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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548



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FOR RELEASE ON DELIVERY
Expected at
Monday, July 28, 1980

STATEMENT OF
J. DEXTER PEACH, DIRECTOR
ENERGY AND MINERALS DIVISION
BEFORE THE
SUBCOMMITTEE ON ENERGY AND POWER
HOUSE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE
ON THE
[NUCLEAR ISSUES AT THE WESTERN NEW
YORK NUCLEAR SERVICE CENTER]

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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to be here today to discuss our review of certain nuclear issues at the Western New York Nuclear Service Center located at West Valley, New York. We conducted our review at your request and reported to you on June 6, 1980. 1/

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The nuclear issues at West Valley result from the plant's 6 years of reprocessing operations. During these years, Nuclear Fuel Services, Incorporated (NFS), under contract with the State of New York, reprocessed about 640 metric tons of nuclear spent fuel, generating about 600,000 gallons of high-level liquid nuclear waste. This liquid nuclear waste, along with spent fuel, and solid low-level nuclear waste stored in a Nuclear Regulatory Commission (NRC) licensed burial area and a separate State licensed burial area

1/"Status of Efforts to Clean Up the Shut-Down Western New York Nuclear Service Center," (EMD-80-69, June 6, 1980).

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CNG 00827
DLG 01196
CNG 00828
AGC 00024
AGC 00067
AGC 00912

are still being stored at the site. The Center also contains equipment and structures contaminated during reprocessing.

Our June 1980 report, which to a large extent updated issues raised in an earlier March 8, 1977, report 1/, pointed out that:

- NRC believes that the high-level wastes can continue to be safely stored on a temporary basis in liquid form at West Valley. However, nothing is gained by delaying their conversion to a permanent solid form.
- The Department of Energy (DOE) is working on many tasks necessary to convert the highly radioactive liquid waste at West Valley to a permanent solid form. The Environmental Protection Agency (EPA), NRC, and DOE are also working to develop a national waste management plan to provide a basis for dealing with all high-level waste, including West Valley's.
- A permanent solution to the entire site could cost from \$41.6 million up to \$1.1 billion, depending on the cleanup option selected. The cost of the most reasonable option seems to be about \$180 million.
- The Federal Government should rightfully play some role in the site's cleanup, since it encouraged West Valley's development and has the needed technical

1/"Issues Related to the Closing of the Nuclear Fuel Services, Incorporated, Reprocessing Plant at West Valley, New York," (EMD-77-27, March 8, 1977).

and financial resources to deal with its problems. In that context, the most practical solution, in GAO's view, to the West Valley question would involve a cooperative program between the Federal Government and the State of New York designed to deal with the full range of waste management concerns present at West Valley.

--Proposed legislation to make West Valley into a Federal waste demonstration facility has several drawbacks.

I will now turn to a more detailed discussion of each of these points.

HIGH-LEVEL NUCLEAR LIQUID
WASTE CAN BE STORED SAFELY
FOR THE NEXT SEVERAL DECADES

The 600,000 gallons of high-level liquid nuclear waste stored at West Valley cause the most concern. NRC continues to believe that the storage tanks are in good condition and can store the waste over the next several decades without threat to public health and safety. However, NRC officials told us that they are still studying the tanks to provide an even greater assurance of tank safety.

Despite NRC's judgment, solid wastes are safer to store and for this reason a program to convert these wastes to a final solid form should begin now. It will take almost 10 years to solidify the waste, thus covering a long period of

time in which many unforeseen safety problems might arise.

SUPPORT WORK FOR WEST VALLEY WASTE
SOLIDIFICATION IS PROGRESSING

DOE, NRC, and EPA are currently conducting programs to allow wastes at West Valley to be converted to solid form. However, none are completed. DOE programs are designed to characterize the physical and chemical properties of the waste and develop techniques for removing all the waste from the tanks. DOE will spend about \$3 million in fiscal year 1980 conducting studies for West Valley.

Additionally, EPA, NRC, and DOE are developing regulations and technology needed to support a waste management program. Although they are making progress, EPA must still develop generally applicable environmental standards which NRC must meet, and NRC must develop its nuclear waste performance criteria prior to putting waste in a permanent repository. DOE's ability to identify and open a final waste repository is the hurdle most likely to hold up obtaining a final solution to the West Valley high-level waste problem. However, DOE is studying the possibility of putting the waste in an intermediate form at West Valley and shipping it elsewhere for final processing and storage.

