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Fee Program Administration

- o Only the permitting authority and other agencies contributing to the permitting effort, can receive the benefits of the fee collection. Fees should go to those agencies incurring the permitting costs. Ideally a state should have a fund set up to receive its permit fee revenue and the permitting authority should be able to directly draw upon the fund to cover documented Title V permitting-related expenses. EPA is taking comment on whether it would be acceptable if permitting agencies were to receive a guarantee of corresponding general fund reimbursement in lieu of direct receipt of fees in those situations where a state's constitution prohibits the permitting authority from directly receiving fee revenue.
- o Some state or local agencies may also incur permitting costs though another agency issues the permit. In other instances, local agencies may exercise a portion of the permitting authority for their jurisdiction or for particular source categories. EPA is proposing that memoranda of agreement be reached by all affected agencies outlining responsibilities and reimbursements before a state submits its program to EPA for approval.
- o Some states may need additional administrative and legislative authority in order to have their Title V program approved. This ideally includes the permitting agency's ability to charge, collect and expend fees as well as to administratively modify fee schedules and retain or rebate any fee surplus from year to year.
- o In designing or modifying their fee programs states need to pay particular attention to balancing workload demands and staffing requirements.
- o States are urged to : (1) design a fee program which is supported by a variety of fee approaches in order to avoid falling prey to an economic downturn experienced by any one particular source category or industry, (2) be sensitive to issues of fee equity among sources and source categories. It has also been suggested that, as appropriate and as needed, states use the opportunity presented by Title V to comprehensively revise their overall user fee program requirements.
- o In the past, using estimated emissions, EPA has estimated that Title V can generate \$300-350 million in fees nationwide in its initial years. This is a conservative estimate covering

about 9,000 sources. As more sources become subject to the Title V requirements (estimated to be as many as 34,000) recovered costs could be higher. By way of contrast, the section 105 grant program is currently funded at about \$160 million with states estimated to contribute another \$220 million. To successfully implement the Clean Air Act could ultimately cost twice the 1990 level of federal and nonfederal expenditures. As noted earlier various estimates of the percentage of total air program costs attributable to permitting-related activity have ranged from 50 to 75%.

- o While the existence of a section 507 technical assistance program for small businesses affected by the Act is not a condition for approval of a state's operating permit program, Title V permit fees must pay for the development and operation of a such a program.

Data Management

- o EPA and the states are also investigating what permit and program data should be collected and what type of data management system should be developed. Howard Wright (FTS 629-5584) of OAQPS' National Air Data Branch is heading a workgroup to resolve these questions.

State and Local Agency Concerns

- o Some issues of concern raised by state and local officials in the recent EPA-NGA sponsored workshops on permit fee program development (and raised in EPA's proposed part 70 rule and preamble) are:
 - the likelihood that the state legislature will withdraw significant general fund revenue support when permit fees take affect;
 - how to cover program development or ramp-up costs incurred by a state (Note: EPA, in addition to targeting \$11 million in section 105 funds over the last two years for permit program development, has suggested: two-stage fees- a registration fee plus the actual permit fee; floatation of state bonds; additional section 105 grants; a one-time state legislative general fund investment to be reimbursed with interest as fees are later generated; etc.);

- the ability of state to use surplus fee revenue for purposes other than Title V activity;
 - many existing state and local programs rely upon fee revenue from the small sources that EPA has suggested be deferred from program applicability for up to five years;
 - local agency concern about states' usurpation of their authority and sources of program support;
 - the ability to attract and retain qualified staff (EPA has suggested a reinvigoration of the state assignee program) as well as needed training; and
 - the relationship of permit fees to section 105 grants (Note: EPA has asked for comments on extending the maintenance of effort concept to fees).
- o States have requested additional Title V assistance in the form of: model legislation, additional resources, guidance on what criteria EPA will use to determine an acceptable program, training, and overall assistance from EPA regional offices.



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

OFFICE OF
AIR AND RADIATION

THE CLEAN AIR ACT AMENDMENTS OF 1990

SUMMARY MATERIALS

U.S. EPA
November 15, 1990

CLEAN AIR ACT AMENDMENTS OF 1990

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The Clean Air Act Amendments of 1990

In June 1989 President Bush proposed sweeping revisions to the Clean Air Act. Building on Congressional proposals advanced during the 1980s, the President proposed legislation designed to curb three major threats to the nation's environment and to the health of millions of Americans: acid rain, urban air pollution, and toxic air emissions. The proposal also called for establishing a national permits program to make the law more workable, and an improved enforcement program to help ensure better compliance with the Act.

By large votes, both the House of Representatives (401-21) and the Senate (89-11) passed Clean Air bills that contained the major components of the President's proposals. Both bills also added provisions requiring the phaseout of ozone-depleting chemicals, roughly according to the schedule outlined in international negotiations (Revised Montreal Protocol). The Senate and House bills also added specific research and development provisions, as well as detailed programs to address accidental releases of toxic air pollutants.

A joint conference committee met from July to October 1990 to iron out differences in the bills and both Houses overwhelmingly voted out the package recommended by the Conferees. The President received the Bill from Congress on November 14, 1990 and signed it on November 15, 1990.

Several progressive and creative new themes are embodied in the Amendments; themes necessary for effectively achieving the air quality goals and regulatory reform expected from these far-reaching amendments. Specifically the new law:

- o encourages the use of market-based principles and other innovative approaches, like performance-based standards and emission banking and trading;
- o provides a framework from which alternative clean fuels will be used by setting standards in the fleet and California pilot program that can be met by the most cost-effective combination of fuels and technology;
- 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;
- o reduces enough energy waste and creates enough of a market for clean fuels derived from grain and natural gas to cut dependency on oil imports by one million barrels/day;
- o promotes energy conservation through an acid rain program that gives utilities flexibility to obtain needed emission reductions through programs that encourage customers to conserve energy.

With these themes providing the framework for the Clean Air Act amendments and with our commitment to implement the new law quickly, fairly and efficiently, Americans will get what they asked for: a healthy, productive environment, linked to sustainable

economic growth and sound energy policy.

**Title I: Provisions for Attainment
and Maintenance of National Ambient
Air Quality Standards**

Although the Clean Air Act Of 1977 brought about significant improvements in our Nation's air quality, the urban air pollution problems of ozone (smog), carbon monoxide (CO) and particulate matter (PM-10) persist. Currently, over 100 million Americans live in cities which are out of attainment with the with the public health standards for ozone.

The most widespread and persistent urban pollution problem is ozone. The causes of this and the lesser problem of carbon monoxide (CO) and particulate matter (PM-10) pollution in our urban areas are largely due to the diversity and number of urban air pollution sources. One component of urban smog - hydrocarbons - comes from automobile emissions, petroleum refineries, chemical plants, dry cleaners, gasoline stations, house painting and printing shops. Another key component - nitrogen oxides - comes from the combustion of fuel for transportation, utilities and industries.

While there are other reasons for continued high levels of ozone pollution, such as growth in the number of stationary sources of hydrocarbons and continued growth in automobile travel, perhaps the most telling reason is that the remaining sources of hydrocarbons are also the most difficult to control. These are the small sources - generally those that emit less than 100 tons of hydrocarbons per year. These sources, such as auto body shops and dry cleaners, may individually emit less than 10 tons per year, but collectively emit many hundreds of tons of pollution.

The Clean Air Act Amendments of 1990 create a new, balanced strategy for the Nation to attack the problem of urban smog. Overall, the new law reveals the Congress's high expectations of the states and the Federal government. While it gives states more time to meet the air quality standard - up to 20 years for ozone in Los Angeles -, it also requires states to make constant formidable progress in reducing emissions. It requires the Federal government to reduce emissions from cars, trucks, and buses; from consumer products such as hair spray and window washing compounds; and from ships and barges during loading and unloading of petroleum products. The Federal government must also develop the technical guidance that States need to control stationary sources.

The new law addresses the urban air pollution problems of ozone (smog), carbon monoxide (CO), and particulate matter (PM-10). Specifically, it clarifies how areas are designated and redesignated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet Federal air quality standards designed to protect public health.

The new law also establishes provisions defining when and how the federal government can impose sanctions on areas of the country that have not met certain conditions.

For the pollutant ozone, the new law establishes nonattainment area classifications ranked according to the severity of the areas's air pollution problem. These classifications are marginal, moderate, serious, severe and extreme. EPA assigns each nonattainment area one of these categories, thus triggering varying requirements the area must comply with in

order to meet the ozone standard.

As mentioned, nonattainment areas will have to implement different control measures, depending upon their classification. Marginal areas, for example, are the closest to meeting the standard. They will be required to conduct an inventory of their ozone-causing emissions and institute a permit program. Nonattainment areas with more serious air quality problems must implement various control measures. The worse the air quality, the more controls areas will have to implement.

The new law also establishes similar programs for areas that do not meet the federal health standards for the pollutants carbon monoxide and particulate matter. Areas exceeding the standards for these pollutants will be divided into "moderate" and "serious" classifications. Depending upon the degree to which they exceed the carbon monoxide standard, areas will be required to implement programs introducing oxygenated fuels and/or enhanced emission inspection programs, among other measures. Depending upon their classification, areas exceeding the particulate matter standard will have to implement either reasonably available control measures (RACM) or best available control measures (BACM), among other requirements.

Title II: Provisions Relating to Mobile Sources

While motor vehicles built today emit fewer pollutants (60% to 80% less, depending on the pollutant) than those built in the 1960s, cars and trucks still account for almost half the emissions of the ozone precursors VOCs and NOx, and up to 90% of the CO 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 view of the unforeseen growth in automobile emissions in urban areas combined with the serious air pollution problems in many urban areas, the Congress has made significant changes to the motor vehicle provisions on the 1977 Clean Air Act.

The Clean Air Act of 1990 establishes tighter pollution standards for emissions from automobiles and trucks. These standards will reduce tailpipe emissions of hydrocarbons, carbon monoxide, and nitrogen oxides on a phased-in basis beginning in model year 1994. Automobile manufacturers will also be required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling.

Fuel quality will also be controlled. Scheduled reductions in gasoline volatility and sulfur content of diesel fuel, for example, will be required. New programs requiring cleaner (so-called "reformulated" gasoline) will be initiated in 1995 for the nine cities with the worst ozone problems. Other cities can "opt in" to the reformulated gasoline program. Higher levels (2.7%) of alcohol-based oxygenated fuels will be produced and sold in 41 areas during the winter months that exceed the federal standard for carbon monoxide.

The new law also establishes a clean fuel car pilot program in California, requiring the phase-in of tighter emission limits for 150,000 vehicles in model year 1996 and 300,000 by the model year 1999. These standards can be met with any combination of vehicle technology and cleaner fuels. The standards become even stricter in 2001. Other states

can "opt in" to this program, though only through incentives, not sales or production mandates.

Further, twenty-six of the dirtiest areas of the country will have to adopt a program limiting emissions from centrally-fueled fleets of 10 or more vehicles beginning as early as 1998.

Title III: Air Toxics

Toxic air pollutants are those pollutants which are hazardous to human health or the environment but are not specifically covered under another portion of the Clean Air Act. These pollutants are typically carcinogens, mutagens, and reproductive toxins. The Clean Air Act Amendments of 1977 failed to result in substantial reductions of the emissions of these very threatening substances. In fact, over the history of the air toxics program only seven pollutants have been regulated.

We know that the toxic air pollution problem is widespread. Information generated from The Superfund "Right to Know" rule (SARA Section 313) indicates that more than 2.7 billion pounds of toxic air pollutants are emitted annually in the United States. EPA studies indicate that exposure to such quantities of air toxics may result in 1000 to 3000 cancer deaths each year.

The Clean Air Act of 1990 offers a comprehensive plan for achieving significant reductions in emissions of hazardous air pollutants from major sources. Industry reports in 1987 suggest that an estimated 2.7 billion pounds of toxic air pollutants were emitted into the atmosphere, contributing to approximately 300-1500 cancer fatalities annually. The new law will improve EPA's ability to address this problem effectively and it will dramatically accelerate progress in controlling major toxic air pollutants.

The new law includes a list of 189 toxic air pollutants of which emissions must be reduced. EPA must publish a list of source categories that emit certain levels of these pollutants within one year after the new law is passed. The list of source categories must include: 1) major sources emitting 10 tons/year of any one, or 25 tons/year of any combination of those pollutants; and, 2) area sources (smaller sources, such as dry cleaners).

EPA then must issue "Maximum Achievable Control Technology" (MACT) standards for each listed source category according to a prescribed schedule. These standards will be based on the best demonstrated control technology or practices within the regulated industry, and EPA must issue the standards for forty source categories within two years of passage of the new law. The remaining source categories will be controlled according to a schedule that ensures all controls will be achieved within 10 years of enactment. Companies that voluntarily reduce emissions according to certain conditions can get a six year extension from meeting the MACT requirements.

Eight years after MACT is installed on a source, EPA must examine the risk levels remaining at the regulated facilities and determine whether additional controls are necessary to reduce unacceptable residual risk.

The new law also establishes a Chemical Safety Board to investigate accidental releases

of extremely hazardous chemicals. Further, the new law requires EPA to issue regulations controlling air emissions from municipal, hospital and other commercial and industrial incinerators.

Title IV: Acid Deposition Control

As many know, acid rain occurs when sulfur dioxide and nitrogen oxide emissions are transformed in the atmosphere and return to the earth in rain, fog or snow. Approximately 20 million tons of SO₂ are emitted annually in the United States, mostly from the burning of fossil fuels by electric utilities. Acid rain damages lakes, harms forests and buildings, contributes to reduced visibility, and is suspected of damaging health.

The new Clean Air Act will result in a permanent 10 million ton reduction in sulfur dioxide (SO₂) emissions from 1980 levels. To achieve this, EPA will allocate allowances in two phases permitting utilities to emit one ton of sulfur dioxide. The first phase, effective January 1, 1995, requires 110 powerplants to reduce their emissions to a level equivalent to the product of an emissions rate of 2.5 lbs of SO₂/mmBtu x an average of their 1985-1987 fuel use. Plants that use certain control technologies to meet their Phase I reduction requirements may receive a two year extension of compliance until 1997. The new law also allows for a special allocation of 200,000 annual allowances per year each of the 5 years of phase I to powerplants in Illinois, Indiana and Ohio.

