

DOCUMENT RESUME

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[Review of the Federal Energy Administration's Coal Conversion Program]. EMD-77-66; E-178205. September 16, 1977. 5 pp.

Report to Sen. Henry M. Jackson, Chairman, Senate Committee on Energy and Natural Resources; by Elmer B. Staats, Comptroller General.

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Little has been accomplished by the Federal Energy Administration's (FEA's) coal conversion program in its 3 years of operation. Few orders prohibiting existing powerplants and major fuel burning installations from burning natural gas or petroleum products as a primary energy source have been made final, and the FEA Administrator has stated that oil and gas savings resulting from the program have been negligible. Findings/Conclusions: A variety of problems appear to have contributed to program delays. FEA, under the Energy Supply and Environmental Coordination Act, must make detailed site-specific economic and environmental analyses before ordering utilities and major fuel burning installations to burn coal. The program has been hampered by personnel turnover, and a 6-month lapse of authority caused delays and uncertainties in the administration of the program. There appeared to be a lack of commitment to issue orders to major fuel burning installations. Disagreements between FEA and the Environmental Protection Agency continue to lessen the effectiveness of the coal conversion program. In addition, the difficulty in many parts of the country in burning coal in compliance with environmental laws and regulations has hampered the program's effectiveness; and the large capital investments required for new coal burning facilities or to convert existing facilities back to burning coal is a barrier to increased coal use. (SC)



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

SEP 16 1977

B-178205

The Honorable Henry M. Jackson
Chairman, Committee on Energy
and Natural Resources
United States Senate

Dear Mr. Chairman:

Your recent letter requested that we provide your Committee with information on our review of the Federal Energy Administration's (FEA) coal conversion program. In accordance with your request and subsequent discussions we are providing you a brief letter discussing our efforts to date and identifying issues we consider important when considering coal conversion legislation.

The Energy Supply and Environmental Coordination Act of 1974 (ESECA) (P.L. 93-319), as amended, authorizes FEA to issue orders prohibiting existing powerplants and major fuel burning installations (MFBIs) from burning natural gas or petroleum products as a primary energy source. FEA may also require a new powerplant or MFBI to be designed and constructed with the capability to use coal. The authority to issue orders under ESECA expired on June 30, 1977. However, the President has signed into law (P.L. 95-70) legislation extending the coal conversion authority through December 31, 1978. The enforcement authority under the ESECA expires December 31, 1984.

As of August 31, 1977, FEA had issued 248 preliminary orders or notices to new and existing powerplants of which 38 have been made final. For new and existing MFBIs, 114 preliminary orders or notices had been issued, of which none have been made final.

Problems and issues identified during our review are essentially the same as those brought out in hearings before your Committee in recent months on coal conversion legislation. Little has been accomplished by FEA's coal conversion program in its three years of operation. Few orders have been made final, and the Administrator, FEA, has stated that oil and gas savings resulting from the program have been negligible.

EMD-77-66

Our work identified the following problems which appear to have contributed to program delays.

- FEA under ESECA, must make detailed site specific economic and environmental analyses before ordering utilities and MFBIs to burn coal. This has proven to be a very time consuming and expensive process.
- The program has been hampered by personnel turnover. For example, in three years of operation under ESECA the program has had three directors.
- A six-month lapse of authority caused delays and uncertainties in the administration of the program. Under ESECA, FEA's authority to issue orders to new and existing powerplants and existing MFBIs expired June 30, 1975. This authority was not extended until December 22, 1975, when the Energy Policy and Conservation Act (P.L. 94-167) became law.
- There appeared to be a lack of commitment to issue orders to MFBIs. No orders were issued to MFBIs until June 1977. According to a program official only one person was assigned to the MFBI area during the first two years of the coal conversion program's operation, although the program was budgeted for 27 and 53 positions for fiscal years 1975 and 1976 respectively.
- Disagreements between FEA and the Environmental Protection Agency continue to lessen the effectiveness of the coal conversion program. Closer coordination and better cooperation is needed between the two agencies if the maximum number of utilities and MFBIs are to receive orders to burn coal.

In addition to these problem areas, our work identified the following issues, which in our view, need to be addressed in any effort to mandate the increased use of coal. These issues take on added significance in view of the administration's National Energy Plan 1/ which emphasizes the burning of coal by electric utilities and MFBIs.