COST OF DEALING WITH
WEST VALLEY ISSUES

In a November 1978 study prepared for the Congress, DOE identified several technical options and related costs for

dealing with West Valley. DOE's cost figures range from \$41.6 million to \$1.1 billion. The clean-up option acceptable to most parties is estimated to cost about \$180 million. This option would convert the high-level liquid waste to a solid form and place it in a repository, keep the emptied high-level liquid waste tanks on-site, dismantle the plant and other facilities, and provide extended care for the NRC- and State-licensed burial areas. An extended care program would include monthly inspections and maintenance and quarterly radiological sampling.

SHARED FEDERAL/STATE RESPONSIBILITY
IS THE MOST PRACTICAL CHOICE

Selecting the most practical choice of clean-up options for dealing with West Valley can only be accomplished after New York and the Federal Government reach an agreement on who is responsible for West Valley. They currently hold divergent views on this issue.

In this respect, the State has asked the Federal Government to assume nearly full responsibility for the high-level liquid waste at West Valley. The Congress can respond to the State's request in three broad ways.

- The Congress could choose to provide no Federal assistance, on the grounds that the Federal Government has no contractual responsibility.
- It could characterize West Valley as a remedial action program and provide full Federal, technical, and financial responsibility for the site.

--Finally, the Congress could accept a Federal share in a joint Federal/State program to deal with all the issues at West Valley.

The first option of leaving responsibility for West Valley with the State is possible and not unreasonable. The State has the ability to obtain the necessary technical expertise to resolve the high-level waste problem at West Valley. It also has the primary responsibility for providing solutions for its own low-level waste and spent fuel storage needs.

On the other hand, the second option of full Federal responsibility for West Valley high-level waste appears to us unreasonable. In the context of a remedial action costing about \$180 million, the Federal Government is not the only entity with the needed technical capability. Furthermore, the Federal Government has no contractual responsibility and whether a court would find that it has legal responsibility for West Valley is, at this point, uncertain.

The third option is the one we consider preferable and most practical particularly from the standpoint of dealing with the full range of West Valley's problems. When the entire West Valley facility is viewed from both the national and State points of view, a reasonable basis exists for a Federal/State effort to provide a mutually beneficial solution which could provide for (1) solidifying the high-level

liquid waste and shipping it to a permanent repository, (2) decontaminating and decommissioning the reprocessing facilities, and (3) reopening the spent-fuel storage pool and low-level waste burial area.

We believe the Federal Government should pay part of the cleanup cost for West Valley because it encouraged the initial development of the site, took steps to increase its operating cost through increased safety requirements, and then indefinitely deferred commercial reprocessing through a national policy decision.

For its part, the State could agree to reopen the spent-fuel storage facility at West Valley, if it is found to be technically adequate. New York and the surrounding States have a near-term need for spent-fuel storage. To deal with this need on a national level, DOE has legislation pending before the Congress asking for authority to accept and take title to limited quantities of commercial spent fuel and to build or acquire away-from-reactor storage facilities. DOE pointed out that because it would take 8 years to open new storage facilities, existing facilities at West Valley; Barnwell, South Carolina; and Morris, Illinois should be used. DOE said that these three sites also provide the opportunity for a regional approach to spent-fuel storage.

The State could also agree to reopen the low-level waste burial ground. While New York is one of the largest

generators of low-level waste, neither it nor the entire northeastern quarter of the United States has an operating low-level commercial waste burial site. Only three sites are open to serve the entire country--one each in Washington, Nevada, and South Carolina.

What we are suggesting, Mr. Chairman, is not new. In March 1979, DOE's Acting Deputy Assistant Secretary for Energy Technology, and the Chairman, New York State Energy Research and Development Authority, reached an agreement which addressed each of the three areas. In its comments on our report, however, DOE pointed out that it did not intend, at the time of the agreement or now, for the Federal Government and State to reach a quid-pro-quo agreement for West Valley. Rather, the agreement was intended to be a framework within which solutions for each part of the West Valley problem would be sought.

THE PROPOSED DOE DEMONSTRATION
AT WEST VALLEY

Under a proposed amendment to the fiscal year 1980 DOE authorization bill, DOE would be required to assume nearly full technical and financial responsibility for a waste conversion and disposal demonstration program at West Valley. Because passage of the authorization bill is unlikely, sponsors of the amendment have reintroduced the proposal as a separate bill in each house.

