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STATEMENT OF
FRANK G. ZARB
ADMINISTRATOR
FEDERAL ENERGY ADMINISTRATION
BEFORE THE
COMMITTEE ON PUBLIC WORKS
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
UNITED STATES SENATE
WASHINGTON, D. C.
MARCH 20, 1975

Good morning, Mr. Chairman and members of the Subcommittee. I appreciate this opportunity to discuss the Administration's proposed amendments to the Clean Air Act. My comments will focus on those recommended changes to the Act which have significant energy implications. I will reference to the extent possible the analyses that FEA has conducted and discuss the bases for these amendments, in order to assist this Subcommittee in its deliberations of the proposed amendments.

I believe the Administration's proposed Clean Air Act amendments should be enacted for three important reasons:

- First, certain existing provisions could result in adverse economic and energy impacts, which could outweigh the achievable environmental benefits.
- Secondly, there is the need to implement a national plan to increase the use of domestic coal resources, and

- Thirdly, we have the need to reduce the consumption of petroleum products in automobiles and powerplants.

The Clean Air Act amendments of 1970 were a major legislative landmark for the Nation. Great strides in reducing pollution from all major sources have resulted. However, since the passage of the amendments, our Nation has undergone significant changes which could not have been foreseen in 1970.

As a consequence of the change in the Nation's economic and energy situation, certain requirements and deadlines established in the 1970 amendments need to be deferred. This is not to say that the clean air goals must be sacrificed. We believe that the central goal of the Clean Air Act--the protection of public health and welfare--must be maintained. This goal has not been abandoned in the proposed amendments.

On the contrary, the effect of certain of the amendments will actually facilitate the attainment of environmental objectives, while reducing economic and energy penalties. The amendments are designed to allow for selective delays in those areas where additional time is necessary for the installation of needed control technology, development of domestic clean fuel resources, or attainment of improved decision-making information.

My testimony does not cover all of the analysis that has been completed within the Administration in examining the major Clean Air Act issues. However, additional supporting information will be provided to you in the legislative environmental impact statement which in now being prepared for the entire Energy Independence Act of 1975. This environmental impact statement is expected to be published later this month.

INTERMITTENT CONTROLS

I would first like to turn to the subject of intermittent control systems for powerplants.

FEA has previously studied the problem of the unavailability of required clean coal or needed control equipment to meet the State implementation plan emission limitations by the 1975-77 deadline. These assessments, and subsequent studies conducted by EPA, have indicated that because of the clean fuels deficit--that is, insufficient supplies of scrubbers or low-sulfur coal--certain State implementation plan requirements cannot be met by statutory deadlines. In order to meet primary standards in all areas, it will be necessary to extend compliance deadlines beyond the 1975-77 period, and allow the interim use of intermittent control systems in those areas where primary ambient air quality standards can be enforceably and reliably maintained through the use of such controls. This would permit the limited supplies of low-sulfur coal and control equipment, that are available, to be used in those areas with the greatest pollution problem, thereby assuring a more rapid nationwide attainment of primary standards.

The Administration's proposed amendment relating to intermittent control systems would implement such a strategy by providing additional time for eligible plants to install continuous

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emission control equipment, and by allowing additional time to contract for supplies of low-sulfur coal as they become available.

The amendment would also relieve uncertainties which now inhibit the development of the Nation's coal resources. Higher sulfur coal would have a definite mid-term market, and could continue to be used by plants as they install scrubbers. The long-lead time would also permit the development of low-sulfur coal supplies. In addition, capital expenditures and energy penalties associated with scrubbers would be delayed. Furthermore, the deferral in capital expenditures would help to alleviate the current financial difficulties of the electric utility industry. The economics of sulfur dioxide control have been analyzed in a recent EPA study (November 1974) that was submitted to the Energy Resources Council.

