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STATEMENT OF
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ECONOMIC DEVELOPMENT DIVISION
BEFORE THE
SUBCOMMITTEE ON ENERGY AND THE ENVIRONMENT
HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
ON
THE U.S. URANIUM ENRICHMENT SERVICES PROGRAM

Mr. Chairman and Members of the Subcommittee:

We appreciate this opportunity to discuss our views concerning several recent initiatives and proposals in the Department of Energy's (DOE's) uranium enrichment program. Our testimony today will be based on our recent work--particularly our December 27, 1984, legal opinion concerning the legality and propriety of actions DOE has taken regarding its new "Utility Services Contract" and of certain accounting modifications made in the way this program accounts for costs. In addition, we will provide information on unrecovered enrichment program costs and our ongoing enrichment work.

Before I discuss these issues, it is important to set in perspective the fundamental problems which have developed in the uranium enrichment program over the last several years. The market environment in which DOE's program must operate today is considerably different from the one existing at the time the full-cost recovery requirement for this program was established.

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The lower prospects for growth in the nuclear power industry coupled with foreign competition and the emergence of a secondary market for enriched uranium have all affected the program. With prices that had been the highest in the world, the program's competitive position was steadily deteriorating.

As indicated in our recent reports and testimony, some of DOE's initiatives to cope with this situation and stem any further deterioration in the program, conflict with the enrichment program's statutory cost recovery requirement. Consequently, over the last few years, we have suggested that the executive branch and the Congress reevaluate the fundamental purpose and structure of the U.S. uranium enrichment program. Such a reevaluation would provide the opportunity to consider our nation's objective for serving the domestic and international uranium enrichment markets in light of the current and future costs to both customers and the government. Important issues to be addressed are the continued viability of full cost recovery pricing in a highly competitive international market, and the amount of government investment that should be devoted to new enrichment technology.

Before commenting on our recent work, let me briefly describe the important changes that have occurred in the uranium enrichment market and the impact of these changes on DOE's program.

CHANGES IN THE ENRICHMENT MARKET

In providing enrichment services to its customers, DOE is required under section 161(v) of the Atomic Energy Act of 1954, as

amended, to price such services so that the government's enrichment costs will be recovered over a "reasonable period of time." Ten years was initially established as being a reasonable period and over the years it has been accepted as such by DOE and cognizant congressional committees. This pricing policy is generally referred to as the program's full cost recovery requirement.

Originally, the U.S. held a monopolistic position in the enriched uranium market. However, during the 1970's, the U.S. lost that position due to a number of factors. Beginning in the mid-1970's, competition developed as two European consortiums and the Soviet Union began supplying foreign nuclear facilities with enriched uranium. By 1983, these suppliers had captured about 60 percent of the total foreign market. Our prior work in the nuclear nonproliferation area indicated that the early success of these suppliers may be attributed in part to customers' interest in diversifying their sources of supply for enrichment services.

It was also during this period that prospects for the nuclear power industry in this country changed dramatically because of reduced consumer demand for electricity and concern over health and safety issues. As a result, many nuclear plants were delayed and/or cancelled. Also the nuclear programs of other nations generally have not expanded as was once anticipated.

By the late 1970's, utilities, both foreign and domestic, found themselves committed to long-term contracts for enrichment services they no longer needed. According to DOE estimates, a

worldwide surplus of about 39 million separative work units¹ existed by 1984. This, in turn, led to the emergence of a secondary market in which those utilities holding surplus inventories have been willing to sell to other utilities generally at discounted prices.

This changing market environment led to a steady deterioration of the U.S. uranium enrichment program. In our January 26, 1984 report² on the impact of the secondary market on DOE's enrichment program, we said that since 1979 DOE had lost about \$5 billion in enrichment sales. We also said that if the thencurrent price discounts continued to be offered on the secondary market through fiscal year 1988, DOE could lose an additional \$3 billion in sales.

In order to help curtail the continuing deterioration of its market share, in 1984 DOE introduced a new strategy for the uranium enrichment program. As part of this strategy on January 18, 1984, DOE offered the utility services contract to its existing and prospective customers and introduced two accounting modifications for pricing purposes to reduce program costs. I would now like to discuss DOE's utility services contract.

