Coal and Clean Air Law: A Case for Reconciliation

Carl E. Bagge*

The restrictive effect of the Clean Air Amendments of 1970\(^1\) on the coal industry can no longer be considered merely an industry concern. The current energy crisis has revealed the issue's national dimensions. Any hope the United States has of restoring an adequate energy supply, even within the context of enforced conservation, rests primarily on increased use of secure, domestic coal.\(^2\) Yet, air pollution standards are the single most depressing force affecting current coal utilization.

All the major federal legislation designed to clean the air was adopted before the long-developing erosion of the nation's fuel reserve base was generally acknowledged; yet as early as the Air Quality Act of 1967,\(^3\) Congress foresaw the possibility of the present conflict between two worthy goals. That Act added as a purpose of clean air law the protection and enhancement of the quality of the nation's air resources "to promote the public health and welfare and the productive capacity of its population."\(^4\) These are broad terms susceptible of varying interpretation. It is possible to draw a strained distinction between the "productive capacity" of individuals or population groups exposed to various kinds and degrees of air pollution and the "productive capacity" of industry and commerce. The more sensible reading of congressional intent was summed up recently by the spokesman for the nation's oldest municipal air pollution control citizens' league, who

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2. In its December 1973 report on a series of workshops held to develop a national energy research program aimed at achieving energy self-sufficiency, Cornell University concludes that coal will have to supply $43.1 \times 10^{15}$ btu per year by 1985 of the $124.9 \times 10^{15}$ btu per year the U.S. will be consuming at that time. In making this projection, the report assumes that nuclear plants will be operational as soon as possible, that oil and natural gas production will be increased by nearly 12 percent, and that oil imports are to be held to their 1970 level. Coal now provides 17 percent of the nation's energy.


4. Id. § 1857(b)(1) (emphasis supplied).
said that "thoughtful people do not want to buy a salubrious environment in a sick economy." Public reaction to the energy crisis thus far indicates a groundswell of concern not only for the adequacy but also for the reliability of fuel and power supplies. That is not to say that environmental protection is a rejected concern, but rather that many people are re-evaluating the importance of energy to their personal requirements of light, heat, food, employment, and mobility.

Although ardent ecologists may consider that the renewed emphasis on energy production from mining or drilling of fossil fuel sources is regressive, an industrialized society simply cannot mark time until the arrival of such environmentally desirable alternatives as nuclear fusion, solar energy, wind and tidal power, or the pure hydrogen cycle. In fact, society cannot even wait patiently for the environmentally acceptable intermediates—clean, synthetic liquid and gaseous fuels made from long-lasting reserves of coal, oil shale and tar sands. Fuel needs are immediate, and the only abundant and quickly accessible fuel resource is high-sulfur coal. There is not enough prized natural gas to satisfy all current demands. The current philosophy of the Federal Power Commission is to ensure, on the basis of service priorities, that residential consumers are protected from gas shortages, even at the expense of electric utilities and other large industrial consumers. Thus, the major stationary sources of air pollution are likely to suffer most from curtailments of gas supply, which, according to the FPC's Bureau of Natural Gas, are becoming ominously more frequent.6

A fact of fundamental importance is that the continued supply of natural gas and oil must inevitably be a function of assured fuel reserves absent compromises exacted by either internal or external market forces. Proven reserves of both natural gas and crude oil in the United States have followed a pattern of decline in recent years. The American Gas Association and the American Petroleum Institute

5. Letter from Dr. Harold L. Hansen, Chairman of the Air Pollution Control League of Greater Cincinnati, to President Richard M. Nixon, Dec. 18, 1973. The letter read in part:

The public health has long been, and will continue to be, our major concern. We believe that it is possible, although not easy, to achieve energy independence and to protect the public health at the same time. It may not be possible to achieve our goals within the present schedule. In long-term planning a common sense approach will have to be used. In short, we may be faced with the necessity of choosing postponements and "trade-offs."