The Administration's proposed amendment will ensure the permanent control of sulfur oxides emissions from powerplants, while allowing additional time for scrubber installation or acquisition of long-term low-sulfur coal contracts. The proposed amendment would authorize compliance schedule extensions to allow rural powerplants up to January 1, 1985, to install and operate scrubber systems or acquire long-term low-sulfur coal contracts. Until permanent emission control systems are operational, these plants could employ intermittent control systems, where reliable and enforceable, to meet primary ambient standards. Under no circumstances would extensions be granted

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in areas where the primary (health-related) sulfur oxides standard would be violated.

All other existing plants, especially urban plants, would be required to install permanent controls as expeditiously as practicable. New sources would continue to be required to meet new source performance standards. EPA, at the same time, is continuing to encourage the revision of State implementation plan emission limitations that are more stringent than necessary to achieve primary ambient air quality standards.

Objections to the use of intermittent control systems have been raised. The major objection to their use has been the concern that they do not minimize sulfur oxide emissions; but rather use the dispersive capabilities of the atmosphere to achieve ambient air quality standards. EPA has been particularly concerned about the widespread use of intermittent controls because of a potential sulfates health problem.

FEA's Office for Environmental Programs has closely followed the activities in the scientific community regarding the sulfate question. In addition, FEA supported a separate, independent appraisal of current research knowledge regarding health criteria for sulfur oxides. Today we would like to provide to this Subcommittee a draft copy of the report titled: "A

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Critical Evaluation of Current Research Regarding Health Criteria for Sulfur Oxides" by Tabershaw/Cooper Associates.

Tabershaw/Cooper is a medical consulting firm which has been involved in the development of several criteria documents used in setting occupational health standards, including sulfur dioxide and sulfuric acid, for the National Institute of Occupational Safety and Health.

FEA has recently received the Tabershaw/Cooper report, is now assessing the results, and we are discussing the report with EPA, and other appropriate agencies.

We believe certain of the conclusions in the report, presented below, are noteworthy:

- The extent to which general air pollution must be controlled--in quantitative terms, in order to eliminate totally the adverse health effects in the community--has not been resolved.
- It is not possible, from the evidence now available, to determine the quantitative contribution or relative importance to the deleterious health effects, of separate classes of air pollutants.
- Attempts to further distinguish and differentiate between the causal contribution to health harm of particulate sulfates and sulfur dioxides, by epidemiological and statistical means, have not been found to be valid.

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The Tabershaw/Cooper report raised questions as to whether data now available are adequate for formulating sulfate control strategies. Other organizations and individuals who testified before the EPA automobile emission suspension hearings, have similarly expressed concern over the present gaps in the scientific basis for determining the potential sulfate health effects from powerplant emissions.

The Administration's proposed amendment on intermittent control systems also provides the opportunity to defer the use of continuous controls for sulfur dioxide for non-urban coal burning powerplants until more refined control strategies can be developed. In the interim, acquired knowledge on sulfates should provede a sound basis for developing viable geographical-specific control strategies that will allow for the protection of public health in a cost-effective manner.

The use of intermittent controls is consistent with our national energy program in that it encourages the utilization of coal. An EPA analysis has indicated that between 18 and 70 plants could use intermittent controls to meet ambient air quality standards for sulfur dioxide. These plants would burn 36 to 106 million tons of high sulfur coal per year,

which could, in effect, free up an equivalent amount of low-sulfur coal for facilities that cannot utilize intermittent controls, or avoid the use of an equivalent amount of petroleum.

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ESECA AMENDMENTS

I would now like to turn to the proposed amendments to the Clean Air Act that relate to the coal utilization program established by the Energy Supply and Environmental Coordination Act of 1974 (ESECA). First, however, I would like briefly to review the strategy which FEA has used in implementing the authorities given to FEA by ESECA, and then to discuss the amendments which the Administration has proposed, in Title IV of the Energy Independence Act, relating to FEA's authorities under ESECA.

