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OFFICE OF SPECIAL PROGRAMS

- ENERGY
- MATERIALS
- FOOD
- REGULATORY REPORTS REVIEW

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APR 14 1976

The Honorable Frank G. Zarb
Administrator, Federal
Energy Administration 75

Dear Mr. Zarb:

Because of congressional and public concern over the need for increased reliance on domestic energy resources, we have examined coal exportation. Coal is by far our most abundant energy resource, and it is expected to play an important role in the Nation's future energy picture. If past coal export trends continue, the availability of coal for future domestic use could be limited.

As a part of our examination we reviewed agency guidelines and legislative documents dealing with coal exportation. In addition, we conferred with representatives of governmental agencies, including the Offices of Coal and International Energy Affairs within the Federal Energy Administration (FEA); the Office of Energy Programs, the Domestic and International Business Administration, and the Bureau of the Census within the Department of Commerce; the Customs Service within the Department of the Treasury; the Bureau of Mines within the Department of the Interior; and State and U.S. Geological Survey representatives. We also interviewed representatives of coal exporters, domestic coal users, and coal producers and held discussions with officials of industry associations related to the production, exportation, and use of coal.

In summary, we found that most of the coal being exported from the United States is of the type and quality used in steelmaking operations; this coal is commonly referred to as metallurgical coal. A large percentage of the exported metallurgical coal is identified technically

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as low volatile bituminous coal. This type of coal is not as abundant as our other coal types. Industry officials said metallurgical coal is difficult to obtain, and they expressed concern over its future domestic supply.

The United States exported approximately 60 million tons of coal in 1974. The largest overseas customers were Japan, which received 27.3 million tons, or 46 percent, and Canada, which received 13.7 million tons, or 23 percent. The United States exports large quantities of coal to other countries, including Italy, the Netherlands, France, Spain, and the United Kingdom. According to the coal exporters' trade association, 14 companies control 85 percent of the U.S. coal export market.

The Federal Energy Administration Act of 1974 (Public Law 93-275) directs the Administrator to collect and maintain detailed information concerning every transaction, sale, exchange, or shipment involving U.S. coal exports. The Administrator's information on the amount of coal being exported, however, is limited to the data acquired from the Department of Commerce. Essentially the data is presented only by types of coal, such as anthracite, bituminous, and lignite. Information is not available on the volatility of coal within each type being exported nor is it available on other quality factors, such as ash and sulfur content.

The conference report¹ on the act indicates that FEA is to assume primary responsibility for obtaining coal export information. We believe FEA should therefore take the leadership role in collecting coal export information. Collecting this information would not place an undue burden on the agency, since information on 85 percent of the coal export market could be obtained from just 14 exporters. Because of the concern over the future domestic supply of low volatile bituminous coal, we believe such information should at least show the exports by the three categories of volatility.

U.S. COAL RESERVES

Coal is abundant in most parts of the United States, and it constitutes about 80 percent of the Nation's proven energy reserves. The known recoverable reserves (i.e., coal reserves that can be mined economically using current technology) are estimated at 217 billion tons as of January 1, 1974. The latest data reported by the Bureau of Mines shows an annual production of about 600 million tons; thus, the coal reserve base suggests more than a 300-year supply of coal at current rates of consumption.

¹The conference resulted from the disagreeing votes of the two Houses on the Senate amendment to the bill (H.R. 11793), the basis for the Federal Energy Administration Act of 1974.

Despite such a large coal reserve base, the Nation could be faced with a shortage of low volatile bituminous coal, which is used to manufacture coke for the steel industry.

Availability of low volatile bituminous coal

A U.S. Geological Survey report dated January 1, 1974, noted that this type of bituminous coal is in relatively short supply; it constitutes about 1 percent (approximately 20 billion tons) of the identified coal resources in the United States. The report further noted the areas containing low volatile bituminous coal (West Virginia, Pennsylvania, Maryland, Alabama, Oklahoma, Arkansas, Colorado, and Virginia) are being mined out very rapidly.