6. The Bureau of Natural Gas reported that 12 interstate natural gas pipeline companies suffered curtailments from April to July 1973, foreclosing deliveries of more than 515.4 billion cubic feet, a 77 percent increase from 1972. At the same time, the Bureau said that 14 pipeline companies estimated current winter curtailments of more than 679.7 billion cubic feet, 20 percent more than last winter. BUREAU OF NATURAL GAS, FEDERAL POWER COMM'N, FIRM REQUIREMENTS AND CURTAILMENTS OF MAJOR INTERSTATE PIPELINE COMPANIES, Revised Staff Report, Sept. 1973.
reported decreases in their estimates of proven fluid fuel reserves in four of the past five years. The exception in the year 1970 resulted from the inclusion for the first time of Alaska's North Slope oil and gas reserves in the computation. Aside from the realistic distinction between inconveniently located reserves and ready pipeline supply, the United States would need many more conventional oil and gas finds comparable in magnitude to that of the North Slope to extend the reserve life indices (reserves over production) of those fuels beyond the dozen years currently projected.

What fuel wealth the United States can boast is approximately 88 percent coal, representing literally hundreds of years of reliable domestic supply. If the United States is to maintain its productive capacity, and thereby a strong economy, it must rely upon the strength of its abundant coal resources and conserve the dwindling supply of oil and gas. The coal industry insists that air pollution control restrictions not foreclose the use of its product merely because that product is environmentally handicapped by nature's addition of sulfur. Rather, the industry considers that the use of coal should be treated as one viable component of the national energy issue.

I

THE EVOLUTION OF CLEAN AIR LAW

The coal industry is actively seeking congressional review of the Clean Air Amendments of 1970, not because of disagreement with

7. N.Y. Times, Mar. 19, 1973, at 53, col. 6. For those unwilling to accept trade association estimates of this sort as final authority, there is small comfort in an independent government survey which put 1970 natural gas reserves nearly ten percent below the AGA estimate. An FPC staff report released in May 1973 indicated that the survey figures were based on "detailed geological and engineering estimates."

8. The North Slope Oil Field is commonly expected to supply two million barrels per day at full capacity, perhaps beginning in 1975. This compares with a total of approximately nine million barrels per day currently produced in the rest of the continental United States. It has been estimated that U.S. oil demand will reach 21 million barrels per day in 1975 and 25 million in 1980, with most of the increase coming from imports. Statement of William E. Simon, then Deputy Secretary of the Treasury, in testimony. Hearings on H.R. 9130 Before the Subcomm. on Oil and Natural Pipelines Rights of Way of the House Comm. on the Interior and Insular Affairs, 93d Cong., 1st Sess. 404 (1973).

9. "The Role of Coal in Meeting Our Needs for Energy in the 70's and Beyond," address by James R. Garvey, President, Bituminous Coal Research, Inc., to Univ. of Michigan Management Briefing Seminar, Aug. 4, 1972. For the doggedly import-minded, according to a United Nations study, the world distribution of fossil fuel reserves follows the American plan—93% is coal, four % oil, and three % natural gas. Small wonder that even the oil-rich Shah of Iran chided the world for using oil to do what coal could do: "Oil will be finished as a resource in 30 years time while thousands of tons of coal remain in the ground." Wall St. J., Dec. 24, 1973, at 3, col. 1.
the purpose of the law to protect and enhance air quality, but because of serious reservations about the methods Congress has prescribed to attain that goal. It is certainly too late in the day for anyone to dismiss air quality improvement as unnecessary or as faddism, but it is also far too soon to cast the current Act as the immutable law of environmental survival.

Air pollution control law has been considered mutable enough in the past by proponents dissatisfied with incremental progress toward clean air. Ironically for our energy-short times, the federal clean air effort began on a meliorative note in 1955 while the American public was still falsely secure in expecting a continuing energy surplus. The Air Pollution Control Research and Technical Assistance Act\textsuperscript{10} authorized the Surgeon General, in cooperation with governmental agencies at all levels, private agencies, and involved industries, to prepare and recommend research programs aimed at eliminating or reducing air pollution. That law was extended in 1959,\textsuperscript{11} indicating that Congress had not despaired of a positive solution to the air pollution problem.

