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CLEAN AIR ACT
EXECUTIVE SUMMARY

Issue - The Clean Air Act is the most important environmental law affecting the siting and construction of new energy and industrial facilities. While the Act has caused significant improvement in the nation's air quality over the past decade, it has grown through a series of amendments to be an extremely complex and cumbersome law. It has added substantially to the burdens of industry in planning and building new facilities as well as modernizing existing facilities. As a result, there is broad concern that the Act will significantly hinder the nation's effort to revitalize the economy, reduce unemployment, and develop domestic energy resources.

Current Status - Because authorization for the Clean Air Act expires on September 30, 1981, Congress must review the Act and its effectiveness this year. This will be the major environmental issue debated by Congress in 1981.

Positions Taken - All industry groups (BRT, API, AMC, NCA, CMA, NEDA-CAAP) want to retain the concept of ambient air quality standards. However, most believe changes are needed in the process and basis for standards development. There is unanimous support among industry groups to abolish the Prevention of Significant Deterioration increment system for all but Class I areas. Substantial support also exists for delaying or deleting the present compliance deadlines. Some groups would also limit the present offset requirements. Most industry groups endorse a Best Available Control Technology requirement in all areas with BACT equaling New Source Performance Standards where NSPS exists.

Conoco Position - Conoco will continue to support vigorously the basic goal of achieving and maintaining clean air. Conoco's objective is to streamline the Act's requirements so as to minimize the need for government involvement. Conoco believes that EPA should be required to establish primary ambient standards which will protect the public against unreasonable risk of adverse health effects. Further, it believes that the individual states should have exclusive authority for setting secondary standards and that these standards should be based on cost-benefit analyses.

Conoco believes that the PSD classification and increment system should be eliminated. NSPS should be required for new sources in such attainment areas and special secondary standards should be set by EPA for areas previously designated Class I. In non-attainment areas, states should be given authority to approve on their own reasonable adjustments to the SIP and alternative compliance schemes such as bubbles and banks. In addition, Congress should consider extending the present compliance deadlines. For emission controls, Conoco believes that the Lowest Achievable Emission Rate (LAER) requirement should be eliminated and replaced with NSPS or BACT where appropriate. Further, new sources should be "grandfathered" from most new control requirements once a control method is approved for that source.

THE CLEAN AIR ACT

ISSUE

How should the Clean Air Act be changed?

BACKGROUND

Federal legislation to control air pollution dates back to 1955. It was the Clean Air Act (CAA) of 1967, though, that first established a comprehensive federal program for dealing with air pollution. Congress has amended the CAA several times, most notably in 1970 and 1977, and has significantly expanded the scope of the original law.

The Clean Air Act establishes an elaborate regulatory system to protect the nation's air quality. The Act directs the Environmental Protection Agency (EPA) to develop National Ambient Air Quality Standards (NAAQS). It then requires the states to develop, subject to EPA approval, strategies for attaining these ambient air quality standards. Each state must prepare a State Implementation Plan (SIP) that spells out programs for controlling, and in some cases reducing, emissions so that its air will meet the ambient standards by the statutory deadline. If the SIP is not approved, the CAA requires EPA to impose specified sanctions on economic development in that state. In the 1977 amendments to the Act, Congress revised the established deadlines for attaining ambient standards. It also added a new Prevention of Significant Deterioration (PSD) program for clean air areas that were already attaining the national ambient standards.

In addition to ambient standards, the Act also requires establishment of control standards for certain emission sources, such as automobiles, factories, and power plants. Uniform percentage reductions are mandated for automobile emissions. EPA is required to develop New Source Performance Standards (NSPS) for new and modified facilities and National Emission Standards for Hazardous Air Pollutants (NESHAPS) for certain hazardous pollutants for new and existing sources.

The EPA has established NAAQS at two levels: "primary" standards to protect public health and "secondary" standards to protect public welfare; e.g., soils, crops, vegetation, wildlife, visibility and personal comfort. Primary and secondary standards have been established for six "criteria" pollutants: sulfur oxides, particulate matter, carbon monoxide, nitrogen oxides, ozone (and hydrocarbon precursors to ozone), and lead. The Act leaves the states free to adopt more rigorous standards if they choose.

