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First Federal Attempt to Demonstrate a Synthetic Fossil Energy Technology, A Failure. EMD-77-59; B-178205. August 11, 1977. 6 pp. + 2 appendices (16 pp.).

Report to Rep. John D. Dingell, Chairman, House Committee on Interstate and Foreign Commerce: Energy and Power Subcommittee; by Elmer B. Staats, Comptroller General.

Issue Area: Energy: Role of Fossil Fuels in Meeting Future Needs (1609).

Contact: Energy and Minerals Div.

Budget Function: Natural Resources, Environment, and Energy: Energy (305).

Organization Concerned: Energy Research and Development Administration; Coalcon Co.; Ken-Tex Energy Corp.

Congressional Relevance: House Committee on Interstate and Foreign Commerce: Energy and Power Subcommittee.

Authority: Federal Nonnuclear Research and Development Act of 1974 (P.L. 93-577).

Questions were raised by Congress concerning the Energy Research and Development Administration's (ERDA's) administration of a contract to demonstrate a process for converting coal to clean boiler fuel, efforts to safeguard against organizational conflicts of interest in awarding and administering contracts for fossil energy demonstration plants, and reasons for rejecting a proposal for a gasification demonstration plant. Findings/Conclusions: The first Federal attempt to demonstrate a synthetic fossil energy technology by converting coal to a clean burning liquid fuel had many technical and managerial problems. It failed in its initial phase despite a \$10 million cost overrun and a 14 1/2 month time overrun and was terminated on June 15, 1977. ERDA considered possible organizational conflicts of interest in awarding and administering contracts for the demonstration plants, but did not require disclosure of interest statements or conflict of interest clauses in awarding such contracts. ERDA rejected the gasification demonstration plant proposal primarily because the company was unwilling to accept the 50-50 Government industry cost-sharing requirements. Recommendations: To avoid repetition of the failure of the first attempt, the ERDA Administrator should: 1) adequately resolve significant technical problems before the demonstration plant phase is begun; 2) require the development and formal approval of project plans before projects are started and when changes are proposed; and 3) require the establishment and implementation of formal project monitoring systems which would enable ERDA management to track project progress and costs. To preclude possible organizational conflicts of interest, ERDA should develop and implement procedures requiring a formal, documented analysis of possible conflicts of interest before awarding research and development

contracts. (Author/SS)

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8/19/77

03094
UNITED STATES
GENERAL ACCOUNTING OFFICE


**REPORT OF THE
COMPTROLLER GENERAL
OF THE UNITED STATES**

**First Federal Attempt To
Demonstrate A Synthetic Fossil
Energy Technology--A Failure**

GAO found that:

- The Coalcon project--the first Federal attempt to demonstrate a synthetic fossil energy technology by converting coal to a clean burning liquid fuel--was plagued by technical and managerial problems from the beginning; failed in its initial phase despite a \$10 million cost overrun (21 percent) and a 14-1/2 month schedule slippage; and was terminated on June 15, 1977.
- The Energy Research and Development Administration considers possible organizational conflicts of interest in awarding and administering contracts for fossil energy demonstration plants but does not require disclosure of interest statements or conflict of interest clauses in awarding such contracts.
- The Energy Research and Development Administration rejected a proposal from Ken-Tex Energy Corporation to design, construct, and operate a gasification demonstration plant because Ken-Tex was unwilling to accept the 50-50 Government-industry cost sharing requirements for constructing and operating the plant as specified in the Request for Proposals.



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

B-178205

The Honorable John D. Dingell
Chairman, Subcommittee on Energy
and Power
Committee on Interstate and
Foreign Commerce
House of Representatives

Dear Mr. Chairman:

This report addresses the questions raised in your letters of November 12, 23, and December 21, 1976, on the Energy Research and Development Administration's (ERDA's) (1) administration of a contract awarded to Coalcon Company to demonstrate a process for converting coal to clean boiler fuel, (2) efforts to safeguard against organizational conflicts of interest in awarding and administering contracts for fossil energy demonstration plants, and (3) reasons for rejecting a proposal from Ken-Tex Energy Corporation to design, construct, and operate a gasification demonstration plant.

As agreed with your office, we are also looking into ERDA's Fossil Energy Demonstration Plants Program, paying particular attention to ERDA's approach for developing and ultimately commercializing fossil energy technologies. We will send you copies of our report to the Congress on the results of this work when it is issued.