The Clean Air Act of 1963,\textsuperscript{12} however, marked a significant transition from technical optimism to legal restraints. The 1963 Act specifically authorized a program to extract sulfur from fuels by low-cost techniques on the assumption that sulfur and its by-products constitute a major air pollutant.\textsuperscript{13} For educational purposes, the Act also directed the Secretary of Health, Education and Welfare to compile and publish useful indicators, based on the latest scientific knowledge, of the nature and extent of effects to be expected from the presence in the ambient air of various quantities of air pollutants.\textsuperscript{14}

Hindsight offers two observations. Research still has not developed a low cost process either to extract sulfur from coal or to extract sulfur oxides from combustion gases, nor has any such process, however costly, been accepted generally as commercially reliable. Also the "latest scientific knowledge" in 1963 obviously was frail support for criteria leading to specific legal standards. An HEW-Environmental Protection Agency study released ten years later conceded that even the present scientific basis for judging effects of the sulfur-dioxide culprit is incomplete and that "further scientific information will be required either to validate the present (SO\textsubscript{2}) standards or to justify alteration of these standards."\textsuperscript{15} Whether accepting then contempo-

\textsuperscript{13} Id. § 3(a)(4).
\textsuperscript{14} Id. § 3(b)(1).
\textsuperscript{15} The cooperative HEW-EPA study, A REVIEW OF THE HEALTH EFFECTS OF SULFUR OXIDES, Oct. 9, 1973 [hereinafter cited as HEALTH EFFECTS REVIEW], was re-
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rary scientific knowledge or, as seems more likely, responding to a new
level of environmental concern, Congress enacted the Air Quality Act
of 1967. The new Act directed the Secretary of HEW to forego
"informational" criteria and to issue speedily such air quality criteria
as in his judgment ought to be required in the states' efforts to pro-
tect the public health and welfare. The palliative of this higher
federal profile in what was still a state level clean air effort was the
requirement that the Secretary furnish information on recommended
pollution control techniques to allow the states to achieve levels of air
quality set in the published criteria. This information, which was to
include data on the latest available technology and on the economic
feasibility of alternative control methods, including cost-effectiveness
analyses, added up to less than a "how-to" manual.

It is historical fact that the federal government could not direct
the states to any store of demonstrated, let alone economically feasible,
technology that would reduce sulfur-oxide emissions to conform to its
criteria. Instead of recognizing this situation as a technological chal-
lenge, however, Congress decided to cut some Gordian knots tied up
in the mobile source problem which at the time was more pressing
than that posed by stationary sources. Congress adopted a new stra-
thy based on enforced standards rather than on informed criteria, passing the Clean Air Amendments of 1970 in an apparent mood of
querulous urgency. This Act established more centralized control
quested by the Office of Management and Budget. The study was conducted by a team of medical scientists from government institutes and universities headed by Dr. David P. Rall, Director, National Institute of Environmental Health Sciences, National Institutes of Health, Research Triangle Park, North Carolina. Their findings read in part:

The pollution in the air is a complex mixture of chemical substances of vary-
ing toxicity of which the sulfur oxides are a principal component. Those com-
ponents which pose the primary hazards to human health have not yet been
fully identified nor have their respective contributions to human disease been
fully determined. . . . [W]e must aggressively seek a broader and firmer
scientific foundation on which to base present and future policies (on
SO₂ standards).


18. Id. § 107(c), 42 U.S.C. § 1857c-2(c).

fied at 42 U.S.C. §§1657 et seq. (1970)). In all following notes, the term "Clean Air
Amendments" refers to the Clean Air Act, 42 U.S.C. §§1857 et seq., as amended
through 1970. The accompanying report of the House Committee on Interstate and
Foreign Commerce stated the purpose of this legislation with an almost military ring:
"to speed up, expand, and intensify the war against air pollution." H.R. REP. No. 1146,
91st Cong., 2d Sess. (1970). The report read in part:

A review of achievements to date . . . make abundantly clear that the
strategies which we have pursued in the war against air pollution have been
inadequate in several important respects, and the methods employed in imple-
menting those strategies often have been slow and less effective than they
might have been.
in the clean air "war." Nationwide standards were to be set; states were to follow a tight timetable implementing them; enforcement was to be assured through actions ranging from federal watchguards to citizen suits. This entire strategy was embodied symbolically and practically in the newly created Environmental Protection Agency (EPA). While the 1970 Amendments retained the philosophy of state implementation of standards, they did so with the clear caveat that if the states were unable or unwilling to implement the federal standards, EPA would fill the gap quickly and decisively.