As you know, FEA may issue orders converting certain powerplants and major fuel burning installations to coal, and requiring plants already using coal to continue doing so. Specified air pollution requirements must be met, however, before the FEA order goes into effect. FEA may also order powerplants in the early planning process to be constructed with coal burning capability.

Our strategy for implementing ESECA has been to focus on long-term oil savings, rather than short-term conversions. This strategy was adopted for two principal reasons. First, coal supplies have been extremely limited, due to the effects of the oil embargo at the beginning of 1974 and the United Mine Worker's work stoppage at the end of 1974. Hence, potential short-term oil savings have been limited. Second, FEA determined that resources for implementing ESECA

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could best be allocated to achieving substantial long-term oil savings through long-term conversions to coal, and through requiring new powerplants to be constructed with the capability to burn coal.

We recognize that the capital expenditures which may result from an FEA order pursuant to ESECA may be significant, and that the utilities industry is currently burdened with capital and cash-flow pressures. We have therefore proceeded carefully to develop thorough engineering and economic analyses prior to concluding which plants will receive FEA orders.

Specifically, we studied in detail nine selected powerplants, to determine the technical problems and the environmental effects of reconversion to coal. We then, using a list of 725 plants which responded to the FPC's Emergency Fuel Convertability Questionnaire, identified the powerplants in the U.S. that might be able to convert to coal. By applying a lengthy screening and verification process, FEA substantially reduced the number of potential candidates for conversion to coal. A comprehensive investigation of this smaller group of plants is being conducted. Using already existing data, as well as the information developed during these FEA investigations, FEA will reach determinations as to which plants should receive FEA orders.

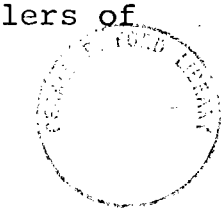
FEA has proposed regulations implementing the coal utilization program, and has published a comprehensive draft environmental impact statement. The comment period for the impact statement closed March 17, and we are now evaluating the comments we have received. It is expected that the final impact statement will be published by April 10.

In order to extend and expand the coal utilization program, the Administration is proposing three amendments to FEA's authorities under ESECA.

The first proposed amendment to ESECA would extend FEA's authority to issue orders by two years from June 30, 1975 to June 30, 1977. As I just discussed, FEA is conducting comprehensive investigations of a group of potential conversion candidates so that FEA will be able to make, with an acceptable degree of certainty, the findings required by ESECA.

FEA will be able to complete its investigation of many, but not all, of the potential conversion candidates by June 1975. This proposed amendment will allow FEA to issue orders to all powerplants which investigation shows to be appropriate conversion candidates. This could result in a potential additional savings of 200,000 bbls/day of oil.

In addition, the extension of FEA's order-issuance authority will permit FEA to issue orders to a sizeable group of major fuel burning installations other than powerplants. Although these installations represent an extremely large potential oil savings, the Federal government has no firm data base to provide the necessary information on the convertability of these units to coal. FEA is developing the first accurate energy use inventory of the approximately 65,000 industrial boilers of significant size. In addition, FEA is developing a



questionnaire to be completed by all larger MFBI's. Responses to the questionnaire will be used to select a group of candidate plants to undergo detailed economic and environmental analyses. The survey effort could not produce adequate data to support issuance of any substantial number of orders by June 30, 1975. However, such orders in the future, could produce a potential savings of 200,000 - 500,000 bbls/day of oil in the industrial sector by 1980.

The extension of FEA's order-issuance authority will also provide an additional two-year period in which to order powerplants in the early planning process to be built with coal burning equipment. FEA will be able to order plants that enter the "early planning process" as late as June 1977 to be built with coal-burning capability.

The second amendment to ESECA extends FEA's authority to enforce its orders through December 31, 1984. This is a six year extension of FEA's present authority under ESECA.

This extension will insure that the plants which FEA converts from natural gas and petroleum products to coal will continue to use coal for the critical period until 1985. Thus, the oil savings achieved by FEA through great effort will not be lost by voluntary reconversions during the period between 1979 and 1985. Also, plants which must install pollution control equipment before they can convert to coal -- in order to meet air pollution requirements -- will have an additional six years to do so.