In summary, this report shows that:

- The Coalcon project--the first Federal attempt to demonstrate a synthetic fossil energy technology by converting coal to a clean burning liquid fuel--was plagued by technical and managerial problems from the beginning; failed in its initial phase despite a \$10 million cost overrun (211 percent) and a 14-1/2 month schedule slippage; and was terminated on June 15, 1977.
- ERDA considers possible organizational conflicts of interest in awarding and administering contracts for fossil energy demonstration plants but does not require disclosure of interest statements or conflict of interest clauses in awarding such contracts.

--ERDA rejected the Ken-Tex proposal primarily because Ken-Tex was unwilling to accept the 50-50 Government-industry cost sharing requirements for constructing and operating the plant as specified in the Request for Proposals.

ADMINISTRATION OF THE
COALCON PROJECT

The Coalcon project was a part of ERDA's Clean Boiler Fuel Demonstration Program which was initiated in 1974 by the Office of Coal Research, Department of the Interior. The overall objective of this program is to demonstrate by 1983 that coal can be converted to clean boiler liquid fuel in an economically and environmentally acceptable manner.

As a first step to achieve this objective, Interior awarded Coalcon--a partnership between Chemical Construction Corporation and Union Carbide Corporation--a \$237 million contract on January 17, 1975, to design, construct, and operate a clean boiler fuel demonstration plant.

The contract was awarded 2 days prior to the transfer of the program and program personnel to ERDA when the agency was created. According to ERDA's Deputy Assistant Administrator for Fossil Energy, who previously headed Interior's Office of Coal Research, the Coalcon contract was awarded 2 days prior to ERDA's formation to avoid additional administrative burdens imposed by the Federal Nonnuclear Research and Development Act of 1974 (Public Law 93-577) which authorizes ERDA's nonnuclear research and development programs. For example, the Act requires prior congressional approval of nonnuclear research and development projects with expenditures over \$50 million and would have delayed the \$237 million contract to Coalcon.

In our view, the Coalcon project failed in its initial phase despite a \$10 million cost overrun (211 percent) and a 14-1/2 month schedule slippage, primarily because

- research and development had not been sufficiently carried out to resolve several significant technical problems;
- ERDA never had both an adequate work plan for the project and an effective system to monitor and control the contractor's progress and project costs; and
- ERDA did not take timely action to redirect or terminate the project when it became evident that it was in serious trouble.

As a result of Coalcon's failure, ERDA's objective to demonstrate by 1983 that coal can be successfully converted to clean boiler liquid fuel cannot be achieved because it takes 8 to 12 years from project conception through successful demonstration.

Recommendations to the
ERDA Administrator

To avoid recurrence of the types of problems encountered in the Coalcon project in future demonstration efforts, we recommend that the ERDA Administrator:

- Adequately resolve significant technical problems before the demonstration plant phase is begun.
- Require the development and formal approval of project plans, with associated milestones and decision points, before projects are started. All proposed changes to approved plans should also be formally approved.
- Require the establishment and implementation of formal project monitoring systems which would enable ERDA management to track project progress and costs. Establishment of project plans, milestones, decision points, and monitoring systems would enable ERDA to identify project problems and take corrective actions in a timely manner.

Appendix I discusses our findings on the Coalcon project in more detail.

CONFLICTS OF INTEREST

Your letters asked that we review ERDA's efforts to safeguard against organizational conflicts of interest in awarding and administering contracts for fossil energy demonstration plants, and specifically, in precluding such conflicts in (1) selecting the Coalcon process and in awarding future contracts for pilot plants using the Coalcon technology, (2) selecting the Coalcon site, and (3) Union Carbide's takeover of Coalcon.

ERDA's safeguard efforts
and the Coalcon process

At the time of our review, the contract awarded to Coalcon Company by the Department of the Interior was the first and only

Federal contract awarded to build a fossil energy demonstration plant. ERDA had not awarded any other contract for a fossil energy demonstration plant and had no plans to award a contract for a pilot plant using the Coalcon technology.

On December 22, 1976, we issued a report to former Congressman Ken Hechler, which discussed ERDA's policies and procedures for considering organizational conflicts of interest in awarding all research and development contracts, including contracts for fossil energy demonstration projects. (See Appendix II.) We took the position that in awarding these contracts ERDA should require a disclosure of interest statement and a modified version of the conflict of interest provision. A disclosure statement should be required in proposers' responses to requests for proposals, describing all relevant facts concerning the proposers' present or planned financial, contractual, organizational, or other interests relating to the work to be performed. A modified conflict of interest clause should be included in contracts, prohibiting contractors from biasing the work results for their benefit. Such requirements would help ensure that contractors (1) do not obtain any unfair competitive advantage over other parties by virtue of their performance and (2) are not biased because of their current or planned interests which relate to the work under contract.

