



COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

80-132

1-NRD

1-EPD

B-163375

OCT 4 1978

The Honorable Paul G. Rogers  
Chairman, Subcommittee on Health  
and the Environment  
Committee on Interstate and Foreign  
Commerce  
House of Representatives

Dear Mr. Chairman:

Your letter of June 14, 1978, asked for our opinion on the role of the Executive Office economic units and the legality and adequacy of the intervention of such units--the Council of Economic Advisers, Council on Wage and Price Stability, and the Regulatory Analysis Review Group--in rule-making by the Environmental Protection Agency (EPA) and the Department of Labor's Occupational Safety and Health Administration (OSHA).

More specifically, we examined into, as agreed with your Office, (1) why the economic units intervene in Federal rule-making proceedings; (2) the efforts to develop regulations on a cost-benefit basis and the extent to which the intervening units have assessed the total direct and indirect costs of preventable, environmentally related diseases; (3) the legality of the Wage and Price Council's intervention if it does not measure the inflationary impact of the failure to undertake maximum feasible efforts to prevent such diseases; (4) the steps taken or being taken to improve the intervention process; (5) the nature, extent, and legality of the economic units' efforts to influence OSHA and EPA rulemaking other than filing formal submissions for the rulemaking record; and (6) the extent to which the Wage and Price Council reviews its proposals to insure that they could be lawfully implemented by EPA and OSHA.

As agreed, we examined the economic units intervention in OSHA's coke oven and cotton dust standards and EPA's fossil fuel-fired boilers standard. We also examined the interaction between the economic units and OSHA on its acrylonitrile regulation because, according to all involved, it represents a good case of the process working in accordance with established procedures.

GGD-78-116  
(41910)

Our overall observations on the specific questions you asked are presented below.

#### ROLE OF ECONOMIC UNITS

All rulemaking agencies subject to the Presidential Executive Orders have been required since November 1974 to consider the economic effects of proposed regulations. Proposals which have a major impact on consumers, business, or employment require what has been called an inflationary impact statement (Executive Order 11821, Nov. 27, 1974), an economic impact statement (Executive Order 11949, Dec. 31, 1976), and, presently, a regulatory analysis (Executive Order 12044, March 23, 1978).

The Office of Management and Budget (OMB) provides overall guidance, approves the rulemaking agency's criteria for determining which proposals are major and maintains overall surveillance over the program. Any detailed review of an agency's regulatory analysis, however, is done by the Wage and Price Stability Council (acting on its own behalf or as staff support for the Regulatory Analysis Review Group) and not OMB.

The Council of Economic Advisers was created in 1946 to, among other functions, appraise Federal economic policies and programs and advise the President on various economic matters. The Council chairs the Wage and Price Council and the Review Group. At times, Council officials intervene directly with the rulemaking agencies. Agency officials attach no particular significance to any direct Council involvement independent of the Wage and Price Council and the Regulatory Review Group because all these units report to the same individual and pursue the same goals.

#### The Wage and Price Council: A Watchdog and Jawboning Role

The Wage and Price Council, which consists of a Council (eight members and four advisory members) and a staff headed by a director who, in effect, runs the agency, was established by the Council on Wage and Price Stability Act of August 24, 1974, to monitor and report on inflationary matters. Initially established for 1 year, it has been reauthorized twice and its expiration date is now September 30, 1979. The President's 1977 Executive Office reorganization made the Chairman, Council of Economic Advisers, also the Chairman of the Wage and Price Council to insure better coordination of the two economic units.

Among other functions, the Wage and Price Council is specifically authorized by law to

- Review and appraise the various programs, policies, and activities of the departments and agencies of the United States for the purpose of determining the extent to which those programs and activities are contributing to inflation.
- Intervene and otherwise participate on its own behalf in rulemaking, ratemaking, licensing and other proceedings before any of the departments and agencies of the United States, in order to present its views as to the inflationary impact that might result from the possible outcomes of such proceedings.

The Wage and Price Council examines and critiques the proposed regulation and the supporting regulatory analysis in terms of the estimated costs, benefits, and choice of alternative approaches. According to Council officials, other sources of information may be used if readily available. Its written critique usually identifies these information sources. We were told that the Council simply does not have sufficient staff to make its own cost-benefit study on a particular regulatory area. According to the Council, it generally suggests that the agencies focus on direct costs and direct benefits rather than try to encompass indirect costs and indirect benefits as well, because of the limitations in staff and the need for timely regulatory actions.

The words watchdog and jawboning are used throughout the Council's legislative history to describe its role. The Wage and Price Council has no authority to prevent a Federal agency from issuing regulations.

#### An Interagency Review Group

According to a Wage and Price Council official, the Chairman, Council of Economic Advisers, informed the Cabinet on November 25, 1977, of the President's decision to create the Regulatory Analysis Review Group. The Group has 13 members--representatives from the Council of Economic Advisers, OMB, and from 11 economic and regulatory agencies including EPA and the Department of Labor. The Wage and Price Stability Council provides staff support for the Review Group.