In our view, the proposed project at West Valley should more logically be described as a remedial action program with some demonstration value than as a demonstration project worthy of full Federal support. While dealing with West Valley's high-level liquid waste may help build public confidence that commercial high-level liquid waste can be permanently disposed of, the technical demonstration benefits of this project are limited.

To a large extent, the technology for solidifying high-level liquid waste into glass is already developed. DOE has converted such waste to glass on a laboratory scale at its Savannah River facility and on a larger scale very similar to West Valley at its Pacific Northwest Laboratory facility. At Savannah River, DOE has constructed test equipment it will later use to solidify about 22 million gallons of waste that is virtually identical to the liquid waste at West Valley.

It is important to note also that, according to DOE officials, the Savannah River program was planned independently of West Valley. Having a West Valley scale project as part of the Savannah River program was never intended.

CONCLUSION

In conclusion, Mr. Chairman, although the wastes at West Valley are now safely stored and the facilities are being safely maintained, a more permanent solution must be found to deal with them. Moreover, the contractor's plan to

transfer responsibility for the site to New York by December 31, 1980, gives the need for solutions a high degree of immediacy.

The most important action needed to begin cleaning up West Valley is a decision on who is responsible and who will pay.

As I stated earlier, we concluded from our analysis of all factors that the most practical solution for the issues at West Valley can be achieved through a joint Federal/State arrangement addressing the full range of West Valley concerns.

The arrangement should allow DOE to apply Federal financial and technical resources to clean up the high-level liquid waste and related facilities. While these wastes can probably remain safely stored at West Valley for some time, there is nothing to be gained from delaying converting the liquid waste to a permanent solid form.

The arrangement should also allow DOE and NRC to help the State assess the safety of its low-level waste and spent-fuel storage facilities, and the feasibility of bringing those facilities back into use. DOE, NFS, and NRC told us these facilities can probably be safely reopened. Both facilities could be very useful in solving problems related to the storage of spent-fuel and low-level waste created in New York and other States in close proximity.

The State of New York, DOE, and NFS oppose our proposed solution because they said each issue should be considered

on its own merits. Interestingly, however, whether the issues are considered separately or together, our proposed solution closely resembles the never implemented March 1979 agreement between the Department of Energy and a New York State agency responsible for dealing with the issues at West Valley.

As we noted in our report, Mr. Chairman, the issues involved at West Valley provide an opportunity for an innovative solution with national, regional, and State benefits. Relating Federal assistance for West Valley's high-level waste to the potential availability of spent fuel and low-level waste storage facilities is a practical solution which would help meet both National and local needs. Realistically, the perspectives of all parties concerned with West Valley are complicated by the specter of long-term responsibilities for a contaminated site and by the concerns involved in locating a facility for any type of nuclear waste storage at any particular location. Thus, while our effort was directed at evaluating all the facts and circumstances surrounding West Valley, it is difficult in the final analysis for GAO to factor into its work all the related political considerations that in our system of government Congress must take into consideration in reaching its decision.

Mr. Chairman, this concludes my prepared statement. We will be glad to respond to your question.

MONDAY, JULY 28, 1980

NOTICE OF HEARING:

COMMITTEE : Subcommittee on Energy and Power
House Committee on Interstate and Foreign Commerce

SUBJECT : West Valley Nuclear Waste Disposal

TIME & DATE : 10:00 a.m. July 28, 1980

ROOM : 2123 Rayburn House Office Building

MEMBERSHIP : John D. Dingell (D. Mich.), Chairman

Majority : Representatives Ottinger (N.Y.), Sharp (Ind.),
Moffett (Conn.), Satterfield, III, (Va.), Wirth
(Colo.), Markey (Mass.), Gramm (Tex.), Swift (Wash.),
Shelby (Ala.), Maguire (N.C.), Gore, Jr. (Tenn.),
Leland (Tex.), Staggers (W.Va.)

Minority : Representatives Brown (Ohio), Moorhead (Calif.),
Collins (Tex.), Stockman (Mich.), Corcoran (Ill.),
Leoffler (Tex.), Broyhill (N.C.)

PRINCIPAL STAFF : Michael J. Ward, Counsel
Michael Barrett, Counsel

GAO WITNESS : J. Dexter Peach, Director, Energy and
Minerals Division

ACCOMPANIED BY : James Howard, Associate Director, EMD
Bob Cronin, Management Analyst, EMD

CAR WILL LEAVE G ST., 1ST BASEMENT AT
9:40 a.m.

T. Vincent Griffith
Legislative Attorney
Office of Congressional
Relations