Importance of low volatile bituminous coal to the steel industry

Steel industry officials said that this type of coal is a necessary ingredient to the steelmaking process, and that it is difficult to obtain. According to a Department of the Interior publication, low volatile bituminous coal is the most important of all coal used to manufacture coke because (1) it has extremely high coking characteristics and can be used in coking coal blends to upgrade much larger resources of high volatile bituminous coal, which has much lower coking characteristics, (2) most areas with low volatile bituminous coal are on the east edge of the Appalachian coal basin near centers of population and industry on the eastern seaboard, and (3) it contributes less to pollution than lower ranks of coal.

There is a potential that research and development efforts could ultimately result in a new technology for coke production, thereby reducing the importance of low volatile bituminous coal. We were told that industry researchers are working on a totally new concept of coking coal--called "form coke"--which will permit using a broader range of coals to make high quality coke. A pilot plant for producing this form of coke is under construction. It will not be known, however, until 1977 or later whether this process will produce a satisfactory product for blast furnaces.

Type of coal exported by the United States

During the past 10 years, total bituminous exports have fluctuated between 49 million and 71 million tons annually, or about 9 to 12 percent of the total domestic production. Most exports of bituminous coal are used to manufacture coke for metallurgical purposes. Bureau of Mines' statistics show that of the 52.9 million tons of bituminous coal exported from the United States in 1973, 42 million tons, or 79.4 percent, were used for metallurgical purposes. Of the 60 million tons

exported from the United States in 1974, 51.7 million tons, or 86.2 percent, were used for metallurgical purposes. We were unable to find any precise figures on exports by volatility; however, an official of an association representing the iron and steel industry estimated that 80 percent of the metallurgical coal exports consisted of low volatile bituminous coal.

LEGISLATIVE AND AGENCY GUIDELINES
DEALING WITH INFORMATION ON COAL
EXPORTS

FEA was established to insure a coordinated and effective approach for developing policies and plans to meet the Nation's energy needs. To carry out this mandate, section 13 of the Federal Energy Administration Act of 1974 (Public Law 93-275) states that the Administrator shall collect, assemble, evaluate, and analyze energy information by categorical groupings of sufficient comprehensiveness in order to permit fully informed monitoring and policy guidance.

Section 25 of the act requires that the Administrator establish and maintain a file on every transaction, sale, exchange, or shipment involving U.S. coal exports. Each file is to contain, at a minimum, the name of the exporter, the volume and type of product involved, the manner of shipment, the identification of vessel or carrier, the destination, the name of the purchaser, and a statement of reasons justifying the export. In addition, the conference report on the act explicitly states that the intent of this section is to give the Administrator primary responsibility for obtaining the information and that all other Federal agencies are expected to cooperate fully with the Administrator in collecting and compiling the data.

COAL EXPORT DATA CURRENTLY AVAILABLE
THROUGH EXISTING MONITORING SYSTEMS

The Customs Service gathers the documents containing export data--Shipper's Export Declarations--at the port of loading and submits them to the Department of Commerce. The Department of Commerce accumulates coal export information by rank of coal, such as anthracite, bituminous, and lignite. This information is sent monthly to various subscribers, including FEA. No additional information on coal exports--such as categorizations by volatility, ash content, or sulfur content--is maintained by FEA.

Department of Commerce representatives believe that there is insufficient justification to provide more detailed reporting of coal exports, such as by volatility. These representatives said they have

received no complaints from steel companies or the steel industry association concerning metallurgical coal shortages. Furthermore, they believe that advances in mining technology will provide additional coal when needed; that is, when currently known coal reserves are depleted. They also believe advances in technology will demonstrate new processes which will need less coal or different grades of coal than now used to make coke.