By annually reviewing 10 to 20 (no more than four for any agency) of the more costly Federal regulations, the Review Group seeks to resolve many of the issues existing between the regulatory and economic agencies and to provide good examples for the agencies to follow in preparing future regulatory analysis. Like the Wage and Price Council, the Review Group cannot prevent a Federal agency from issuing regulations. According to the Review Group's announced procedures, its final report is to be filed for the rulemaking record on the last day of the public comment period and sent to the Chairman, Council of Economic Advisers who decides if (1) the issue will be discussed with the agency head and/or (2) the issue will be brought before the President.

The Group has reviewed or is currently reviewing seven proposed regulations including OSHA's cotton dust and acrylonitrile standards. The full group reviewed acrylonitrile and is currently reviewing two others. The remaining proposed regulations were limited to a review by the Review Group's four-member Executive Committee.

NO ASSESSMENT OF DIRECT  
AND INDIRECT COSTS OF  
ENVIRONMENTALLY RELATED DISEASE

Neither the economic units nor the regulatory agencies have quantified the costs and inflationary impact of allowing preventable, environmentally related diseases to occur. There is general agreement that such information is not now available and would be difficult to develop. Too little reliable information is available on the dose-response relationship between exposure to a particular workplace or environmental hazard and the health effects on an individual over a long period of time or the difference in effects for various exposure levels. There are no exact statistics on the number of people who die or get sick each year from environmentally related causes. Without such basic information, it would be very difficult to reasonably estimate the inflationary impact of the costs that stem from such illnesses and deaths. Further, the economic units maintain they have too little staff to attempt detailed studies.

Consequently, the impact of environmental diseases remain stated in terms of gross estimates. On a case by case basis agencies have determined that the impact on human life and health is substantial.

What the economic units (principally the Wage and Price Council) do in reviewing proposed regulations is to provide

a technical critique of the economic analysis supplied by the rulemaking agencies. Benefit-cost analysis and its variations have been developed and used extensively in the past 15 years to evaluate proposed public expenditures. The basic approach is a systematic search for all effects of a project, which are classified as either benefits or costs. The project is then judged by a comparison of its associated benefits and costs.

A good benefit-cost analysis is not an easy task and practitioners have difficulty determining, measuring, and monetizing the more important effects of a proposed project. The outcome of an analysis can be a function of the way the agency in question perceives its mission, and according to the Wage and Price Council, some agencies believe that their mandates to protect society override economic considerations. The Wage and Price Council and others have noted the studies are often used to justify, rather than reach, a regulatory decision without adequate consideration of alternatives.

The units' critiques generally take the form of criticisms of some of the underlying assumptions supporting the analysis and might propose what, in their opinion, is a more cost effective way of achieving the same result proposed by the rulemaking agencies. Controversy between the agencies and the economic units often revolves around which set of assumptions is appropriate.

According to the Council of Economic Advisers and others, regulations prescribing excessively detailed and inflexible specifications can increase costs by making it impossible for producers to adopt less expensive means to meet regulatory goals. Accordingly, the President has called for a greater emphasis on achieving regulatory compliance through setting performance goals rather than prescribing detailed specifications.

IS THE WAGE AND PRICE  
COUNCIL ACTING IN ACCORD  
WITH ITS ENABLING LEGISLATION?

Created in 1974, the Wage and Price Council is to, among other things, present its views on the inflationary impact that might result from rulemaking and other procedures. The unit is not required by law to undertake detailed cost and benefit studies and is not precluded from intervening because of the absence of such studies.

Whether it can adequately comment on cases because a detailed assessment of indirect cost and benefits is not available should be considered in light of several factors. First, the Wage and Price Council, or the other economic units, cannot overrule the rulemaking agencies. Second, the inflationary impact of proposed regulation is at best a secondary concern of the rulemaking agencies. Third, given the difficulties of making detailed cost and benefit studies and the limited resources of the Council, the result of waiting for adequate studies is probably no intervention.

#### STEPS TAKEN OR TO BE TAKEN TO IMPROVE THE INTERVENTION PROCESS

The economic units have no immediate plans to alter their approach to analyzing proposed regulations in terms of making detailed costs and benefit studies. For this they will continue to rely on the rulemaking agencies. The adequacy of the agencies' efforts is being studied by OMB which has a March 1980 date for making overall recommendations for improvements.

There are other problems, however. In some cases intervention came extremely late in the game and in the form of persistent jawboning instead of timely, formal submissions for the record. Rulemaking agencies and others have criticized the Review Group for late-in-the game interventions and not attempting to reach any consensus of the members of the full committee. Consequently, future Group reports are to be prepared and filed during the public comment period. The reports are to include any dissenting views of the member agencies.

These problems will probably never disappear completely given the primary interest of the economic units in the inflationary impact of Federal regulations; the legality, if not desirability, of jawboning as a means of intervention; and the state-of-the-art of cost and benefit studies which makes challenges to methodology and results not that difficult.

#### EXTENT AND LEGALITY OF JAWBONING BY ECONOMIC UNITS

In only one of the four cases (cotton dust) did extensive jawboning take place. According to OSHA officials the proposed cotton dust standard was ready for final review when the Chairman, Council of Economic Advisers requested that the Review Group look at the proposal. This action triggered several meetings and telephone calls involving, at one time or another, various Department of Labor, OSHA, Council of Economic Advisers, Wage and Price Council, and White House officials, including

the Vice President, and the President. Last minute changes were made in the regulation, although, according to OSHA officials, worker protection was not diminished.