The new strategy has produced remarkable progress in clearing the air. EPA reports that most urban areas in the nation are now meeting primary health-related air quality standards and even the more restrictive secondary catch-all welfare standards for sulfur dioxide and particulate matter, the emissions most commonly charged to coal burning. How much of that progress, however, has been achieved through radical surgery on coal markets will bear sharp analysis in these fuel-short times. By setting a three-year limit on funding under the 1970 Act, Congress clearly intended that the law be reviewed in 1973. Whether because of the press of other urgent business or because it was satisfied with progress achieved, Congress postponed that review and passed a simple one-year extension. Current energy developments (or retrogressions) will permit no further postponement, and the coal industry is not alone in insisting that the Clean Air Act is ripe for review.

II

IMPACT OF CLEAN AIR RULES ON COAL MARKETS

Either Congress will carefully amend the current Clean Air Act to align its implementation with the harsh realities of the present energy situation, or those who administer the Act must interpret it to prevent its barriers to increased coal utilization from detouring the na-


22. Roy L. Ash, Director of the Office of Management and Budget, upon releasing the HEW-EPA study on SO$_2$ health effects (HEALTH EFFECTS REVIEW, supra note 15), announced that it was "part of an ongoing Administration program of reviewing the Act." His press statement read in part:

We believe that a strong law like the Clean Air Act is necessary to achieve our desired improvement in air quality. We also recognize that many of the impacts of actions to implement the Act—particularly economic and social impacts—were not foreseen when the Act was amended in 1970. The time has now come for a thorough public review of the Act. Decisions on air quality must balance our objectives for environmental quality, energy, economic and social improvements, as well as other national goals.
tion further into the mire of dependence on scarce oil. The Federal Energy Office, for example, is vigorously promoting the conversion to coal of oil-fired electricity generating plants where continued compliance with primary sulfur dioxide air quality standards is possible or where it is feasible to allow temporary variances from those standards. Understandably, FEO has concentrated its efforts on the East Coast, the area most heavily dependent on imported oil, relying, as it does, on imports for more than 90 percent of its residual oil. By mid-January, FEO had listed some 18 generating units at eleven power plants as converted to coal or scheduled for conversion, with 16 more units actively seeking conversion. This is a dramatic reversal of the trend in fuel use by East Coast electric utilities over the past decade, a trend born of economic ingenuity that was institutionalized by stiffening air pollution control rules.

Even after imported residual oil prices boarded the escalator, utilities found oil use the only practicable road to compliance with sulfur dioxide emission limits, given the unavailability both of low-sulfur coal and of coal or flue-gas desulfurization technology. The lack of sufficient low-sulfur coal resources is a defect of nature, but the stunted development of sulfur-control technology stems largely from the deficiency of a federal government which saw nothing illogical about demanding strict compliance with the law while offering minimal support for an economical means of attaining that compliance. This policy lacked that evenhandedness which is the essence of good law.

The adverse impact of clean air regulations on coal markets is a matter of historical record. In 1964 there were 100 coal-fired plants consuming 40 million tons annually. These plants were located predominantly in the eastern United States—in New England, the Mid-Atlantic and part of the South Atlantic region—stretching from Norfolk, Virginia, to Canada. All were within 100 miles of the Atlantic coast, the normal market limit of imported residual oil. By 1973 only 20 coal-burning plants remained in that area, and total coal consumption had decreased to an estimated 15.5 million tons annually. Coal's share of the electric utilities' fuel burn plummeted from 70 percent in 1964 to 15 percent in 1973.
Despite the exigencies of national energy demand, the coal industry cannot be expected to flourish on short-term variances from air pollution regulations awarded to electric utilities on the basis of a fuel emergency. Expanding coal production to meet the staggering near-term increases in demand requires opening big new mines, which in turn will require huge sums of external capital, construction lead times of several years, and development of a greatly increased corps of skilled mine workers. More than variances, or even limited extension of the Clean Air Act's deadlines for compliance with air quality standards, the coal industry needs long-term assurances of a strong role in electricity generation and industrial power production.