The capacity of plants used for producing enrichment uranium is defined in terms of separative work units. Such units measure the amount of effort expended to separate a given amount of natural uranium into two components—one having a higher concentration of fissionable uranium—235.

²Lost DOE Sales to the Secondary Enriched Uranium Market Have Resulted in Reduced Revenues (GAO/RCED-84-76, Jan. 26, 1984).

UTILITY SERVICES CONTRACT

DOE believes that the utility services contract will enable it to strengthen the program's competitive position and stem the deterioration of its market. A key provision of this contract is a guaranteed ceiling price of \$135 per separative work unit. Except for annual adjustments for power costs and inflation, DOE must provide 10 years notice to change the ceiling price. Our recent legal opinion concluded that the actions DOE took in introducing the new contract were not in compliance with statutory principles contained in the Atomic Energy Act of 1954, as amended; the Administrative Procedure Act; and the Department of Energy Organization Act. With respect to procedural matters, the Atomic Energy Act of 1954, as amended, requires DOE to establish written criteria that set forth the terms and conditions under which enrichment services will be provided. The act and its legislative history also require DOE to amend the criteria when changes are made in these terms and conditions, and such changes must lie before the appropriate authorizing congressional committees for a 45-day period while Congress is in session.

DOE stated that the issuance of its utility services contract did not necessitate a criteria change because the provisions of the new contract are of the type specifically envisioned by the criteria. Our December 1984 legal decision, however, cites two instances—termination charges and the type of contract offered—where provisions of the contract conflict with the existing criteria. In addition, we believe the criteria do not

specifically authorize the guaranteed ceiling price included in the contract. We concluded that DOE should have amended its uranium enrichment services criteria to conform to the anticipated provisions of the contract.

DOE has stated that while it did not make a criteria change which would have required them to provide Congress with a 45-day review period, it did give timely notice of its intentions to the appropriate segments of Congress. We believe, however, that DOE preempted meaningful congressional participation as prescribed by statutory procedures because Congress was not in session between December 30, 1983, and January 18, 1984, when copies of the draft and final contract, respectively, were made available. Furthermore, on the same day the congressional committees obtained copies of the final contract, DOE's customers were offered the contract for signature and the ceiling price provision contained in the contract was made effective immediately. DOE's actions precluded congressional evaluation and action in advance of the date the final contract was offered to industry.

Our legal opinion also points out that DOE in issuing the contract should have complied with the Administrative Procedure Act and the Department of Energy Organization Act. These statutes are a means by which affected parties and the public can provide input into the decisionmaking process. In December 1984, a law suit was filed by Western Nuclear and others, in Federal Court, based in part on the plaintiff's complaint that DOE failed to comply with the administrative procedures provided in these

statutes. The ultimate determination as to which elements of the uranium enrichment program and to what extent the procedures prescribed by these two actions apply may have to be decided by a court.

Aside from our legal view, we are concerned that DOE's unilateral actions deprived the Congress and other affected parties (such as uranium mining and milling industries, public interest groups, general public, etc.) from meaningful participation in the decisionmaking process. Important policy issues were involved affecting the operation and financial commitments to the program for many years in the future. Congress, in our view, should have been fully informed about them and involved in determining the policy direction of this program.

Let me now turn to our concerns about DOE's ability to meet its full cost recovery requirement and still offer the \$135 per separative work unit guaranteed ceiling price contained in the contract. In an April 1984³ report to the Chairman, Subcommittee on Energy Conservation and Power, House Committee on Energy and Commerce, we showed that since fiscal year 1980 DOE's costs of providing enrichment services were greater than the ceiling price.

Our report also pointed out that DOE's revenue forecast, which used declining separative work prices, showed a program loss of about \$3.3 billion in 1994, at the end of the 10-year pricing period, and a break even point in 2017. This scenario assumed a

³ Information on DOE's Costing and Pricing of Uranium Enrichment Services (GAO/RCED-84-156, Apr. 25, 1984).

four building gas centrifuge facility using advanced centrifuge machines and two gaseous diffusion plants. Given the magnitude of the loss, we are concerned that DOE's ability to meet the full-cost recovery requirement depends to a large extent on the accuracy of a number of assumptions made. For example, in commenting on our report, DOE stated that if it kept the \$135 per separative work unit price constant for the 10-year pricing period, the program would break even for that 10-year period. However, since DOE has been telling its customers and the Congress that to remain competitive it will continue to lower prices, the scenario showing price reductions leading to the \$3.3 billion loss seems more reflective of what may happen unless DOE finds additional ways to lower costs.