Ex parte contacts (contacts in which all interested parties are not present) made by the economic units during OSHA's rulemaking proceeding on cotton dust probably do not invalidate the rule finally adopted. First, there is no statutory prohibition on ex parte contacts in OSHA's informal rulemaking. Neither the Administrative Procedure Act nor OSHA's authorizing legislation prohibits ex parte contacts in the agency's rulemaking proceedings. Second, although the case law leaves unclear the effect of ex parte communications, the courts have not prohibited ex parte contacts by entities of the Federal Government and have recognized, in general, the flexibility that must be given to an agency during its informal rulemaking proceedings.

Although ex parte contacts have occurred during OSHA's rulemaking proceedings, EPA has established an agency-wide policy which requires that any significant discussions with outside parties during the period between rule proposal and promulgation be reflected in the public record.

EXTENT ECONOMIC UNITS' PROPOSALS CAN BE LEGALLY IMPLEMENTED BY OSHA AND EPA

The Director, Wage and Price Council said that some approaches presented to the regulatory agencies are beyond that which the agencies are legally empowered to take. The economic units recognize this but because the approaches represent presumably less costly ways of achieving the regulatory objectives, it is hoped the agencies will take up the matter of legality with the appropriate oversight congressional committees.

- - - -

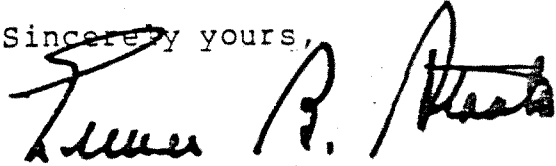
Enclosed are detailed comments on the intervention by the economic units in proposed regulations for the coke oven, cotton dust, acrylonitrile and the fossil fuel-fired boilers standards.

Because of time constraints, your office requested we not obtain written comments on this report. Also, as agreed with

B-163375

your office, we will make unrestricted distribution of this report to other interested parties 2 weeks from the report date or earlier if publicly released by the Subcommittee.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Thomas B. Heath". The signature is written in a cursive style with a large, sweeping initial "T".

Comptroller General  
of the United States

Enclosures - 4



THE COKE OVEN STANDARD

Based upon information supplied by the National Institute of Occupational Safety and Health and a Standards Advisory Committee on Coke Oven Emissions, OSHA published on July 31, 1975, a proposed standard on occupational exposure to coke oven emissions which had been shown to cause cancer. The Wage and Price Council provided written comments and testified on the proposed standard and OSHA's inflationary statement during public hearings in May 1976--the written comments and testimony are included in the public, rulemaking record maintained by OSHA for the coke oven standard. We were told there were no other contacts with the Council of Economic Advisers and the Wage and Price Council--the Regulatory Analysis Review Group did not yet exist. The final standard was promulgated on October 22, 1976.

Discussions of what the Wage and Price Council said about the proposed standard in terms of the main issues (costs, benefits, and alternatives) posed by OMB's instructions to agencies on the preparation of inflationary impact statements and OSHA's overall response are presented below.

THE COUNCIL'S CRITIQUE

The Wage and Price Council questioned the desirability of going forward with the proposed standard and recommended that OSHA reassess the estimated costs and benefits and investigate the feasibility of lower cost alternatives. According to the Council, the estimates were of such a range as to make a meaningful assessment of costs difficult; benefits calculations--number of lives to be saved--were erroneous, contained false assumptions, and overstated the number of workers at risk; and there was no consideration of possible, lower cost alternatives.

Costs

The first part of the Council's study reviewed and critiqued the cost estimates of the coke oven standard contained in the inflationary impact statement supplied by OSHA. The Council began this analysis with a disclaimer that "it is not possible for us to judge with precision the validity of these cost estimates since we do not presume to be experts in this technical area." The Council, however, questioned the reliability of the estimates by noting that they were based on industry supplied data and that "most firms probably have an incentive to overstate the expected costs of the regulation."

Although it noted that the impact statement attempted to correct the figures for the companies' upward bias, the Council apparently believed that these corrections were not sufficient to eliminate the potential bias. Accordingly, the Council developed (using data contained in the impact statement) its own lower estimate of the annualized cost of compliance to compute the estimated cost per life to be saved. Overall, the Council concluded that the impact statement's treatment of costs appeared adequate although there were some problems.

### Benefits

The Council said that the impact statement's estimates of the number of excess deaths due to coke oven emissions were faulty and erroneous. It was also critical of the fact that about half of the impact statement's benefits section was devoted to criticizing the methodology and usefulness of cost-benefit analysis.

The Council had problems with OSHA's estimates of (1) 240 excess deaths annually based upon the estimated number of workers who had been exposed over the past 45 years and who were still living and (2) 26.6 excess deaths annually based upon the estimated number of coke oven workers in 1975.

The Council claimed that the 240 figure was irrelevant to the decision on coke oven standards and was based on unrealistic assumptions. According to the Council, money spent on eliminating coke oven emissions is not going to help workers who no longer work on coke ovens--they would benefit more from money spent on cancer research. It should be noted, however, that in the Executive Summary of the impact statement the "population at risk" was correctly identified by OSHA as including all of the approximately 29,600 workers employed in coke plants in the United States on a daily basis in 1975, as well as an additional 5,920 workers employed annually as a result of an estimated 20 percent employee turn-over rate. The 240 excess death figure was not really used by OSHA to justify its decision, as the Council inferred.

