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

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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to present our views on S.210, H.R.145, H.R.788, and Representative Sharp's proposal. Each addresses the future of the Department of Energy's (DOE) uranium enrichment program--a program that was established to promote national energy security goals while recovering the government's costs.

Each of the proposed bills and Representative Sharp's proposal 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 and Representative Sharp's proposal would, among other things, allow the corporation to set prices to maximize long-term returns, establish a fund to meet decontamination and decommissioning costs associated with DOE's uranium enrichment activities,[1] transfer interest in DOE's new atomic vapor laser isotope separation (AVLIS) process to the new corporation, and, except for H.R.145, authorize the government to pay a share of the costs to clean up mill tailings (mining wastes) generated under government contracts.

In summary, we have long supported restructuring the enrichment program as a government corporation. We believe that

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

each of the bills and Representative Sharp's proposal goes a long way toward (1) establishing clear objectives for the enrichment program, (2) allowing it to operate in a more 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. We note that Representative Sharp's proposal would require the largest annual payment into the fund ($500 million indexed to inflation). Our initial work for two House subcommittees[2] indicates that such a payment would probably cover all cleanup costs, but that smaller amounts, especially if they were not indexed to inflation, would probably fall short of meeting expected costs that could total $21 billion in 1992 dollars.

We also support making the AVLIS technology available to the new government corporation and requiring the new corporation to (1) reimburse DOE for any further AVLIS research and development conducted after the date of enactment and (2) seek financing from private investors, rather than the Congress, to invest in an AVLIS plant. We are also pleased that two of the bills (H.R.788 and S.210) and Representative Sharp's proposal would authorize the government to pay for the cost of cleaning up mill tailings (mining

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[2]The Subcommittee on Energy and Power, House Committee on Energy and Commerce, and the Subcommittee on Environment, Energy and Natural Resources, House Committee on Governmental Operations.

waste) associated with operations performed under government contracts at sites not covered by existing legislation.

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

-- We believe that any restructuring legislation should include a specific goal to recover some of the estimated $11 billion in past costs that the government has not recovered. The new corporation cannot recover all of these costs through revenues and still remain competitive. Therefore, we believe a recovery goal should be set at about $3 billion and repaid by the corporation according to a schedule proposed by the corporation and approved by the Congress. We also suggest that the Congress provide some 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 into U.S. markets.

-- The three bills and Representative Sharp's proposal envision the privatization of the government corporation. Although, we think privatization is an admirable legislative goal, under the introduced bills there are several statutorily imposed difficulties 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. Representative Sharp's proposal would not require an NRC license for the existing plants. The plants would remain the property of the government and be leased to the new corporation as needed. However, this proposal leaves important questions regarding the government's and the corporation's liability unresolved.

Before I discuss these issues in detail, I will briefly describe DOE's enrichment program and each of the legislative proposals.

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 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 pointed to 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, uncertain demand, 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;

-- transfer to the corporation the existing physical assets and contract rights pertaining to DOE's uranium enrichment program and require the corporation to issue capital stock to the United States;

-- require the corporation to pay dividends on the stock unless there was 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 ownership of the AVLIS technology to the corporation;

-- establish a fund to meet the costs of decontaminating and decommissioning the enrichment plants; and

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

Representative Sharp's proposal would also establish a new government corporation. However, Representative Sharp's proposal differs somewhat from the three bills in that no stock would be issued to the government and the new corporation would lease the

existing plants rather than assume ownership of them. As a consequence, no NRC license would be required for the existing plants. Also, Representative Sharp's proposal would provide for the immediate privatization of the new corporation once it had sold stock worth more than $364 million to the private sector. Furthermore, the proposal would establish a decontamination and decommissioning fund that would receive the rent paid for the plants and the royalties paid to the government for the use of the AVLIS technology. Any shortfalls in the required $500-million-per-year fund payment (to be adjusted annually for inflation) would be made up through a fee assessed on DOE's commercial enrichment customers.

GAO'S VIEWS ON THE PROPOSED LEGISLATION

We would like to discuss our views on several key issues embodied in the three bills and in Representative Sharp's proposal: 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

Over the last several years, we have recommended that the enrichment program be restructured as a government corporation. At present, DOE is hampered by governmental processes that do not allow it to act quickly in a competitive market. Furthermore, DOE's ability to set flexible prices is limited by current law. While the ability to minimize the government's future financial risk depends on the social structure of the corporation and other factors, 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 be expected to generate revenues sufficient to repay past unrecovered costs, which totaled about $11 billion (including imputed interest on the government's investment) 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, leaving 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 introduced bills (S.210, H.R.145, and H.R.788) 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's stock was sold to the private sector, the Treasury would receive the proceeds. Under Representative Sharp's proposal, no stock would be issued to the government, but the government would receive rental income and royalties paid on the AVLIS technology from the corporation. This money would then be deposited in a cleanup fund for the existing plants.

