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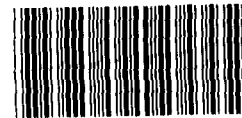
Testimony

For Release
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The Future of DOE's
Uranium Enrichment Program

Statement of
Keith O. Fultz, Associate Director
Resources, Community and Economic
Development Division

Before the
Subcommittee on Energy and Power
Committee on Energy and Commerce
House of Representatives



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SUMMARY STATEMENT

DOE's uranium enrichment program is at a crossroads and need congressional direction. The program faces financial difficulties arising from growing foreign competition, increasing TVA charges for unused electricity (demand charge), and a large debt owed to the Treasury. In fiscal year 1987, DOE expects to pay TVA about \$510 million for electricity not used; the debt owed the Treasury now totals about \$8.8 billion. The debt accumulated because DOE has not been able to pay all program costs from revenues as required by law.

These financial problems have resulted in DOE's not requesting funds for its future enrichment technology called AVLIS. The program also faces the possible loss of additional customers as a result of an ongoing lawsuit initiated by domestic uranium miners and through actions the Department of the Treasury may take concerning anti-apartheid legislation.

On March 31, 1987, DOE presented the Congress a proposal to restructure the program as a federally chartered corporation. DOE believes that such a corporation would allow it to operate in a more flexible, business-like manner without current annual budget limitations. However, this proposal does not fully address (1) questions concerning the government debt, (2) the Nuclear Regulatory Commission's licensing requirements, (3) how DOE would meet defense needs, or (4) how the corporation would obtain liability coverage for an accident. The proposal is also unclear on whether the corporation can assume responsibility for the TVA demand charges and be economically viable.

Before acting on this proposal, we would reiterate our earlier position that the Congress needs to redefine the program's goals and objectives, examine alternatives to full-cost recovery pricing and determine the amount of debt to be repaid to the Treasury. The Congress needs to do this in light of the uncertainties surrounding the future of nuclear power. The Congress should also be aware of other proposed actions that would not require DOE to restructure the program.

If the Congress enacts legislation supporting DOE's proposal we believe it should provide for continued congressional oversight through such mechanisms as annual oversight hearings. We also suggest that GAO be given complete audit authority of the corporation's records.

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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to present our views on the future of the Department of Energy's (DOE) uranium enrichment program. My testimony today is based on several issued products in this area, our reactions to DOE's very recent proposal to restructure the program, and some limited observations on work requested by this Subcommittee and others. We plan to complete our work in the next few months and issue a report to the Subcommittee in late summer.

DOE's enrichment program continues to be at a crossroads and in need of congressional direction. For many years, we have reviewed various aspects of the program and suggested that the Congress redefine the program's goals within the current business environment and determine the amount of unrecovered government costs (debt) that DOE should pay. The program faces financial difficulties arising from growing foreign competition, increasing charges for unused electricity (demand charge) from the Tennessee Valley Authority (TVA), and a large debt owed to the Treasury. It also faces a number of uncertainties related to the outcome of the domestic uranium miners' lawsuit and the actions that the Department of the Treasury may take concerning anti-apartheid legislation. The resolution of these uncertainties could impact DOE's uranium enrichment program.

On March 31, 1987, DOE sent the Congress a proposal to restructure the program as a federally chartered corporation. However, DOE's proposal does not put to rest a number of issues facing the program, such as whether the corporation could assume the more than \$3 billion of future TVA demand charges and develop the next generation enrichment technology. Further, the proposal does not address the repayment of the debt, Nuclear Regulatory Commission licensing requirements, or continued congressional oversight of the enterprise.

Before I discuss these issues, I will provide a brief overview of DOE's enrichment program.

OVERVIEW OF THE URANIUM

ENRICHMENT PROGRAM

The federal government has enriched uranium for national defense purposes and commercial nuclear power plants for over 30 years. Throughout the 1970s, the expected growth of nuclear power led DOE to expand enriched uranium production capacity at its gaseous diffusion plants, begin construction of a large-scale gas centrifuge enrichment plant (GCEP), and accumulate a stockpile of enriched uranium. By the early 1980s, however, the anticipated high levels of demand had fallen greatly.