The Council considered the 26.6 excess death figure overstated because (1) the estimated current work force included white-collar workers who do not work in the regulated areas and (2) analysis of the impact statement data revealed no excess risk of death for coke oven workers exposed for 5 years or

less. According to the Council, OSHA's benefit estimate may be erroneous since only one-third of the work force with over 5 years experience in coke ovens apparently has an excess risk of death from coke oven emissions. The Council, however, stated that since cancer may have a long latency period, the approximate 20-year period used to determine the excess risk for the less than 5 years' exposure group may not be long enough. The Council recognized the need for more study to determine the nature of the "exposure-time tradeoff."

#### Cost-Benefits Comparison

According to the Council, the impact statement contained no real attempt to compare benefits with costs despite the explicit OMB instructions requiring such comparisons. The Council noted that the three principal sections (cost, benefit, and economic impact) of the impact statement were written by different groups of people with little attempt to link the separate parts. The Council also took exception to some language in the impact statement which it interpreted as implying that the cost-benefit analysis--and therefore inflationary impact statements--was to be used for justification after the fact rather than as an aid in the decisionmaking process.

In terms of a cost-benefit calculation, the Council presented nine different estimates of the average cost per life saved implicit in the proposed coke oven standard. These estimates ranged from a high of \$158 million per life saved to a low of \$4.5 million per life saved. According to the Council, the main point was that these figures, even if reduced by half, are higher than "policy standards used by others, in particular, the \$240,000 per year estimate used by the National Highway Traffic Safety Administration and the \$1 million used as a high estimate by Consumers Union." Although it may be theoretically correct to argue, as the Council did, that the high cost per life saved indicated that society's resources could be better allocated, it is certainly not OSHA's responsibility to answer such questions.

#### Alternatives

Given the apparent large cost per life saved, the Council asked if there were any alternatives that would produce the same or more benefits at lower cost. According to the Council, the failure to address this question--as called for in the overall OMB guidance--was a major inadequacy of the impact statement.

Some alternatives were suggested for OSHA's consideration. The Council recommended that OSHA consider the feasibility, costs, and benefits of limiting workers to 5 years or less on coke ovens and then rotating them to another part of the steel plant. OSHA was also encouraged to examine industry's contention that respirators would provide more protection at less cost than engineering controls. The Council also pointed out that each part of the proposed regulations had not been examined for cost-effectiveness purposes and that there had been no evaluation of allowing different time periods for compliance.

#### OSHA'S RESPONSE

OSHA did not withdraw the proposed regulation. With the wide range of cost estimates presented by concerned parties, OSHA believed a definitive estimate of costs to be inappropriate. The agency also considered it inappropriate to quantify even a range of the mortality benefits of the final rule because of uncertainties as to the full effect of the standard on coke oven workers' mortality. Even if a meaningful estimate of reduced mortality could be established, OSHA maintained there was no adequate methodology to quantify the value of a human life.

In issuing the final regulation, OSHA stated the following on the matter of cost-benefit analysis:

"It is clear that the overriding purpose of the Act is to protect employee safety and health even if such protection results in the expenditure of large sums of money, increased production costs or reduced profit margins. On the other hand, the Act is not intended to impose unnecessary or inappropriate financial or other burdens upon affected employers."

\* \* \* \* \*

"OSHA believes that there are so many difficulties involved in attempting to assign a dollar value to the benefits of the standard that such figures would not provide a meaningful indication of the true value of the standard."

\* \* \* \* \*

"\* \* \*OSHA finds that compliance with the standard (even if the higher cost estimate were used) is well within the financial capability of the coking industry. Moreover, although we cannot rationally quantify in dollars the benefits of the standard careful consideration has been given to the question of whether these substantial costs are justified in light of the hazards. OSHA concludes that these costs are necessary in order to adequately protect employees from the hazards associated with coke oven emissions."

THE COTTON DUST STANDARD

Exposure of cotton industry workers to cotton dust can cause a lung disease known as byssinosis (commonly referred to as brown lung). A national consensus standard limiting workers' exposure was adopted by OSHA in 1971. As a result of information provided by the National Institute for Occupational Safety and Health and an OSHA study of the cotton industry, OSHA on December 28, 1976, published a proposed permanent standard on cotton dust. The proposal called for a more stringent exposure limit and for other protective measures applicable to all segments of the industry. The final standard, published June 23, 1978, calls for various protective measures and sets exposure limits for different segments of the industry.

Essentially, the economic units intervened twice. The Wage and Price Council commented on the proposed standard and the supporting inflationary impact statement for the rulemaking record in June 1977. In early May 1978, the executive committee of the Regulatory Analysis Review Group considered the matter--this effort led to an ex parte involvement by the President and continuing attempts by officials of the Executive Office of the President, with some success, to change OSHA's regulatory approach. We do not believe that these ex parte contacts would invalidate the promulgated cotton dust standard.

The Wage and Price Council in 1977 said that more protection against byssinosis could be achieved at the same cost if OSHA would establish different dust exposure levels for different processing stages in the industry. The Council also urged an alternative consideration--a performance standard approach. These and the question as to how much time to allow industry to come into compliance were the principal considerations during the second intervention by the Review Group and others. The final regulation has been described as a compromise between the two sides.