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The third proposed amendment to ESECA expands FEA's authority to issue prohibition orders to include powerplants or major fuel burning installations which are designed with or actually acquire the capability of burning coal after the date of passage of ESECA, June 22, 1974. This provision would apply to any existing powerplant or major fuel burning installation which acquires coal burning capability after June 22, 1974; to new powerplants and major fuel burning installations which are built voluntarily with coal burning capability; and to powerplants that receive orders from FEA requiring them to be built with coal-burning capability. All new plants affected by this amendment would be subject to applicable New Source Performance Standards.

Requiring powerplants in the early planning process that receive FEA orders, or are eligible for them, actually to burn coal will result in substantial oil savings -- which will be realized until 1985 if the proposed amendment extending FEA's order-enforcement authority is enacted. Requiring plants that were past the early planning process but were not operational in June 1974 to burn coal, if they have the necessary facilities, will also result in additional oil and gas savings. These additional savings for new powerplants and industrial plants of 400,000 bbls/day of oil cannot be realized under the existing ESECA legislation.

In addition to the proposed amendments contained in Title IV of the Energy Independence Act, the Administration is proposing several Clean Air Act amendments that will facilitate conversion of powerplants and major fuel burning installations to coal, while continuing to protect the public health.

First, the Administration is proposing to eliminate the regional limitation provision which now requires a plant to meet SIP emission limitations at the time of conversion pursuant to an FEA order, if there is a violation of primary ambient air quality standards anywhere in the qir quality control region in which the plant is located. This requirement applies whether or not the individual plant itself is causing or contributing to the violation of primary standards. Removal of the regional limitation will mean that many plants could convert to coal at an earlier date. We estimate that the regional limitation provision postpones conversions to coal which would result in approximately 236,000 barrels per day oil and oil equivalent natural gas savings in 1977.

Requiring permanent controls before allowing conversion to coal (where not necessary to meet primary standards) would greatly increase the immediate cost of a coal conversion program. Accordingly, it may be impossible for FEA in some cases to make the finding that a conversion requiring the immediate addition of permanent controls is environmentally "practicable." If FEA cannot make a finding of practicability as required by ESECA, a conversion order cannot be issued.

Hence, the effect of regional limitations in ESECA may be to reduce the number of conversions significantly -- or at least to delay them -- and thereby to forego or delay the corresponding increase in consumption of coal and the reduction of the imported oil.

Removal of the regional limitation will not jeopardize public health, since the plants will still be required to meet primary ambient air quality standards before burning coal.

A second proposed amendment makes it clear that plants which have historically burned coal and which had, prior to receiving an order from FEA, planned to convert to oil to meet Clean Air Act requirements, are eligible for compliance date extensions under section 119 if they are ordered by FEA to continue using coal. FEA has established that there are several powerplants which plan to switch from coal to oil to meet Clean Air Act requirements; there are undoubtedly also major fuel burning installations in this class. The proposed amendment would enable such plants to have sufficient time to install pollution control equipment for coal burning instead of being forced to switch to oil first to meet pollution requirements, and then later ordered to make another switch back to coal when pollution control equipment is installed. This amendment furthers the goal of coal conversion and eliminates needless, expensive fuel switching in the interim.

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A third proposed amendment would permit a plant that received a compliance date extension under ESECA to come into compliance, at the expiration of this extension, with the state implementation plan (SIP) that is in effect at that time. Under existing ESECA authorities, EPA is conducting a review of SIPs to identify those which are more stringent than necessary to attain and maintain national ambient air quality standards, and it will recommend that such SIPs be revised. This amendment would allow plants that receive FEA orders to comply with any revisions in the SIP, thereby assuring that such plants receive equitable treatment in comparison with other plants that do not receive FEA orders and compliance date extensions.