Each state is required to designate formally whether or not the ambient standards for each pollutant have been attained

everywhere within its borders. "Attainment areas" are those in which both primary and secondary standards are met for a given pollutant. Areas not in compliance with one or both of the standards are classified "non-attainment" for that pollutant.

In non-attainment areas, construction or modification of major facilities is permitted only under very restrictive conditions. First, any new emissions must be "more than offset" by reductions from existing sources in the area. Second, each major new facility must meet the lowest achievable emission rate (LAER). LAER is defined as either the most stringent standard prescribed by any state or the strictest level of control of any operating plant in the nation, whichever is stricter. Third, the firm constructing the new facility must certify that all other major sources it owns or operates in the state are in compliance with SIP requirements. Finally, the state's SIP must demonstrate attainment for all applicable ambient standards by December 31, 1982, including emissions from new facilities.

If EPA believes that state regulations will not lead to attainment of the ambient standards by the statutory deadline, it can impose severe restrictions, including a non-discretionary ban on further construction of major new sources.

For attainment areas, the PSD program is intended to minimize the "deterioration" of air quality. Attainment areas are classified in one of three classes (Class I, II, or III). For each class, the statute sets specific allowable increments for new air pollution. The increment is smallest for Class I (national park and wilderness areas) and largest for Class III. (No areas have yet been designated Class III, and with the stringent approval procedures, few are expected.) Major new and modified sources must demonstrate that they will not exceed the increment for the applicable class or the NAAQS. Regulations to date cover only SO₂ and particulates but are required for all pollutants regulated under the Act. Further, such sources are required to install Best Available Control Technology (BACT). The Act also includes provisions to protect visibility in Class I areas. To further this objective, the EPA is considering regulations which will result in requirements for retrofitting sources where visibility impairment has been demonstrated.

PROBLEMS WITH THE ACT

The nation has seen significant improvements in air quality over the past decade. Emissions of certain pollutants such as sulfur dioxide (SO₂), carbon monoxide (CO), and suspended particulates have declined significantly since the 1960's. In addition, there have been substantial advances in the installation of abatement technology at existing plants and the design of pollution controls for new facilities.

Despite the progress, important problems remain. The Act is extremely complicated with many redundant federal and state responsibilities. The tangle of regulations will have a significant impact on the siting and construction of new industrial facilities and the continued operation of existing plants and may actually slow down progress toward air quality improvement by delaying the development of new, cleaner facilities.

Another major concern is that the need for continued substantial investments comes at a time when the nation faces serious economic and energy problems. Congress must balance the need to insure air quality with other important priorities such as revitalizing the economy, reducing unemployment, improving the balance of payments, and developing domestic energy resources.

I. National Ambient Air Quality Standards

While the concept of ambient air quality standards is sound, there are some problems with the method and basis by which these standards are set. Because of the importance of NAAQS in the nation's air quality, a number of proposals have been made to strengthen the standard setting process.

A. Primary Standards - The Act requires EPA to set primary standards to protect public health with an adequate margin of safety. However, Congress has provided little guidance to EPA as to the basis for determining the standard. For example, it does not define the adverse health effects that the standard should prevent. Presently, any "detectable effect," no matter how short term or reversible, can be used as a basis for determining primary NAAQS. The CAA is equally unclear as to what is the appropriate margin of safety. This lack of clear guidance has introduced considerable confusion to the standard setting process. In the case of SO₂ and ozone, for example, this has led to the development of extremely stringent standards that do not appear to be supported by the scientific evidence.

One proposal is to amend the Act to define the concept of adverse health effects. This would specify that adverse health effects involve more than minor physical irritation or minor personal discomfort. Secondary standards which are to be set to protect "personal comfort and well being" among other concerns already cover these health problems. One possible definition of adverse health effects has been proposed by Dr. Benjamin Ferris of the Harvard School of Public Health: "Adverse health effects are medically significant physiologic or pathologic changes which are evidenced by permanent damage or incapacitating illness to the individual."

Beyond the issue of defining adverse health effects, there is concern that the current approach of establishing primary standards effectively precludes the Administrator of EPA from considering other vital national goals. One proposed solution is to use risk assessment procedures to determine the segments of the population that would be at risk at various pollutant concentrations. (Congress has already adopted such analysis as part of the regulatory process for the Toxic Substances Control Act.) The EPA Administrator could then set standards on the basis of the degree of protection needed, after considering all scientific, social, and economic aspects of such a determination.