A more detailed discussion of the initial intervention by the Wage and Price Council and the subsequent intervention by the Review Group and others follows.

THE INITIAL INTERVENTION

Prior to the creation of the Review Group and consistent with its specific authority to intervene in agency rulemaking, the Wage and Price Council provided comments on the inflationary

impact of the proposed cotton dust standard. These comments are included in the public rulemaking record maintained by OSHA on the cotton dust standard.

There were essentially three distinct objectives of the study. First, the Council provided a review and a technical critique of the economic analysis of the proposed cotton dust standard which is contained in the inflationary impact statement prepared for OSHA by a contractor. The Council stated that the impact statement was "a reasonable attempt to analyze the technological feasibility and economic impacts of the proposed and several alternative standards," but cited "major gaps" and "shortcomings" with regard to both costs and benefits. The Council did not judge the validity of these estimates on either technological, epidemiological, or engineering grounds. Further, the Council did not attempt to undertake its own cost-benefit analysis of the proposed cotton dust standard. Rather, in our opinion, the Council was simply cognizant of the well known fact that estimates of costs and benefits may be quite sensitive to the underlying assumptions of the analysis. Thus, the Council based its principal criticisms of the impact statement analysis not on the numerical measurement or weighing of costs and benefits but on whether or not the underlying assumptions were reasonable and appropriate. This is a proper and well accepted method of evaluating any cost-benefit analysis.

With regard to the cost estimates for the proposed cotton dust standard, the Council reviewed prior criticisms of both the American Textile Manufacturers Institute and the Amalgamated Clothing and Textile Workers Union concerning the appropriateness of various assumptions contained in the impact statement. As a result, the Council offered two theoretically sound ways to subsequently improve the presentation and interpretation of these cost estimates, i.e., by presenting a range of annualized cost estimates based on a different number of assumed values for the economic life of textile machinery, and, second, by differentiating, computing, and presenting estimates of both the total and the incremental costs and benefits of both the proposed standard and the already existing standard for exposure to cotton dust.

After weighing both sets of criticisms, the Council stated its opinion that the net bias in the cost estimate was upward due to the assumption of zero technological change. This conclusion is reasonable since technological change may be a substantial, cost reducing factor. Unfortunately, it is also extremely difficult to quantify the potential effects.

Concerning benefits, the Council claimed there were several major flaws in the analysis which would serve to overstate the benefits of the proposed cotton dust standard. It also reviewed prior evidence that an underlying study used in the impact statement may impart an upward bias to the estimated dose-response relationship between cotton dust and byssinosis. If so, the estimated benefits will be overestimated to an even greater degree. Consequently, the Council stated that the estimated benefits, as well as the estimated costs, are likely overstated in the OSHA analysis. Since it declined to give alternative, lower estimates of costs and benefits, the Council was not in a position to state whether or not the cost-benefit ratio was over- or under-stated. Rather, the first aspect of its study was only to present a thorough, critical review of the impact statement analysis. We believe it did a competent and professional job.

Exposure Levels Per  
Processing Stage Considered  
More Cost Effective

Even if one uncritically accepts the validity of the data on estimated costs and benefits of the proposed cotton dust standard which appear in the impact statement, the second objective of the Council's study was to demonstrate that there was a much more cost effective method of implementing permissible exposure levels for cotton dust than that originally proposed by OSHA. This was the major point of its analysis, and its principal recommendation that exposure levels be varied according to the state of processing was one of the fundamental changes made by OSHA before the final cotton dust standard was promulgated.

As the Council showed, the figures on both costs and benefits contained in OSHA's impact statement varied greatly according to the stage of processing. The exposure levels originally proposed by OSHA, however, did not vary according to the stage of cotton processing, leading to a great discrepancy between marginal cost per byssinosis case avoided. If OSHA's figures are accurate, the Council correctly stated that a system of variable permissible exposure levels designed to achieve a rough equality between the marginal cost per unit of benefit at each stage of production would be the most efficient or cost effective "engineering type" method of achieving the greatest reduction in byssinosis for a given level of total expenditure.



Less Cost If Industry Given  
More Time To Comply

In addition, the Council's study noted that if a longer lead time in implementing the standard was allowed, then the cost of compliance might be reduced if some degree of technological change occurred in the interim period. The study did not, however, contain any explicit recommendation to OSHA to lengthen the lead time--the extent of technological change, if any, being too uncertain to estimate.

A Performance Standard Less Costly  
Than Engineering Design Changes

The third objective of the Council's study was to suggest that there may be even more cost effective methods of reducing occupationally related byssinosis other than through the use of exposure level standards achieved by changes in engineering design.

Specifically, the Council recommended that OSHA, in its analysis, also consider the relative merits of performance standards based on the actual health status of employees. Since the actual byssinosis causing agents are not known with certainty, the Council argued that establishing exposure levels for cotton dust may not necessarily be the most effective way to reduce the incidence of this illness. Rather, the Council believed that if employers faced substantial fines based on the number and severity of byssinosis cases detected among their employees, then firms would respond to this potential penalty and seek the most cost effective way of reducing byssinosis by:

- funding research to identify the biologically active agents in cotton dust,
- developing new types of "clean" cotton,
- shifting toward less toxic grades of cotton and synthetics,
- developing new engineering controls, technological processes, and/or innovative respirator programs, and
- screening out those workers more likely to contract the illness (e.g., smokers).