ERDA does not agree that disclosure of interest statements and modified conflict of interest clauses need be required for all research and development contracts, but is now studying the extent to which such requirements should be included in these and other contracts.

Coalcon site selection

You requested that we examine whether the selection of a site owned by the Peabody Coal Company for the Coalcon project constituted an organizational conflict of interest. Your interest related to the fact that Bechtel Corporation, which owns a significant share of the Peabody Coal Company, was deeply involved with formulating and analyzing various energy programs for ERDA.

ERDA officials told us that no commitment had been made to actually acquire or lease the Peabody site before the project was terminated on June 15, 1977. They said that although a thorough analysis of the potential organizational conflict of interest was not made, Bechtel's relationship with ERDA was considered before Coalcon was authorized to lease the site.

We were unable to determine whether a conflict of interest existed because ERDA's files were incomplete due to its failure to make a thorough assessment. Because no commitment was made to actually acquire or lease the Peabody site, we did not pursue the matter further.

Recommendation to the
ERDA Administrator

To better preclude, and to answer questions on, possible organizational conflicts of interest, we recommend that the ERDA Administrator develop and implement procedures requiring a formal, documented analysis of possible conflicts of interest before awarding future research and development contracts.

Union Carbide's takeover of Coalcon

On September 24, 1976, Union Carbide notified ERDA that Chemico planned to drop out of the program, leaving Union Carbide as the sole contractor. Union Carbide requested ERDA's endorsement of this action and any comments, qualifications, or conditions appropriate for ERDA's protection. In November 1976, ERDA notified Union Carbide that it had no objection to the proposed takeover.

ERDA officials told us that the takeover was no basis for questioning whether an organizational conflict of interest existed because Union Carbide had been an equal partner from the start of the project and the takeover would not introduce any new conflict of interest. We agree with ERDA on this matter.

THE KEN-TEX PROPOSAL

As you know, the proposal submitted by the Ken-Tex Energy Corporation in response to an ERDA Request for Proposals to design, construct, and operate a high-Btu coal gasification demonstration plant was not selected for negotiation and subsequent contract award.

ERDA considered the proposal to be technically competitive with the other responses but eliminated it from competition primarily because Ken-Tex was unwilling to accept the 50-50 Government-industry cost sharing requirements for constructing and operating the plant as specified in the Request for Proposals.

Ken-Tex's proposal limited its direct contribution to \$68 million, which represented about 15 percent of the total estimated project cost. Ken-Tex proposed that the remaining

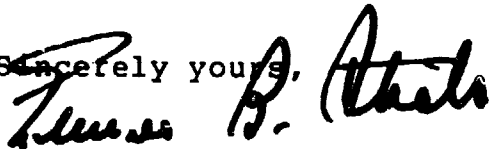
35 percent of its share come from its portion of project revenues it expected during the demonstration phase. ERDA concluded that such an arrangement would significantly increase the Government's financial risk while reducing Ken-Tex's share of the risk.

We plan to assess ERDA's cost sharing policy in our report to the Congress on ERDA's Fossil Energy Demonstration Plants Program.

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Our review was conducted at ERDA Headquarters in Washington, D.C. We discussed the matters in this report with ERDA officials and changes were made where appropriate. However, as requested by your office, we did not obtain formal agency comments.

As arranged with your office, we will send copies to interested parties and make copies available to others upon request.

Sincerely yours,


Comptroller General
of the United States

FIRST FEDERAL ATTEMPT TO DEMONSTRATE A SYNTHETIC
FOSSIL ENERGY TECHNOLOGY--A FAILURE

The Coalcon project--the first Federal attempt to demonstrate a synthetic fossil energy technology by converting coal to a clean burning liquid fuel--was a part of the Energy Research and Development Administration's (ERDA's) Clean Boiler Fuel Demonstration Program which was initiated in 1974 by the Office of Coal Research, Department of the Interior.

The project was plagued by technical and managerial problems from the beginning; failed in its initial phase despite a \$10 million cost overrun (211 percent) and a 14-1/2 month schedule slippage; and was terminated on June 15, 1977.

The overall objective of the Clean Boiler Fuel Demonstration Program is to demonstrate by 1983 that coal can be converted to clean boiler liquid fuel in an economically and environmentally acceptable manner. As a first step to achieve this objective, Interior awarded Coalcon Company--a partnership between Chemical Construction Corporation and Union Carbide Corporation--a \$237 million contract on January 17, 1975, to design, construct, and operate a clean boiler fuel demonstration plant.