Other proposals seek to modify, rather than replace, the present methods. If, for example, the current concept of a threshold and "margin of safety" is retained in the law, the Act could be amended to require consideration of economic and social factors in determining what is an "adequate margin of safety."

It is important to recognize that such proposals, despite their merits, will be vigorously opposed on emotional and ethical grounds. Opponents of change will maintain that with the uncertainty over health effects within the medical community, it is essential to have the largest possible margin of safety to insure adequate protection. They will reject a definition of health effects founded on the permanent damage or incapacitating illness concept as totally inadequate. Moreover, they will argue that such an approach is unethical because it ignores health problems that have a long latency period or that might be passed on unknowingly to future generations.

B. Secondary Standards - Secondary standards are set to protect the public welfare. Because these standards also determine whether an area is classified as attainment or non-attainment, they can have a significant impact on the siting and construction of industrial facilities.

There are two major problems with the present standard setting process. First, despite the regional nature of most welfare issues, e.g., crops, soils, vegetation, visibility and man-made structures, the standards are set on a nationwide basis. Individual states can tighten standards but they cannot relax them even though the welfare issues may not be significant in that state.

The second problem involves the consideration of economic impacts. While the CAA states that economic

concerns should be factored into secondary standards, it in fact provides little support for the use of economic analysis in the standard setting process. The CAA could be amended to require EPA to conduct formal economic analysis such as cost-benefit and cost-effective evaluations of proposed standards. This would permit a more rational evaluation of alternative approaches to meeting environmental goals.

The CAA could also be amended to eliminate national secondary standards and turn over responsibility for those standards to the states. State control would increase the likelihood that the standards are appropriate for the areas they are intended to protect. The federal government's role would then be limited to using its technical resources to prepare a scientifically sound criteria document. Some states may decide not to issue secondary standards, thus eliminating secondary standards in those states. Many others will promulgate standards and some of these state standards could be more stringent than a federal standard might have been. This would be similar, though, to the present situation in which a state is permitted to set standards stricter than the national standard.

Proponents of a federal standard maintain that with a national standard, most states will simply adopt it rather than go through the trouble of developing their own. Thus, a federal standard could limit the number of different secondary standards. As mentioned, though, such a standard ignores the regional nature of welfare concerns. Others argue that secondary standards should be eliminated completely. Politically, this seems unlikely because there continues to be strong support for protecting vegetation, wildlife, and scenic beauty.

Interstate transport of pollutants, as raised in the debate over acid rain, could cause many people to argue for even more stringent secondary standards. The acid rain debate could also affect support for the proposal to allow states discretion over standards. Some will insist that a mechanism, such as EPA mediation, must be developed to resolve conflicts between states with relaxed standards and states downwind which have more stringent standards.

C. Independent Scientific Review - The current method used to establish National Ambient Air Quality Standards is the result of the Environmental Protection Agency's interpretation of the legislative history of the 1970 and 1977 amendments to the Clean Air Act. Efforts prior to 1978 to update the standards for a series of pollutants have suggested that the procedure for setting standards needs revision.

One of the problems industry has had in the past with EPA criteria documents is that some of the data included were based on medical studies which were not scientifically supportable for effects significantly below the levels at which adverse health effects could occur. Implicit in many of the standards are margins of safety which are not identified and may prove unnecessary. Adequate peer review of the evidence should be helpful in reducing the controversy about the medical and scientific bases for the standards.

One approach would be to establish a committee of independent scientists, such as one appointed by the National Academy of Sciences (NAS). This committee would prepare a written evaluation of the relevancy, quality, and accuracy of each key study or data source contained in the criteria document. Further, using risk assessment techniques, it could determine the exposure response relationships from which the EPA administrator could then select a standard.

Because the setting of standards is such a crucial part of CAA, improvements in the administrative procedures used for setting and/or challenging the standards should be undertaken. First, in nearly every public proceeding, the EPA presents material which is represented as material fact. The present procedure offers little opportunity for challenging the alleged statement of fact. Secondly, those who want to challenge any adopted regulations in court are severely limited as to the grounds for such challenges. The problem could be alleviated somewhat by allowing cross examination of experts during the rulemaking procedures.

