and heavy trucks should be retained, including the existing EPA authority to relax the standards from the presumed 75 percent reduction.
81. The current provisions of Sections 202 and 206 of the Act relating to motor vehicles at high altitude should be replaced by new provisions:
  - a. Affirming the 1982-1983 model year automobile and light truck high altitude standards adopted by EPA, and establishing a similar requirement of proportional reduction at high altitude for 1984 and 1985 model year light trucks;
  - b. Requiring manufacturers to demonstrate that model year 1984 and later automobiles and 1986 and later light trucks sold in areas at least 4,000 feet above sea level will comply with the appropriate national emissions standards; EPA should be authorized to grant waivers from this requirement for those automobiles and light trucks for which EPA determines that compliance with the requirement would be unusually expensive or impractical, subject to a limit, to be determined by Congress, on the number of vehicles for which waivers may be granted to ensure that the waivers do not affect significantly air quality in high altitude areas;
  - c. Either requiring or explicitly authorizing EPA, after determining the air quality and other effects of doing so, to require manufacturers to demonstrate that heavy trucks at high altitude (1) will comply with the national emission standards, or (2) will reduce emissions at high altitude by the same percentage as the appropriate national emission standards represent for emissions at sea level;
  - d. Allowing EPA to use any appropriate means to review and approve the manufacturers' demonstration of compliance with the high altitude requirements in (a), (b), and (c); and
  - e. Requiring manufacturers to provide to appropriate dealers and service facilities in high altitude areas the specifications developed by the manufacturers, under Section 215 of the Act, for performance adjustments to vehicles that have not been designed or adjusted for use in high altitude areas.

## New Source Performance Standards

82. The new source performance standards program should be retained.
83. The Environmental Protection Agency should continue to develop new source performance standards for categories of major sources in an expeditious fashion.
84. Congress should consider whether to provide that new source performance standards should become effective upon promulgation rather than to continue EPA's present practice of making the standards effective on the date of proposal. Congress also should consider whether such a change should include provisions to protect against dilatory tactics and other practices which would lead to numerous new sources' receiving permits between the proposal and promulgation of standards.
85. Congress should change the time for mandatory reviews of new source performance standards from every 4 years to every 6 years.

## Enforcement Activities

86. Section 113 of the Act should be amended to provide for discretionary, rather than mandatory, federal initiation of civil actions against major sources that have not complied with control requirements within 30 days after receiving a notice of violation. This section also should be amended to require EPA to issue administrative orders when the agency decides not to initiate civil actions. The orders should be used in cases where compliance can be achieved within one year, and should not be issued for periods longer than one year.
87. Section 120 of the Act should be modified to require the application of noncompliance penalties against major sources not currently in compliance and not on a schedule to comply by December 31, 1982, and against major sources not complying with an administrative order issued under Section 113 one year after its issuance. The penalties should be discretionary in all other cases.
88. The Act should be amended to allow EPA to impose penalties of up to \$5,000 per day, per violation, against sources violating operation and maintenance or other applicable requirements of the Act.

89. The Environmental Protection Agency should augment its current efforts to encourage continuous compliance by stationary sources. In the short term, EPA should conduct the research necessary to give state and local control agencies enough information to help them establish source-specific operating standards and should develop programs to provide guidance for states in applying these standards. Over the longer term, EPA should encourage or require states to increase their use of continuous emissions monitors and systematic use of the Act's current reporting and data collection provision. EPA should encourage states to allocate enough resources to let them effectively evaluate and use information from monitoring and reporting programs.
90. The Environmental Protection Agency should continue its initiatives to clarify enforcement roles among agencies. The joint EPA-Justice Department Litigation Management Task Force should improve procedures established under the Memorandum of Understanding by delineating the respective agency responsibilities, improving and increasing the use of the fast track referral system, and refining procedures and criteria for settling or litigating cases. The Environmental Protection Agency should improve its investigative capabilities and train its personnel in litigation preparation. The Environmental Protection Agency should clarify the enforcement role of EPA regional offices and encourage incorporation of enforcement policies in EPA-state agreements.
91. Congress should consider giving EPA explicit authority to represent itself in court, except in cases before the Supreme Court, where it should have authority only if the Solicitor General of the United States agrees.
- that EPA should consider in determining whether the interstate control directive is being violated; and set limits on the time EPA has to hold a hearing and to grant or deny a petition.
93. Congress should consider the need for the establishment and implementation of a regional secondary standards program, the criteria for use in establishing such standards, the definition of regional boundaries, the factors on which standards would be based, and the mechanisms for control.
94. Congress should appropriate adequate funds to enable the appropriate executive agencies to carry out the acid precipitation research program authorized by Congress.
95. Congress should provide funding for and direct appropriate federal agencies from among those participating in the Interagency Task Force on Acid Deposition to develop a long-term nationwide atmospheric deposition monitoring program to assess, by geographic region, long-term trends in dry and wet deposition and the effects of that deposition on water and land. The specified agencies should cooperate with other appropriate federal, state, and local agencies and with appropriate representatives from outside government in the design, operation, and maintenance of the program.
96. Congress should consider whether to enact a moratorium, effective March 1, 1981, on relaxation of existing sulfur dioxide emissions limits in state implementation plans, unless it can be shown that undue economic or other hardship would result from retaining current limits. Congress also should consider whether conversion of facilities to coal should be accompanied by measures to prevent a net increase in sulfur dioxide emissions.
97. Congress should require a significant reduction by 1990 in the current level of sulfur dioxide emissions in the eastern United States. The actual level of the significant reduction to be required and the measures to be required to bring about that reduction should be determined after Congress reviews results from the joint studies by the Department of Energy and EPA, expected in mid-1981, on the costs and other effects of various methods of reducing sulfur dioxide emissions. In designing a program to bring about the significant reduction in sulfur dioxide emissions