There are undoubtedly many substantive issues--economic, medical, social, legal, epidemiological, and ethical--which must be dealt with when considering the relative merits of performance standards. The Council did not attempt to address most of these issues. It simply suggested that a performance standard may have merit, and should also be considered by OSHA as a feasible, alternative means of reducing occupationally related byssinosis.

#### THE SUBSEQUENT INTERVENTION

According to OSHA officials, the cotton dust standard was ready for final review when the Regulatory Review Group intervened. A memorandum, dated May 2, 1978,<sup>1/</sup> (from the Chairman, Council of Economic Advisers to the Council member who serves as the Chairman of the Review Group's Executive Committee), requested that the Review Group review the most recent OSHA proposal on cotton dust exposure for its likely economic impact and report its findings to the Chairman and the President's Special Counselor on Inflation as soon as possible. The memorandum noted that a review of the standard at that time would not come under the Group's normal procedures.

We have not been able to specifically determine what the Chairman meant by his reference to normal procedures. We do know, however, that the Executive Committee instead of the full Review Group considered the matter and that the action was not consistent with the written procedure stating that the Group's action occurs during the public comment period (the public comment period on cotton dust occurred in 1977) to avoid delaying regulations. Also, according to OSHA officials, intervention at this time was unexpected since the economic considerations had been made pursuant to the prior requirements on economic impact statements as opposed to the recently issued Executive Order on regulatory analysis.

In a May 4, 1978, memorandum, the Wage and Price Council summarized for the Review Group's Executive Committee its June 1977 comments and recommendations. The Council understood that OSHA intended to require different exposure levels for different industry segments but did not know the time periods to be allowed for compliance or whether intermediate levels would be required. OSHA, when it initially proposed the cotton

---

<sup>1/</sup>OSHA officials also met around this time--at the request of the White House--with representatives of several segments of the textile industry.

dust standard, maintained that available information was insufficient to specify what the different levels should be and that this was a major issue on which comment was being requested.

The Wage and Price Council outlined the two major alternatives that had been recommended

- that different permissible exposure limits be set for the different stages of processing, coupled with longer time periods for compliance allowing innovations to develop and
- that a permissible exposure limit of 0.5 milligrams per cubic meter of air be set combined with an extensive medical surveillance and disposable mask program, rather than OSHA's proposed 0.2 exposure level.

The Council stated that the latter was a more cost effective alternative; arguing that masks, if properly worn, would offer more protection since they reduce dust levels by 93 to 99 percent, and at one-seventh the cost, excluding the unmeasurable cost to workers in terms of discomfort.

According to the Council, OSHA's pending cotton dust standard was discussed at a May 4, 1978, meeting of the Review Group's Executive Committee and OSHA agreed to provide the Executive Committee with information on the latest draft of the proposed standard. Based on its review of that information, as well as on subsequent discussions with OSHA personnel, the Council prepared a report and listed options. An unsigned draft of the report, dated May 17, 1978, was forwarded to Labor and OSHA by a Council official on May 18, 1978. The Council indicated that the subject of the report would be discussed at a meeting on May 18.

A final version of the Council's report was signed and dated May 18, 1978. The report stated that OSHA's draft final standard differed from the December 1976 proposal in two major ways:

- OSHA intended to set different permissible exposure levels for different segments of the industry depending on the differences in benefits and costs, and

- OSHA proposed to make the levels effective 180 days after publication compared to 7 years for the final level in the 1976 proposal.

The Council noted that the first difference, based on OSHA estimates, resulted in considerable savings--\$500 million in annual operating costs and about \$2.1 billion in capital costs--over the 1976 proposal, but that the earlier effective date tended to increase costs compared to the 1976 proposal. The Council's report listed four options

- a pure performance standard;
- modification permitting a greater role for medical surveillance and masks for yarn preparation;
- retention of the then current standard; and
- endorsement of the draft final standard.

The Council noted that OSHA had made great advances in using cost-effectiveness considerations with the cotton dust standard, but was only willing to go half way. According to the Council, OSHA could save at least another \$125 million in annual costs with apparently little loss in health protection by setting a permissible exposure level in yarn preparation of 0.5 instead of 0.2.

The Secretary of Labor, in a May 24, 1978, memorandum informed the President that the Council of Economic Advisers and the Wage and Price Council intended to ask that the Secretary be instructed to delay issuance of the final standard, apparently because the standard did not regulate the cotton dust health problem in the most efficient manner. The Secretary stated that although the Council of Economic Advisers Chairman's request for review came at the very end of the decision process and outside of the agreed upon procedures for regulatory review, he had assured his full support, and believed that OSHA had produced an excellent standard that could stand up under any reasonable scrutiny.

It was the Secretary's understanding that two key issues remained unresolved and required the President's attention:

- modification of the yarn preparation standard to allow a higher exposure level, greater reliance on medical surveillance and the use of respirators and
- sufficiency of the time being allowed for the industry to comply with the standard.

The Secretary noted several difficulties with modifying the yarn preparation standard; expressed puzzlement over the economic units' concern for the timing of compliance, and offered several reasons to proceed with the final standard. A meeting with the President was requested.