Without this amendment, the conversion program will result in plants that receive compliance date extensions being tied to 1975 SIP's in most instances. This may result in additional expenditures for permanent emission control devices which are no longer needed. In extreme cases, where FEA could not find the conversion to be economically feasible if the source were compelled to meet the 1975 SIPs, this amendment would permit conversions that would otherwise be entirely precluded.

A fourth proposed amendment extends the date of termination of compliance date extensions one year, to January 1, 1980, as a conforming amendment to the proposal to extend FEA's order-issuance authority to 1977. This will permit plants receiving orders and compliance date extensions during the period June 1975 to June 1977 to have an additional

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period to come into compliance with SIP's. This amendment would, at a maximum, have the effect of extending compliance dates for ESECA coal conversion candidates one year.

This amendment would allow a more reasonable time frame for plants to install pollution control equipment. Of the total 24,675 megawatts of existing utility capacity which FEA is examining for conversion potential, preliminary analysis shows that 8,000 MW need new precipitators and 10,092 MW need to install flue gas desulfurization systems. Precipitator installation lead time is 28-32 months and that for flue gas desulfurization is 3-5 years.

SIGNIFICANT DETERIORATION

I would now like to discuss the Administration's proposed significant deterioration amendment. Sierra Club v. Ruckelshaus, held that the Clean Air Act requires the prevention of significant deterioration of the Nation's air quality where the air quality is better than that dictated by the Federal health and welfare standards. In light of the decision, EPA recently promulgated final regulations to implement its best judgment of how to prevent significant deterioration of existing clean air areas. These regulations are now the subject of several court challenges by industry and environmentalists, and a period of legal uncertainty is anticipated.

The litigation on the significant deterioration issue was initiated in 1972--at a time when the country lacked a unified national policy on energy. The Nation's consumption of petroleum was skyrocketing then, as were imports from foreign sources. A related objective of the litigation was to promote energy conservation, and limit the development of new fossil fuel powerplants in this country.

The country's energy situation has changed since that time, and the President's Energy Independence Act of 1975 has been proposed to redirect our Nation's energy future. The energy program

calls for mandatory and voluntary energy conservation--policies that have for years been called for by the environmentalist and the conservationist. However, the energy program additionally calls for a substantial increase in the development of our domestic fossil fuel resources for the sake of reducing our vulnerability to foreign energy sources.

The actions proposed to make our Nation less vulnerable would include the construction, by 1985, of:

- 150 major coal fired power plants,
- 30 major new oil refineries, and
- 20 major synthetic fuel plants.

As the supporting analyses for the President's program clearly show, the expansion of our domestic coal resources, and the development oil and gas resources, are necessary to reach the goals of energy independence. Energy conservation alone will not achieve the goal ofenergy independence. The program also includes proposed legislation that would assist in planning, siting, and constructing the necessary energy facilities to meet the 1985 goal. Legislation that addresses the financial problems of the utility industry has also been proposed. FEA believes the proposal to delete the significant deterioration requirement is consistent with the needs of this program.

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The additional uncertainties created by yet another layer of regulatory requirements on the energy industry is not compatible with the goal of expeditiously developing needed domestic energy resources. There is a need to simplify and rationalize the complex regulatory constraints on the domestic energy industry.

Under the significant deterioration program, States could stop or greatly limit resource development activities in certain geographical areas. We believe that siting decisions should be based on a balancing of all environmental factors--not just air pollution--as well as socioeconomic, energy efficiency, and other considerations.

Reports by the National Academy of Sciences and others, have shown that current scientific evidence does not support the need for ambient standards more stringent than the currently promulgated primary and secondary ambient air quality standards for particulates and sulfur dioxide. Accordingly, FEA does not believe the potential benefits from the siginificant deterioration program justify the potential cost of constraining the development of domestic energy resources.