III

SUGGESTED CHANGES IN THE CLEAN AIR ACT

Emergency energy legislation pending in Congress would incorporate some modifications of the current clean air law, but the best interests of both the environment and energy production deserve more than the government's usual resort to piecemeal policymaking in troubled times. The coal industry seeks a more permanent national pollution abatement strategy which will also increase the availability of energy. The industry sees the following as major elements of that positive approach.

A. Extended Time for Compliance With Standards

When Congress set 1975 as the Clean Air Act's deadline for state achievement of primary air quality standards, it felt the need to force an issue that was proceeding too slowly toward a popular resolution. This reflected the stern attitude that what must be done can be done, and by a time certain. That is, after all, how Americans reached the moon. Underlying this decisiveness, however, was a residue of caution. Unfortunately, the two hedges incorporated in the compliance timetable have proven largely ineffective.

zuela, of course, is a member of the Organization of Petroleum Exporting Countries, whose policies now are being shaped largely by Arab oil nations as instruments of international influence.

26. The National Petroleum Council has estimated that the demand for coal will increase to 1.5 billion tons annually by 1985. Committee on U.S. Energy Outlook, Nat'l Petroleum Council, U.S. Energy Outlook (Dec. 1972). The study was made at the request of the Assistant Secretary-Mineral Resources, Department of the Interior.

One ameliorative provision of the Act allows a governor to seek an extension of the deadline for implementing a national primary standard in his state, but he must apply for that two-year extension at the same time he files the federally-required state implementation plan (SIP).²⁸ Practically, this is an invitation to the crystal ball, since Congress required filing of SIP's by January 1972, too early for many states to have anticipated their need for extension of the compliance deadline. Some states that filed early-bird SIP's under the prodding of EPA have since discovered serious shortages in clean fuel supplies, only to be informed by EPA that they are too late under present law to receive extensions of the primary-standard deadline. Unless Congress is willing to freeze such states in the punishing position of curtailing their industries or living with violations, it must remove that time restriction from the Clean Air Act.

The second show of congressional caution was the Act's allowance of a "reasonable time" for state implementation of secondary air quality standards. The obvious presumption was that the secondary standards would be more difficult to achieve and, since they were concerned with the protection of mere property rather than people, they could be deferred for a reasonable time. The Act even allows a one-year extension for secondary standards once the states set their planned deadlines. Most of the states, however, chose to follow an all-or-nothing approach, dramatically setting the same 1975 deadline for meeting both primary and secondary standards. Even the federal government recognized this merger of primary and secondary goals as a triumph of zeal over practicality. But since the states had every right under the Clean Air Act to outrun federal requirements, EPA could only ruefully advise the states that in the aggregate their implementation plans called for a degree of sulfur control that might not be attainable in the time prescribed.²⁹ Constrained by the Act, EPA accepted these unfortunate state plans with an uneasy feeling that they threatened timely achievement of the primary standards themselves.

Both William D. Ruckelshaus, EPA Administrator when the SIP's were filed, and his acting successor, Robert W. Fri, warned publicly that there would not be sufficient supplies of clean fuels available by 1975 to fill all the needs required by state regulations. Nor, Mr. Fri added, would there be enough "reliably demonstrated" stack-gas cleaning equipment to enable coal-burning plants to meet both primary and secondary sulfur standards.³⁰ President Nixon strongly sup-

ported deferral of secondary standards implementation in light of clean fuel deficits. Now, well into 1975, the fuel situation certainly has not improved. The present EPA Administrator, Russell E. Train, has continued the agency practice of “reasoning together” with those states reluctant to admit that their clean air plans were overly ambitious, given the nation’s energy situation. Congress should relieve state legislatures and governors of this burden of logistical and political judgment while there is still time. The Act should be amended to give the EPA Administrator unilateral and continuing authority to modify SIP’s, including extension of their time frames, when he finds such modification to be in the national interest.