According to OSHA, a standard, revised to incorporate changes agreed to in the meeting with the President, was signed on Friday, June 9, 1978. OSHA had proceeded with the signing because it was thought that all issues were resolved and that OSHA had no obligation for further review of the standard. According to an OSHA official, the Assistant Secretary received a call from the White House during the signing inquiring about a final review of the standard. Information provided by OSHA shows another meeting between OSHA, and officials from the economic units on June 10 to review the standard.

The review produced further changes in the standard. We were told that the economic units were concerned with flexibility of compliance, alternative means of compliance, and performance standards. The principal change was a compromise so that the regulation pointed out specifically that flexibility for industry was being allowed for selecting appropriate engineering controls. We were told that prior standards had gone so far as to set forth specifications for engineering control devices and that comparatively cotton dust did represent a performance standard.

The June 20, 1978, Washington Post reported a joint press conference at which the Secretary and the Chairman, Council of Economic Advisers, announced the standard. According to the Post, the Chairman identified the White House changes as

- setting a 4-year deadline for engineering controls and
- specifying that variances can be obtained if alternatives to engineering controls are found to achieve the same results.

The Wage and Price Council had recommended a 7-year period (as called for in the initially proposed standard) to achieve compliance. The final standard, a compromise, stated that compliance be achieved as soon as possible, but not later than 4 years.

OSHA's draft also contained no provision for medical transfers of employees, whereas the final standard did. An OSHA official told us that the medical transfer provision was inserted on OSHA's initiative to give added protection because of the longer compliance period.

According to OSHA officials, the economic units' review did not compromise the effectiveness of the standard in protecting the workers, but required a lot of agency time and created an atmosphere of uncertainty. OSHA officials believe that if the review requirements are known and can be planned for, the agencies can incorporate the review process without disruption.

Only the Wage and Price Council's June 1977 comments are included in the public rulemaking record maintained by OSHA for the cotton dust standard. According to OSHA, there were at least 14 telephone contacts or meetings between OSHA or Labor and the economic units, and/or the White House during May and June 1978. At the Secretary's level there were contacts with the President. Also, a number of papers were prepared by the Chairman, Council of Economic Advisers for the White House.

#### The Propriety of Ex Parte Contacts

The fact that ex parte contacts were made by the Wage and Price Council, Council of Economic Advisers and/or the Review Group during OSHA's rulemaking proceeding on cotton dust would probably not invalidate the rule finally adopted. First, there is no statutory prohibition on ex parte contacts in OSHA's informal rulemaking. Second, although the case law leaves unclear the effect of ex parte communications, the courts have not prohibited ex parte contacts by entities of the Federal Government and have recognized, in general, the flexibility that must be given to an agency during its formal rulemaking proceedings.

Neither the Administrative Procedure Act nor OSHA's authorizing legislation prohibits ex parte contacts in the agency's rulemaking proceedings. There are two recent cases

ruling on the legality of ex parte contacts. These cases are primarily concerned with preventing one interested party from gaining an unfair advantage over others equally affected by an agency's rules. In Home Box Office v. FCC, 567 F.2d 9 (D.C. Cir. 1977), the court expressed disapproval of ex parte contacts and held that once a notice of proposed rulemaking has been issued, a written summary of any oral communications must be placed in the public file. In its later decision in Action for Children's Television v. FCC, 564 F.2d 458 (D.C. Cir. 1977), however, the court limited its Home Box Office holding to rulemaking involving "conflicting private claims to a valuable privilege."

These cases do not seem applicable to OSHA's rulemaking on cotton dust. The cotton dust standard is a rule of general applicability and does not appear to involve "conflicting private claims to a valuable privilege" in the sense of the proceedings considered in the above court cases. More important, perhaps, is the fact that the objection to ex parte contacts expressed by existing case law addresses only communications by any "interested private party." The economic units participated in OSHA's rulemaking in the public interest, in an attempt to curb inflation. The courts have not yet addressed the question of ex parte contacts by instrumentalities of the Federal Government, but have emphasized a concern with preventing private interest groups from influencing an agency's decision by ex parte contacts.

THE ACRYLONITRILE STANDARD

Acrylonitrile is a synthetic organic chemical used in the manufacture of acrylic fibers, and other products. On January 17, 1978, OSHA published an emergency temporary standard for worker exposure to acrylonitrile, a suspected carcinogen. Concurrently, OSHA published a proposed permanent standard which retained many of the temporary standard's provisions and called for more stringent permissible exposure limits. OSHA estimates the population at risk over the next 10 years to be 14,280 workers assuming no industry growth and 30,037 workers assuming a steady 11 percent growth rate. According to OSHA's economic impact statement, there are currently no estimates of the amount of excess morbidity and mortality attributable to occupational exposure to acrylonitrile. As of August 31, 1978, the final regulation had not been promulgated.

Both the rulemaking agency, OSHA, and the intervening units generally agree that the intervention by the Review Group was in accordance with established procedures and provides a good statement of how interventions should be conducted. Consequently, we included this description of the intervention and issues as a part of our report. All of the issues were raised early, put in writing, and made part of the public record maintained by OSHA.

