



Testimony

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Comments on Proposed Legislation
to Restructure DOE's Uranium
Enrichment Program

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



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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, which was established to promote national energy security goals while recovering the government's costs. My testimony today will focus on H.R.145, H.R.788, and S.210.

Each of the proposed bills would restructure DOE's enrichment program as a government corporation with private financing and would encourage the eventual sale of the corporation to the private sector. In doing so, the bills would, among other things, allow the corporation to set prices to maximize long-term returns; establish a fund to meet the costs of decontamination, decommissioning, and other environmental cleanup costs associated with uranium enrichment activities¹; transfer interest in DOE's new atomic vapor laser isotope separation (AVLIS) process to the new corporation; and, except for H.R.145, require the government to pay its share of the costs to clean up mill tailings (mining wastes) generated under government contracts.

In summary, we have long supported restructuring the program as a government corporation. We believe each of these bills goes a long way toward (1) establishing clear objectives for the enrichment program, (2) allowing it to operate in a more

¹At the end of their useful lives, radioactively contaminated facilities must be decontaminated and decommissioned to ensure that they do not cause environmental damage.

businesslike manner in a competitive market, and (3) addressing longstanding problems. In particular, we support the establishment of a decontamination and decommissioning fund to pay cleanup costs at the enrichment plants. To date, no funds have been set aside to meet these costs which could total billions of dollars. We also support transferring AVLIS to the government corporation when it is formed. This would require the new corporation to (1) reimburse DOE for any further research and development and (2) convince private investors, rather than the Congress, to invest in an AVLIS plant. We are also pleased that two of the bills would allow the government to pay for the cost of cleaning up mill tailings (mining waste) associated with government contracts at sites not covered by existing legislation.

In addition, we have two other observations we would like to highlight at this time.

-- We believe that any restructuring legislation should include a specific goal to recover some of the government's \$11 billion in past unrecovered costs. We believe this goal should be set at about \$3 billion and repaid according to a schedule proposed by the corporation and approved by the Congress. However, we also suggest that the Congress provide certain flexibility to the corporation as it attempts to meet this goal, so that the corporation can remain competitive if substantial investments are needed in

new technology, environmental costs continue to increase, or foreign competition continues to cut market share.

-- The proposed legislation envisions the eventual privatization of the government corporation. Although, we think privatization is an admirable legislative goal, there are several difficult hurdles to be overcome before the corporation can be sold. For example, difficulties in obtaining licenses from the Nuclear Regulatory Commission (NRC) and the possibility of billions of dollars in liabilities associated with cleanup of the plants would have to be resolved.

Before I discuss these issues in detail, I will briefly describe DOE's enrichment program and the proposed legislation.

OVERVIEW OF THE URANIUM ENRICHMENT PROGRAM

Using the gaseous diffusion process the federal government has enriched uranium for defense purposes and commercial nuclear power plants for over 30 years at three plants located in Oak Ridge, Tennessee; Portsmouth, Ohio; and Paducah, Kentucky. Throughout the 1970s, the anticipated growth of nuclear power led DOE to expand the production capacity at these three plants and begin constructing a new enrichment plant at Portsmouth that would use a different production technology--gas centrifuge. However, the

anticipated demand for enriched uranium did not materialize, and foreign enrichment suppliers cut into DOE's domestic and foreign markets. In 1985, DOE shut down the Oak Ridge plant and halted construction of the gas centrifuge plant after spending about \$3.5 billion on the program and concluding that the AVLIS technology presented better competitive opportunities.

By 1986, DOE's uranium enrichment program was beset by many problems that left it facing a bleak financial future. Although DOE has taken steps to address these problems, such as improving the efficiency of the operating plants, the program today still faces multibillion-dollar environmental and decommissioning costs and increasing foreign competition.

PRINCIPAL FEATURES OF
THE PROPOSED LEGISLATION

H.R.145, H.R.778, and S.210, would, among other things,

- restructure DOE's uranium enrichment program as a government corporation and allow the corporation to set prices to maximize long-term returns;
- require the corporation to issue capital stock to the United States and require the corporation to pay dividends on this stock unless there is an "overriding" need to

retain earnings for corporate functions, such as research and development;

-- require the corporation to report to the President within a set period of time on the possible sale of the corporation to the private sector;

-- authorize the corporation to borrow up to \$2.5 billion from the private sector by issuing bonds that would not be guaranteed by the government;

-- transfer interest in the AVLIS technology to the corporation;

-- establish a fund to meet the costs of decontaminating, decommissioning, and remedial actions at enrichment plants; and

-- require the corporation to seek licenses from NRC for the existing plants and any new enrichment facilities.