We noted, however, that on at least one occasion--in 1970--a detailed monitoring system was implemented when coal exports increased significantly. This system, which provided data on exports by volatility and steam qualities, was discontinued in 1973 when it was determined that export tonnage decreased and seemed to be stable.

In any event, FEA does not maintain a detailed file on every transaction involving coal exports as required by the act. The coal export data acquired by the Department of Commerce is the only information on coal exports maintained by FEA. An official of FEA's Office of Coal said that his office's philosophy is to use only existing sources to gather data and that he did not think it wise for FEA to gather more detailed information.

OPINIONS OF DOMESTIC COAL USERS

We discussed the availability of coal with coal users and with officials of an association representing the iron and steel industry.

Coal users in the steel industry stated that metallurgical coal is in scarce supply and that the Federal Government should become involved in monitoring--possibly even controlling--exports of such coal. For example, two users believed a monitoring system should be instituted to show amounts of low, medium, and high volatile and steam coal. This would provide information to warn when a danger point is being reached, at which time controls could be executed. Another user of metallurgical coal believed controls on coal exports are needed now, and another felt controls will be required in the future.

In discussing this matter with officials of the iron and steel association, we were furnished documents which presented their position on coal exports.

An association letter sent on April 10, 1974, to the Secretary of Commerce pointed out the steel industry's concern for the growing consumption of metallurgical coal and the need to develop a Government

position on coal exports. An association position paper enclosed with the letter stated:

"That a temporary licensing program on bituminous coal exports, excluding those to Canada and Mexico, be put into effect immediately as a mechanism for measuring the level and scope of foreign demand for U.S. coal in 1974. Further, an acceptable level of U.S. coal exports in 1974 should be determined now and made known to our normal foreign customers. This procedure is considered preferable to one which attempts to cutback on exports after they have been permitted to reach abnormally high levels."

In May 1975 the association released a subsequent position paper to the Industry Sector Advisory Committee for Trade Negotiations, a presidential advisory committee established by the Trade Act of 1974 (Public Law 93-618). This paper recommended that

" * * * the U.S. government and other governments who seek continued access to U.S. metallurgical coal supplies jointly undertake a world survey of the projected supply and demand for metallurgical coal, based upon projected expansion of world steel capacity. The results of such a study would form a factual basis for exchanges during negotiations on conditions of access to U.S. metallurgical coal supplies."

CONCLUSIONS

Most of the metallurgical coal exports are a type identified as low volatile bituminous coal which, according to some users, is in critical supply. Users who depend upon this type of coal in their steelmaking process feel that there should be a more detailed monitoring system than is currently being maintained by the Government. On the other hand, Department of Commerce officials believe that there is insufficient justification to obtain data beyond the present system.

FEA has prime responsibility for obtaining information on coal exports in sufficient detail to permit fully informed monitoring and policy guidance. At the present time, however, their data on coal exports is limited to that being compiled by the Department of Commerce. As a result, neither of them can determine how much low volatile bituminous coal is being exported.

In view of the Administrator's mandated responsibilities and the opinions voiced by domestic coal users, we believe that the Administrator should take a leadership role, rather than the secondary role, in collecting and compiling information in sufficient detail to properly monitor U.S. coal exportation.

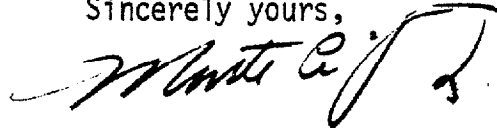
RECOMMENDATIONS

We recommend that FEA collect and maintain detailed information on transactions involving coal exports. A sufficient sample of the transactions can be acquired by requesting the information from the 14 exporters who comprise 85 percent of the coal export market. Because of the scarce domestic supply of low volatile bituminous coal, this information should at least show exports by the three categories of volatility to identify whether controls must be implemented.

As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House and Senate Committees on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We shall be pleased to discuss the contents of this letter in further detail should you so desire.

Sincerely yours,



Monte Canfield, Jr.
Director