1/ GAO issued a report to the Congress entitled "An Evaluation of the National Energy Plan", EMD-77-48, July 25, 1977. In that report GAO agreed with the plan's basic concepts but provided some recommendations and suggestions for improving the plan.

Compatibility of energy and environmental policies

The effects that increasing coal use will have on the environment must be a major consideration in any coal conversion program. The difficulty in many parts of the country in burning coal in compliance with environmental laws and regulations has hampered the program's effectiveness.

In addition, the Clean Air Act Amendments of 1977 (P.L. 95-95), contain provisions that could restrict the siting of new coal-fired facilities and increase the cost of burning coal. These provisions are:

- the new source performance standards requiring fossil fuel-fired boilers to use the best technological continuous emission controls, and
- requirements preventing the significant deterioration of air quality where such air quality is presently cleaner than existing ambient air quality standards.

To deal with the problems that will accompany increased coal use, the administration is calling for a major expansion of the Federal coal research program. Much of the increase, however, is going for such programs as synthetic fuels from coal and the fluidized-bed combustion system, with less emphasis going to finding immediate solutions to the environmental problems associated with the direct burning of coal.

The fact that EPA forced some utilities to burn oil and gas instead of coal in the early 1970's has made utilities and industry understandably reluctant to recommit themselves to coal. Compatible energy and environment policies are essential if utilities and industry are to intelligently plan for the future and commit their financial resources in accordance with national energy and environmental goals.

Coal conversion costs

The large capital investments required for new coal burning facilities or to convert existing facilities back to burning coal is

a barrier to increased coal use, despite any ultimate savings that might accrue due to lower fuel costs with coal. According to FEA, powerplants that were issued orders or notices under ESECA will require \$32.3 billion in capital for new coal-fired plants and conversion of existing plants to coal. Costs for industrial coal-fired boilers run 2 to 4 times as much as oil- or gas-fired boilers indicating a great need for capital. Also, forced conversion to coal by industry may be harmful financially to a company if a competitor, for various reasons, is not also forced to convert. Electric utilities may be reluctant to spend large sums of money to convert to coal because of difficulty and delay in obtaining the requisite rate increases from State regulatory commissions, and because of the ease of passing on to consumers the higher oil and natural gas prices through the fuel adjustment surcharge.

Financial incentives included in coal conversion legislation currently before the Congress are designed to accelerate the conversion process and increase the number of companies willing or able to convert. S. 977 provides for compensation, loans, and loan guarantees for facilities converting from natural gas or oil to coal or other fuels. The National Energy Act--H.R. 8444--as passed by the House includes provisions for a tax on users of oil and natural gas, and tax credits.

Physical limitations

It may be physically impossible and totally impracticable to require utility and industrial facilities, designed originally to burn oil or gas, to convert to coal. These facilities are significantly different from those designed to burn coal, in such areas as boiler capacity, fuel storage facilities, and coal and ash handling equipment. For example, boiler capacity might be reduced as much as 60 percent if oil- or gas-designed boilers were converted to coal.

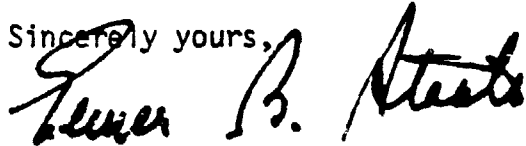
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We plan to continue monitoring the coal conversion program in light of the stated commitment of the President and interest in the Congress in increasing the use of coal. Particular attention will be given to assessing the effectiveness of that part of the program dealing with industrial coal conversion since little has been accomplished by FEA in this area. In addition, we have two ongoing reviews which address issues related to coal conversion. The first review, which is nearing completion, will provide a report containing a compendium of information on the current status and the prospects and uncertainties of U.S. coal development. The report will identify major issues and

alternatives associated with coal supply and use. The second review, now getting started, will examine the impact of environmental controls on the electric utility industry and identify options--if any--which would facilitate expanded use of coal in an environmentally safe manner. We plan to send copies of these reports to you.

We hope this information is useful to you. We will be happy to discuss these reviews with you in more detail if you desire.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Luther B. Stuck". The signature is written in a cursive style with a large initial "L" and a long, sweeping tail.

Comptroller General
of the United States