GAO'S VIEWS ON THE
PROPOSED LEGISLATION

We would like to discuss our views on several key issues embodied in the bills: the appropriate organizational structure of the program; past unrecovered costs; the feasibility of selling the

corporation to the private sector; future costs for decontamination, decommissioning, and environmental cleanup; AVLIS; and the cleanup of mill tailing sites.

Future Structure of the Enrichment Program

DOE believes that the enrichment program should be restructured as a government corporation. Over the last several years, we have also recommended this restructuring. At present, DOE is hampered by governmental processes that do not allow it to act quickly in a competitive market. Further, DOE's ability to set flexible prices is limited by current law. We believe that a government corporation could respond more quickly and flexibly to events in today's enrichment market. For example, a corporation could be more flexible in establishing prices to stimulate demand among utilities, particularly those that have not renewed their DOE contracts because they are waiting to see where the program is headed.

Past Unrecovered Costs

Although the Atomic Energy Act requires the recovery of all of the government's costs, total costs of the uranium enrichment program have not been recovered through revenues. However, we recognize that the existing program cannot expect to generate revenues sufficient to repay past unrecovered costs which we

calculate to total about \$11 billion at the end of fiscal year 1990. Because full cost recovery is not feasible--the annual interest expense alone is almost \$1 billion--we have encouraged the Congress to allow DOE to write off past costs associated with unproductive program assets, such as the abandoned gas centrifuge facilities. This action, although requiring a change in existing legislation, follows generally accepted accounting principles. In 1984 and 1985, DOE wrote off unproductive assets (without statutory authority), which left unrecovered costs at that time of about \$3.4 billion. Since that time, DOE has repaid about \$400 million to the Treasury and is now pricing its uranium enrichment services to recover about \$3 billion over the next 12 years.

Each of the proposed bills would sanction DOE's earlier write-off and eliminate all or most of the remaining unrecovered costs. (S.210 and H.R.145 would require the new corporation to repay \$364 million plus interest on the unpaid balance.) The new corporation would pay unspecified dividends on stock issued to the Treasury and if the corporation is sold to the private sector, the Treasury would receive the proceeds. However, DOE's latest projections show that the corporation could generate over \$3 billion in gross income by the year 2000 and over \$8 billion by 2008. Although these projections do not consider investment in an AVLIS plant (perhaps \$1 billion or more), dividends to be paid on the corporation's stock owned by the government, or possible large cleanup costs, they indicate that DOE believes the current production facilities

still have considerable earning power. Nevertheless, we also recognize that the corporation will probably face increasing environmental costs and growing competition.

Therefore, we believe that the Congress should set a cost recovery goal of \$3 billion to be repaid according to a schedule proposed by the corporation and approved by the Congress. This amount represents unrecovered costs after the costs of unproductive assets, such as the gas centrifuge program, are written off. It is also the amount that DOE is currently pricing to recover. However, the legislation's objective to create a competitive corporation should take precedence over the cost recovery goal. Therefore, we also suggest that the Congress provide certain flexibility to the corporation in meeting the cost recovery goal so that the corporation will remain competitive if substantial investments are needed in new technology (AVLIS), environmental costs continue to increase, or foreign competition continues to cut into the program's market share. Under such circumstances, the Congress should allow the corporation to postpone repaying past costs and/or suspend interest payments associated with the costs. We also suggest that any dividends paid to the government by the corporation be applied to the cost recovery goal.

Feasibility of Privatization

We have several observations about the prospects for privatization. Let me mention just a few:

- Licensing: Within a specified time frame, the corporation will have to apply for an NRC license for its operating facilities. Before the enrichment corporation could be sold to the private sector, it would have to obtain a license from NRC for each of its operating plants. Unforeseen licensing problems may exist since the existing production facilities are 30 to 40 years old.

- Environmental cleanup and decommissioning costs: These costs, which are discussed in more detail below, are largely undefined but could total billions of dollars. These costs would inhibit future private investment unless the government's liability is clearly established. Further, DOE has not completely identified or characterized the waste sites at enrichment plants, and past experience indicates that these costs increase as more information becomes available. Inflation, too, could significantly increase these costs.