II. Prevention of Significant Deterioration (PSD)

The PSD program is intended to limit as much as possible new emissions in areas whose air is presently cleaner than the ambient standards. PSD establishes a strict increment allowance for emissions from new sources in these areas. The program has substantial land use impacts and allows little consideration of other economic, energy, and environmental goals. It requires a complex, unnecessarily expensive, and time-consuming process which produces siting and facility design decisions of questionable economic and environmental value. These complex procedures apply to urban centers which are in attainment as well as to pristine, undeveloped areas. Thus, they can inhibit industrial growth in areas of high unemployment.

The increments are not scientifically related to the protection of public health welfare. Air quality would still be protected by primary standards set on a national basis and secondary standards

set by the states, even with the elimination of the increment system. All new facilities could be required to use New Source Performance Standards (NSPS) or Best Available Control Technology (BACT) if the NSPS have not yet been developed. Approval for such projects could rest with the states rather than with EPA.

Pristine areas, such as national parks, deserve special protection because of their unique features. Because these sites are viewed as national treasures, the EPA could set special secondary standards for these areas. However, outside their boundaries, the normal secondary standards would apply. Should conflicts between the two standards occur, the EPA could be given the power to intervene to protect the park's air quality. The present requirements for Class I pristine areas can cause conflicts with the nation's need for economic and energy development, and some contend that the designation of such areas should be limited to national parks.

III. Non-Attainment Regulations

The purpose of the Act's non-attainment provisions is to insure that states eventually meet the ambient air quality standards. Unfortunately, many of the procedures and schedules mandated by the Act to achieve this goal may be delaying rather than expediting the process. Specifically, the overlapping federal and state authorities and the arbitrary nationwide compliance deadlines can create confusion and unnecessary delay. Moreover, some construction proposals are subject to both the attainment (PSD) and non-attainment permit review processes because the site may be attainment for one pollutant and non-attainment for another. The result is a disruption in economic planning and a constraint to capital investment in non-attainment regions.

Presently, states are required to have an approved SIP that provides for attainment of primary standards by the end of 1982 or face a mandatory moratorium on major construction. Progress has been slow because every revision of the SIP must be reviewed and approved first by the state and then the entire approval process must be repeated at the federal level. Under the law, all SIP's were to have been approved by July 1979. Even today, more than 18 months later, very few SIP's have been given final approval. It is clear that most states will not be able to be in compliance by the end of 1982. At the very minimum, Congress could extend the present deadlines.

One of the stated purposes of the Act is to vest maximum responsibility for air quality control with the states. Authority to adopt SIP measures could be given to the states with EPA empowered to veto any such measure within 90 days of the state's action, if it is found to be inconsistent with the Act. This

would replace the present cumbersome process that requires duplicative federal-state rulemakings. In addition, the separate attainment and non-attainment permit review process could be merged into a single, state-administered permit review. Such a review could include an automatic permit approval process for routine, non-controversial cases and explicit deadlines for agency decisions for all permit applications.

Another major concern is that new construction in non-attainment areas is severely constrained by the present offset requirements. The reason is that offsets are becoming increasingly scarce as a result of the Act's separate requirement for retrofit of existing sources to achieve the ambient standards by the deadline. With each retrofit, the available supply of offsets is diminished and they become more expensive to purchase when they can be located at all. The resulting effect is to inhibit capital investment in modern, efficient, and environmentally sound industrial facilities. One possibility for dealing with this situation would be to authorize waiver of the "offset" requirement for new or modified sources where no offset is reasonably available and other applicable SIP requirements are met.

IV. Emission Control Requirements

A. New Source Performance Standards (NSPS) - While the CAA is premised upon ambient standards, it also prescribes technology based emission standards, such as the NSPS. Congress intended NSPS to serve a "technology-forcing" role. It also viewed NSPS as a means to maximize the opportunities for new growth without compromising clean air goals.

The CAA directs EPA to establish separate technology standards for different situations: Best Available Control Technology (BACT) in PSD areas, and Lowest Achievable Emission Rate (LAER) for non-attainment areas.

These standards apply to major new sources or modifications of existing major facilities. While there is little evidence that the subtle differences between these standards provide significant benefits in terms of enhanced air quality, the differences do cause considerable confusion and delay for permit applicants. Implementation is further complicated by the fact that federal, state, and regional agencies may each differ on the specific requirements.