## Atmospheric Transport

92. The interstate pollution abatement provisions of the Act (Section 110(a)(2)(E) and Section 126) should be modified to strengthen provisions requiring a state to reduce emissions which affect other states and to provide more useful criteria for a state to use in showing that emissions from sources in another state adversely affect it. Section 126 should be changed to permit one state to petition EPA for a finding that any aggregate of sources as well as any single source in another state violates Section 110(a)(2)(E); specify factors

by 1990, Congress should consider whether to adopt a phased program requiring interim reductions by 1985.

## Research, Development, and Demonstration

98. The maximum time allowed for sources that develop and install innovative control technology to comply with applicable emission limits should be increased. For new sources the maximum time period should be increased from 7 years (under Section 111(j) of the Act) to 10 years. For existing sources, the maximum time period should be increased from 5 years (under Section 113(d)(4) of the Act) to 7 years.

## Economic Considerations

99. States should continue to be required to consider the cost-effectiveness of the control measures to be included in state implementation plans.
100. Sections 103 and 164 of the Internal Revenue Code should be modified to allow process modifications to be eligible for tax-exempt state bonding and rapid amortization to the extent that the process modifications are related to emissions reductions.
101. Congress should direct the Secretary of Labor, in consultation with EPA, to comply with Section 403(e)(i) of the 1977 Amendments to the Clean Air Act by initiating a comprehensive examination of potential employee dislocations resulting from implementation of the Act, and a report as required under Section 403(e)(i) should be submitted to the Congress within one year.
102. The Secretary of Labor should examine in that report the number of employees affected by implementation of the Act and identify and assess the adequacy of available assistance to those employees. If justified, the Secretary should recommend additional adjustment measures.

## Economic Incentives

103. Economic incentive approaches, either as a substitute for, or as a supplement to, direct regulation, should be considered by states and the federal government in those instances

where their use would lead to improved economic efficiency.

104. States should be authorized to implement the "bubble policy" without EPA approval of individual permits issued under the policy, according to the general guidelines for division of EPA and state responsibility for permit approval included in the Commission's recommendation #31 under Institutional Relationships and Resources.

In addition, the Commission has made recommendations in other portions of the report which encourage the use of specific economic incentives. These include: Recommendation #100 under Economic Considerations; Recommendation #48 under Nonattainment programs; and Recommendation #87 under Enforcement Activities.

## Energy and Air Quality

105. Changes to regulatory, fiscal, and education policy should be considered to encourage energy efficiency and use of renewable resources to derive significant improvements in national and regional air quality, and to reduce the rate of increase of carbon dioxide in the atmosphere. Policies necessary to accomplish increased conservation and use of renewable resources have been derived from recent detailed energy studies. They are cited here as possible mechanisms Congress might consider to achieve additional reductions in use of nonrenewable resources.

- **Changes to Regulatory Policy.** Restructuring of all energy prices to increasingly reflect replacement costs (i.e., marginal cost pricing) is one policy alternative. This policy would eliminate existing subsidies and reduced prices for large energy users (block pricing). The policy would include in fuel prices known environmental and social costs associated with each fuel.
- **Changes to Fiscal Policy.** Another alternative is to increase investment tax credits for conservation and renewable energy investments. Current tax credits for these alternatives often are as low as 15 percent, while current tax credits for the oil production sector are as high as 50 percent. In addition, the proposed policy also could incorporate an additional subsidy program to encourage faster adoption of a conservation/renewable system and increased federal funding

for developing efficient alternatives to fossil fuels.

- **Changes to Educational Policy.** Making available accurate consumer information comparing life-cycle energy operating costs to initial costs for items such as appliances, building structures, and industrial equipment is also a mechanism for achieving reductions in use of nonrenewable resources. Information would be available at the time of purchase and through general information programs and mailings. The federal government would coordinate development and dissemination of the information and would develop information programs for the modification of existing facilities requiring capital investments.

106. Support of research in the United States should be considered to address scientific uncertainties associated with carbon dioxide sources and dispersal, climate modelling, and the effects of climatic change. Scientific research should be augmented by studies of policy options for addressing problems associated with increased carbon dioxide levels,

including mechanisms and timing for implementation.

107. Expanded international scientific and public policy research should be undertaken, possibly under the auspices of an international carbon dioxide assessment board established through existing international organizations.

108. The role of carbon dioxide emissions should be taken into account in the development of future energy and other national policies, such as those being considered for industrial revitalization.

109. a. Forest management practices—such as active reforestation and minimal deforestation—which are stabilizing factors in the global carbon cycle should be recognized and encouraged to help lessen the amount of carbon dioxide in the atmosphere.

b. The effects of climatic change, such as those resulting from increased levels of carbon dioxide in the atmosphere, should be considered as a factor in siting depositories for long-lived toxic and radioactive wastes.