The second phase, becoming effective January 1, 2000, will require approximately 2000 utilities to reduce their emissions to a level equivalent to the product of an emissions rate of 1.2 lbs of SO₂/mm Btu x the average of their 1985-1987 fuel use. In both phases, affected sources will be required to install systems that continuously monitor emissions in order to track progress and assure compliance.

The new law allows utilities to trade allowances with 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 not, the source is subject to a \$2,000 /ton excess emissions fee and a requirement to offset the excess emissions in the following year.

Nationwide, plants that emit SO₂ at a rate below 1.2 lbs/mmBtu will be able to increase emissions by 20% between a baseline year and 2000. Bonus allowances will be distributed to accommodate growth by units in states with a statewide average below 0.8 lbs/mmBtu. Plants experiencing increases in their utilization in the last five years also receive bonus allowances. 50,000 bonus allowances per year are allocated to plants in 10 midwestern states that make reductions in Phase I. Plants that repower with a qualifying clean coal technology may receive a 4 year extension of the compliance date for Phase II emission limitations.

The new law also includes specific requirements for reducing emissions of nitrogen oxides, based on EPA regulations to be issued not later than mid-1992 for certain boilers and 1997 for all remaining boilers.

Title V: Permits

The new law introduces an operating permits program modelled after a similar

program under the Federal National Pollution Elimination Discharge System (NPDES) law. The purpose of the operating permits program is to ensure compliance with all applicable requirements of the Clean Air Act and to enhance EPA's ability to enforce the Act. Air pollution sources subject to the program must obtain an operating permit, states must ~~develop and implement the program, and EPA must issue permit program regulations,~~ review each state's proposed program, and oversee the state's efforts to implement any approved program. EPA must also develop and implement a federal permit program when a state fails to adopt and implement its own program.

This program--in many ways the most important procedural reform contained in the new law--will greatly strengthen enforcement of the Clean Air Act. It will enhance air quality control in a variety of ways. First, adding such a program updates the Clean Air Act, making it more consistent with other environmental statutes. The Clean Water Act, the Resource Conservation and Recovery Act, and the Federal Insecticide, Fungicide, and Rodenticide Act all require permits. The 1977 Clean Air laws also requires a construction permit for certain pollution sources, and about 35 states have their own laws requiring operating permits.

The new program clarifies and makes more enforceable a source's pollution control requirements. Currently, a source's pollution control obligations may be scattered throughout numerous hard-to-find provisions of state and federal regulations, and in many cases, the source is not required under the applicable State Implementation Plan to submit periodic compliance reports to EPA or the states. The permit program will ensure that all of a source's obligations with respect to its pollutants will be contained in one permit document, and that the source will file periodic reports identifying the extent to which it has complied with those obligations. Both of these requirements will greatly enhance the ability of Federal and state agencies to evaluate its air quality situation.

In addition, the new program will provide a ready vehicle for states to assume administration, subject to federal oversight, of significant parts of the air toxics program and the acid rain program. And, through the permit fee provisions, discussed below, the program will greatly augment a state's resources to administer pollution control programs by requiring sources of pollution to pay their fair share of the costs of a state's air pollution program.

Under the new law, EPA must issue program regulations within one year of enactment. Within three years of enactment, each state must submit to EPA a permit program meeting these regulatory requirements. After receiving the state submittal, EPA has one year to accept or reject the program. EPA must levy sanctions against a state that does not submit or enforce a permit program.

Each permit issued to a facility will be for a fixed term of up to five years. The new law establishes a permit fee whereby the state collects a fee from the permitted facility to cover reasonable direct and indirect costs of the permitting program.

All sources subject to the permit program must submit a complete permit application within 12 months of the effective date of the program. The state permitting authority must determine whether or not to approve an application within 18 months of the date it receives the application.

EPA has 45 days to review each permit and to object to permits that violate the Clean

Air Act. If EPA fails to object to a permit that violates the Act or the implementation plan, any person may petition EPA to object within 60 days following EPA's 45-day review period, and EPA must grant or deny the permit within 60 days. Judicial review of EPA's decision on a citizen's petition can occur in the Federal court of appeals.

Title VI: Stratospheric Ozone and Global Climate Protection

The new law builds on the market-based structure and requirements currently contained in EPA's regulations to phase out the production of substances that deplete the ozone layer. The law requires a complete phase-out of CFCs and halons with interim reductions and some related changes to the existing Montreal Protocol, revised in June 1990.

Under these provisions, EPA must list all regulated substances along with their ozone-depletion potential, atmospheric lifetimes and global warming potentials within 60 days of enactment.

In addition, EPA must ensure that Class I chemicals be phased out on a schedule similar to that specified in the Montreal Protocol -- CFC's, halons, and carbon tetrachloride by 2000; methyl chloroform by 2002 -- but with more stringent interim reductions. Class II chemicals (HCFC's) will be phased out by 2030. Regulations for class I chemicals will be required within 10 months, and Class II chemical regulations will be required by December 31, 1999.

The law also requires EPA to publish a list of safe and unsafe substitutes for Class I and II chemicals and to ban the use of unsafe substitutes.

The law requires nonessential products releasing Class I chemicals to be banned within 2 years of enactment. In 1994 a ban will go into effect for aerosols and non-insulating foams using Class II chemicals, with exemptions for flammability and safety. Regulations for this purpose will be required within one year of enactment, to become effective two years afterwards.

Title VII: Provisions Relating to Enforcement

The Clean Air Act of 1990 contains a broad array of authorities to make the law more readily enforceable, thus bringing it up to date with the other major environmental statutes.

EPA has new authorities to issue administrative penalty orders up to \$200,000, and field citations up to \$5000 for lesser infractions. Civil judicial penalties are enhanced. Criminal penalties for knowing violations are upgraded from misdemeanors to felonies, and new criminal authorities for knowing and negligent endangerment will be established.

In addition, sources must certify their compliance, and EPA has authority to issue administrative subpoenas for compliance data. EPA will also be authorized to issue compliance orders with compliance schedules of up to one year.

The citizen suit provisions have also been revised to allow citizens to seek penalties against violators, with the penalties going to a U.S. Treasury fund for use by EPA for compliance and enforcement activities. The government's right to intervene is clarified and citizen plaintiffs will be required to provide the U.S. with copies of pleadings and draft settlements.

Other Titles

The Clean Air Act Amendments of 1990 continue the federal acid rain research program and contain several new provisions relating to research, development and air monitoring. They also contain provisions to provide additional unemployment benefits through the Job Training Partnership Act to workers laid off as a consequence of compliance with the Clean Air Act. The Act also contains provisions to improve visibility near National Parks and other parts of the country.

CLEAN AIR ACT AMENDMENTS OF 1990

SUMMARY OF KEY TITLES

U.S. EPA
November 15, 1990

Title I - Nonattainment

- o Divides cities into six categories for ozone (3 yrs. - marginal, 6 yrs. moderate, 9 yrs serious, 15 - 17 yrs severe, 20 yrs extreme) and 2 categories for Carbon monoxide.
- o % Reduction: Applies to ozone only. Moderate areas and above must achieve 15% VOC reduction within 6 years of enactment. For serious and above, average of 3% VOC per year thereafter until attainment. Annual VOC and NOx reductions as needed to attain. The 15% and 3% is from an adjusted baseline and all reductions except those from existing FMVCP, gasoline volatility, RACT and I/M fixups are creditable. Possible exemption from % reduction based on technological feasibility, if SIP adopts measures similar to those in next higher category and if all feasible measures are adopted in the first 6 years. NOx substitution possible after 6 years.
- o Prescribed Measures: Major NOx sources meet same requirements as major VOC sources unless EPA finds no benefit. All ozone nonattainment areas correct existing RACT rules and I/M programs. Moderate areas add basic I/M, Stage II and RACT on new and existing CTG and 100 ton non-CTG sources, and make an attainment demonstration. Serious areas add enhanced I/M, RACT on 50 ton non-CTG sources, a fleet vehicle program in areas of 250,000 and up, TCMs needed to offset vehicle growth, special rules for source modifications, and photochemical modeling attainment demonstration. Severe areas add RACT for 25 ton VOC non-CTG sources and provisions requiring adoption of TCMs, if necessary to meet progress requirements and employer trip reduction provisions. Extreme areas add RACT on 10 ton sources, eliminate feasibility exemption from 15% and 3%, add NOx reductions from clean fuels or advanced technology, have peak hour traffic controls; can get SIP approved based on anticipated new technology.
- o Federal Measures: EPA issues 11 new CTGs plus CTGs for aerospace coatings, shipbuilding and repair; marine vessels rule and consumer products rules. Requires an ACT for 25 ton NOx and VOC sources.
- o Sanctions: Grace period of 18 months to cure planning failure. Then must apply 1 of 2 sanctions (modified highway ban or 2:1 offset). Air grants are available. There are Existing construction bans remain, but no new ones.
- o Federal Implementation Plans (FIPs): Within 2 years of state failure to develop an adequate SIP, mandatory attainment FIPs required.
- o Transport: Sets up 11-state NE transport commission. Requires transport states to adopt RACT for existing and new CTGs, RACT on major (50-ton) non-CTG sources, enhanced I/M in MSAs above 100,000 and Stage II or equivalent. No opt-out of VOC measures. Major NOx sources meet same requirements as major VOC sources unless EPA finds no benefit.
- o CO and PM-10: Wintertime oxygenated fuels in all CO areas >9.4 ppm. Areas >12.7 ppm add VMT forecast, enhanced I/M and demonstrate attainment. Serious CO areas add TCMs as in severe ozone areas. PM-10 areas initially designated nonattainment must attain by 12/94 (possible extension to 2001). Moderate areas adopt RACT; serious areas add BACM. Serious CO and PM-10 areas adopt measures to achieve 5% reduction per year effective upon failure to attain.

Title II - Mobile Sources

- o **Tailpipe Standards:** Cars and light trucks: Tier I is 0.25 NMHC, 3.4 CO and 0.4 NOx. Possible Tier II is 0.125 NMHC, 1.7 CO and 0.2 NOx. Tier I phased in 1994-1996. Effectiveness of Tier II in 2004 depends on EPA study of need, feasibility, and cost-effectiveness. Useful life extended to 100,000 miles for most emission standards.
- o **Cold Temperature CO:** Phase-in beginning in 1994 of 10 gpm at 20 degrees F for cars. A 3.4 gpm standard takes effect in 2002 if 6 or more cities are in CO nonattainment in mid-1997.
- o **Clean Fuels:** In 1998 all centrally-fueled fleets in 26 areas must buy 30% of the new vehicles that meet standards of 0.075 gpm VOC and 0.2 NOx; no toxic standards. If such vehicles are not being offered for sale in California the program is delayed possibly until 2001. Purchase requirements increase to 70% in 3rd year.

In 1996, 150,000 clean fuel cars are required to be sold in California; increasing to 300,000 per year by 1999. These cars must meet a standard of 0.125 gpm VOC. Phase 2 begins in 2001 with cars meeting fleet-type standards. Other cities can opt-in to program.
- o **Reformulated Gasoline:** Beginning in 1995 reformulated gasoline is required in the 9 worst ozone areas; minimum oxygen content (2.0%), benzene (1.0%), aromatics (25%), VOCs and toxics reductions (15%, up to 20-25% in 2000). Cities can opt-in.
- o **Oxyfuels:** Beginning in 1992, gas in 41 CO areas must have 2.7% oxygen level in winter months.
- o **Urban Buses:** Delays diesel particulate standard from 1991 to 1993. Beginning in 1994 all buses must meet a PM standard of 0.05 g/hphr (if not feasible EPA will set at 0.07). Based on performance EPA may implement a low polluting bus program in larger cities.
- o **Refueling:** After consultation with DOT on safety issues, EPA required to promulgate onboard controls. Stage II requirements vary by classification.
- o **Volatility:** 9 psi in most of the country beginning 1992; EPA can set lower levels in warmer areas, but cannot require any standard below 9 psi in attainment areas.
- o **Desulfurization:** Diesel fuel highway use limited to 0.05% sulfur by weight.
- o **Air Toxics:** Based on a study of mobile source-related toxics, EPA will regulate, at a minimum, emissions of benzene and formaldehyde.
- o **Non-road Engines:** Based on a study, EPA may regulate any category of non-road engines that contribute to urban air pollution. At a minimum, EPA must control locomotive emissions.
- o **Lead in Gasoline:** As of January 1, 1996, lead banned from use in motor vehicle fuel.

Title III - Air Toxics

- o **List of Pollutants and Source Categories:** Law lists 189 hazardous air pollutants. One year after enactment EPA lists source categories (industries) which emit one or more of the 189 pollutants. In 2 years, EPA must publish a schedule for regulation of the listed source categories.
- o **Maximum Achievable Control Technology (MACT):** MACT regulations are emission standards based on the best demonstrated control technology and practices in the regulated industry. MACT for existing sources must be as stringent as the average control efficiency or the best controlled 12% of similar sources excluding sources which have achieved the LAER within 18 months prior to proposal or 30 months prior to promulgation. MACT for new sources must be as stringent as the best controlled similar source. For all listed major point sources, EPA must promulgate MACT standards - 40 source categories plus coke ovens within 2 years and 25% of the remainder of the list within 4 years. An additional 25% in 7 years and the final 50% in 10 years.
- o **Residual Risk:** Eight years after MACT standards are established (except for those established 2 years after enactment), standards to protect against the residual health and environmental risks remaining must be promulgated, if necessary. The standards would be triggered if more than one source in a category exceeds a maximum individual risk of cancer of 1 in 1 million. These residual risk regulations would be based on current CAA language that specifies that standards must achieve an "ample margin of safety".
- o **Accidental Releases:** Standards to prevent against accidental release of toxic chemicals are required. EPA must establish a list of at least 100 chemicals and threshold quantities. All facilities with these chemicals on site in excess of the threshold quantities would be subject to the regulations which would include hazard assessments and risk management plans. An independent chemical safety board is established to investigate major accidents, conduct research, and promulgate regulations for accidental release reporting.
- o **Other Issues:** A study of area source emissions and a strategy to reduce the cancer incidence from these emissions by 75% is required. Regulation of source categories accounting for 90% of the emissions of the 30 most hazardous area source pollutants. Coke ovens can receive an extension of the residual risk standards until 2020 in exchange for compliance with stringent emission standards. Air toxics regulations of utilities will be based on the results of toxic emissions studies. A study of deposition to the Great Lakes, Lake Champlain, Chesapeake Bay and coastal waters will determine whether additional regulation is needed. Regulations are required for all types of municipal waste combustors and an exclusion for facilities which burn 30% or less municipal waste.