Equating BACT and LAER and NSPS could significantly reduce the confusion and delays without significantly affecting the air quality programs in non-attainment areas. An additional improvement could come from "grandfathering" new sources that are constructed in compliance with NSPS requirements. Grandfathered

sources would be shielded from additional emission control requirements during permitting, construction, and for 10 years after an operating permit is granted. This would allow them reasonable amortization of the installed equipment.

B. National Emission Standards for Hazardous Air Pollutants (NESHAPS) - Air pollutants for which no ambient air quality standard is applicable but which are determined to cause an increase in mortality or serious illness may be classified by EPA as "hazardous air pollutants." The CAA, however, provides little guidance on how to select those pollutants. Moreover, the Act requires NESHAPS to be set at levels that provide "an ample margin of safety." The present government cancer policy states that there is no safe level of exposure to a carcinogen, so only a standard allowing lowest feasible emissions can be established.

More effective regulations could be achieved if greater guidance were given to EPA about what constituted a hazardous air pollutant and what factors must be considered to control it. These could include more careful scientific review of the health data, and a demonstration of clear evidence of risk through systematic risk analysis.

V. Economics

The Clean Air Act is expected to have a significant adverse impact on long-term economic growth. However, the Act does not require sufficient consideration of economic factors in developing standards and regulations. In implementing the Act, EPA typically compares costs with GNP or other measures of national "affordability" rather than relating costs to quantifiable environmental benefits. This results in minimal review of the costs and benefits of proposed standards, the cost effectiveness of alternative methods for achieving those standards, and the impact of the standards on economic growth, employment, development of energy sources and the national balance of payments. Failure to conduct this type of analysis may result in an irreversible misallocation of national resources.

The Act could be amended to establish and utilize specific guidelines -- incorporating all relevant societal and national goals -- for use of incremental cost-benefit and cost-effectiveness analysis in evaluating all existing and proposed secondary air quality standards, technology performance standards, and other regulations.

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VI. Constraints on Energy Development

The United States must utilize its available energy resources

such as coal, petroleum, nuclear, solar and synthetic fuels to reduce as rapidly as possible the nation's dependence on foreign energy supplies and the political and economic instabilities they produce.

Certain provisions of the Clean Air Act have already resulted in duplicative, needlessly complex and costly permitting requirements, which have delayed or curtailed significant domestic energy projects, including many necessary modifications to petroleum refining facilities. Current PSD and non-attainment provisions are now delaying tertiary recovery of heavy oil. Development of coal resources is constrained by a combination of factors. In addition to constraints on the mining of coal, siting concerns over new, coal-fired power plants and New Source Performance Standards for industrial boilers work to restrain the market for coal by limiting its potential users.

Considering the capital needs and long-term planning requirements of large energy development projects, such as new coal mines, power plants, and synthetic fuels facilities, it is all but certain that the present Act will have a substantial adverse impact on these projects over the next two decades. This is especially true in the case of oil shale development, coal, and natural gas in the western United States.

POSITIONS OF OTHER ORGANIZATIONS

National Ambient Air Quality Standards - All groups, industry and environmental, support the retention of the basic concept of the primary and secondary standards. For primary standards, some industry trade associations (BRT, NCA, AMC, and CMA) recommend that the standard setting process be defined more clearly in the law so that the standards are set at levels appropriate to protect the public against unreasonable risks of adverse health effects. API's recommendation is to retain the present approach to standard setting but with benefit-cost and attainability considerations included in the determination of the margin of safety. The National Environmental Development Association-Clean Air Act Project (NEDA-CAAP) did not take a position on the primary standards issue. The National Clean Air Coalition, representing environmental groups, argues that the present process should be retained and in no case should economics be considered in setting primary standards.

With regard to secondary standards, NCA, AMC, and NEDA-CAAP all recommend that the states be given sole jurisdiction in this area. BRT, API, and CMA are ambivalent on the issue of who should set secondary standards. All the industry groups recommend that cost-benefit analysis be made an integral factor in the determination of the standards. The Clean Air Coalition rejects the use

of cost-benefit analysis for secondary standards. It would require EPA to set standards for fine particulates and for acid rain or its precursors.