The Intervention

The Wage and Price Council had advised OSHA on February 21, 1978, that it would appear at the public hearings and present comments on the economic impact of the proposed standard but on March 10, 1978, withdrew that notice when the standard was selected for review by the Review Group.

By letter dated March 22, 1978, the Council informed OSHA that the following issues were to be the focus of the regulatory analysis review:

- How should occupational health regulations be determined when estimates of costs are available and a presumption of excess risk has been qualitatively identified but information to quantitatively estimate risks has not been fully developed?
- Should different methods of compliance levels of exposure be set for different industry segments or types of work depending upon cost-effectiveness?



- Should specification standards be required instead of performance standards when more employee protection at lower cost might be possible through methods not permitted in a specification standard?
- When achieving the desired risk levels is not feasible with current technology, how should regulations be designed to force the development of new technology without causing wasteful expenditures and long delays?
- What will be the impact of the various proposed levels of exposures on inflation, employment, productivity, investment and the relative international competitive position of the acrylonitrile industry?

On May 10, 1978, the Council forwarded to the Review Group a draft report on the proposed acrylonitrile regulation. According to the Council, a draft report, based on the concerns outlined March 22, was prepared and discussed at a May 4 Review Group meeting. The May 10 draft was prepared based on that meeting and subsequent OSHA-Council staff discussions. To avoid delays in the review process, the Council completed the revision before OSHA's written response to the first draft was available.

Department of Labor correspondence indicates that acrylonitrile was then discussed by the Review Group on May 11, 1978. According to Labor, the discussion focused on three specific points

- risk assessments to evaluate relative benefits,
- cost effectiveness determination of permissible exposure levels, and
- specification standards versus performance standards.

On May 15, 1978, Labor responded on behalf of OSHA to the three points raised at the May 11 discussions. Labor summarized OSHA's reaction to the three issues as follows (detailed OSHA support was attached to the memo):

- While risk assessment would continue in connection with development of a final standard,

quantative risk estimates, due to the speculative nature of much of the data describing exposure in humans, may be of little value as a basis for setting an appropriate standard for worker protection.

--OSHA believed that a single exposure limit was a more practical and equitable approach than the Council proposal of numerous levels set on cost-effectiveness determinations for each work process. However, many workplaces where exposure was minimal were exempted by OSHA from the scope of the standard based, in part, on cost-effectiveness considerations.

--OSHA health standards were in large measure performance standards, although some detail on what is expected of the employer was required by statute. OSHA had restricted the use of respirators because of numerous and well-documented deficiencies, but had otherwise clearly intended to allow the employer as much flexibility as possible to reduce costs and allow technological innovation to achieve the goals set in the standard.

On May 19, 1978, the Council submitted for the rulemaking record a report of the Review Group's review of OSHA's analysis of the proposed permanent standard for acrylonitrile. The Council reported the following conclusions relative to the March 22 statement of concerns:

--Issue 1: OSHA did not attempt risk assessment even though data, although imperfect, was available. By one such assessment based on conservative assumptions, the most stringent alternative had incremental costs relative to the risk reduction which seemed high compared to other uses of the industry and the economy's resources.

--Issue 2: Examples based on both the cost per worker exposed and on the risk assessment analysis developed for issue one showed that, by setting different levels of exposure for different industry segments depending upon the costs per

employee protected, more employees could be protected than by using a single level of exposure.

- Issue 3: The OSHA analysis did not address the merits of flexibility, even though, in general, the greater flexibility firms are allowed in meeting a given level of performance the lower the costs to society. As an example of the problem, the option of relying upon personal protective devices would be foreclosed by the proposal even if they could be made equally effective as engineering controls and work practices.
- Issue 4: Financial incentives to encourage the development of risk reducing technology, such as a properly designed penalty system linked to a performance standard, had not been built into the proposed standards.
- Issue 5: OSHA's analysis of the impact of the proposed standard on the broad performance indicators of the economy was adequate.

At the close of our review, we understood that the economic units were seeking to review OSHA's final draft of the standard. We were told that OSHA will advise the economic units as to what, if any, changes, are made in the proposed regulation.

THE FOSSIL-FUEL-FIRED STEAM GENERATOR STANDARD

As of August 31, 1978, EPA had not yet published the proposed standard on emissions of sulfur dioxide from new or modified fossil-fuel-fired steam generators which will contain more stringent requirements than the earlier standard promulgated in 1971. EPA has solicited the views of affected parties, other interested Government agencies and members of the general public in developing a regulatory proposal.

There have been pre-proposal contacts and discussions between EPA, the Council of Economic Advisers and the Wage and Price Council. The purpose of the contacts were to familiarize the economic units with this regulatory area, develop a better understanding of the responsibilities and concerns faced by each side, and establish a better working relationship to avoid the types of problems (for example, late-in-the-game interventions) which have occurred with other regulations in the past. Assistance from the Council of Economic Advisers in developing a range of estimates for future oil prices, which is a part of the economic considerations for the subject regulation, was cited by EPA officials as one benefit of the pre-proposal contacts.

A possible issue between the Council of Economic Advisers and EPA on this standard may be in the making. The Council has asked EPA to do more work on benefits analysis. An EPA official told us it would be very difficult, if not impossible, to distinguish between the subject regulation and EPA's ambient air standards in terms of specific health benefits.