Title IV - Acid Rain

- o **SO2 Reduction:** A 10 million ton reduction from 1980 levels, primarily from utility sources. Caps annual utility SO2 emissions at approximately 8.9 million tons by 2000.
- o **Allowances:** SO2 reductions are met through an innovative market-based system. Affected sources are allocated allowances based on required emission reductions and past energy use. An allowance is worth one ton of SO2 and it is fully marketable. Sources must hold allowances equal to their level of emissions or face a \$2000/excess ton penalty and a requirement to offset excess tons in future years. EPA will also hold special sales and auctions of allowances.
- o **Phase I:** SO2 emission reductions are achieved in two phases. Phase I allowances are allocated to large units of 100 MW or greater that emit more than 2.5 lb/mmBtu in an amount equal to 2.5 lb/mmBtu x their 1985-87 energy usage (baseline). Phase I must be met by 1995 but units that install certain control technologies may postpone compliance until 1997, and may be eligible for bonus allowances. Units in Illinois, Indiana or Ohio are allotted a pro rata share of an additional 200,000 allowances annually during Phase I.
- o **Phase II:** Phase II begins in 2000. All utility units greater than 25 MW that emit at a rate above 1.2 lbs/MMBtu will be allocated allowances at that rate x their baseline fuel consumption. Cleaner plants generally will be provided with 20% more allowances than would have been received based on their baseline consumption. 50,000 bonus allowances are allocated to plants in 10 midwestern states that make reductions in Phase I.
- o **NOx:** Utility NOx reductions will help to achieve a 2 million ton reduction from 1980 levels. Reductions will be accomplished through required EPA performance standards for certain existing boilers in Phase I, and others in Phase II. EPA will develop a revised NOx NSPS for utility boilers.
- o **Repowering:** Units repowering with qualifying Clean Coal Technologies receive a 4 year extension for Phase II compliance. Such units may be exempt from New Source Review requirements and New Source Performance Standards.
- o **Energy Conservation & Renewable Energy:** These projects may be allocated a portion of up to 300,000 incentive allowances.
- o **Clean Coal Technologies (CCT):** Certain CCT demonstration projects may be exempt from NSPS, NSR, and Title I nonattainment requirements.
- o **Monitoring:** Requires continuous emission monitors or an equivalent for SO2 and NOx and also requires opacity and flow monitors.

Title V - Operating Permits

- o Within 3 years of enactment, States must develop operating permit programs. EPA reviews for approval based on regulatory guidelines EPA issues within one year of enactment.**
- o Permits will apply to major sources covered under Title I, as well as sources covered by other titles of the Act.**
- o All sources subject to the program must submit permit applications to the state within 1 year of the effective date (i.e., date of EPA approval) of the state program. The state must establish a schedule for acting on initial permit applications which assures that at least a third of these submitted applications will be acted upon annually for 3 years.**
- o The state must issue permits for a term of up to five years. Permits must include all Clean Air Act requirements applicable to the source. They must also include a schedule of compliance and applicable monitoring and reporting requirements.**
- o Sources must pay permit fees to cover the costs of the permitting program.**
- o EPA must veto a permit if it does not comply with any applicable Clean Air Act requirements.**
- o The public may sue to compel EPA to perform nondiscretionary duty if EPA fails to veto a permit that does not comply with the Act. Such cases are reviewable in the Federal Court of Appeals.**
- o Once issued, the permit replaces the otherwise applicable requirements specifically identified in the permit, but EPA may require that the permit be reopened for cause. A permit with a term of 3 or more years must be reopened if new requirements applicable to the source are promulgated.**
- o EPA may impose sanctions if a state fails to resubmit an approvable permit program after EPA has determined the initial submittal is deficient.**

Title VI - Stratospheric Ozone & Global Climate Protection

- o **Listing:** EPA must list specified ozone depleting substances with their ozone-depletion potential, chlorine/bromine loadings, atmospheric lifetimes and global warming potentials within 60 days after enactment. EPA to add to list at least every 3 years substances meeting specified criteria.
- o **Phase-out:** Phase-out dates are similar to Montreal Protocol for Class I (2000 for CFC, halon and carbon tetrachloride; 2002 for methyl chloroform), but with more stringent interim reductions. Class II (HCFC) substances phased out by 2030. Regulations for Class I required within 10 months, Class II by 12/31/99.
- o **Exchange:** Requires a net environmental benefit from trades of allowances to produce controlled substances. Regulations required within 10 months after enactment.
- o **Recycling/Use Limits:** Restricts use and emissions to LAER, requires maximum recycling and safe disposal for CFC refrigerants within 2 years, all other class I and II substances within 4 years. Illegal to vent class I or II refrigerants after 7/1/92. Prohibition on venting any environmentally harmful substitute refrigerant after 5 years.
- o **Mobile Air Conditioners:** Mandatory recycling after 1/1/92. Certification of equipment and personnel. Ban on small containers (except certified personnel).
- o **Nonessential Products:** Bans nonessential products that result in releases of class I substances within 2 years. Beginning 1994, ban use of class II substances in aerosols and non-insulating foams, with exemptions for flammability and safety. Regulation 1 year after enactment, effective after 2 years.
- o **Labeling:** Mandatory warning labels on all containers of products made with and containing class I or class II substances (depending, in some cases, on availability of safe alternatives). Regulations required within 18 months after enactment, effective 30 months after. In case of labeling, requirements applicable to containers of Class I and II substances and to products containing Class I substances. All products must be labeled by 2015.
- o **Safe Alternatives:** Requires prior notice of sale of new and existing chemicals for significant new use as substitute. EPA to publish list of safe and unsafe uses of substitutes for Class I and II as identified. Gives authority to restrict the use of unsafe substitutes. Rules required within 2 years after enactment.
- o **Procurement:** Requires all Federal Agencies to amend their procurement regulations to maximize the use of safe alternatives for Class I and II substances. Regulations required within 18 months after enactment, effective 30 months after.
- o **Methane:** EPA to publish 5 reports to Congress within 2 years, and 1 follow-up report within 4 years.

Title VII - Enforcement

- o **Enhances Enforceability:** Makes the CAA more easily enforceable and consistent with recent environmental statutes, like the Clean Water Act and the Resource Conservation and Recovery Act. A broad array of new enforcement authorities, from "traffic tickets" to criminal felonies, are provided to better match the penalty to the severity of the violation. However, some changes also limit enforcement in new ways.
- o **Violations:** Criminal violations are upgraded from misdemeanors to felonies, consistent with other environmental statutes.
- o **New Criminal Sanctions:** Will be added for knowing endangerment and negligent endangerment in connection with air toxics.
- o **Penalties:** EPA may issue administrative penalty orders up to \$200,000 and field citations for minor violations up to \$5,000, rather than taking every violation to court. EPA may issue administrative subpoenas. Sources may challenge assessments in administrative hearings and District Court.
- o **Scope:** Duration and scope of emergency orders are expanded. Authority to issue administrative compliance orders to sources is expanded to authorize schedules of up to 1 year.
- o **Restrictions:** Definitions of the terms "operator" and "person", which immunize many potential violators from enforcement, are restricted.
- o **Citizen suit:** Provisions are revised to allow courts to assess penalties as well as enjoin violations. The money will go to a special U.S. Treasury fund. Money may be designated for air compliance activities, or mitigation projects. District Courts are given jurisdiction over suits against EPA for unreasonable delay.
- o **Oversight:** Effective federal oversight of citizen suits is provided through additional notification requirements.
- o **Punishment:** The ability to prove and adequately punish ongoing and recurring violations is strengthened because the burden of proof is on the defendant for the purpose of determining penalty liability once the government shows that a violation has occurred. Once a violation has been proven, any credible evidence is admissible to show that the violation continued.
- o **Contractors:** Listing authority (by which violators are barred from receiving government contracts, grants and loans) is revised so that all criminal convictions result in debarment. EPA is not explicitly allowed to use contractors for inspection purposes.

Title VIII - Miscellaneous Provisions

- o **Outer Continental Shelf (OCS):** Program to control air pollution from sources on the Outer Continental Shelf. Sources within 25 miles of shore required to meet the same standards as onshore areas. Exemptions possible if the Administrator finds that compliance is technologically infeasible or will cause an unreasonable threat to health and safety. States adjacent to OCS sources may implement and enforce requirements if approved by the Administrator. Within 3 years of enactment the Secretary of the Interior will conduct a study of areas adjacent to Texas, Louisiana, Mississippi and Alabama, examining the impacts of emissions from Outer Continental Shelf activities.
- o **Establishment of program to monitor and improve air quality in regions along the border between the United States and Mexico:** Program effective through July 1, 1995. Monitoring conducted to determine the sources of pollutants for which NAAQS have been established. The information will be used to aid in the process of attainment for sources out of compliance with the NAAQS. The Administrator can negotiate with Mexican representatives to reduce the level of airborne pollutants and achieve NAAQS in regions along the U.S./Mexico border. Each year the Administrator will give an annual report to Congress concerning the status of the program and the progress of reaching attainment in border regions.
- o **Visibility:** Each year, for 5 years, \$ 8 million will be allocated to conduct studies which will identify and evaluate sources and source regions of both visibility impairment and Class I regions. Research includes expansion of monitoring in Class I areas, assessment of sources affecting visibility, adaptation of regional air quality models and studies of atmospheric chemistry and physics pertaining to visibility. 24 months after enactment, Administrator will conduct an assessment of how the Clean Air Act Amendments are affecting Class I areas. The Administrator can establish Visibility Transport Regions if two or more affected states petition the Administrator that the interstate transport of air pollutants is negatively affecting visibility in Class I areas. In conjunction with the transport region, a commission shall be designated. The Commission will evaluate data, studies and information pertaining to adverse impacts on visibility. Based on the evaluation, action may be taken to remedy any negative impacts. The Administrator shall establish a Grand Canyon Visibility Transport Commission within 12 months of enactment.
- o **International Border Areas:** Provides that an implementation plan or revision shall be approved by the Administrator if it meets all of the Act's requirements except attainment of NAAQS because of emissions emanating from outside the United States. States that can prove that they cannot meet ozone, CO or PM-10 attainment levels by the applicable deadline because of emissions from outside of the U.S. shall not be penalized.
- o **Other Key Provisions:** - Grants For Support of Air Pollution Planning and Control Programs, Section 808 - Renewable energy and energy Conservation incentives and Section 817 - The Role of Secondary Standards.

Title IX - Clean Air Research

- o **Monitoring and modeling:** Research calls for improved methods and techniques for measuring individual air pollutants and complex mixtures, and for addressing urban and regional ozone. Maintenance of a national monitoring network to assess the status and trends of air emissions, deposition, air quality, surface water quality, forest conditions, and visibility is required.
- o **Health effects:** EPA will study the short and long-term health effects associated with exposure to air pollutants and develop methods to assess risks from these pollutants. An interagency task force, led by EPA, will coordinate the research. EPA is required to prepare environmental health assessments for all listed hazardous air pollutants.
- o **Ecosystem:** Studies for improving our understanding of ecosystem effects from individual and multiple air pollutants, including the effects of air pollution on water quality, forests, biological diversity, and other terrestrial and aquatic systems exposed to air pollutants.
- o **Accidental Releases:** Research calls for improvements in predictive models and response technology for accidental releases of dense gases. EPA will oversee the research using the Department of Energy's Liquefied Gaseous Fuels Spill Test Facility for the experimental work.
- o **Pollution Prevention and Emissions Control:** Research is required to develop technologies and strategies for air pollution prevention from stationary and area sources.
- o **Acid Precipitation Research Program:** Continuation of research by an intra-agency task force. It will review the status of research activities conducted to date and submit to Congress a revised plan that identifies key research gaps and establishes a program to address current and future research priorities. EPA is required to sponsor specialized acid deposition studies and to have the results of its research efforts included in Task Force reports.
- o **Clean alternative fuels:** Research directs EPA to identify, characterize and predict air emissions and other potential environmental effects associated with alternative fuels. EPA is required to determine the risks and benefits to human health and the environment relative to those from gasoline.
- o **Other Studies:** Coordinate research with appropriate Federal agencies. Study of control technologies used in other industrialized countries. A six million dollar research effort on the effects of acid deposition on waters in the Adirondack region.

Title XI - Clean Air Employment Transition Assistance

- o **Job Partnership Training Act (JTPA):** Amends Title III of the Job Partnership Training Act. An additional \$50 million per year for 1991-1995 allocated to JTPA Title III to assist dislocated workers, the majority of who will likely be high sulfur coal miners, dislocated because of implementation of the acid rain title.
- o **Funding:** Ninety-five percent of the funding will go to the worker assistance programs and the remaining five percent will be used to administer the title. The Department of Labor will administer the program. Regulations must be developed within 180 days of the bill's passage.
- o **Benefits:** In addition to the benefits currently available to dislocated workers through JTPA Title III, people will be able to receive job search allowances, relocation assistance, needs related payments and extended monetary assistance. Extended monetary assistance will be available to dislocated workers who have exhausted their unemployment insurance benefits as long as their are in qualified training or educational programs.
- o **Difference from Current Program:** Currently, JTPA Title III can provide the benefits mentioned above. But, because of constraints in the way the program is operated, these benefits are not provided frequently. Title XI ensures that dislocated workers, if eligible, receive benefits.
 - The intent for providing further monetary assistance, in the form of needs related payments, is so that workers, who are adjusting to a career change and are enrolled in training or educational programs that exceed the period of time for which they receive Unemployment Insurance (UI), are able to complete training or education with further monetary assistance.
- o **Eligibility:** Payments will be awarded to a dislocated worker, if he is enrolled in training or an educational program, and either he or a member of his family has an income level below the state poverty income level. Payments will be equivalent to either the amount a person was receiving from their UI, or enough so as to bring the person up to the poverty level.