DOE forecasted enrichment costs and demand projections for the 10-year period from fiscal year 1985 to 1994 and derived a price of about \$162 per separative work unit. DOE was able to reduce this \$162 price to the \$135 ceiling price by making two accounting modifications for pricing purposes. We have a number of concerns about these modifications, from both a legal and an accounting perspective, and therefore question DOE's reliance on them to keep its costs within the \$135 ceiling price.

ACCOUNTING MODIFICATIONS

DOE has invested approximately \$3.9 billion in its gaseous diffusion facilities. By the end of fiscal year 1983, DOE had depreciated \$1.9 billion, leaving \$2 billion remaining to be depreciated. DOE currently depreciates the diffusion plants using

the straight-line method. This method allocates the depreciation expense equally over the useful life of the plant and equipment. DOE treats this yearly expense as part of its cost for providing enrichment services and, as such, a cost that must be recovered through its enrichment price.

Although DOE plans to continue using the straight-line method to depreciate the enrichment plants, it has reduced the amount of depreciation costs to be recovered through the enrichment price. In fiscal year 1984, DOE wrote-off \$1.2 billion, or 60 percent of the remaining unrecovered government investment in the gaseous diffusion facilities. DOE plans to recover the remaining 40 percent, or about \$800 million, through annual depreciation expense which is part of the cost of providing enrichment services. DOE estimates that this change will lower its enrichment price by \$10 per separative work unit.

DOE's rationale for excluding depreciation costs is that it is only obligated to recover "appropriate" depreciation. Since the plants are currently operating at about 40 percent of capacity and are expected to continue operations at 40 percent during the 10-year pricing period, DOE believes it should include only that portion in its enrichment price.

We disagree with DOE's approach from both a legal and accounting standpoint. In our view such a write-off violates the statutory mandate of the Atomic Energy Act of 1954, as amended, which requires DOE to recover its costs, including depreciation, through prices it charges customers for enrichment services. In

effect, DOE's action constitutes, in our opinion, a subsidization of the enrichment program in contravention of the act and its legislative history. DOE believes that it has correctly interpreted the statutes. From an accounting standpoint, a more accurate method would be to write-off that percent of plant and equipment not being operated to produce the enriched uranium. In 1983, for example, DOE used 74 percent of plant and equipment to produce 40 percent of capacity. A more accurate charge would be to write off 26 percent, or that portion of the plant not being used, instead of 60 percent.

An additional factor that concerns us is the fact that about \$1.5 billion of the \$2 billion in remaining depreciation applies to improvements, recently completed in 1983, made to the gaseous diffusion plants to increase their efficiency and capacity specifically for the benefit of civilian customers. By writing off the \$1.2 billion at this time, DOE is in effect charging the Federal budget for a substantial portion of the improvement programs rather than its customers.

The second pricing modification DOE has made is to revalue the natural uranium feed from its inventory stockpile when calculating its enrichment price. Since 1977, DOE has been valuing this inventory at its average current market price for enrichment pricing purposes. On April 4, 1984, DOE announced that it would revalue its uranium inventory from the average current market price of about \$40 per pound, to its acquisition cost of about \$9 per pound. According to DOE, this change in value, along

with its associated imputed interest enables it to reduce prices by about \$17 per separative work unit.

In DOE's long-term contracts for enrichment services, its customers are obligated to supply the quantity and chemical quality of uranium feed needed for DOE to produce the purchased quantity of enriched uranium. However, DOE can modify its operating procedures to permit, for example, the use of a larger quantity of uranium feed and a smaller amount of electric power. Since electricity is relatively expensive, DOE has decided it would be more cost effective to use more government uranium feed and less electric power.