All industry organizations believe that the scientific review process should be strengthened and that a truly independent panel should be appointed to review the scientific evidence considered in the development of the standards.

Prevention of Significant Deterioration - The BRT, NCA, API, AMC, CMA, and NEDA-CAAP recommend limiting PSD increments to Class I areas only. They urge that major new sources be required to use BACT or NSPS when it has been issued and to meet the NAAQS. The Clean Air Coalition wants the present PSD program retained as is.

Non-Attainment Areas - The BRT, API, CMA, NCA, and NEDA-CAAP recommend stretching out the existing compliance deadlines because they consider the present schedule unrealistic and impossible to meet. They also urge that the preconstruction review of new facilities be limited only to large projects. In addition, these groups recommend that EPA be allowed to waive offset requirements in certain cases. Finally, they suggest that states should be given greater discretion to adjust SIPs without having to obtain EPA approval.

Emission Control Requirements - All industry groups recommend equating LAER with BACT and that when NSPS has been promulgated, BACT should be considered identical to the NSPS. In addition, there is unanimous support among industry groups for grandfathering new sources against additional control requirements beyond NSPS for ten years and for making NSPS effective when finally approved, rather than when first proposed. The Clean Air Coalition supports utility boiler NSPS that requires the scrubbing of all coal burned in new utility plants.

CONOCO POSITION

Conoco will continue to support vigorously the basic goal of achieving and maintaining clean air. The nation has seen significant improvements in air quality over the past decade and we believe this momentum should be maintained. We believe strongly that the goals of the Clean Air Act should not be abandoned.

Conoco does feel, though, that the Act in its present form is overly complex and cumbersome. We believe that the tangle of regulations will significantly hinder the nation's efforts to revitalize its economy and to develop its energy resources. Our objective is to streamline the regulatory process so as to minimize the need for government involvement while insuring continued progress toward achievement of air quality goals.

National Ambient Air Quality Standards

1. Primary Standards - Congress should require that EPA establish standards which will protect the public against unreasonable risk of adverse health effects. Congress should establish a definition of "adverse health effects." This definition should specify that "adverse health effects" involve more than reversible physical irritation or temporary personal discomfort. In determining "unreasonable risk," the Administrator should be required to consider the nature and extent of the risks, economics, attainability of the standards, and other public interests.
2. Secondary Standards - The Act should be amended to require explicit analysis of economic costs and benefits in the development of secondary standards.

States should be given exclusive authority for establishment of secondary standards. The states should be encouraged, as a matter of national policy, to consider national, regional, and local interests in setting such standards.

The EPA's role should be limited to (1) developing the draft criteria document and (2) mediating conflicts between states resulting from the interstate transport of pollutants.

3. The Act should be amended to define explicitly the role that independent scientific review should play in the standard setting process. Specifically, an independent review panel should be empowered to approve or reject EPA's draft criteria documents based on the scientific validity of the data considered in the documents. As part of the review process, the panel must allow sufficient time for peer review of the document by outside scientific experts. After it has approved the document, the panel would establish exposure-response relationships using the risk analysis methodology. The EPA Administrator would then use this information to select a final standard.
4. The current rulemaking process should be changed to permit cross examination procedures as part of the process when there are disputed issues of material fact.

Prevention of Significant Deterioration

1. The PSD classification and associated increment system should be eliminated. In its place, NSPS should be

required (or BACT if NSPS has not been issued) as would compliance with primary NAAQS and secondary ambient air quality standards set on a state-by-state basis.

2. For those areas presently designated Class I, the EPA should set standards to assure that air quality related values within these areas are reasonably protected. Visibility regulations should be limited to protecting vistas within these areas. With the elimination of the PSD program, Congress should develop a new process involving environmental, economic, and energy consideration for selecting and protecting the areas that will be subject to these restrictions.

Non-Attainment Areas

1. Once the federal EPA has approved a state's SIP, the state should be given discretion to approve reasonable adjustments and other modifications to the SIP. The federal EPA's role should be limited to monitoring overall progress toward attainment of the NAAQS.
2. The states should be authorized to develop and implement their own alternative control methods such as bubbling, banking, and marketable permits.
3. The Congress should reexamine the present 1982 and 1987 compliance deadlines. It should also provide the EPA Administrator the authority to extend primary NAAQS attainment deadlines where they cannot be met despite good faith efforts and where continuing "further progress" toward attainment can be demonstrated.