CLEAN AIR ACT AMENDMENTS OF 1990

GLOSSARY OF TERMS

**U.S. EPA
November 15, 1990**

Acid Deposition ("Acid Rain"). -- A complex chemical and atmospheric phenomenon that occurs when emissions of sulfur and nitrogen compounds and other substances are transformed by chemical processes in the atmosphere, often far from the original sources, and then deposited on earth in either a wet or dry form. The wet forms, popularly called "acid rain," can fall as rain, snow, or fog. The dry forms are acidic gases or particulates.

Air Toxics. -- Any air pollutant for which a national ambient air quality standard (NAAQS) does not exist (i.e. excluding ozone, carbon monoxide, PM-10, sulfur dioxide, nitrogen dioxide) that may reasonably be anticipated to cause cancer, developmental effects, reproductive dysfunctions, neurological disorders, heritable gene mutations or other serious or irreversible chronic or acute health effects in humans.

Aromatics. -- A type of hydrocarbon, such as benzene or toluene, added to gasoline in order to increase octane. Some aromatics are toxic.

Attainment Area. -- An area considered to have air quality as good as or better than the National Ambient Air Quality Standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a non-attainment area for others.

Best Available Control Measure (BACM). -- A term used in the House bill referring to the "best" measures (according to EPA guidance) for controlling small or dispersed sources of particulate matter, such as roadway dust, woodstoves, and open burning.

Carbon Monoxide (CO). -- A colorless, odorless gas which is toxic because of its tendency to reduce the oxygen-carrying capacity of the blood.

Clean Coal Technology. -- Any technology not in widespread use as of the date of enactment of the Clean Air Act amendments which will achieve significant reductions in pollutants associated with the burning of coal.

Clean Fuels. -- Blends and/or substitutes for gasoline fuels. These include compressed natural gas, methanol, ethanol, and others.

Coke Oven. -- An industrial process which converts coal into coke, which is one of the basic materials used in blast furnaces for the conversion of iron ore into iron.

Cold Temperature CO. -- A standard for automobile emissions of carbon monoxide (CO) to be met at a low temperature (i.e., 20 degrees F.). Conventional catalytic converters are less efficient upon start-up at low temperatures.

Control Techniques Guideline (CTG). -- Guidance documents issued by EPA which define reasonably available control technology (RACT) to be applied to existing facilities that emit certain threshold quantities of air pollutants; they contain information both on the economic and technological feasibility of available techniques.

CFCs (Chlorofluorocarbons). -- A family of inert, nontoxic, and easily-liquefied chemicals used in refrigeration, air conditioning, packaging, insulation, or as solvents or aerosol propellants. Because CFCs are not destroyed in the lower atmosphere they drift into the upper atmosphere where the chlorine is released and destroys ozone.

CFC-12. -- A chlorofluorocarbon with a trademark name of Freon, commonly used in refrigeration and automobile air conditioning.

Emission Control Diagnostics. -- Computerized devices placed on vehicles to detect malfunction of emissions controls and notify the owner of the need for repair.

Enhanced Inspection & Maintenance (Enhanced I&M). -- An improved automobile inspection and maintenance program that includes, as a minimum, increases in coverage of vehicle types and model years, tighter stringency of inspections and improved management practices to ensure more effectiveness. This may also include annual, computerized, or centralized inspections; under-the-hood inspections to detect tampering with pollution control equipment; and increased repair waiver cost. The purpose of Enhanced I&M is to reduce automobile emissions by assuring that cars are running properly.

Federal Implementation Plan (FIP). -- Under current law, a federally implemented plan to achieve attainment of an air quality standard, used when a State is unable to develop an adequate plan. Under the Senate bill, a plan containing control measures developed and promulgated by EPA in order to fill gaps in a State Implementation Plan (SIP).

Gasoline Volatility. -- The property of gasoline whereby it evaporates into a vapor. Gasoline volatility is measured in pounds per square inch (psi), with a higher number reflecting more gasoline evaporation. Gasoline vapor is a volatile organic compound (VOC).

Halons. -- A family of compounds containing bromine used in fighting fires, whose breakdown in the atmosphere depletes stratospheric ozone.

HCFs. -- Chlorofluorocarbons that have been chemically altered by the addition of hydrogen, and which are significantly less damaging to stratospheric ozone than other CFCs.

Inspection & Maintenance (I&M). -- A program providing for periodic inspections of motor vehicles to ensure that emissions of specified pollutants are not exceeding established limitations.

Low NOx Burners. -- One of several combustion technologies used to reduce emissions of NOx.

Maximum Achievable Control Technology (MACT). -- Emissions limitations based on the best demonstrated control technology or practices in similar sources to be applied to major sources emitting one or more of the listed toxic pollutants.

Montreal Protocol. -- An international environmental agreement to control chemicals that deplete the ozone layer. The protocol, which was renegotiated in June 1990, calls for a phase-out of CFCs, halons, and carbon tetrachloride by the year 2000, a phase-out of chloroform by 2005, and provides financial assistance to help developing countries make the transition from ozone-depleting substances.

NOx (Nitrogen Oxides). -- Chemical compounds containing nitrogen and oxygen; reacts with volatile organic compounds, in the presence of heat and sunlight to form ozone. It is also a major precursor to acid rain. Nationwide, approximately 45 percent of NOx emissions come from mobile sources, 35 percent from electric utilities, and 15 percent from industrial fuel combustion.

Onboard Controls. -- Devices placed on vehicles to capture gasoline vapor during refueling and then route the vapors to the engine when the vehicle is started so that they can be efficiently burned.

Oxygenated Fuels. -- Gasoline which has been blended with alcohols or ethers that contain oxygen in order to reduce carbon monoxide and other emissions.

Ozone. -- A compound consisting of three oxygen atoms, that is the primary constituent of smog. It is formed through chemical reactions in the atmosphere involving volatile organic compounds, nitrogen oxides, and sunlight. Ozone can initiate damage to the lungs as well as damage to trees, crops, and materials. There is a natural layer of ozone in the upper atmosphere which shields the earth from harmful ultraviolet radiation.

PM-10. -- A new standard for measuring the amount of solid or liquid matter suspended in the atmosphere ("particulate matter"). Refers to the amount of particulate matter over 10 micrometers in diameter. The smaller PM-10 particles penetrate to the deeper portions of the lung, affecting sensitive population groups such as children and people with respiratory diseases.

Reasonably Available Control Measures (RACH). -- A broadly defined term referring to technologies and other measures that can be used to control pollution; includes Reasonably Available Control Technology and other measures. In the case of PM-10, it refers to approaches for controlling small or dispersed source categories such as road dust, woodstoves, and open burning.

Reasonably Available Control Technology (RACT). -- An emission limitation on existing sources in non-attainment areas, defined by EPA in a Control Techniques Guideline (CTG) and adopted and implemented by States.

Reformulated Gasoline. -- Gasoline with a different composition from conventional gasoline (e.g., lower aromatics content) and that results in the production of lower levels of air pollutants.

Repowering. -- The replacement of an existing coal-fired boiler with one or more clean coal technologies, in order to achieve significantly greater emission reduction relative to the performance of technology in widespread use as of the enactment of the Clean Air Act amendments.

Residual Risk. -- The quantity of health risk remaining after application of the MACT (Maximum Achievable Control Technology).

Sanctions. -- Actions taken against a State or local government by the Federal government for failure to plan or to implement a SIP. Examples include withholding of highway funds and a ban on construction of new sources.

Stage II Controls. -- Systems placed on service station gasoline pumps to control and capture gasoline vapors during automobile refueling.

State Implementation Plan (SIP). -- Documents prepared by states, and submitted to EPA for approval, which identifies actions and programs to be undertaken by the State and its subdivisions to implement their responsibilities under the Clean Air Act.

Sulfur Dioxide (SO₂). -- A heavy, pungent, colorless air pollutant formed primarily by the combustion of fossil fuels. It is a respiratory irritant, especially for asthmatics and is the major precursor to the formation of acid rain

Transportation Control Measures (TCMs). -- Steps taken by a locality to adjust traffic patterns (e.g., bus lanes, right turn on red) or reduce vehicle use (ridesharing, high-occupancy vehicle lanes) to reduce vehicular emissions of air pollutants.

Vehicle Miles Travelled (VMT). -- A measure of both the volume and extent of motor vehicle operation; the total number of vehicle miles travelled within a specified geographical area (whether the entire country or a smaller area) over a given period of time.

Volatile Organic Compounds (VOCs). -- A group of chemicals that react in the atmosphere with nitrogen oxides in the presence of heat and sunlight to form ozone; does not include methane and other compounds determined by EPA to have negligible photochemical reactivity. Examples of VOCs include gasoline fumes and oil-based paints.

CLEAN AIR ACT AMENDMENTS OF 1990
LEGISLATIVE CHRONOLOGY

U.S. EPA
November 15, 1990

LEGISLATIVE CHRONOLOGY OF EVENTS – CLEAN AIR ACT AMENDMENTS

- o **JUNE 12, 1989** – President Bush announces the Administration's clean air proposal which comprehensively addresses three areas of environmental concern: acid deposition, toxic air pollution, and urban air quality
- o **JULY 21, 1989** – the legislative language interpreting the President's proposal is submitted to Congress
- o **JULY 27, 1989** – the Administration's bill is introduced by House Energy and Commerce Committee Chairman John Dingell (D-MI) as H.R. 3030 with 146 cosponsors (eventually 166); the measure is subsequently referred to the Energy and Commerce Committee
- o **AUGUST 3, 1989** – the Administration's bill is introduced in the Senate by Senator John Chafee (R-RI) as S. 1490 with 24 cosponsors (eventually 25); the measure is subsequently referred to the Senate Environment and Public Works Committee
- o **SEPTEMBER 13, 1989** – Health and Environment Subcommittee of the House Energy and Commerce Committee holds first of 11 mark-ups on H.R. 3030 that continue through October 11, 1989
- o **OCTOBER 11, 1989** – Health and Environment Subcommittee of House Energy and Commerce held their final mark-up of the Administration's bill (H.R. 3030); the measure, as amended, is sent to full Committee by a 21 - 0 vote
- o **OCTOBER 26, 1989** – Environmental Protection Subcommittee of Senate Environment and Public Works begins process of marking-up clean air legislation
- o **NOVEMBER 14, 1989** – Environmental Protection Subcommittee of Senate Environment and Public Works votes to include an Acid Rain title which is based on the Administration's original proposal; the Subcommittee had no further action on S. 1630
- o **NOVEMBER 16, 1989** – Senate Environment and Public Works votes out a Clean Air bill (S. 1630) by a 15 - 1 margin
- o **JANUARY 23, 1990** – Floor debate begins in the U.S. Senate
- o **FEBRUARY 1, 1990** – a group of bipartisan Senators begin meeting with Administration officials in a month-long, closed door negotiation session on amendments to S. 1630; during which, Senate floor debate is put on hold
- o **MARCH 5, 1990** – Senator George Mitchell announces agreement with the Administration on several key aspects of clean air; this measure is the product of the Administration and bipartisan Senate negotiations during February and served as the vehicle for Senate floor deliberation (it would eventually become S. 1630)
- o **MARCH 14, 1990** – Energy and Power Subcommittee of House Energy and Commerce reports H.R. 3030 out to full committee; the Subcommittee had jurisdiction over the alternative fuels and acid rain provisions in the bill, but the Chairman decided not to mark-up / amend their measure

- o **MARCH 14, 1990** – House Committee on Energy and Commerce begins public mark-up of H.R. 3030
- o **APRIL 3, 1990** – the Senate votes out the Clean Air Act Amendments of 1990; the ~~measure was passed by a vote of 89 - 11. The following Senators voted against final passage of the bill:~~ Byrd, Rockefeller, Simon, Dixon, McClure, Symms, Garn, Glenn, Helms, Nickles, and Wallop.
- o **MAY 17, 1990** – House Committee on Energy and Commerce reports H.R. 3030 out of committee by a vote of 42 - 1; the measure then moved to the entire House of Representatives
- o **MAY 17, 1990** – House Committee on Public Works and Transportation and the House Committee on Ways and Means were given sequential referral of certain aspects of H.R. 3030; both committees report the bill out on May 21, 1990
- o **MAY 17, 1990** – House Committee on Ways and Means receives sequential referral of H.R. 3030 for a period ending no later than May 21, 1990
- o **MAY 23, 1990** – the House of Representatives votes to pass a new Clean Air Act by a vote of 401 - 21
- o **JUNE 6, 1990** – the Senate announces their conferees for the Clean Air Act Amendments of 1990, they are as follows: Senators Quentin Burdick (D-ND), Daniel Patrick Moynihan (D-NY), George Mitchell (D-ME), Max Baucus (D-MT), John Chafee (R-RI), Alan Simpson (R-WY), David Durenberger (R-MN) as well as Lloyd Bentsen (D-TX) and Bob Packwood (R-OR) of the Finance Committee for the fee-related provisions only, all other conferees are Senate Environment and Public Works Committee members
- o **JUNE 28, 1990** – the House of Representatives announces their conferees for the Clean Air Act Amendments of 1990 – the list includes 138 House Members overall with representation from seven committees, the six committees other than the Energy and Commerce will have jurisdiction over their individual areas
- o **July 13, 1990** – House and Senate Clean Air Conferees hold their first joint conference. During the first session, the conferees selected Senator Max Baucus (D-MT) as the Conference Chairman
- o **October 22, 1990** – House and Senate Clean Air Conferees reach final agreement on Clean Air reauthorization and thus conclude conference negotiations
- o **October 26, 1990** – The House of Representatives considers the conference report and passes the measure with a 401 - 25 roll call vote
- o **October 27, 1990** – The Senate considers the conference report and passes the measure with an 89 - 10 roll call vote
- o **November 13, 1990** – S. 1630, "The Clean Air Act Amendments of 1990," is submitted to the President
- o **November 15, 1990** – The President signs the Clean Air Act Amendments

CLEAN AIR ACT

Talking Points--11/15/90

What does it do?