The contract provided that the work would be done in four phases and that the Federal Government could unilaterally terminate the project at the end of any phase. The following table summarizes the contract objectives, estimated cost, and target completion dates for each of the four phases.

APPENDIX I

APPENDIX I

<u>Phase</u>	<u>Estimated cost in millions</u>	<u>Estimated completion date from date of contract</u>	<u>Objectives</u>
I	a/\$ 4.75	3/31/76	Conceptual design of a commercial plant and preliminary demonstration plant design necessary to proceed to Phase II. Also, this phase included pilot tests to provide basic process information needed to start Phase II.
II	a/\$ 17.7	9/31/77	Detailed demonstration plant design to prepare a construction bid package for actual construction under Phase III.
III	b/\$142.3	3/31/80	Demonstration plant construction.
IV	b/\$ 72.5	9/30/83	Demonstration plant testing, evaluation, and operation.

a/Government funded on a cost plus fixed fee arrangement.

b/Cost shared on a 50-50 basis between the Government and the contractor.

Two days after this contract award, the Clean Boiler Fuel Demonstration Program--including the Coalcon project and program personnel--was transferred to ERDA which was created on January 19, 1975, by the Energy Reorganization Act of 1974 (Public Law 93-438). According to ERDA's Deputy Assistant Administrator for Fossil Energy who previously headed Interior's Office of Coal Research, the Coalcon contract was awarded 2 days prior to ERDA's formation to avoid additional administrative burdens imposed by the Federal Nonnuclear Research and Development Act of 1974 (Public Law 93-577) which authorizes ERDA's nonnuclear research and development programs. For example, the Act requires prior congressional approval of non-nuclear research and development projects with expenditures over \$50 million and would have delayed the \$237 million contract to Coalcon.

In our view, the Coalcon project failed primarily because

- research and development had not been sufficiently carried out to resolve several significant technical problems;
- ERDA never had both an adequate work plan for the project and an effective system to monitor and control the contractor's progress and project costs; and
- ERDA did not take timely action to redirect or terminate the project when it became evident that it was in serious trouble.

As a result of Coalcon's failure, ERDA's objective to demonstrate by 1983 that coal can be successfully converted to clean boiler liquid fuel cannot be achieved because it takes 8 to 12 years from project conception through successful demonstration.

FAILURE TO ADEQUATELY RESOLVE
TECHNICAL PROBLEMS BEFORE
STARTING DEMONSTRATION

According to ERDA, the purpose of demonstration plants is to demonstrate and validate economic, environmental, and productive capacity of a near-commercial plant using commercial-size components. ERDA's fossil energy program plan provides that the technical feasibility of the process should be resolved in an earlier phase of the research and development process.

The Coalcon contract was awarded, however, before the technical problems of the process had been adequately researched and developed. ERDA and the Office of Coal Research both recognized that there were major technical problems to be resolved and planned to resolve them during the first phase of the contract.

A major problem requiring resolution concerned the use of high sulfur Eastern coal rather than low sulfur Western coal. In the early 1960s, Union Carbide constructed and operated a mini (20 ton per day) liquid synthetic fuel pilot plant using Western coal. In addition, Union Carbide designed a 5,000 ton per day prototype plant, but abandoned the project in 1964 because coal feedstocks were not competitive with petroleum feedstocks. Although Coalcon's proposal was based on Union Carbide's Western coal process, Interior and Coalcon concluded the process could be adapted to use Eastern coal despite their knowing that

--the process had never been tested with Eastern coal and

--the use of Eastern coal involves different technical problems than does the use of Western coal.

For example, before the Coalcon contract was awarded, the Interior source evaluation board evaluating the Coalcon proposal stated that:

"There are major uncertainties in the operation of large lock hoppers and the hydrocarbonization unit with respect to uniform coal flow, coking, value operation and maintainability. While studies have been proposed in these areas, it is emphasized that uncertainties as to the operation of these units must be resolved before the demonstration plant design is finalized." (Underscoring supplied.)

Such uncertainties have yet to be resolved.

ERDA officials told us they also were aware of the board's report and the technical problems involved. They said Phase I provided for pilot tests to better define and reduce the technical risk associated with the project. These tests, however, were never completed.

In March 1976, about 14 months into the contract, these technical problems were once again brought to ERDA's attention when an independent ERDA contractor reported that "the technical foundation for the * * * project appears to be seriously deficient." In November 1976, the Assistant Administrator for Fossil Energy notified the ERDA Administrator that the project continued to involve high risk and that Coalcon had reservations about the technology using Eastern coal.