Further, foreign suppliers had cut into DOE's share of the foreign market and even into DOE's once exclusively-held domestic market. In 1974 DOE was virtually the only supplier of enriched uranium in the world. By 1986 foreign competitors had captured 54 percent of the world's enriched uranium market. In 1987 DOE's foreign competitors reportedly charged between \$100 to \$110 per separative work unit compared with DOE's base price of \$119. However, these prices may not be comparable because some foreign competitors may include other services in their price.

In 1984 DOE embarked on a strategy to regain its lost market share and to maintain a competitive enrichment enterprise. As part of this strategy, DOE halted construction of GCEP after spending about \$2.8 billion and in 1986, through a rulemaking procedure, proposed to revise the criteria under which the enrichment program operates. In addition, DOE wrote off or excused the need to repay GCEP development and certain gaseous diffusion upgrade costs. As a result, DOE believes it only needs to recover about \$3.5 billion of what we estimated to be \$7.8 billion of debt--the debt now totals about \$8.8 billion. However, in the Continuing Appropriations for Fiscal Year 1987, the Congress stated that it reserved the right to later determine how much DOE should return to the Treasury.

DOE URANIUM ENRICHMENT

PROGRAM IS AT A CROSSROADS

The DOE uranium enrichment program is at a crossroads that requires congressional direction. The Congress needs to redefine the program's goals within the current business environment and address some of the problems facing the program, such as

- repayment of the debt to the Treasury, and
- continued funding for the next generation uranium enrichment technology called AVLIS (atomic vapor laser isotope separation).

Let me describe these issues in more detail.

DOE must repay the Treasury for costs previously incurred by the program. The debt has accumulated because DOE has not been able to repay all costs from revenues as required by law. At the end of fiscal year 1986, these costs totalled about \$8.8 billion, up from about \$7.8 billion at the end of the previous fiscal year. Last year DOE proposed to recover only about \$3.5 billion of these costs and has structured its present pricing policy to accomplish this over the next 10 years. We calculate that, if DOE were to recover the \$7.8 billion within the next 10 years, it would have to charge its customers about \$172 per separative work unit compared

with the \$119 base price DOE has established. The per unit cost would be even higher if DOE were to recover the \$8.8 billion.

In addition, DOE has concluded that it can no longer fund AVLIS and did not request funds for this project in its fiscal year 1988 budget. DOE and its predecessor agencies began to develop AVLIS in the early 1970s. Since that time, DOE has spent about \$460 million on this research and had expected to complete the engineering demonstration phase by the mid-1990s at an additional cost of at least \$400 million. In fiscal year 1987, DOE plans to spend \$80 million on the project. DOE officials believed that the development of AVLIS would enhance the enrichment program's long-term financial viability because AVLIS would have had much lower production costs (\$25 to \$40 per separative work unit compared with \$70 at the present time from the gaseous diffusion plants).

Further, the program faces a number of other uncertainties. Perhaps the biggest impediment to DOE's ability to operate the program in a fiscally sound manner is the multi-billion dollar demand charges for electricity that DOE contracted for but has not taken from TVA. Since 1981, the costs for unused TVA power under the existing contracts have increased to a level where, according to DOE documentation, they now constitute the largest single cost for the enrichment program. Through fiscal year 1986, DOE paid about \$1.3 billion for unused power; for fiscal year 1987 DOE estimates that demand charges will be \$510 million--about 42

percent of its total program costs. Through March 1994, when the contract ends, DOE projects it will pay an additional \$3 billion in demand charges to TVA. DOE has attempted to negotiate with TVA to lower these charges but to date has not been successful in doing so.

In addition, domestic uranium miners have taken DOE to court to restrict its enriching foreign uranium. The court has not yet reached a final decision in this case. Further, last year the Congress passed anti-apartheid legislation limiting imports to the United States from South Africa. Some of DOE's foreign customers purchase high-grade, competitively priced South African uranium ore that is enriched by DOE and reexported to the customer. The Treasury Department, which is charged with promulgating regulations under the act, has issued interim guidance that allows such imports and reexports until July 1987. This practice may be disallowed by the final regulations. The court's decision on the miners' suit and Treasury's final regulations could impact DOE's enrichment program.