Because DOE's projections of future income indicate that its current production facilities still have considerable earning power, 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 plant, have been written off. It is also the amount that DOE is currently pricing to recover. However, we are aware that some would view any "write-off" of past costs as a benefit to the past customers of DOE's uranium enrichment program.

We have stated in past testimony that the objective to create a competitive corporation may on occasion have to take precedence over the cost recovery goal. Therefore, we suggest that the Congress provide some 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), if environmental costs continue to increase, or if demand falls as 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 associated with the costs while still retaining the overall cost recovery goal.

Feasibility of Privatization

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

-- Licensing: The three bills would require the corporation to apply for an NRC license for its operating facilities within a specified time frame. 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 problems may hinder licensing, since the existing production facilities are 30 to 40 years old. Representative Sharp's proposal would eliminate this problem by having the government retain ownership of the plants and lease them to the new corporation. DOE would have to certify that the plants met design and safety specifications and that the corporation was complying with DOE's standard for operations.

-- Environmental cleanup and decommissioning costs: These costs, which are discussed in more detail below, are estimated to total about $21 billion in 1992 dollars. Corporate liability for these costs would inhibit future private investment.

-- 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 charges. This excess capacity, coupled with the ability of domestic utilities upon termination of their DOE contracts to purchase enriched uranium from those suppliers providing the lowest price, leads DOE to expect that the Soviet Union will become more active in the U.S. market. Finally, a for-profit consortium consisting 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 gas centrifuge technology, which is more cost-effective than the method used in DOE's plants.

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. As of April 1991, DOE estimated these costs to be about $3 billion. DOE is currently preparing a report on future cleanup costs, which it originally promised the Congress by October 1, 1991. Reports prepared by DOE contractors indicate that cleanup costs are likely to reach about $21 billion. However, DOE has not yet 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 that 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 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. In the past, we have supported 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 would allocate remaining costs in accordance with the ratio of past government and commercial production at each facility. We are currently examining alternative funding arrangements under a joint request from two other House subcommittees. Initial work under that request indicates that an annual $500-million fund payment indexed to inflation would probably cover all such estimated costs, but that smaller amounts, especially if they were not indexed to inflation, would be likely to fall short of meeting expected costs.

AVLIS

Each of the three bills would immediately transfer responsibility for AVLIS to the new corporation. Representative Sharp's proposal would license the technology rather than transfer ownership. We support making the AVLIS technology available to a government corporation. This would require the new corporation to (1) reimburse DOE for any research and development after the date of enactment, and (2) persuade private financiers, instead of the Congress, to invest in an AVLIS plant. It would also reduce the government's risk and help ensure that the decision to build an AVLIS plant was 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. This may involve completing certain program activities, such as selecting a plant site and initiating an NRC license review.

U.S. Uranium Industry

Two of the bills (H.R.788 and S.210) and Representative Sharp's proposal would establish a program to help pay for cleaning up uranium process waste, or mill tailings, resulting from government contractor operations at sites not covered by existing legislation. Each of the three would also require the Secretary of

Energy to reimburse those parties who will be financially responsible up to a certain dollar limit for the cleanup costs associated with the production of 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.[3]

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In conclusion, we believe that each of the three bills and Representative Sharp's proposal take needed steps toward establishing clear objectives for the enrichment program and would allow the new corporation to operate more efficiently than DOE's current program. Each of the bills and Representative Sharp's proposal 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 at the same time that competition is expected to increase. In addition, we believe that the bills and Representative Sharp's proposal would be strengthened by including a $3 billion cost recovery goal, rather than forgiving all past unrecovered costs or relying solely on unspecified dividends, uncertain stock sales, and/or undefined rent or royalty payments that may not materialize unless problems related to licensing uncertainties, increased

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

competition, and billions of dollars in liabilities are adequately resolved.

We appreciate the opportunity to submit our views on the bills and Representative Sharp's proposal and would be pleased to respond to any follow-on questions that the Subcommittee may have.

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