Again, in an April 19, 1977, memorandum, an ERDA official noted that insufficient data were available to design a test bed unit and that further subscale experimental work was needed. He said that before scale-up was feasible, data were required on operability, yield, and character of liquid products, and on the processing necessary to clean-up and stabilize the liquids to meet the particulate and sulfur specification of clean boiler fuels.

ERDA's Deputy Assistant Administrator for Fossil Energy who previously headed Interior's Office of Coal Research, said that Interior, with the support of incoming ERDA officials,

decided to award the contract despite its high risk because of the 1973 oil embargo and congressional concern that alternatives to foreign oil be expedited.

Although we recognize that there was--and still is--a great deal of concern about developing alternatives to foreign oil, the fact that major technical problems were recognized and were to be minimized during Phase I should have prompted ERDA to effectively plan and closely monitor the project and to take timely action to redirect or terminate the project when it became evident that it was in serious trouble. As discussed in the following sections, such was not the case.

FAILURE TO EFFECTIVELY PLAN AND CLOSELY MONITOR THE PROJECT

In any endeavor involving high technical risk--such as the Coalcon project clearly did--a good management system of planning, oversight, and control is vital. Management needs to be aware of the progress and problems of all projects so that timely corrective actions can be taken when needed.

At no time during the course of the Coalcon project did ERDA have an adequate work plan for the project and an effective system to monitor and control the contractor's progress and project costs. Thus, ERDA allowed the project to continue for almost 2-1/2 years and reimbursed the contractor about \$15 million without the necessary tools to properly manage and control the project.

Although ERDA had an approved work plan for the first 8 months of the project, the plan was inadequate because it did not include

- performance and cost milestones for completing each project step, and
- decision points to consider project progress, costs, and problems and to determine how best to proceed.

Also, the project scope was changed in September 1975, but ERDA never developed a plan or related progress and cost estimates for the change.

Initially, the contractor was operating under the work plan for Phase I which set forth major tasks and subtasks to be completed. In September 1975, however, ERDA agreed that certain tasks relating to detailed design, not required until Phase II, could be consolidated under Phase I.

Although Coalcon submitted several proposed plans during 1976 based on this consolidation, a new plan and revised progress and cost estimates were never approved by ERDA. Without ever approving a revised plan, ERDA decided in December 1976--15 months after the consolidation decision--to terminate the project effective June 15, 1977, after completion of conceptual design of a commercial plant and preliminary demonstration plant design. Scheduled pilot tests needed to provide basic process information to start Phase II were never completed.

ERDA's Deputy Assistant Administrator for Fossil Energy who previously headed Interior's Office of Coal Research, told us that during the project's first 8 months there was no project monitoring system and ERDA's monitoring efforts were haphazard and monitoring responsibilities were ill defined. Although ERDA established a project management team--consisting of ERDA personnel with technical, procurement, and financial backgrounds--to monitor the contractor's performance and project costs, it did not do so until September 1975 when the project had already used about 55 percent of the Phase I funds.

Monitoring problems apparently continued even after September 1975 as evidenced by

--an October 1976 report prepared by an independent ERDA contractor which noted that the project should be technically and financially audited to establish the project's status, and

--a November 29, 1976, memorandum from the Assistant Administrator for Fossil Energy to the ERDA Administrator, which concluded that the total cost estimate for the project "must be pinned down."

As of late June 1977 ERDA still had not determined final project cost, but had obtained the Defense Contract Audit Agency to review the approximately \$15 million paid to Coalcon. Based on this review, negotiations will be conducted with Coalcon on any appropriate adjustments.

We believe that ERDA's failure to properly monitor the project contributed greatly to the project's substantial cost overruns. This was indicated by a November 18, 1976, memorandum from the Director, Clean Boiler Fuel Program, to the Director, Fossil Demonstration Division, which stated that:

"Our records to date based upon Coalcon furnished information indicate that Phase I, preliminary engineering, shows a cost growth from \$4,750,000 to \$12,785,100 * * * without any warning from the

contractor. * * * I wish to emphasize this data was not made available to ERDA until 30 September 1976, and then only after considerable pressure from the program office. * * * Coalcon led me to believe that their major effort was on Phase II with Phase I being about 97 % complete. Actually, Phase I is only on the order of 36 % complete, and Phase II effort, according to Coalcon's 9/30/76 submission, 3 % complete. * * * our inability to track preliminary engineering progress * * * is very well documented."