B. Abatement Needs Linked With Specific Source Areas

In authorizing the EPA Administrator to create air quality regions, the Clean Air Act opened the door for another state action which is now haunting EPA. Many states included in their implementation plans statewide emission regulations which, as Robert Fri told the Senate Interior Committee in June 1973, “ignore differences in air quality between regions within the state.”

Necessity does not compel adoption of statewide uniform pollution control regulations which result in areas with lower levels of pollution conforming to standards based on the worst pollution conditions in the state. This overreach of regulatory power for the sake of amenity rather than health protection must be counterproductive when it forces high pollution areas to compete with low pollution areas for strained supplies of clean fuel.

States should be allowed, with EPA approval, to subdivide regions to suit present or changing pollution-source realities, applying emission regulations tailored to an area’s need. State authorities and EPA further should be required to make an overall review of state and regional implementation plans on a regular basis—perhaps every two years—just as EPA is supposed to re-evaluate its own criteria.

31. In his April 1973 energy message to Congress, the President recommended that governors delay secondary air standards except where health is involved. He also said that the concept of “general welfare” should include national security and economic prosperity as well as the environment. The message read in part:

If we insisted upon meeting both primary and secondary clean air standards by 1975, we could prevent the use of up to 155 million tons of coal per year. This would force an increase in demand for oil of 1.6 million barrels per day. This oil would have to be imported, with an adverse effect on our balance of payments of some $1.5 billion or more a year. Such a development would also threaten the loss of an estimated 26,000 coal mining jobs.


Such a precise review would help determine whether the Clean Air Act’s objectives truly are being met in a state’s problem areas.

Whatever value Congress saw in the designation of air quality control regions was based on the presumption that geographical divisions would be based on topography, meteorology, urban-industrial complexes, and other applicable factors. Regions were not intended to be drawn on the basis of administrative convenience, as the National Air Pollution Control Administration (NAPCA), an EPA predecessor, well understood. But under the prod of still another statutory deadline requiring definition of all the regions within 90 days after enactment of the 1970 Amendments, EPA bypassed the NAPCA experience in developing criteria directly related to pollution levels and yielded to bureaucratic opportunism. Where NAPCA had thought in terms of smaller, carefully defined districts, EPA’s regions, especially in the West, are frequently large enough to dwarf some eastern states. Its criteria are sufficiently loose to have allowed regional divisions in southern Alaska to be drawn on the basis of election districts.

C. Accelerated Development and Use of Control Technology

The Clean Air Act of 1970 directs the EPA Administrator to “give special emphasis to research and development into new and improved methods, having industry-wide application, for the prevention and control of air pollution resulting from the combustion of fuels.”[^34] It further directs the Administrator to participate actively, through financial grants, contracts, and cost sharing, in the development of “improved, low cost techniques” for cleaning fuels and their emissions.[^35]

That was not a new mandate in 1970. In a memorandum to his Cabinet in April 1967, President Lyndon Johnson had described the control of air pollution as “a matter of highest priority” and had assigned the Department of Health, Education and Welfare responsibility for federal anti-pollution research.[^36]

Apparently “special emphasis” by HEW on remedial sulfur oxide control research, with a budget that certainly did not reflect any special urgency, has proved inadequate to attain the expressed national purpose. Senator Jennings Randolph (D-W. Va.), chairman of the Senate Public Works Committee, noted the consistent failing in the government effort when at the start of 1973 he felt it necessary to urge that the federal government finally begin an accelerated sulfur oxide control program which federal law had mandated as early as

[^36]: The President’s Memorandum to Relevant Agencies Urging Increased Research and Development Problems and Study of Economic Effects and Incentives for Industry Cooperation, 3 WEEKLY COMP. OF PRES. DOC. 651 (1967).
June 1971. Yet the funds have not flowed freely. Only a few months later Senator Randolph complained that EPA “often declined to obligate” increased funds for development of control technologies even when the funds “were fought through the Administration’s budget councils and the Congress” and actually presented a fiscal 1974 budget asking a decrease in such funds on the principle that the private sector should now have the responsibility. Senator Randolph insisted that this EPA attitude did not square with congressional intent nor with the recommendation of the federal Interagency Sulfur Oxide Control Technology Assessment Panel (SOCTAP) that the government expand and accelerate the development of air pollution control processes.