However, to do this, DOE needs more uranium feed than the customer is contractually obligated to supply. DOE has decided to obtain the needed additional feed from its own stockpile and to value it at its approximate \$9 per pound acquisition cost rather that the approximate \$40 per pound average current market cost. A DOE option would have been to buy uranium on the market, but if it did, it would not be able to reduce the separative work unit price by the amount needed to bring costs down to \$135 per unit.

The Atomic Energy Act of 1954, as amended, governs the valuation of DOE's uranium feed stockpile for purposes of sale. This act requires the selling price or value for uranium feed to (1) provide reasonable compensation to the government and (2) not discourage the development of private sources of supply. However, when DOE uses its stockpile in its own operations to reduce costs, rather than selling it to others, we believe that

DOE is permitted by the act to change the valuation of uranium feed as it has done, as long as the value is not less than its acquisition cost.

With regard to whether DOE's actions have affected the viability of the domestic uranium mining industry, this was not addressed in our legal opinion and is the subject of the same law suit I mentioned earlier. Thus, the courts may ultimately decide this issue.

Finally, although we find that the pricing revaluation is within DOE's authority and discretion, we do not neccesarily agree it is wise. It is currently projected that DOE's stockpile will have to be replaced in the early 1990's. At that time it will likely mean that the cost of replacing the stockpile will be considerably more than \$9 per pound. If this is the case, the price of enrichment services may rise.

GOVERNMENT INVESTMENT

The other matter I would like to mention is the recovery of the outstanding government investment. At the end of fiscal year 1983, the uranium enrichment program had an outstanding government investment, including the \$1.2 billion recently written-off, of about \$6 billion. We noted in our August 1984 report⁴ that if DOE continues its planned construction of new facilities, it will add to the existing \$6 billion to be recovered. Since new

⁴ Information on the Repayment of the Government's Uranium Enrichment Program Costs and Audits of That Program's Financial Statements (GAO/RCED-84-190, Aug. 10, 1984).

investments in plant and equipment would be made faster than they would be recovered through the depreciation charge included in the enrichment services price, recovery of this investment could take quite some time to accomplish. DOE announced in its fiscal year 1986 budget request that it will establish a repayment schedule for the outstanding government investment. We are concerned that, given the financial condition of this program, that it will be difficult for DOE to (1) continue to reduce enrichment prices, (2) introduce new technology that can cost several billion dollars, and (3) still recover the government investment.

CURRENT GAO REVIEWS

I would now like to briefly mention our three current audit efforts.

We have an ongoing review for the Chairman, House Committee on Energy and Commerce, and the Chairman, Subcommittee on Energy Conservation and Power. This review focuses on DOE's plan to choose in May 1985 between two advanced uranium enrichment technologies under development—Atomic Vapor Laser Isotope Separation and Advanced Gas Centrifuge. The objective of our review is (1) to determine the status of the advanced technologies, (2) identify cost and risk associated with the selection, and (3) evaluate the criteria used in DOE's assessment. We plan to brief the committees on our work shortly after the planned May 15, 1985, selection recommendation is made to the Secretary of Energy.

Another review for the same requesters concerns the program's current and projected financial status. Our work will include, among other things, evaluating DOE's demand projections, estimated future revenues, cost reductions planned or implemented for the gaseous diffusion plants, incentive pricing proposals, and plans to repay the government investment. We plan to issue a report to the two Chairmen in late 1985.

Finally, a self-initiated audit of the enrichment program's 1984 financial statements is in process and we plan to report on this audit in July 1985. To date, we have raised questions as to whether some changes are needed in these statements in order for them to be in compliance with generally accepted accounting principles.

In summary, DOE has faced and is facing difficult challenges in the uranium enrichment program. We believe that, given the complexity, cost, and national significance of this program, as well as the many initiatives planned by DOE, there is a need for a broad-based reevaluation of the program by the Congress. Such a reevaluation, in our opinion, needs to include redefining the nation's objectives for the program. This involves addressing such important issues as the continued viability of full-cost recovery pricing in today's highly competitive enrichment market

environment and the related implications of the U.S. efforts to introduce advanced enrichment technologies and retain a substantial share of the world uranium enrichment market.

Mr. Chairman, this concludes my prepared remarks. I will be happy to respond to any questions at this time.