Reauthorizes and re-energizes efforts to achieve and maintain healthy air quality in our cities.

How?

Work for all levels of government, industry and individuals.

Federal

- Strong controls on power plants, automobiles.
- Set standards, deadlines, develop guidelines.
- Provide monetary and technical assistance.
- Sanctions and Federal plans if state/locals fail.
- Won't guarantee achievement of healthy air quality (State/local role essential).

State and local government

- Tailor programs and add measures necessary to accomodate their unique situations.
- Develop and enforce plans to achieve the air quality goals.

Individuals

- In spite of improvements in pollution control technology, growth is outstripping our ability to make improvments in air quality.
- Much of the pollution remaining derives from us collectively as individuals; in the way we use automobiles and woodstoves, consume energy and use products, and dispose of waste.
- We will be called upon to support new pollution control programs and do our part to modify our behavior somewhat to achieve the clean air goals.
- Take the less painful steps now to avoid the need to take more drastic measures in the future to avoid serious, growth-related air pollution problems.

SALIENT FEATURES OF THE CLEAN AIR ACT

Strikes at three major problems

- Urban air pollution
- Toxic air pollutants
- Acid rain

Five major themes

- Early actions to reduce pollution
- Steady progress toward healthy air quality
- Tailors stringency of programs to severity of problem
- Encourages cleaner fuels and innovative technology
- Uses market based approaches to allow flexibility in how achieve emission reductions and air quality goals

Urban air pollution

Federal programs

- New car emission standards:
 - Reduce hydrocarbons by 35%
 - Reduce NOx by 60%
 - (40% of vehicles by 1994, 100% by 1998)
- Reformulated gas in 9 cities by 1995
 - 15% lower VOC and toxics by 1995
 - 20-25% lower by 2000
- Oxygenated fuels (2.7% O₂) by 1992 in all CO areas
- 100,000 mile emission warranties
- On board diagnostics
- On board vapor recovery by 1995 if safe per DOT
- Clean fuel busses by 1994
- Sanctions and incentives

State and local programs

- ~~Continue and improve I/M~~
- Add stage II vapor recovery programs at large service stations
- Clean fueled fleet vehicles in serious ozone areas
- 4% per year emission reductions
- Adopt controls on point sources per national guidelines
- Adopt additional control measures needed to attain standards

(There is also a clean fuel vehicle pilot program for California.)

Air Toxics

- Addresses 189 toxic chemicals
- 250 source categories subject to regulation
- Standards promulgated in 10 years (41 categories in 2 years)
- Standards require Maximum Achievable Control Technology
- Tighter standards required 8 years after initial promulgation if residual risk greater than 1-in 1 million
- Controls on area sources such as dry cleaners
- Provisions for preventing accidental releases

Chemical Safety Board investigates accidents
Facilities assess hazards and prevention steps

- New controls on municipal, commercial, hospital incinerators

Acid Rain

- Requires 10 million ton/year reduction in SO₂, 2 million ton/year reduction in NO_x
- Federally operated allowance marketing system in Phase I, State operated in Phase II

Permits

- Requires state operating permit programs and fees
- Fee minimum of \$25 per ton of pollutant (except CO). Will raise substantial revenues for state and local agencies to carry out their air pollution control programs
- Compliance with permit is equivalent to compliance with applicable provisions of the Clean Air Act.

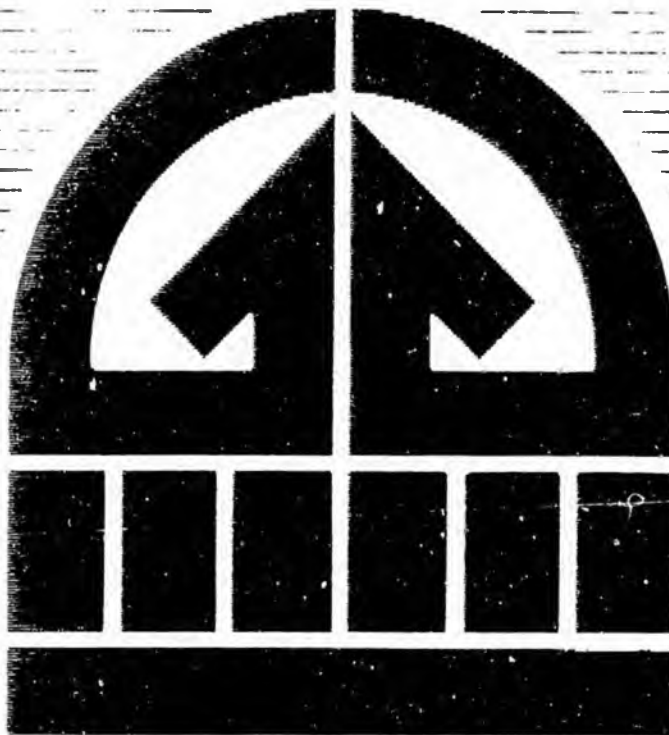
Federal Enforcement

- Allows use of administrative penalties
- Upgrades criminal penalties from misdemeanors to felonies for knowing violations
- Allows field citations for minor violations
- Allows collection of penalties in citizen suits
- Improves ability to use emergency orders for substantial endangerment

Chronology

President Bush proposes administration bill	June 12, 1989
Senate passes bill (89 - 11)	April 3, 1990
House passes bill (401 - 21)	May 23, 1990
Conference committee agreement	July 13, 1990
Senate passes conference bill	October 27, 1990
House passes conference bill	

State-Federal Issue Brief



101ST CONGRESS IN REVIEW

THE CLEAN AIR ACT AMENDMENTS OF 1990

by

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Committee Director
Environment and Natural Resources

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101st Congress in Review

The Clean Air Act Amendments of 1990

Nancy New
Committee Director
Environment and Natural Resources

I. EXECUTIVE SUMMARY

After nearly a decade of contentious and often stalemated debate, the 101st Congress overwhelmingly authorized a sweeping reform of the law which governs air quality, the Clean Air Act. The new amendments, over 700 pages long, combine with the original law enacted in 1970 and last amended in 1977.

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Tighter controls will be levied against existing industries, businesses, and smaller polluters. Annual reductions in levels of pollution emitted will be instituted and additional controls imposed on mobile sources, thus spreading the burden of emission reduction among several sectors.

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II. BACKGROUND

A nationwide framework for controlling air pollution was first adopted in 1970 as the Clean Air Act (P.L. 91-604) with significant amendments added in 1977 (P.L. 95-95) and 1990 (P.L. 101-549). The Clean Air Act (CAA) delegates primary

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State-Federal Issue Brief



101ST CONGRESS IN REVIEW

THE CLEAN AIR ACT AMENDMENTS OF 1990

by

Nancy A. New
Committee Director
Environment and Natural Resources

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An Information Service of the National Conference of State Legislatures
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101st Congress in Review

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I. EXECUTIVE SUMMARY

After nearly a decade of contentious and often stalemated debate, the 101st Congress overwhelmingly authorized a sweeping reform of the law which governs air quality, the Clean Air Act. The new amendments, over 700 pages long, combine with the original law enacted in 1970 and last amended in 1977.

Over 100 million people, or 40 percent of the U.S. population, currently live in areas of the country with "dirty air." The new law aims to improve air quality in major metropolitan areas which now violate health-based standards. It intends to halve the emissions that cause acid rain, and seeks to control both the routine and accidental release of toxic air pollutants into the atmosphere by reducing emissions by up to 75 percent.

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State and local agencies will be responsible for primary implementation of the new Clean Air Act even though much of their activity will not commence until the federal government issues rules, regulations, and guidance documents. State legislatures must take specific action to revise substantially state air pollution permit programs. The new law's success depends on expanded permit programs and an accompanying fee program. Legislatures must also authorize specific pollution control strategies, such as new or improved motor vehicle emissions inspection and Maintenance programs (I/M) and adoption of Stage II Vapor Recovery for capturing refueling vapors. In addition, under the new law, states can participate in clean-fueled vehicle programs if authorized by state legislatures. State legislatures will also need to review and upgrade current state penalties for violations of the Clean Air Act.

II. BACKGROUND

A nationwide framework for controlling air pollution was first adopted in 1970 as the Clean Air Act (P.L. 91-604) with significant amendments added in 1977 (P.L. 95-95) and 1990 (P.L. 101-549). The Clean Air Act (CAA) delegates primary

responsibility for air pollution control to state and local governments, but also requires major technical and financial leadership from the federal government. State and local agencies are required to conduct inventories of air pollution emissions, and prepare pollution control plans. They must also adopt and enforce regulations, issue permits, inspect facilities, monitor air quality to ensure steady progress and carry out other responsibilities. Some of the major responsibilities of the U. S. Environmental Protection Agency (EPA) are to set national health-based standards for ozone, carbon monoxide and other pollutants, to develop guidelines for use of technologies to control emissions from stationary and mobile sources, and to approve state and local control plans, and to oversee their implementation.

III. CONGRESSIONAL ACTION

Legislation dealing with separate parts of the Clean Air Act has been reviewed every year since 1981. In 1987 legislation dealing with the three major issues of ozone and carbon monoxide nonattainment, acid rain, and air toxics was introduced and eventually combined into one comprehensive approach to air pollution control. Since 1987, reauthorization of the Clean Air Act has dominated the agendas of the relevant environmental subcommittees and full committees.

Historically, the legislation has been a hostage of the politics dominating the specific committees and leadership of Congress. For example, the legislation would be referred to the House Subcommittee on Health and the Environment, chaired by Congressman Henry Waxman, long-time health advocate, representing Los Angeles, California, the area with the nation's worst air pollution. Although the legislation would sometimes be reported out of the subcommittee, it would end up stalled in the full Energy and Commerce Committee, chaired by Congressman John Dingell representing Detroit and a constituency heavily reliant on the auto industry.

In the Senate, the Subcommittee on Environmental Protection chaired by Senator George Mitchell of Maine, a longstanding advocate of clean air legislation, and the full Committee on Environment and Public Works chaired by then-Senator Robert Stafford of Vermont, were more receptive to stronger measures contained in the legislation. Thus, legislation progressed as far as the Senate floor several times. However, then-Majority Leader Robert Byrd of West Virginia had serious reservations about acid rain provisions, and refused to schedule floor debate. When Senator Mitchell became Majority Leader in 1989, the prospects for Senate passage increased.

A third major factor in the stalemate was lack of leadership from the Executive Branch. Prospects improved when, in 1989, President Bush announced support for a major rewrite of the Clean Air Act and proposed his own version. Many observers agree that this initiative from the White House helped create an atmosphere in which most players realized they needed to start dealing or be left out of the negotiations that most likely would bring about reauthorization.

Table 1 outlines some of the major milestones in the Clean Air Act reauthorization process. The Clean Air Act, Public Law 101-549, was signed November 15, 1990.

IV. SUMMARY OF MAJOR ISSUES

The Clean Air Act Amendments of 1990 contain 11 titles, including major sections on nonattainment, mobile sources, air toxics, acid rain, permits, stratospheric ozone depletion, and enforcement.

NONATTAINMENT (TITLE I)

The first major title of the new amendments addresses areas of the country that do not meet federal health-based standards ("nonattainment" areas). 96 areas in the country exceed the standards for ozone and 41 areas exceed the standards for carbon monoxide.

Ozone Nonattainment

Lower atmospheric ozone, or urban smog, causes adverse health effects resulting from exposure. However, ozone in the upper stratosphere is desirable because it forms a protective layer against unwanted ultraviolet radiation. Chlorofluorocarbons (CFCs) destroy the stratospheric ozone. The nonattainment sections of the law refer to lower atmospheric ozone.

Control of urban smog is complicated by the fact that sources do not emit ozone per se, they emit chemicals such as volatile organic compounds (VOCs--also referred to as hydrocarbons) and oxides of nitrogen (NO_x) that react in sunlight to form ozone. Thus, ozone problems tend to be the worst on hot, sunny, summer days. Industries, businesses, motor vehicles and products such as gasoline, paints and solvents release VOCs, while NO_x are a result of fuel combustion and are generated by both mobile and stationary sources.

Categories: Under the new law, ozone nonattainment areas are classified into one of five categories, depending on the degree to which they exceed the standard. The categories are marginal, moderate, serious, severe, and extreme. There are categorical deadlines ranging from three to twenty years by which the standard must be attained. If an area fails to reach the standard, it is reclassified into the next category where tougher control requirements exist. All requirements for lower categories also apply in stricter categories.

Table 2 outlines major requirements of the five ozone nonattainment categories.

Table 3 lists the areas likely to be classified into each category.

Sanctions: Sanctions will apply if an area fails to try to meet the standards either by not planning or by not implementing a plan. Sanctions are mandatory and include withholding of highway funds or requiring that existing sources reduce emissions by twice the amount a new source would emit ("offsets"). This could effectively become a construction ban. EPA also has discretion to withhold grants to state and local pollution control agencies.

Progress towards attainment: All ozone nonattainment areas must demonstrate regular emission reductions, with all categories except marginal areas required to achieve a 15 percent reduction in VOCs within the first six years. Serious, severe,

and extreme areas must achieve additional annual reductions of three percent of emissions after the first six years.