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FEA is particularly concerned about the impact of this uncertainty in delaying development of needed energy resources, especially the construction of large, coal-fired powerplants in the short-term, and synthetic fuel facilities in the longer term. In addition, the significant deterioration regulations could have a major inhibiting effect on the location of new energy projects; and groupings of several energy facilities in one area could be restricted under the regulations.

Accordingly, the President has requested that Congress clarify its position regarding significant deterioration. Specifically, Title VI requests Congress to provide that the Clean Air Act does not require or authorize EPA to establish standards more restrictive than primary and secondary ambient air quality standards.

No measureable impact on public health from the proposed amendment is anticipated, since air quality would not be permitted to deteriorate beyond the national ambient air quality standards, which are based on public health and welfare considerations. The States of course would remain free to impose and enforce standards more stringent than national standards. Furthermore, all new sources are required to meet new source performance standards, which incorporate the best available control technology. Therefore, all new sources are already minimizing pollution to the greatest extent possible.

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AUTOMOBILE EMISSION STANDARDS

In 1970, the year the historic amendments to the Clean Air Act were enacted, our Nation's energy position was beginning to deteriorate. Total petroleum use was about 14 million barrels per day, and imports represented only 20%. In 1973, energy consumption had grown to 18 million barrels of oil per day, with more than 6 million barrels, or over 35%, made up of imports. If this trend continues unaltered, our projections indicate that, even accounting for the reduced consumption caused by last year's price increases, the United States could depend on foreign oil for better than half of its daily oil consumption by 1985. This growing dependence on imported oil threatens not only our economic solvency but -- considering the possibility of another oil embargo -- represents a serious threat to our national security. The President is determined to act on this critical problem and has charged FEA with part of the responsibility for identifying and implementing measures to reduce our energy vulnerability. We have focused on automobile fuel economy as an area in which significant fuel savings can be produced.

The transportation sector currently accounts for one-fourth of all the energy consumed in the United States. Since it relies almost exclusively on oil for fuel, transportation is responsible for over half of the Nation's total petroleum consumption.

Motor vehicles consume almost 80% of transportation energy or almost one-fifth of all U. S. energy. Automobile fuel usage has grown at an average annual rate of 5% during the last 20 years. If previous patterns continue, daily auto fuel consumption will nearly triple by 1990. As a result of these alarming trends, the Administration has focused considerable attention on reducing fuel consumption by improving automobile fuel economy.

It was with these facts before him that President Ford, back in October of 1974, addressed the issue of improving new car fuel economy. He obtained voluntary commitments from the automobile manufacturers to improve the production weighted average fuel economy of their new cars 40% by 1980.

Achievement of the President's 40% fuel economy improvement goal would have the following beneficial impacts:

- Increase the fuel economy of an automobile, which averaged 14.0 mpg in 1974, to 19.6 mpg in the 1980 model year.
- Reduce the total amount of projected automobile gasoline consumption in 1980 from 5.65 million barrels of gasoline per day to 5.05 million barrels--a savings of 600,000 barrels of gasoline per day. This gasoline reduction translates into a cost savings of 14.1 million dollars per day (using $.56/gallon and 1975 dollars).

- A 10.6% reduction in imports would occur by 1980.

[I would like to provide the Committee, for the record, a table which projects a year by year analysis of how a 40% improvement in automobile fuel economy will affect average mpg, total gasoline consumption, and percent imports needed.]

As a part of the 40% fuel economy improvement program, the Administration has recommended that the Clean Air Act be amended to provide a five year suspension of automobile standards at the following levels--from 1977 to 1981: 0.9 HC, 9.0 CO, 3.1 NO_x. The automobile industry assured the President that at these emission levels, the 40% fuel economy goal could be achieved.

Since the Energy Independence Act was submitted for enactment, the EPA Administrator has announced the suspension of the 1977 automobile standards for HC and CO, because of a potential health problem associated with catalyst equipped automobiles--sulfuric acid emissions. In addition, the EPA Administrator recommended emission standards for the 1975-1979 model year period--1.5 HC, 15.0 CO, 2.0 NO_x--which would limit the use of catalysts. For the 1980-81 model years, Mr. Train has recommended the President's proposed standards of 0.9 HC, and 9.0 CO. In addition, Mr. Train indicated that EPA will promulgate a sulfuric acid emission standard for automobiles for the 1979 model year.