ERDA officials told us that their inability to properly monitor and control the Coalcon project occurred because of the confusion and problems associated with the reorganization of several executive agencies into ERDA. They said that manpower shortages essentially precluded a close scrutiny of the way the contract was being carried out. As a result, ERDA depended on Coalcon to alert them of problems being encountered.

The ERDA officials noted that a September 1975 Coalcon report, which strongly indicated that the project was progressing satisfactorily and would meet its objectives, led them to believe that the project was not in difficulty, the technical problems would most likely be resolved, and close scrutiny was not required.

They noted also that in February 1976 the Coalcon President and General Manager testified before the House Committee on Science and Technology that the project had "made outstanding progress." He testified that the project was "on schedule, on target cost," even though it had incurred a cost overrun of about 50 percent and, as noted earlier, an independent ERDA contractor reported about one month after this testimony that "the technical foundation for the project appears to be seriously deficient."

In our view, relying solely on Coalcon to notify ERDA of major problems represented an incredibly poor management practice, especially in light of ERDA officials' knowledge of the technical problems facing the project.

FAILURE TO TAKE TIMELY ACTION

In addition to their failure to effectively plan and closely monitor the Coalcon project, ERDA officials did not take timely action to redirect or terminate the project when it became evident that it was in serious trouble. As a result,

the project continued long after ERDA became aware of its mounting problems.

ERDA officials told us that they began to become concerned about the project's progress in early 1976 and initiated several reviews of the project by independent contractors. Each of these reviews indicated a need for more research and development work before the process could be demonstrated.

Despite reports on these reviews, beginning in March 1976, ERDA did not start action to redirect or terminate the project until November 1976, when the Assistant Administrator for Fossil Energy wrote the ERDA Administrator concerning the technical problems being experienced, the cost growth that had occurred, and the need to obtain more data and to do more basic research and development work. ERDA negotiated in December 1976 to terminate the project on June 15, 1977, after completion of conceptual design of a commercial plant and preliminary demonstration plant design.

CONCLUSIONS

ERDA's first attempt at demonstrating a synthetic fossil energy technology by converting coal to a clean burning liquid fuel has been a failure. Thus, the objectives of the Clean Boiler Fuel Demonstration Program to demonstrate by 1983 that coal can be successfully converted to clean boiler liquid fuel cannot be achieved because it takes 8 to 12 years from project conception through successful demonstration.

In our view the project failed because

- research and development had not been sufficiently carried out to resolve several significant technical problems;
- ERDA never had both an adequate work plan for the project and an effective system to monitor and control the contractor's progress and project costs; and
- ERDA did not take timely action to redirect or terminate the project when it became evident that it was in serious trouble.

A good management system of planning, oversight, and control would have enabled ERDA to identify project problems in a timely manner and to minimize cost overruns and schedule slippages. Without such a system, anything but project failure

was highly unlikely in light of the significant technological problems of the Coalcon process.

RECOMMENDATIONS TO THE
ERDA ADMINISTRATOR

To avoid reoccurrence of the types of problems encountered in the Coalcon project in future demonstration efforts, we recommend that the ERDA Administrator:

- Adequately resolve significant technical problems before the demonstration plant phase is begun.
- Require the development and formal approval of project plans, with associated milestones and decision points, before projects are started. All proposed changes to approved plans should also be formally approved.
- Require the establishment and implementation of formal project monitoring systems which would enable ERDA management to track project progress and costs. Establishment of project plans, milestones, decision points, and monitoring systems would enable ERDA to identify project problems and take corrective actions in a timely manner.

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



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DEC 22 1976

The Honorable Ken Hechler
House of Representatives

Dear Mr. Hechler:

This is in response to your letter dated October 7, 1976, concerning the practices of the Energy Research and Development Administration (ERDA) with respect to the avoidance of organizational conflicts of interest.

Specifically, you asked for our views and ERDA's position on several questions regarding a new "Disclosure of Interest" clause which ERDA uses in certain solicitations, as well as our comments on Title VI, "Organizational Conflicts", of H.R. 94-1718. Our letter to you dated September 30, 1976, contained a copy of the "Disclosure of Interest" provision. ERDA's position on these matters was furnished to us by a letter dated November 30, 1976, from the General Counsel of ERDA. The questions raised and the responses are given below:

1. The statutory basis for ERDA's new "Disclosure of Interest" provisions.

The Energy Reorganization Act of 1974, 42 U.S.C. 5801 et. seq. (1970), provides that the Administrator of ERDA is "authorized to prescribe such policies, standards, criteria, procedures, rules and regulations as he may deem to be necessary or appropriate to perform functions now or hereafter vested in him." 42 U.S.C. 5815(a) (1970). This authorization to prescribe rules and regulations appears sufficiently broad to include authority to promulgate organizational conflict of interest provisions for use in ERDA procurements.