Controls on Smaller Polluters: Increasingly smaller sources of pollution will be regulated in more heavily polluted areas. At present, sources that annually emit over 100 tons of pollution must apply certain controls. As categories become stricter, and deadlines approach, controls are required on sources that emit 50 tons per year, then 25 tons per year, then 10 tons per year.

Interstate Transport of Pollution: A Northeast Interstate Transport Region is created, with provisions to establish others. In this region are: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, the District of Columbia and Northern Virginia (the DC metropolitan area). All areas within the region, including those which comply with air pollution standards, must regulate smaller sources of pollution than are now controlled, adopt enhanced Inspection and Maintenance (I/M) programs to regulate motor vehicle emissions, and adopt all federally recommended controls. A process is established to require additional controls, where necessary.

Federal Implementation Plans: The new law retains the current provision requiring the federal government to issue a federal plan for controlling air pollution if a state or locality fails to do so.

Other control measures: Some areas are required to install Stage II Vapor Recovery controls, a system of hoses and nozzles to collect vapors escaping into the atmosphere when refueling vehicles. (Stage I Vapor Recovery is already mandatory for all nonattainment areas. Stage I recovers fumes from refueling storage tanks at gas stations.) After study by the EPA and Department of Transportation, cannisters to collect refueling emissions must be installed on vehicles, and some areas will be allowed to drop the Stage II controls. All nonattainment areas will have to implement a motor vehicle emissions I/M program, with some areas required to design a more advanced program.

Carbon Monoxide Nonattainment

41 metropolitan areas are not in compliance with carbon monoxide (CO) standards. Approximately 80 percent of the CO problems are caused by vehicles (mobile sources), the focus of control strategies. Because carbon monoxide pollution results from incomplete combustion of fuel, it tends to be the worst during cold seasons when vehicles require warm-up periods before operating at peak efficiency.

Categories: Areas are classified according to the degree to which they are out of attainment, similar to the ozone nonattainment categories. Controls will vary according to the category. Enhanced I/M programs, demonstrating that an area is regularly reducing emissions at levels to reach attainment, adoption of transportation control measures, and implementation of oxygenated fuels programs are likely control strategies.

Table 4 outlines control measures required for the two carbon monoxide categories.

Table 5 lists the areas likely to be classified into each category.

Oxygenated fuels: All carbon monoxide nonattainment areas are required to use some level of oxygenated fuels. Under these programs, additives such as ethanol or MTBE, a derivative of natural gas, are blended with gasoline to increase oxygen content. This helps fuel burn with fewer harmful emissions.

Other controls: Some other controls required in carbon monoxide nonattainment areas are enhanced I/M programs and clean-fuel programs. Transportation control measures such as high occupancy vehicle programs, improved public transit, parking fees and restrictions, and tolls to discourage driving during peak hours may be implemented. See Title II of the new legislation for additional controls on mobile sources that ultimately improve air quality in carbon monoxide nonattainment areas.

Particulate Matter

Particulate matter from urban dust, residential wood burning, forestry, and agricultural practices has increasingly been recognized as a key contributor to this country's polluted air. Therefore, provisions are included in the new law to control "fine" particulate matter, referred to as PM-10. Similar to the ozone and carbon monoxide control strategies, categories are established, deadlines imposed for reaching air quality standards, and some control methods outlined. More planning and program design to control PM-10, however, is left to the states than with ozone and carbon monoxide control programs.

MOBILE SOURCE CONTROLS (TITLE II)

The Clean Air Act Amendments of 1990 include major new provisions for the control of vehicular tailpipe emissions. This spreads the burden for reducing pollution between both stationary and mobile sources. Major provisions include:

Vehicle Tailpipe Emission Standards: These standards are to be implemented in two phases. During the first phase ("Tier I"), cars and light duty trucks must meet standards currently in effect in California. For cars, this means an approximate 30 percent cut of VOCs and a 60 percent cut in NO_x. In addition, vehicles must meet these standards over 10 years or 100,000 miles (the vehicle's "useful life") versus the current 5 year or 50,000 mile requirement. However, they will only be subject to recall for 7 years or 75,000 miles if they fail to meet intermediate standards.

The phase-in of tier I standards occurs over a three year period ending with total compliance in model year 1996. The second phase of stricter standards ("Tier II") will be implemented only if the EPA conducts a study that finds the second set of standards necessary, technologically feasible, and cost effective. However, if no study is conducted, stricter tailpipe standards automatically go into effect beginning January 1, 2003.

Table 6 outlines Tier I and Tier II tailpipe standards and deadlines.

Onboard Control of Refueling Emissions: By November 15, 1991, the EPA and Department of Transportation must consult on the safety of onboard cannisters, and the EPA must then issue regulations governing phase-in of these cannisters. A three year phase-in period begins in the fourth year after the regulation is issued. Once

onboard cannisters are in widespread use, some Stage II Vapor Recovery requirements may be waived.

Carbon Monoxide Emissions at Cold Temperatures: Vehicles tend to emit the greatest amount of carbon monoxide when started in cold temperatures. Therefore the federal test procedure for vehicles must now be revised to reflect "real life" starting conditions (both cold and warm weather starts). Vehicles must now be able to meet standards even when started and operated at temperatures of 20 degrees Fahrenheit. These standards will be phased-in between 1994 and 1996. A second more stringent phase may be implemented at the end of the century if six or more areas still violate the CO standard.

Evaporative Emissions: In summer, gasoline in vehicles tends to evaporate at a faster rate than in winter. EPA will limit allowable levels of these emissions, by regulation.

Warranties: Current law requires manufacturers to provide warranties for emission control related equipment. Under the new law, the warranty period is extended to 8 years or 80,000 miles (from 5 years or 50,000 miles) for major specific emission control equipment such as the catalytic converter, the electronic emissions control unit, the onboard diagnostic system and some other devices. These warranties become effective for model year 1995. For most other parts, the warranty period is shortened to 2 years or 24,000 miles (from 5 years or 50,000 miles).

Fuel Volatility: Volatility is the ease with which a liquid evaporates, thus causing air emissions. Lowering fuel volatility decreases resultant emissions. EPA must develop regulations to require that gasoline meet lower volatility limits during the "high ozone" season (summer). Some states have already done this. Stricter limits may be applicable for nonattainment areas.

Reformulated Gasoline: By the end of one year, EPA must have developed rules that outline cleaner gasoline requirements. Some specifics of this formula are outlined in the Act. Fuels must be certified to achieve, by 1995, reductions in emissions of VOCs and air toxics of 15 percent lower than the level occurring with normal "baseline" gasoline. Emissions must be 25 percent lower than "baseline" by the year 2000.

The nine worst ozone nonattainment areas must use only certified fuels after January 1, 1995. This represents approximately 25 percent of the market. Other nonattainment areas can also choose to participate in this program. However, their participation may be delayed if sufficient domestic capacity does not exist to provide the fuel.

Oxygenated Fuels: All moderate carbon monoxide nonattainment areas (approximately 38) must use oxygenated fuels by November 1992 (minimum oxygen content of 2.7 percent oxygen by weight). Serious carbon monoxide nonattainment areas must also use oxygenated fuels, but those fuels must contain a higher level of oxygen (no less than 3.1 percent oxygen by weight). The most widely discussed oxygenated fuels are the gasoline/ethanol blend (gasohol), the gasoline/methanol blend, the gasoline/MTBE (Methyl Tertiary Butyl Ether) blend, and the gasoline/ETBE (Ethyl Tertiary Butyl Ether) blend.

Clean-Fueled Vehicles: "Clean" fuels include diesel; ethanol; hydrogen; liquified petroleum gas; methanol; natural gas; other alcohols, including mixtures with 85

percent or more alcohol by volume; power sources such as electricity; and reformulated gasoline.

By November 1992, the EPA must promulgate regulations governing clean-fuel vehicle standards for fleets of 10 or more vehicles (capable of central fueling). By 1998, all centrally-fueled fleets in 26 areas (all serious, severe, and extreme ozone nonattainment areas and serious carbon monoxide nonattainment areas) must purchase at least 30 percent of their fleet to meet California standards. If such vehicles are not being offered for sale in California, the program is delayed until model year 2001. Over three years, the purchase percentage must go up to 70 percent of new cars and trucks added to the fleet.

Table 7 outlines the clean-fueled vehicles standards.

California Pilot Test Program: A program to be developed for California will demonstrate the effectiveness of clean-fueled vehicles to control ozone pollution. At a minimum, the program will require that 150,000 clean-fueled vehicles be produced, sold and distributed each year from 1996 through 1998. Beginning with 1999, that number must rise to 300,000. EPA must report to Congress by June 30, 1998 on program effectiveness.

Serious, severe, and extreme ozone nonattainment areas are authorized to opt-in to the program, with EPA required to develop an incentive program. However, no provisions are included to require production, sale or distribution of vehicles in these areas, and no penalties apply to manufacturers in these areas who fail to supply the vehicles or fuel necessary for program workability.

Urban buses: Particulate matter standards are established for buses used in urban mass transit programs. These standards require a 50 percent reduction (by 1994) from the levels that are now allowed.

TOXIC AIR POLLUTION (TITLE III)

The new law lists 189 chemicals that must be regulated and includes a procedure for EPA to add or delete chemicals from the list. Eight chemicals are currently regulated. EPA must set technology-based standards for all industries, utilities and other sources emitting these pollutants in major quantities. Of the 189 listed pollutants, EPA must issue regulations on at least 41 of them within the first two years. The required technologies must be installed on polluting sources within 10 years.

After applying the specified technologies, additional controls may be required if the existing controls do not protect public health with an "ample margin of safety" (term used in Clean Air Act Amendments of 1990.) EPA is required to conduct a study to help define "ample margin of safety." The additional mandatory controls must be phased-in over a 15 - 25 year period from the new law's enactment date.

EPA is required to set standards to control air emissions from municipal, hospital, commercial and industrial incinerators. Cost, health impacts, environmental impacts and energy requirements must be factored to determine the maximum level of emissions reductions required by the standards. The law also prohibits EPA from regulating ash from municipal solid waste incinerators for two years. This latter

issue is likely to be included in the reauthorization of the Resource Conservation and Recovery Act during the 102nd Congress.

ACID DEPOSITION CONTROL (TITLE IV)

Basic provisions of this section require major reductions in the amount of sulfur dioxide (SO₂) and nitrous oxides (NO_x) by the year 2000 through a phased-in control program. In addition, market-based forces are employed to help balance the burdens of the control program.

Reduction of Emissions: SO₂. By the year 2000, utility power plants must reduce their sulfur dioxide emissions by 10 million tons per year from 1980 levels. A cap is imposed on annual emissions after 2000 so that total emissions can be no more than 8.9 million tons per year.

Reduction of Emissions: NO_x. Starting in 1995, utilities must reduce nitrous oxides by two million tons per year from 1980 levels.

Allowances: Marketable "allowances" help implement SO₂ reductions. Utilities receive allowances based on how much they must reduce their emissions and on their past energy use. (An allowance is equal to one ton of emissions.) Utilities must have enough allowances "banked" to cover the level of emissions they will have. If they have more emissions than allowances, they must purchase additional allowances from a utility somewhere else that has more allowances than emissions. Allowances are implemented in two phases, with 10 midwestern states receiving bonus allowances in Phase II if they have made reductions in Phase I. Additional allowances are granted to utilities that use energy conservation to reduce emissions ahead of schedule, construct renewable energy power plants, or purchase electricity from such plants.

Cost Sharing: No specific cost sharing provisions, such as emission fees or electricity taxes, were included in the bill even though it contains the system of allowances.

Clean Coal Technology: If a power plant chooses to install clean coal technology, it will be given a 4 year extension to meet the emissions deadlines. Some facilities that adopt clean coal technology programs will be released from meeting certain other air quality standards. Clean coal technology is defined as any technology, not currently in widespread use, that significantly reduces emissions of sulfur dioxide and nitrous oxides during the use of coal for the generation of electricity, process steam, or industrial products.

PERMITS (TITLE V)

This part of the Clean Air Act is considered by many to be the area of greatest impact on states. As a result of this Title, major pollution sources (and some others) must obtain operating permits issued by state and local agencies. Permits become the tool to ensure compliance with requirements from many other sections of the new law. Until now, there has been no federal requirement for permits, although 35 states currently require permits for many sources of air pollution.

Under the new law, states are required to establish and operate extensive permit programs to allow only certain amounts of pollution to enter the atmosphere. Emissions above those levels are prohibited. The federal law also requires that states charge a fee for permits and that the fee be sufficient to cover the administrative costs of the permit program. The law sets the minimum fee at \$25 per ton of pollutant emitted (or an aggregate sum for all emissions that is equivalent to \$25 per ton). States are given flexibility to decide how much to charge which types of polluters. The fee must be adjusted annually relative to the Consumer Price Index. Extensive state recordkeeping is necessary to prove to EPA that all funds collected by this levy are spent only on the permit program. Any other expenditure is considered a violation of the law.

Since these monies may be spent only on the air pollution permit program, states will need to set up dedicated funds, as recommended in the law, or guarantee to EPA that channeling the monies through general revenue funds does not diminish monies that go to the program. The new legislation envisioned this fee as a dependable long-term funding source for air pollution control. Permit programs and associated costs comprise the majority of state air program costs (at least 70 percent in some cases), but other air program costs still need to be funded through Section 105 grants from EPA and corresponding state matching funds, as well as some additional state general revenue.

Some examples of fees used by state or local air agencies include:

- o Auto registration fees;
- o Indirect source programs such as requiring employer-based ridesharing plans be approved by the agency, with a fee charged;
- o Annual operating fees;
- o Permit fees for new sources; and
- o Emissions fees.

States must establish a collection system for the fees if one does not exist. This could be accomplished through the air agency, or some other appropriate agency designated by the legislature, so long as all benefits from those monies accrue to the air program.

State legislative action may be needed to ensure a state has the authority to:

- o Set and collect fees;
- o Retain those fees;
- o Roll the fees over at the end of the year if unexpended or guarantee application of those fees to the permit program in the next year;
- o Revise the fee schedule;
- o Expend the money,
- o Issue permits with a fixed term of no more than 5 years; and

- o Enforce the law, including civil and criminal penalties.