Emission Control Methods

The Act's numerous definitions of control technology are unnecessary to achieve environmental objectives but add substantial costs to emission control programs. In addition, the delays in defining the control requirements further increase the cost of controls without good reason and actually delay installation of emission control equipment.

1. LAER should be eliminated. Technology-based requirements should be NSPS where applicable, otherwise BACT.
2. NSPS should be effective upon the date of final promulgation rather than retroactive to the date of proposal.
3. New emission sources and major modifications should be exempted from additional or changed control requirements

during permitting, construction and for 10 years after a permit to operate is granted, except when additional ambient or hazardous air pollutant standards are developed during that period.

National Emission Standards for Hazardous Air Pollutants
(NESHAPS)

1. Congress should adopt amendments confirming that the use of risk analysis procedures and consideration of economic factors will be an integral part of the regulatory process for pollutants with no apparent threshold (i.e., no "safe" level of exposure). This will provide statutory support for the approach that EPA has effectively followed to date in establishing NESHAPS for apparent non-threshold pollutants.

WKN/pmh
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GLOSSARY OF ABBREVIATIONS USED IN POSITION PAPER

Abbreviation

BACT	Best Available Control Technology
CAA	Clean Air Act
EPA	U.S. Environmental Protection Agency
LAER	Lowest Achievable Emission Rate
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NSPS	New Source Performance Standards
PSD	Prevention of Significant Deterioration
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide

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INSIGHT

A Report to Managers

conoco

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FILE

Business Roundtable Case Studies Verify Economic Impact of the Clean Air Act

When Congress returns from its summer recess, deliberation will resume in both the House and Senate on the Clean Air Act, which comes up for renewal at the end of September. Business leaders and groups have been working hard to inform Congress about the economic impact of this complex legislation. One of the most telling pieces of evidence submitted so far is a major study prepared for The Business Roundtable's Environment Task Force, which is headed by Ralph Bailey.

The study consists of 92 case studies, which illustrate the costs and delays so often encountered when businesses try to comply with Clean Air Act regulations. The most comprehensive analysis so far seen on this subject, the study clearly indicates the enormous cost to the nation in lost jobs, lost industrial production, and unnecessary project delays that can be directly attributed to the inefficiencies in the Clean Air Act.

The report makes these additional points:

- * The body of regulations that has grown up about the 1970 legislation, in many instances, works against the goals of the Act. By delaying the start-up of newer, more modern facilities, the Act is actually keeping in operation older, less efficient plants that are far more likely to pollute the atmosphere.
- * The study further indicates that several billion dollars could be saved by "a more efficient Clean Air Act, without sacrificing air quality gains."
- * Unnecessary and counterproductive permitting procedures that have grown up about the Act have become a significant road-block to orderly, well-planned industrial development.

In announcing the results of the study, Bailey pointed specifically to the harmful impact of the Act's Prevention of Significant Deterioration (PSD) program. This program was created by EPA and establishes three different classifications for regions where air is in compliance with EPA standards, and specifies the amount of pollution permitted from new plants in these regions.

But the PSD permitting process has become complex, costly, and time-consuming, and in most instances is unnecessary since air quality is adequately protected by other regulatory controls in the Act. Bailey called for the scaling down of the PSD program so that its special protection applies only to truly pristine areas such as national parks.

Two of the case histories used in the Roundtable study were provided by Conoco. In the first case, Conoco told how it sought to build a new chemical plant. Rigid interpretations of Clean Air Act regulations forced the company to apply for permits and spent \$100,000 in technical studies. The company felt that the new plant would not be a major source of new emissions, and its EPA permitting problems came about because the inexperienced agency staff was rigidly interpreting the regulations.

In the second instance, Conoco's coal subsidiary, Consolidation Coal, sought to construct an underground coal mine and a surface preparation plant. Applications for a PSD permit were submitted in 1978. EPA, in its review of the application, took exception to some of Consol's data on the impact of the new mine and plant on the air and called for additional field studies. Consol disputed the need for this data. After almost three years of discussions, EPA reversed its position and decided that a PSD permit might not be necessary.