2. The circumstances where ERDA would not use the organizational conflict of interest provisions.

ERDA's position on the use of the organizational conflict of interest provisions is as follows:

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"It is contemplated that both the 'Conflicts of Interest' and 'Disclosure of Interest' clauses will be used in all procurements for technical and management support. The 'Conflicts of Interest' clause, modified to suit the circumstances, might also be inserted in RD&D contracts when appropriate.

"The clauses probably would not be used in acquisition of hardware or standard commercial items. They would not necessarily be used in development and design procurements pursuant to ERDA-PR Sec. 9-1.5407(b); and they probably would not be used in cases where it is determined that it would be in the Government's best interest to use the contractor(s), notwithstanding possible conflicts of interest.

"These contemplated procedures are expressed as probabilities because we are still in the process of refining ERDA policy in these areas, testing the use of the clauses in different circumstances, and assessing their potential impacts vis-a-vis statutory programmatic objectives."

We concur with ERDA with respect to procurements for hardware or standard commercial items. Procurement of these supplies is often made through formal advertisement, with the Government furnishing detailed product specifications and award being made to the lowest priced responsible bidder. Since the contractor is called upon only to deliver an end product which is defined in detail by Government specifications, we see no reason for the use of the conflict of interest provisions.

With regard to development and design procurements, current ERDA regulations provide:

"Development contractors generally should not be prohibited from consideration as a supplier for a product which they develop and design. In development work it is normal to select firms which have done the most advanced work and which are the most experienced in the field. It is expected that these firms will develop and design around their own prior knowledge. * * * The arrangements for procurement should provide for the maximum competition consistent with satisfying ERDA requirements.

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*** [A]ppropriate steps [should be taken] to insure that the information furnished ERDA under the design and development contract is available to other potential bidders, on a timely basis."

While we agree generally with ERDA policy on this subject, we think that use of the disclosure provision and perhaps a modified version of the conflict of interest provision would serve a useful purpose at least with respect to identifying potential unfair competitive advantage situations. The provisions would not per se preclude award of a contract because of conflict of interest or competitive advantage, but would provide ERDA with information indicating the existence and extent of a conflict or competitive advantage, which ERDA should consider in determining whether contract award would be appropriate. The provisions would also provide information to ERDA so that specifically tailored restrictive provisions could be utilized to mitigate any conflict.

Similarly, we think the clauses should be used even where ERDA has determined to make award notwithstanding a conflict of interest. We recognize that situations may arise where it would be advantageous to the Government to make an award in spite of a conflict of interest, and, as pointed out above, the conflict of interest provisions do not preclude award despite the existence of a conflict. However, we believe ERDA should be completely aware of the extent of a contractor's conflict of interest so that ERDA may appropriately weigh the contractor's recommendations and whatever else is provided with the contract, and for that reason we think the use of the disclosure provisions would be appropriate regardless of ERDA's intentions regarding award. Even if ERDA is independently aware of contractor conflict or bias, the information available through offeror's affirmative disclosure might well highlight the extent of a conflict or provide additional information through which bias or conflict might in some way be limited.

In this regard, ERDA's Assistant General Counsel - Procurement has informally advised us that ERDA will endeavor to obtain from all contractors information bearing on the existence and extent of any conflict, and thereafter restrict the conflict to the maximum extent possible. He further advised that the statement in ERDA's report that the provisions "probably would not be used" in some instances was intended to mean only that clauses prepared to suit the particular needs of individual cases will be used instead of these standard clauses.

3. The specific manner in which ERDA will evaluate the information to be provided by offerors.

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According to ERDA:

"It cannot be said at the moment with any precision or confidence what will be the 'specific manner in which ERDA will evaluate the information to be provided by offerors.' Cases where the clauses have been used thus far are so few we have not developed sufficient experience to make advanced judgments. We believe that we are proceeding in a prudent manner to gain such experience so that we can establish guidelines for evaluation, given the sensitivity of the problem and its potential impact on ERDA's mission."