The emergence of this conflict in implementing the Clean Air Act’s research goals proves the need for a more definitive and generous restatement of the federal obligation to develop a practical sulfur control technology. That technology should not only be consistently effective but must also pass a reasonable cost-benefit test. EPA occupies a curious position, pressuring electric utilities to implement flue-gas desulfurization processes while requiring all this to be done at the utilities’ expense and against their common judgment. EPA claims that flue-gas desulfurization is feasible, but no installed process has met the National Research Council’s standard of proved industrial-scale acceptability—namely, satisfactory operation on a 100-megawatt or larger generating unit for more than one year. As for EPA’s current advocacy of flue-gas scrubbers for effective sulfur dioxide removal, a senior staff member of the Council on Environmental Quality said recently that despite gains in operating experience on scrubbers since release of the SOCTAP report in April 1973, “no American plant has yet demonstrated what can be considered long term reliability.”

Unfortunately, what should have been an issue for technical and economic discussion between EPA and the utilities has devolved into a heated controversy. When an EPA panel reported in January 1974 on a series of public hearings, it stated flatly that flue-gas desulfurization is sufficiently proven to warrant immediate installation where needed to meet sulfur oxide emission requirements. The report added that

37. In a Senate speech Senator Randolph offered as elements in a rational fuels and energy policy 26 proposals, including the following:
Initiate the earlier Congressionally mandated Federal expanded program for the demonstration of sulfur oxides control technologies—an element of the President’s June, 1971, energy program that did not materialize.

119 CONG. REC. 1210, 1223 (1973).

38. Senator Rudolph stated:
EPA’s position on these budget cuts reflects a policy that the development of sulfur oxide control technology is the responsibility of the private sector, not government; yet, this position does not reflect the Congressionally enunciated
if the utility industry were aggressive enough, it could solve at a reasonable cost the problems it charged to technology, such as unreliability, excessive cost, and the creation of a large sludge disposal quandary.\textsuperscript{39} The Edison Electric Institute immediately issued a rebuttal statement that flue-gas desulfurization technology is not available and that further research and development is needed before such systems can be used reliably.\textsuperscript{40} If EPA has its way in this matter and later events prove the agency to have been wrong, the setback to sound air pollution control will be matched only by the needless hike in energy costs. Even the quasi-governmental Tennessee Valley Authority, which is more experienced than most privately owned utilities in developing promising sulfur oxide control systems, does not believe that the technology is ready. TVA warns that even in the experimental stage consumers will be forced to accept substantial increases in the price of power.\textsuperscript{41}

Because of its enormous stake in this issue, the coal industry obviously wants sulfur control technology to succeed as soon as possible. But since it is unlikely that the electric utilities will act on the courage of EPA’s convictions, the industry believes that the federal government must mount a sulfur control demonstration program which will be absolutely decisive and unassailable. In the meantime high-sulfur coal must not be held as a pawn. EPA must permit utilities to take the steps which best will protect the public’s health and property—intermittent control systems using high stacks, careful meteorological monitoring and modeling, and, when necessary, the curtailment of generation or the use of low-sulfur fuels to prevent sulfur oxide concentrations in excess of ambient air quality standards.

IV

THE IMPACT ON COAL OF THE NON-DEGRADATION ISSUE

The urgent need for congressional review of the Clean Air Act has been heightened by increased judicial involvement in the interpretation and implementation of the provisions of the law. The coal industry concedes that litigation is one of the wellsprings of law, but it much would prefer that Congress exercise its primary function of lawmaking with such fullness and clarity as to limit judicial review to such elements as jurisdiction and fairness in procedures.

\textsuperscript{39} Address by Senator Randolph to the Government Affairs seminar of the Air Pollution Control Ass’n, Apr. 5, 1973, in \textsc{Cong. Rec.} 12260, 12261 (1973).