Table 8 contains a preliminary outline of issues state legislatures may need to address as a result of requirements in the Permit Title of the new federal Clean Air Act. In the next few months, EPA and state and local air pollution control agencies will examine and refine this list.

The transition to the new program with all the promised benefits will not be easy. First, EPA has until November 15, 1991, one year from enactment, in which to issue final regulations to govern state permit programs. During this time EPA must also issue numerous other major regulations for other sections of the law. Draft regulations are expected in late March or early April. Prior to final issuance of the regulations, there will be a public comment period.

States then have two years (until November 15, 1993) to submit an approvable program to EPA. If a state fails to develop or enforce an acceptable program, EPA can impose sanctions (withholding of highway funds and offsets) or collect the fees, keep the money, and run the state program. If after 18 months the state has not developed its plan, sanctions are mandatory. If after two years the state has not acted, the federal government must implement the program.

There may be strategies to help states smooth the transition. For example, states may be able to receive partial or interim authorization for the permit program, that allows the fee system to operate and fund the program while the final permit program is being developed. Ironically, many states may not have money or manpower to develop a new permit program sufficiently to achieve interim approval. The EPA and states continue to discuss options to ease the transition. NCSL will provide state legislators with additional information as it becomes available.

Finally, the new law gives EPA the authority to veto or require changes in any permits issued by a state. The permit would then be revised and resubmitted prior to final approval.

STRATOSPHERIC OZONE DEPLETION (TITLE VI)

Depletion of upper atmosphere ozone increases exposure to harmful ultraviolet radiation. Provisions of the Clean Air Act are designed to eliminate major causes of that depletion: chlorofluorocarbons (CFCs) and their substitutes, hydrochlorofluorocarbons (HCFCs). These provisions are compatible with, and in some cases stricter than, the Montreal Protocol, a major international agreement to control production and use of these compounds.

Lists: By January 15, 1991, EPA must develop two lists: Class I substances including chlorofluorocarbons (and a few other major chemicals) and Class II substances including hydrochlorofluorocarbons, the substitutes most likely to be used during the transition to CFC-free products. EPA must review these lists at least every three years and add substances as appropriate.

Phase-Out: Production of the five most destructive CFCs will be phased-out by the year 2000, along with some other chemicals on the Class I list. Production levels of Class II substances will be frozen in the year 2015. New uses for these substances will be limited by 2015, except for their use as refrigerants which will be restricted in

2020. Production of HCFCs will be banned in 2030. This phase-out schedule for CFCs is stricter than that in the Montreal Protocol, and the Protocol does not provide for mandatory HCFC phase-out. There are some exemptions and deadline extensions outlined in the new law.

EPA can require faster phase-out schedules if EPA determines it is necessary to protect health or the environment, if it is scientifically practical, or if the Montreal Protocol is tightened.

Recycling and Disposal: By 1992, refrigerants from motor vehicle air conditioners must be recycled. Furthermore, anyone servicing these air conditioners must be properly trained and certified. By July 1992, EPA must set standards for disposal of Class I and Class II substances, including motor vehicle air conditioner refrigerants. Venting of these substances during appliance repair or maintenance is prohibited.

State Preemption: For two years after enactment, the bill preempts state and local governments from enforcing requirements on the design of new or recalled household and commercial appliances if those requirements are to protect the stratospheric ozone layer.

Other provisions: Three years from enactment (November 15, 1993), non-essential uses of CFCs and HCFCs will be banned. This includes uses such as noise horns, party streamers, cleaning fluids for noncommercial photo and electronic equipment and other consumer products. EPA must promote development of safe substitutes for ozone-depleting substances. Warning labels must be instituted on products containing or made with ozone-depleting substances.

ENFORCEMENT (TITLE VII)

Provisions in the new law attempt to make the Clean Air Act more enforceable and provide a better match between violation and penalty. However, some new restrictions on enforcement were added. New, expanded enforcement authority includes the ability to issue a ticket on the spot for violations of the act, and to increase criminal violations to felonies from misdemeanors.

OTHER TITLES (VIII THROUGH XI)

Other titles of the Act include miscellaneous provisions which address, among other things, air pollution from activities on the Outer Continental Shelf and visibility; clean air research; disadvantaged business concerns; and clean air employment transition assistance.

V. STATE LEGISLATIVE ACTION

State and local agencies will be responsible for primary implementation of the new Clean Air Act, even though much of their activity cannot commence until the federal government issues rules, regulations and guidance documents. State legislatures must work closely with environmental protection agencies and air pollution control programs to ensure adequate and consistent progress to implement and enforce the new law.

Several major areas which require specific legislative action in the immediate future include:

~~Permit programs and fees:~~ Major new programs must be created and funded while current programs must be upgraded. State legislatures must act quickly to authorize fee programs to keep the federal government from stepping in, collecting the monies and running the programs. (See also Section on Permits.)

Authorization of specific pollution control strategies: Programs such as motor vehicle emission I/M programs and Stage II Vapor Recovery, must be authorized by the state legislature. Failure to comply with mandated requirements may result in sanctions which include loss of highway funds and restrictions on building new facilities.

Alternative Fuels, Clean-Fueled Vehicles: Under the new law, states may choose to participate in clean-fueled vehicle programs. State legislatures must authorize that participation.

Enforcement: State legislatures must review current state penalties for violations of the Clean Air Act and upgrade them as directed in the new law.

VI. FURTHER INFORMATION

Further information about the Clean Air Act may be obtained from Nancy A. New, Committee Director for Environment and Natural Resources, in the NCSL Washington Office (202/624-5400). In addition, the following documents may prove helpful:

1. *Clean Air Act Amendments of 1990*. Conference Report to Accompany S. 1630. Report 101-952. Available from the Government Printing Office, 710 North Capitol Street N.W., Washington, DC 20410. Phone: 202/275-2091. Price: \$11. (This is the actual legislative language of the amendments.)
2. *Summary of the Clean Air Act Amendments of 1990*. Prepared by the State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials (STAPPA/ALAPCO). November 21, 1990. S. William Becker, Executive Director. Available from NCSL Washington Office or by contacting STAPPA/ALAPCO at 202/624-7864.
3. *The Clean Air Act Amendments of 1990*. Summary Materials. U.S. Environmental Protection Agency. November 15, 1990. Approximately 20 pages; includes glossary, one page title summaries.
4. *Clean Air Act Amendments of 1990*. Detailed Summary of Titles. U.S. Environmental Protection Agency. November 30, 1990. Approximately 150 pages; includes a detailed summary of all titles.
5. *Implementation Strategy for the Clean Air Act Amendments of 1990*. U.S. Environmental Protection Agency. January 15, 1991.

Items 3, 4, and 5 above may be obtained by contacting the U.S. Environmental Protection Agency, Office of Air and Radiation, ANR-443, 401 M Street, SW, Washington, D.C. 20460. Phone: 202/382-7400.

6. *Air Pollution: Air Quality Implications of Alternative Fuels.* U.S. General Accounting Office. July 1990. GAO/RCED-90-143. Available by contacting the U.S. General Accounting Office, 700 4th Street N.W., Room 1000, Washington, D.C. Phone: 202/275-6241.

APPENDIX

TABLE 1.

Legislative History of The Clean Air Act Reauthorization

1989

January to April	H.R. 2323 introduced by Congressman Henry Waxman (California) regarding Nonattainment. H.R. 1496 introduced by Congressman Gerry Sikorski (Minnesota) regarding Acid Rain. H.R. 2585 introduced by Congressman Mickey Leland (Texas) regarding Air Toxics. H.R. 4 introduced by Congressman John Dingell (Michigan) regarding Air Toxics. S. 816 introduced by Senator David Durenberger (Minnesota) regarding Air Toxics.
May 23	House Subcommittee on Health and the Environment held hearings on nonattainment bills. National Conference of State Legislatures testified.
June 12	President Bush announced the Administration's comprehensive clean air proposal addressing nonattainment, air toxics and acid deposition.
July 27	House Energy and Commerce Committee Chair John Dingell (Michigan) introduced the Administration's proposal as H.R. 3030 with almost 140 co-sponsors.
August 3	Ranking Republican of the Senate Environment Committee, John Chafee (Rhode Island), introduced the Administration's proposal as S. 1490.
September 13	Health and the Environment Subcommittee of House Energy and Commerce Committee began series of 11 markup hearings that ran through October 11.
September 14	Senator Max Baucus (Montana), Chair of the Senate Environmental Protection Subcommittee, and Senator George Mitchell (Maine) introduced S. 1630 on nonattainment.
September 27	Senate Subcommittee on Environmental Protection held hearings on nonattainment. National Conference of State Legislatures testified.

- October 2 Historical agreement on tailpipe standards reached in House Subcommittee. Agreement bound House members through Conference.
- October 11 House Subcommittee sent marked up H.R. 3030 to full Committee by a vote of 21-0.
- October 19 Senate Environmental Protection Subcommittee adopted air toxics legislation with a vote of 11 to 0.
- October 26 Environmental Protection Subcommittee of Senate Environment and Public Works Committee began markup of clean air legislation. Approved nonattainment language by vote of 10-0.
- November 7 Senate Subcommittee voted 7-6 to report motor vehicle provisions.
- November 14 Subcommittee finished work on legislation; voted 13-0 to report language on acid rain.
- November 16 Senate Environment and Public Works Committee sent Clean Air bill to full Senate by vote of 15-1. Bill now numbered S. 1630; S. Rpt. 101-228.
- 1990
- January 23 Senate began floor debate on S. 1630.
- February 1 Select group of Senators began closed door negotiations with Administration on amendments to S. 1630; floor debate suspended.
- March 5 Senator Mitchell announced agreements reached in negotiations; floor debate resumed.
- March 14 House Energy and Commerce Committee began markup of H.R. 3030.
- April 3 After voting on more than 130 amendments over two and a half months, Senate passed The Clean Air Act Amendments of 1990 by a vote of 89-11.
- April 5 House Energy and Commerce Committee passed marked up H.R. 3030 by a vote of 42-1.
- May 17 House Public Works and Transportation Committee and House Ways and Means Committee given sequential referral after Energy & Commerce Committee filed report.
- May 21 Bill was reported out of Public Works and Ways and Means and sent to full House floor.

May 23 House passed The Clean Air Act Amendments of 1990 by a vote of 401-21 after many last minute compromises and a single day of action on amendments.

June 6 Senate announced its 9 conferees.

June 28 House announced its 138 conferees, with many specific jurisdictional restrictions.

July 13 First meeting of Conferees. Senator Max Baucus (D-Montana) selected as Conference Chairman. House members selected John Dingell as leader of House delegation.

August 3 Conferees reached agreement on stratospheric ozone depletion.

September 14 Conferees reached agreement on Title I. (provisions governing nonattainment), and on permits.

September 14 to October 10 Conferees wrestled with provisions of Title II, mobile sources and fuels. Adopted provisions on October 10.

October 22 Conferees reached final agreement on reauthorization of the Clean Air Act.

October 26 House adopted Conference Report by a vote of 401-25.

October 27 Senate adopted Conference Report by a vote of 89-10.

November 15 The President signed S. 1630, The Clean Air Act Amendments of 1990, Public Law 101-549.

TABLE 2.

Requirements for Ozone Nonattainment Categories

(Current National Ambient Air Quality Standard is 0.120 parts per million. This is a daily maximum one-hour average.)

Marginal Ozone Nonattainment Areas

- o Includes areas that are up to 15% over the current standard*
- o Have three years to meet the standard
- o Must require an emissions inventory with periodic updates as part of the revised State Implementation Plan (SIP)
- o Must require basic motor vehicle emissions Inspection and Maintenance (I/M) programs where currently required
- o Must have a permit program for new and modified sources of pollution
- o Must have Reasonably Available Control Technology (RACT) installed on stationary sources.

Moderate Ozone Nonattainment Areas

All requirements applicable to marginal areas apply in addition to the following:

- o Includes areas that are 15% up to 33% over the current standard*
- o Have six years to meet the standard
- o Must achieve at least a 15% reduction in emissions of volatile organic compounds over a six year period
- o Must adopt RACT on all major sources of pollution (those emitting at least 100 tons per year)
- o Install Stage II Vapor Recovery in the area (this requirement ceases after EPA publishes regulations for adoption of on-board vapor recovery devices)
- o Adopt a basic I/M program throughout the area whether or not I/M was required before
- o Require reduction in emission levels of 1.15 units for every 1 unit of new emissions allowed for a new or modified source (this concept is called "offsets").

Serious Ozone Nonattainment Areas:

All requirements applicable to moderate areas apply in addition to the following:

- o Includes areas that are 33% up to 50% above the standard*
- o Have nine years to meet the standard
- o Define major sources as those emitting at least 50 tons per year
- o Must achieve an annual 3 percent reduction in volatile organic compounds after six years (this is in addition to the 15 percent over 6 years required in moderate areas)
- o Must institute an enhanced I/M program in areas with a population of 100,000 or more (including computerized emissions analyzers, annual testing programs, centralized programs, and other requirements)
- o Must adopt transportation control measures if actual emissions from vehicle miles traveled exceed the predictions in the state plan
- o Must implement offsets at a rate of 1.2 to 1
- o Adopt, in some serious areas, a clean-idle vehicle program.

Severe Ozone Nonattainment Areas:

All requirements applicable to serious areas apply in addition to the following:

- o Includes areas that are 50% up to 133% above the standard*
- o Have 15 years to meet the standard (some severe areas will receive 17 years)
- o Major sources are defined as emitting at least 25 tons per year
- o Must identify, adopt and enforce transportation control measures and strategies that will reduce overall vehicular emissions
- o Must require employers with 100 or more employees to increase the average vehicle occupancy during peak periods by 25 percent and to reduce the overall number of trips
- o Require offsets at a rate of 1.3 to 1
- o Imposes a fee per ton of emissions if area fails to reach attainment by deadline.