DOE'S ACTIONS TO REVITALIZE

THE ENTERPRISE

Recognizing the problems facing the program and the need to ensure its continued viability, DOE initiated various actions over the past few years. For example, DOE cancelled GCEP, placed one of

its three gaseous diffusion plants in standby condition, and developed a new, more flexible contract for providing enrichment services. In addition, DOE plans to make capital improvements at the two remaining gaseous diffusion plants that will allow it to use cheaper "off-peak" power in the future.

Further, in 1986 DOE solicited expressions of interest to privatize various aspects of the enrichment program. DOE received 16 responses to the solicitation. Only one contained a proposal to enrich uranium--the American Enrichment Corporation wants to take over the GCEP facilities and equipment. DOE's analysis of this proposal raised a number of questions concerning its feasibility, such as the company's ability to profitably enrich uranium and purchase additional equipment to expand capacity. Nevertheless, according to DOE officials, early in 1987 the Council of Economic Advisors requested DOE to actively negotiate a resolution to this proposal.

In addition, last week DOE sent a proposal to the Congress to restructure the program as a federally chartered corporation. DOE contends that this structure would allow the enterprise to operate in a competitive, business-like manner with clearer objectives, free it from government budgetary and other limitations, and permit flexible pricing and contracts. DOE also believes that this program structure would support national objectives related to nonproliferation, energy independence, and balance of payments.

GAO'S VIEWS

Our preliminary review of DOE's proposal shows that it does not sufficiently address a number of major issues facing the program. These include

- the need to repay the outstanding debt to the Treasury.
The proposal states that the return to the Treasury would depend on the sales price of the government's shares in the corporation when the shares are sold. It does not specify the amount or timing of the debt repayment.
- the ability to continue the development of AVLIS. The proposal states that future technology development would depend on the corporation's need to be competitive in the future.
- the multi-billion dollar TVA demand charges. The proposal states that it is unclear whether the corporation can assume responsibility for the demand charges and expect to be economically viable.

In addition, the proposal raises several other issues but does not discuss how they would be resolved under a corporate structure. These include

- enriched uranium for defense needs. The proposal states that DOE would retain the capacity to enrich uranium for defense purposes but does not specify how DOE would segregate, administer, or operate the defense portion of the Portsmouth plant, which also enriches uranium for commercial customers.

- the Nuclear Regulatory Commission's licensing and regulatory requirements. The proposal states that the corporation may have to resolve these issues but does not discuss the timing or specific actions needed.

- liability coverage. The proposal states that the corporation would be required to obtain Price-Anderson Act liability coverage for an accident. It does not explain that DOE's indemnification authority under this act expires on August 1, 1987. Unless the Congress takes action by that date, DOE may not be able to indemnify the corporation.

In conjunction with considering DOE's proposal, the Congress should be aware that several other actions have been suggested by DOE and others. These actions would not require DOE to restructure the program as a federally chartered corporation. They include: establishing a revolving fund in lieu of the annual appropriations process; negotiating with TVA to reduce or defer the demand

payments; deferring or stretching out repayment of the government debt; funding AVLIS through the engineering demonstration phase; and allowing DOE to operate at more efficient levels and stockpile uranium. The latter action could increase near-term costs, but it could enhance the long-term repayment of the debt.

In summary, we continue to support our prior position that the Congress needs to redefine the program's goals and objectives in light of the uncertainties surrounding the future of nuclear power examine alternatives for full-cost recovery pricing, and determine the amount of debt to be repaid to the Treasury. These issues should be addressed before or in conjunction with the Congress' consideration of DOE's March 31, 1987, proposal. If the Congress enacts legislation supporting DOE's proposal, we believe that a need exists for continued congressional oversight through mechanisms, such as annual reports to the Congress that address management and financial issues and annual oversight hearings. We also suggest that GAO be given complete audit authority of the corporation's records.

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This concludes my testimony. We would be pleased to respond to any questions you or Members of the Subcommittee may have.