We are assessing Mr. Train's recommendation in relation to a 40% fuel economy improvement by 1980. We are hopeful, that at the levels proposed by Mr. Train, the automobile manufacturers will still be able to meet the 40% fuel economy improvement goal. We plan to meet with representatives from DOT and EPA to explore this matter further.

While catalysts allow for re-tuning of the engine, which contributed to the 1975 model year increase in fuel economy, we concur with Mr. Train's findings that the potential exposure of the public to increased sulfuric acid mist may prove to be significant in the long term. We also concur that his proposed standards can be attained by technologies other than the catalyst.

Concurrent with the automobile sulfuric acid problem, two points have been raised relative to the need to limit the sulfur content of gasoline. One is the possibility of desulfurization of the feedstock, and the other is re-blending of the feedstock, to allow maximum usage of low sulfur content fuels in areas where the sulfuric acid emissions may be the greatest. The economic impacts of desulfurization appear, at this time, to be significant. Preliminary indications are that it would cost the petroleum industry $4 to $6 billion to install needed desulfurization equipment. However, we are evaluating both alternatives, and, as yet, do not have a firm position on these proposals.

TRANSPORTATION CONTROL PLANS

The administration has proposed an additional amendment that relates to automotive emissions. The proposed amendment, relating to Transportation Control Plans, would provide for extensions that will permit a more realistic approach to the attainment of national primary ambient air quality standards. This amendment would allow the EPA Administrator to extend for the shortest reasonable period--not to exceed 5 years--the deadline for attaining national primary ambient air quality standards. Provision is also made for a second 5-year extension for those communities where the problem is extremely severe. Extensions would be provided to communities only where the community has adopted all reasonable control measures and is still unable to achieve the standards.

At present, the short time span remaining for compliance (1975-77) does not allow for all affected areas to reasonably implement needed control measures. Approximately ten metropolitan areas would be required to take extraordinary measures to control automobile usage, if no deadline extension is granted. Therefore, we believe that the amendment will allow for a more balanced approach to transportation planning.

CONCLUSION

Mr. Chairman, FEA has closely examined over the last year the relationship between the Clean Air Act and domestic energy consumption. We believe the changes in the Act cited above are necessary to achieve the energy and environmental goals of the Administration. We welcome the opportunity to provide for the Subcommittee the basis of our positions on these important matters.

At this time, I would be happy to answer any questions you may have.

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TABLE: YEAR BY YEAR ANALYSIS OF 40% FUEL ECONOMY IMPROVEMENT IN AUTOMOBILES

The following two tables estimate the impact on gasoline consumption and needed imported crude without and with the President's 40% fuel economy program. The tables do not reflect the impact of the President's total energy program.

Without President's Proposed 40% Fuel Economy Program (Base Case)

Year	Average Fleet MPG	Total Gasoline Consumption (MMB/D)	Total Imports of Crude Needed (MMB/D)
1975	13.45	4.83	6.5
1976	13.63	4.93	7.3
1977	13.83	5.05	8.0
1978	14.09	5.29	8.5
1979	14.11	5.49	9.1
1980	14.16	5.65	9.7

With President's Proposed 40% Fuel Economy Program

Year	Average Fleet MPG	Total Gasoline Consumption (MMB/D)	Total Imports of Crude Needed (MMB/D)	Reduction in Imports in %
1975	13.70	4.76	6.4	1.5
1976	14.02	4.82	7.1	2.2
1977	14.47	4.87	7.7	3.6
1978	15.03	5.02	8.1	5.1
1979	15.63	5.06	7.8	8.4
1980	16.25	5.05	8.7	10.6

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