\textsuperscript{40} \textbf{EPA, REPORT OF THE HEARING PANEL, NATIONAL PUBLIC HEARINGS ON POWER PLANT COMPLIANCE WITH SULFUR OXIDE AIR POLLUTION REGULATIONS} (1974).

The courts have introduced an entirely new concept into the clean air picture in *Sierra Club v. Ruckelshaus.* The genesis of the case is commonly believed to have been the fear that the location of large coal-fired electric generating plants in the relatively uncontaminated western states represented an expedient for "exporting pollution" and evading the strictures of air pollution regulation. The courts responded by prohibiting EPA from approving any state implementation plan which would allow "significant deterioration" of air quality anywhere, even where the air is already cleaner than required by federal standards. This interpretation of the Clean Air Act immediately sets at odds the prime purpose of the law, which is "to protect and enhance the quality of the Nation's air resources," and the means which Congress explicitly required to attain it—national ambient air quality standards. The courts are, in essence, passing judgment on the sufficiency of those standards.

Meanwhile, the coal industry has been doing its best to adjust to the already restrictive standards. Now, even if it meets the primary and secondary standards, in addition to the stringent performance standards for new stationary sources, the industry faces an entirely new and as yet undefined set of standards. The courts' silence on what constitutes "significant deterioration" can lead only to further litigation unless Congress steps into the breach. As the matter stands, no industry can build any plant which emits any air pollutants whatever unless it is willing to gamble on the ultimate definition of "significant," and there are no facts on which to calculate the odds. This uncertainty will cripple the urgently needed expansion of coal production capacity, affecting not only coal's markets but also other vital areas such as financing of new mines and additions to existing capacity. The "significant deterioration" decision also could halt development of critically important coal gasification and liquefaction projects, in which Western coal reserves must play a prominent part. If the court order were to preclude establishment of a coal-based synthetic fuels industry—and it promises to do so—it would deny the American public a significant and environmentally helpful supplement to the nation's waning clean fuel supplies.

Coal's largest consumer, the electric utility industry, has also called for speedy congressional resolution of the nondegradation issue. The National Association of Electric Companies has pointed out "the irrationality of a policy that will tend to put pollution where people

are, while preserving near pristine purity of air in relatively unpopulated and undeveloped areas."\(^{46}\) A frequent retort by environmentalists is that the less populous western states should not be obliged to bear any increase in pollution caused by generating electric power for West Coast load centers, which by virtue of their population concentration and meteorology have failed to solve their own pollution problems. Aside from underplaying the economic and developmental benefits, which accrue to the power producing states, that line of reasoning places small value on national interests or on the institutional imperative that a free flow of commerce shall be protected.

In its own way EPA has demonstrated the need for Congress to speak to the nondegradation issue. In response to the court order, EPA announced in June 1973\(^{47}\) a program for determining the limits of "significant deterioration" and proposed four alternative strategies or control methods designed to allow the nation to continue some measure of growth while living with the strictures of \textit{Fri v. Sierra Club}.\(^{48}\) The alternatives were by no means partisan. The coal industry found some fault with all four but gave EPA credit for an honest attempt to translate the fuzzy court decision into definite and workable rules.

The Sierra Club swiftly rejected the EPA proposals and returned to the courts for more stringent enforcement of the original ruling. While this impasse between the Sierra Club and EPA remains legally unresolved, industrial development is threatened with paralysis. Yet even if the Sierra Club had accepted one of EPA's four proposed plans and declared itself satisfied with that working definition of "significant deterioration," there is no assurance that some other party would not have dragged the issue through the courts. The issue will remain clouded until finally resolved by Congress. The need to escape legal delays amidst a punishing energy situation is gaining recognition in national energy planning.\(^{49}\)


\(^{49}\) President Nixon expressed this view in a message to Congress delivered January 23, 1974:

\textit{An extensive review is now underway within the executive branch of the implications of court decisions which require that EPA act to prevent "significant deterioration" of air quality—a requirement that is not defined in either the law or court decisions. This matter has far-reaching implications for public policy regarding land use as well as air quality. Changes in the law may thus be required to deal with this problem, and we will consult with the Congress as appropriate.}