Informally, ERDA's Assistant General Counsel - Procurement, has reported that an offeror's response to the disclosure requirement will be evaluated by a source evaluation board, which is the same group that evaluates the technical and price aspects of proposals. The board, which is comprised of procurement, financial, technical, legal and administrative personnel, will determine if an offeror has an actual, potential or apparent conflict of interest. To the extent possible, an offeror's conflict of interest will be curtailed by appropriate limiting provisions in the contract. Generally, we are told, if a conflict cannot be avoided, award will not be made. Award will be made notwithstanding a conflict only if it is determined to be in the best interest of the Government. ERDA believes this situation will rarely occur, and plans to develop specific procedures for award selection giving consideration to organizational conflicts of interest and based upon the experience to be gained in using the new disclosure clause. While no written procedure for award selection with a focus on conflicts has yet been made, ERDA is treating the disclosure statement as an eligibility requirement so that an offeror will not be considered for award unless the disclosure requirements are satisfied.

4. The likelihood that procurements might be delayed as a result of the provisions.

ERDA states:

"It seems very probable that some delay will be encountered in various procurements when these clauses are used and we believe that many potential contractors will contest or refuse their application, particularly in RD&D. There is always a learning process

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when something new is tried, especially when the change is perceived to potentially threaten entrance to the marketplace or to deny ERDA the services of highly regarded companies. The extent of delays probably will be uneven, and considerably more operating experience will be required before qualitative judgments can be made as to the magnitude of the impact of such measures."

We have no basis to believe that ERDA's procurements would be unreasonably delayed.

5. Whether ERDA specifically informs contractors furnishing information under its disclosure provisions of the false statement provisions of 18 U.S.C. § 1001 (1970).

ERDA does not specifically inform offerors that their disclosure statements are subject to 18 U.S.C. § 1001 (1970). In ERDA's view, it is not necessary "as offerors and bidders are generally aware of the penalties for furnishing false information."

6. Whether the Administrator's "affirmative" finding under Section 19(b) of Title VI of H.R. 94-1718 would trigger judicial review under the Administrative Procedures Act (APA) and thus delay ERDA's programs and whether GAO would review the finding.

Section 19(b) of Title VI would limit ERDA's contracting to situations where the Administrator "affirmatively finds" that there is little likelihood of a conflict of interest or that any such conflict has been avoided with appropriate contract conditions. However, if the Administrator determines that a conflict cannot be avoided, he may still contract if he determines that it is in the best interest of the Government.

ERDA is concerned that a "disappointed prospective contractor * * * might well obtain judicial review" of Title VI determinations, with "consequent delay to ERDA's procurement process." ERDA recommends that if Title VI should become law, the law should expressly exempt the Administrator's findings from APA review or make those findings "final and conclusive."

The Administrative Procedures Act, 5 U.S.C. § 551 et seq. (1970), grants jurisdiction to the Federal District Courts to review "agency actions." However, actions are not judicially reviewable

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under the Act (1) where a statute precludes judicial review or (2) where "agency action is committed to agency discretion by law." 5 U.S.C. § 701 (1970). Title VI would not per se preclude judicial review. However, we think that judicial review under the Administrative Procedures Act would likely be precluded on the ground that these agency "findings" are by their nature discretionary, rather than ministerial.

Moreover, even if judicial review were to occur, we do not believe that it would impose unreasonable delay on ERDA procurements. Federal procurements are currently reviewable by the District Courts. See Scanwell Laboratories v. Shaffer, 424 F. 2d 859 (D.C. Cir. 1970); Merriam v. Kunzig, 476 F. 2d 1223 (3rd. Cir. 1973). We do not believe that challenges to conflict of interest provisions would add significantly to whatever delay is currently engendered by judicial review of procurement actions. In this regard, we point out that under current standards, before a court will enjoin the award of a contract, the complaining party would have to demonstrate the likelihood of success on the merits and that the public interest will not be significantly harmed by issuance of the injunction. See, e.g., Virginia Petroleum Jobbers Association v. Federal Power Commission, 259 F. 2d 921 (D.C. Cir. 1958); General Electric Company v. Seaman, 340 F. Supp. 636 (D.C. D.C. 1972). This is a considerable burden.

GAO would likely review these "affirmative findings" in the context of a bid protest. However, our review probably would be undertaken with the view that the administrative determination is entitled to great weight, and we probably would not question such determination unless it was clearly shown to be arbitrary, unreasonable or without a substantial basis in fact. We point out, however, that if Title VI were to provide that the Administrator's findings were "final and conclusive," GAO review would be precluded.

7. Our comments on Title VI.

The provisions of Title VI seem consistent with the intended purpose of avoiding organizational conflicts of interest to the maximum practicable extent without unreasonably delaying the procurement process. We believe its enactment would serve a useful purpose.

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As you requested, we are today sending copies of this letter and our letter to you dated September 30, 1976, to Senator Abourezk and Congressman Ottinger.

Sincerely yours,

R.F.KELLEN

Deputy Comptroller General
of the United States