Here is a sampling of other case studies from the Roundtable survey which indicate the harmful impact of Clean Air regulation on a broad spectrum of American business:

. The Case of the Long Delay

A company decided to install two new coal-fired burners in a plant. PSD permits were needed from EPA. The company filed its first PSD permit application in August, 1978. Eleven months later, EPA notified the company that the application was incomplete. The company submitted an amended application shortly thereafter. In May, 1980, EPA finally approved the permit, 22 months after the initial submission. By that point, the company had decided to build its plant in Canada. The Canadian government provided the company with the necessary air permits in two weeks.

. The Case of the Lost Plant

A California manufacturer decided to expand an existing plant to produce a line of foam packaging. The manufacturer wanted to introduce the new product as quickly as possible to stay ahead of competition. But meetings with state and federal air quality agencies soon made it evident that there would be extensive delays while officials reviewed the possible contaminant

problems with certain chemicals with which they were not entirely familiar. Rather than face these delays, the manufacturer decided to move the expansion project to nearby Nevada. Permits were issued in the neighboring state within 30 days. In time, the various California agencies did approve the use of the chemicals, but by then the plant was under construction elsewhere.

. The Case of the Small Foundry

Small companies can have as much trouble with Clean Air Act compliance as large firms. A small, family-owned foundry in the Midwest built a new furnace with appropriate pollution controls in the early 1970s. By 1978, the foundry was still in compliance with state emission requirements. Then a new carbon monoxide emission test indicated that the foundry was exceeding the state limit. The foundry is located in an area where CO emissions are minimal and only fires its furnace on an intermittent basis. The foundry says that state and EPA regulations now call for the installation of emission controls that would be three times the cost of a new furnace. Such an investment would exceed the foundry's net after-tax income for one year.

. The Case of the Dusty Mine

A western mining company proposed to construct and operate a coal mine and preparation plant on leases in southern Utah. The proposal was opposed by the Sierra Club and other environmental groups, arguing that surface mining would produce dust that would reduce the clearness of the air at a nearby national park. Although company studies indicated it could control the dust and "visibility degradation" would occur less than 1 percent of the time to a degree that was faintly perceptible, the Secretary of Interior ruled that part of the leasehold containing approximately 75 million tons of coal was unsuitable for surface mining.

. The Case of the Unnecessary Permit

In early 1979, a major oil refiner informed EPA that it wanted to modify equipment in its refineries to reduce sulfur dioxide emissions. The company then spent seven months deliberating with EPA on the PSD permit application, and seven more months were spent by EPA reviewing the application. Finally, a year and a half later, EPA informed the company that its project did not need a PSD permit since the new equipment would clearly reduce emissions from the plant. The company spent \$50,000, and its engineers and managers (along with government reviewers) spent thousands of hours to determine that the project to reduce SO₂ emissions would benefit the environment.

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. The Case of the Last Two Percent

A natural gas company wanted to build a small plant for processing gas from several wells. The plant would cost \$55 million, which included pollution clean-up equipment that would take out nearly 98 percent of the sulfur compounds from the gas. EPA called for the installation of additional equipment to remove the last two percent of sulfur from the gas. The additional equipment would cost \$11.5 million, roughly 20 percent of the total project cost. The company argued that this additional cost was not warranted, given the small improvement, and would ultimately have to be passed on to the consumers.

The Case of the 10-Year Delay

The efforts by a utility to convert part of an electric generating plant in the northeast from oil to coal have been delayed over 10 years because of disagreements in interpretation of the Clean Air Act, as well as changes in the legislation. In large part, the confusion was due to uncertainty at EPA over the kind of evidence that would be acceptable when measuring the quality of discharged gases at the utility. As a result, the utility will not burn coal until at least August, 1985. The utility estimates that government confusion will increase the cost of a \$120 million project to \$160 million and has meant a loss of \$270 million in fuel savings to the public.

. The Case of the Lagging Shale Oil Project

An energy development company is in the early planning stages for the construction of an oil shale processing facility in northwestern Colorado. The start-up of the facility is scheduled for 1983, but the energy company doubts it will meet this deadline, primarily because of what it regards as outmoded air quality measurement procedures. The guidelines require "worst case" assumptions that are highly unlikely to occur. The company claims that this kind of interpretation of the Clean Air Act could become a significant roadblock in the development of a U.S. oil shale industry.

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