- Increasing competition: An oversupply of enrichment capacity exists worldwide, which will make the lucrative

U.S. market a "battleground" for international suppliers as DOE's existing contracts expire in the mid-1990s. In particular, DOE estimates that the Soviet Union has excess capacity of up to 9 million separative work units (a measure of the effort required to enrich uranium). The Soviet Union has recently dominated the enrichment market by selling its product for about 50 percent less than DOE's price. This excess capacity, coupled with domestic utilities' ability to purchase enriched uranium from the suppliers providing the lowest price upon termination of their DOE contracts, leads DOE to expect that the Soviet Union will become more active in the U.S. market. Finally, a for-profit consortium of three domestic utilities; URENCO (a European producer); and Fluor-Daniel, Inc. (a U.S. firm) plans to build an enrichment plant in Louisiana, using the more cost-effective gas centrifuge technology.

Decommissioning and Environmental Cleanup Costs

As stated above, the costs of environmental cleanup and decommissioning will discourage the privatization of the corporation. They could also threaten the survival of the enterprise. These costs are largely undefined but could total billions of dollars. DOE estimated in 1988 that decommissioning costs for the three plants could total \$3 billion. Further, DOE has not completely identified or characterized the waste sites at

the enrichment plants and past experience indicates that the costs of cleaning up these sites increase as more information becomes available. In addition, inflation could significantly increase these costs.

We have long said the decommissioning costs should be paid by the beneficiaries of the services provided, in this case, DOE's commercial and governmental customers. However, DOE has not set aside any revenues for future cleanup costs. We also believe that the legislation should (1) fairly assign cleanup costs between the government and the commercial program and (2) ensure that adequate payments are made annually to avoid a future financial shortfall. Unfortunately, cleanup activities and related costs are largely undefined. Therefore, we support the language in S.210 and H.R.145 that would assign to the government the cleanup costs clearly associated with highly enriched uranium production, and allocate remaining costs on the basis of the ratio of past government and commercial production at each facility.

AVLIS

Each of the proposed bills would immediately transfer responsibility for AVLIS to the new corporation. Further, the administration's recently proposed 1992 budget anticipates that a new government enrichment corporation and/or the private sector, not DOE, will build the AVLIS plant. Therefore, the budget

requests funds for completing the demonstration of the AVLIS technology but does not contemplate funding program activities, such as site selection, that must be completed before a plant can be built.

We support transferring AVLIS to a government corporation. This would require the new corporation to (1) reimburse DOE for any further research and development, and (2) convince private financiers, instead of the Congress, to invest in an AVLIS plant. This would reduce the government's risk and help ensure that the decision to build an AVLIS plant is based on commercial concerns. We also believe that until a new corporation is formed DOE should work on completing its ongoing AVLIS demonstration to (1) develop important technical and cost information and (2) keep future options for building an AVLIS plant open. However, the Congress should recognize that DOE may not be able to address all technical issues or obtain needed market and cost analyses by the end of 1992. Also, the new government corporation if formed, would have to complete certain program activities, such as selecting a plant site and obtaining an NRC license review, before building a plant.

U.S. Uranium Industry

Two of the bills, H.R.788 and S.210, would establish a program to help pay for cleaning up uranium process waste or mill tailings resulting from government contracts at sites not covered by

existing legislation. The proposed bills would require the Secretary of Energy to reimburse responsible parties up to a certain dollar limit for the cleanup costs associated with the uranium sold to the government. Since 1979, we have said that the government should pay its share of the cleanup costs associated with the production of uranium under these contracts.²

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In conclusion, we believe that each of the bills takes needed steps toward establishing clear objectives for the enrichment program and would allow the new corporation to better operate as a business entity. Each of the bills would also help resolve several long-term issues that, in our view, challenge the program's future, including the need to pay billions of dollars for environmental cleanup and decommissioning while competition is expected to increase. We have also pointed out several specific observations on the proposed legislation. In particular, we believe the proposed bills would be strengthened by including a \$3 billion cost recovery goal, rather than relying solely on unspecified dividends and/or uncertain stock sales that may not materialize unless problems related to licensing uncertainties, increased competition, and billions of dollars in liabilities are adequately resolved.

²Cleaning Up Commingled Uranium Mill Tailings: Is Federal Assistance Necessary? (EMD-79-29, Feb. 5, 1979).

We appreciate the opportunity to submit our views on the proposed bills and would be pleased to answer any follow-on questions that the Subcommittee may have.