Extreme Ozone Nonattainment Areas:

All requirements applicable to severe areas apply in addition to the following:

- o Includes areas that are 133% or more above the standard*
- o Have 20 years to meet the standard
- o Major sources are defined as emitting at least 10 tons per year
- o Offset rates are 1.5 to 1
- o Require clean-fuel be burned in stationary sources emitting more than 25 tons per year of nitrogen oxides
- o Require adoption of transportation control measures during heavy traffic hours
- o Imposes a fee per ton of emissions if area fails to reach attainment by deadline.

* Actual values are listed in the legislation.

TABLE 3.

Ozone Nonattainment Areas by Category (Preliminary Listing)

(1987 - 89 data)

EXTREME (1 area)

20-year deadline extension

Los Angeles, Anaheim-Riverside, CA

SPECIAL SEVERE (4 areas)

17-year deadline extension

Baltimore, MD
Chicago, IL-IN-WI
Houston, TX
New York, NY-NJ-CT

SEVERE (4 areas)

15-year deadline extension

Milwaukee, WI
Muskegon, MI
Philadelphia, PA-NJ-DE-MD
San Diego, CA

SERIOUS (16 areas)

9-year deadline extension

Atlanta, GA
Bakersfield, CA
Baton Rouge, LA
Beaumont, TX
Boston, MA-NH
El Paso, TX
Fresno, CA
Hartford, CT
Huntington, WV-KY-OH
Parkersburg, WV-OH
Portsmouth, NH-ME
Providence, RI
Sacramento, CA
Sheboygan, WI
Springfield, MA
Washington, DC-MD-VA

MODERATE (33 areas)
6-year deadline extension

Atlantic City, NJ
Bowling Green, KY
Charleston, WV
Charlotte, NC
Cincinnati, OH-KY-IN
Cleveland, OH
Dallas, TX
Dayton, OH
Detroit, MI
Edmonson, Co., KY
Grand Rapids, MI
Greensboro, NC
Jefferson Co., NY
Kewaunee Co., WI
Knox Co., ME
Louisville, KY-IN
Memphis, TN-AR-MS
Miami, FL
Modesto, CA
Nashville, TN
Pittsburgh, PA
Portland, ME
Raleigh, NC
Reading, PA
Richmond, VA
Salt Lake City, UT
San Francisco, CA
St. Louis, MO-IL
Santa Barbara, CA
Smyth Co., VA
Toledo, OH
Visalia, CA
Worcester, MA

MARGINAL (42 areas)
3-year deadline extension

Albany, NY
Allentown, PA
Altoona, PA
Birmingham, AL
Buffalo, NY
Canton, OH
Columbus, OH
Erie, PA
Essex Co., NY
Evansville, IN-KY
Fayetteville, NC
Greenbrier Co., WV
Greenville, SC

Hancock Co., ME
Harrisburg, PA
Indianapolis, IN
Jacksonville, FL
Johnson City, TN-VA
Johnstown, PA
Kansas City, MO-KS
Knoxville, TN
Lake Charles, LA
Lancaster, PA
Lewiston, ME
Lexington, KY
Lincoln Co., ME
Livingston Co., KY
Manchester, NH
Montgomery, AL
Norfolk, VA
Owensboro, KY
Paducah, KY
Poughkeepsie, NY
Scranton, PA
South Bend, IN
Stockton, CA
Sussex Co., DE
Tampa, FL
Tulsa, OK
Waldo Co., ME
York, PA
Youngstown, OH

TABLE 4.

Requirements for Carbon Monoxide Nonattainment Categories

(Current National Ambient Air Quality Standard is nine parts per million measured as an eight hour standard.)

Moderate Carbon Monoxide Nonattainment Areas

- o Areas that exceed the standard by up to 82%*
- o Have until December 31, 1995 to reach the standard
- o Must submit a plan including an emissions inventory
- o Areas which exceed standard by 41 percent must also include information in the plan that indicates predictions of vehicle miles traveled (VMT)
- o Must also develop contingency plan that goes into effect automatically if vehicle miles traveled exceed the prediction or if the area fails to attain by the deadline
- o Inspection & Maintenance (I/M) programs are required similar to marginal ozone nonattainment areas
- o Require enhanced I/M programs in some parts of moderate CO nonattainment areas
- o Require oxygenated fuels during high CO portions of the year.

Serious Carbon Monoxide Nonattainment Areas

All requirements applicable to moderate CO nonattainment areas apply in serious areas, as well as the following:

- o Areas that exceed the standard by more than 82 percent*
- o Have until December 31, 2000 to reach the standard
- o Require clean-fuel vehicles for fleets
- o Require implementation of an oxygenated fuels program
- o Mandatory implementation of transportation control measures
- o Must achieve annual reductions in CO emissions ("milestones")
- o Failure to achieve reductions will result in mandatory economic incentive and transportation control programs
- o Require controls on sources emitting at least 50 tons per year.

* Actual values are listed in the legislation.

TABLE 5.

Carbon Monoxide Nonattainment Areas by Category
(Preliminary Listing)
(1988-89 data)

SERIOUS (3 areas)

December 31, 2000 deadline for attainment

Los Angeles-Anaheim-Riverside, CA
Steubenville, OH-Weirton, WV
Winnebago, Co., WI

MODERATE (38 areas)

December 31, 1995 deadline for attainment

Albuquerque, NM
Anchorage, AK
Baltimore, MD
Boston-Lawrence-Salem, MA-NH
Chico, CA
Cleveland-Akron-Lorain, OH
Colorado Springs, CO
Denver-Boulder, CO
Duluth, MN
El Paso, TX
Fairbanks, AK
Fort Collins-Loveland, CO
Fresno, CA
Greensboro-Winston Salem-H. Point, NC
Hartford-New Britain-Middletown, CT
Josephine Co., OR
Klamath Co., OR
Las Vegas, NV
Medford, OR
Memphis, TN-AR-MS
Minneapolis-St. Paul, MN
Missoula Co., MT
Modesto, CA
New York, NY-NJ-CT
Philadelphia, PA-NJ-DE
Phoenix, AZ
Portland, OR
Provo-Orem, UT
Raleigh-Durham, NC
Reno, NV
Sacramento, CA
San Diego, CA
San Francisco-Oakland-San Jose, CA
Seattle-Tacoma, WA
Spokane, WA

Stockton, CA
Syracuse, NY
Washington, DC-MD-VA

TABLE 6.

Motor Vehicle Standards
in The Clean Air Act Amendments of 1990

Cars and Light Trucks
Standards in grams per mile (gpm)



Current

(Certification and in-use for 5 years/50,000 miles)

Hydrocarbons (Total HC)	0.41 gpm
Carbon Monoxide (CO)	3.4 gpm
Nitrogen Oxides (NO _x)	1.0 gpm



New Law - "Tier I"

(Certification starting in 1994,
in-use phased-in between 1996 & 1998)

	<u>50,000 miles</u>	<u>100,000 miles*</u>
Nonmethane Hydrocarbons (NMHC)	0.25 gpm	0.31 gpm
Carbon Monoxide (CO)	3.4 gpm	5.2 gpm
Nitrogen Oxides (NO _x)	0.4 gpm	0.6 gpm

*An "intermediate" in-use standard (used for all recall decisions up to 7 years/75,000 miles) of 0.32 NMHC, 5.2 CO and 0.4 NO_x will be phased-out between 1994 and 1998.



"Tier II"

(Standards go into effect in 2004 only
if EPA does not act to stop them)

Nonmethane Hydrocarbons (NMHC)	0.125 gpm
Carbon Monoxide (CO)	1.7 gpm
Nitrogen Oxides (NO _x)	0.2 gpm

TABLE 7.

Clean-fueled Vehicles Standards
(in grams per mile-gpm)

PHASE I. Standards to take effect in model year 1996.

<u>Pollutant</u>	<u>50,000-mile standard</u>	<u>100,000-mile standard</u>
Light-duty vehicles (LDV), and light-duty trucks (LDT) weighing up to 3,750 pounds, loaded vehicle weight (LVW), and up to 6,000 pounds gross vehicle weight rating (GVWR).		
Nonmethane Organics (NMOG)	0.125 gpm	0.156 gpm
Carbon Monoxide (CO)	3.4 gpm	4.2 gpm
Nitrogen Oxides (NO _x)	0.4 gpm	0.6 gpm
Formaldehyde (HCHO)	0.015 gpm	0.018 gpm
Particulate Matter (PM)* *(diesel fueled vehicles only)	----	0.08 gpm

<u>Pollutant</u>	<u>50,000-mile standard</u>	<u>100,000-mile standard</u>
LDV and LDT weighing more than 3,750 pounds lvw and up to 5,750 pounds lvw, and up to 6,000 pounds gvwr.		
NMOG	0.160 gpm	0.2 gpm
CO	4.4 gpm	5.5 gpm
NO _x	0.7 gpm	0.9 gpm
HCHO	0.018	0.023 gpm
PM*	----	0.08 gpm

PHASE II.

Standards to take effect in model year 2001. After 1997 and prior to 2001, if such vehicles are offered for sale in California, the standards become effective.

<u>Pollutant</u>	<u>50,000-mile standard</u>	<u>100,000-mile standard</u>
LDV and LDT up to 3,750 pounds lvw and up to 6,000 pounds gvwr.		
NMOG	0.075 gpm	0.090 gpm
CO	3.4 gpm	4.2 gpm
NO _x	0.2 gpm	0.3 gpm
HCHO	0.015 gpm	0.018 gpm
PM*	----	0.08 gpm

Pollutant

50,000-mile standard

100,000-mile standard

LDV and LDT weighing more than 3,750 pounds lww and up to 5,750 pounds lww and up to 6,000 pounds gvwr.

NMOG	0.1 gpm	0.13 gpm
CO	4.4 gpm	5.5 gpm
NO _x	0.4 gpm	0.5 gpm
HCHO	0.018 gpm	0.023 gpm
PM*	----	0.08 gpm

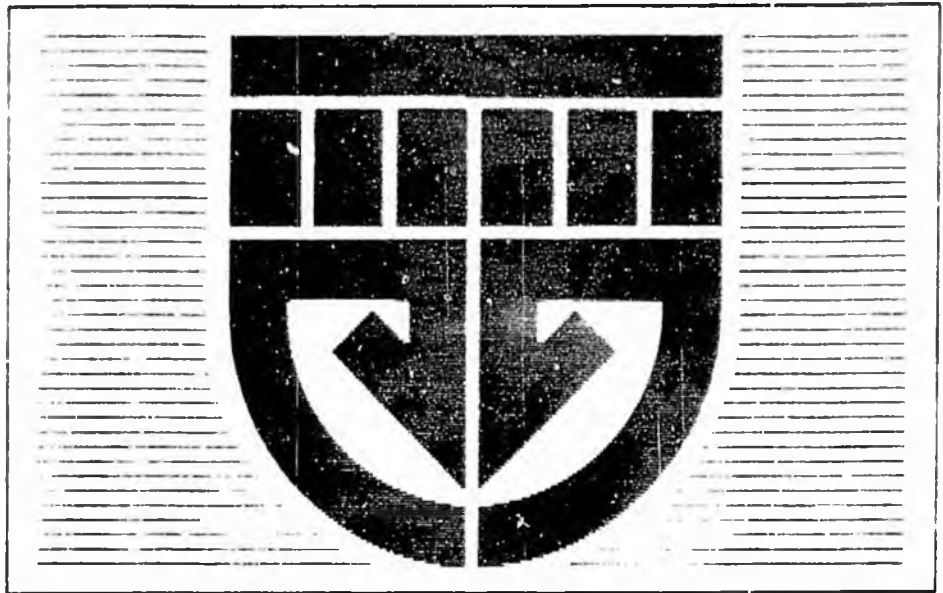
TABLE 8.

State Legislative Authority Needed for Air Pollution Permit Programs (Title V)
(Preliminary listing)

- o Authority to charge and collect fees equivalent to \$25 per ton--Section 502(b) (3); 502(b) (3) (B) (i)
- o Ability to increase annual permit fees proportional to annual increases in the Consumer Price Index--Section 502(b) (3) (B) (v)
- o Permit fees must be used solely to cover costs of state and local program--Section 502(b) (3) (C) (iii)
- o Authority to require permitted sources to monitor and to report--Section 502(b) (2)
- o Authority to issue renewable operating permits, permits must be renewable every five years or less--Section 502(b) (5) (A); 502(b) (5) (B)
- o Ability to incorporate enforceable conditions into operating permits--Section 502(b) (5) (C)
- o Ability to terminate, modify, or revoke and reissue operating permits for cause--Section 502(b) (5) (D)
- o Authority to enforce permit conditions, fee requirements, and requirement to obtain a permit--Section 502(b) (5) (E)
- o Authority to collect civil penalties of at least \$10,000 per day per violation and "appropriate" criminal penalties--Section 502(b) (5) (E)
- o Authority to not issue a permit if EPA objects to its issuance--Section 502(b) (5) (F)
- o Ability to provide public notice including the opportunity for public comment and hearing--Section 502(b) (6)
- o Opportunity for judicial review in State court of the final permit--Section 502(b) (6)
- o Ability of persons of standing to obtain judicial review for the failure of the permitting authority to act on a permit application--Section 502(b) (7)
- o Authority to make available to the public permit applications, compliance plans, permits and monitoring or compliance reports--Section 502(b) (8)
- o Ability to incorporate new standards into a permit with three or more years remaining before renewal--Section 502(b) (9)

- o Ability to allow some changes to occur within a permitted facility without requiring a permit revision--Section 502(b) (10)
- o Ability to obtain entry and inspect permitted sources to assure compliance--Section 502(c)
- o No automatic/default permit issuance (i.e., if State fails to act)
- o Ability to permit a source in violation
- o Ability to incorporate Federal Implementation Plan (FIP) provisions into a permit.

Source: State and Territorial Air Pollution Program
Administrators/Association of Local Air Pollution Control
Officials



State-Federal
Issue Brief

National Conference
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