

October 16, 1996

Mr. Thomas Rowland, Director
U. S. Department of Energy, Ohio Field Office
West Valley Demonstration Project
P.O. Box 191
West Valley, New York 14171

SUBJECT: U. S. NUCLEAR REGULATORY COMMISSION MONITORING VISIT
OCTOBER 7-11, 1996

Dear Mr. Rowland:

On October 7-11, 1996, a monitoring visit was made to the Department of Energy (DOE) West Valley Demonstration Project site to review activities of West Valley Nuclear Services Company, Inc. (WVNS) {a Westinghouse subsidiary}, the DOE contractor. Specifically, the purpose of the monitoring visit was to review the status of the contractor's program for the operation of the vitrification facility relative to its impact on public health and safety from a radiological standpoint. The monitoring visit was conducted by Mr. Joseph Furia, Project Engineer - West Valley, of this office. Details of these reviews are provided in Enclosure 1. Individuals contacted during the visit are indicated in Enclosure 2.

As a result of this review, the monitor determined that, in general, the contractor has established and maintained controls, processes, and programs, which appear adequate to protect public health and safety. Through October 11, 1996, the contractor had manufactured 29 canisters of vitrified high-level radioactive waste.

If you have any questions about this report, please contact me at (610) 337-5114.

Sincerely,

John R. White, Chief
Radiation Safety Branch
Division of Reactor Safety

Docket No. 99990081

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Mr. Thomas Rowland

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Enclosures:

1. Review of the Project Status
2. Persons in Attendance

cc w/encls:

P. Piciulo, Program Director, Radioactive Waste Management Program
State of New York

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NAME	JFuria		JWhite						
DATE	10/15/96		10/ /96		10/ /96		10/ /96		10/ /96

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ENCLOSURE 1

REVIEW OF THE PROJECT STATUS

The monitor reviewed documentation, held discussions with cognizant DOE - West Valley Demonstration Project (WVDP) and contractor personnel (WVNS), and observed activities in progress as discussed below.

1.0 PROJECT STATUS OVERVIEW

The contractor presented updated status briefings, and the monitor conducted direct observations and interviews with cognizant contractor and DOE personnel on the following:

Operation of the Vitrification Facility

Transition Engineering

All information provided indicated that the contractor appeared to have an appropriate safety perspective and that public health and safety were being adequately protected.

2.0 OPERATION OF THE VITRIFICATION FACILITY

On July 4, 1996, WVNS commenced pouring of vitrified high-level radioactive waste into canisters. Through the end of this monitoring period, a total of 29 canisters had been completed, 25 of these canisters had been welded and decontaminated and 24 had been successfully transferred to the Chemical Process Cell (CPC) for storage.

At the time of this monitoring visit, ten high level waste transfers from tank 8D-2 had taken place, transferring approximately 1,050,000 curies of high level waste. During this monitoring period, the eleventh transfer was completed. During this transfer, one of the flow element transmitters failed. Although alternative instrumentation was available, WVNS stopped the transfer, replaced the flow transmitter, and then continued with the waste transfer. This example was indicative of project's focus on safety over the production schedule.

WVNS continues to deal with problems of in-leakage to the pan around tank 8D-2, and the failure of the mobilization pump 55-G-003 located in tank 8D-2. Although the ultimate source of the water has still not been positively determined, the pan activity remains below the level that may be transferred over to the lagoon system. WVNS is now preparing to move mobilization pump 55-G-002 from tank 8D-1 into riser M-4 of tank 8D-2 as an effective replacement for the failed pump in riser M-5. This should aid in minimizing the tank heel (i.e. residual tank contents) in tank 8D-2 at the end of the initial vitrification run. This pump transfer is scheduled to occur in mid-November (weather permitting).

The monitor discussed with the WVDP office the status of its enhanced oversight of vitrification operations. Six weeks of this enhanced monitoring had been completed by mid-September, including the first maintenance outage for the vitrification facility which was completed in two and one-half days. The WVDP office concluded that continued enhanced oversight was no longer required as WVNS has demonstrated the ability to safely operate the vitrification facility. Should circumstances change, the WVDP office is

prepared to re-institute the enhanced oversight. The monitor reviewed all of the enhanced oversight surveillance reports and conducted independent reviews of work in the vitrification facility. As a result, the monitor confirmed that WVNS has demonstrated the ability to safely operate the vitrification facility.

A replacement for the CPC Waste Storage Area (WSA) cover was being constructed and staged for installation during this monitoring visit. This thin steel structure is being assembled in four pieces, with the first two completed at the time of this monitoring visit. Removal of the old CPC WSA structure and installation of this new cover is scheduled to be completed before the end of 1996.

3.0 TRANSITION ENGINEERING

With the recent closure of the comment period for the draft Environmental Impact Statement (EIS) on September 22, 1996, the WVDP continues to move forward towards the selection of a preferred method of site closure. WVNS has established a Transition Projects group that has begun examining issues involving the head end cells (HEC) and the tank farm as it relates to high level waste or fuel pieces.

The Transitions Projects group has drawn a number of staff members from the former Vitrification Projects Engineering group, including its manager. The group is organized into four subgroups, which include planning, facility transition, design engineering and field engineering. The two key areas, HEC and waste tank farm have a lead engineer acting as a coordinator for activities. Tank farm activities are centered around reducing the high level waste inventory in the four main waste tank farm tanks (8D-1, 8D-2, 8D-3 and 8D-4) to a level at or below that assumed in the draft EIS. HEC activities are currently less developed, due to limited information on the condition of these cells.

The monitor reviewed with WVNS personnel three video tapes taken in the HEC area, specifically a recent video of the General Process Cell (GPC), a ten year old video of the Process Mechanical Cell (PMC) and a "highlights" video of both cells filmed ten years ago. Although limited in video quality, both cells show extensive debris scattered throughout, and evidence of fuel pieces in some locations. Activities planned in the near term (next two years) in these two cells, together with their associated crane room and the mini-cell located adjacent to the GPC include more extensive video taping, radiological surveys and the repair or replacement of shielded cell windows which have become opaque over time.

ENCLOSURE 2

1.0 Department of Energy - West Valley Demonstration Project

W. Hamel, Operations, Construction & Maintenance Team Leader
W. Hunt, Facility Representative
T. Jackson, Site Wide Programs Team Leader
B. Mazurowski, Deputy Director
R. Provencher, Associate Director for Operations and Support
T. Rowland, Director

2.0 West Valley Nuclear Services, Inc.

S. Barnes, Vitrification Process Engineering Manager
D. Chiquelin, Vitrification Shift Operations Manager
J. Hummel, Quality Assurance Manager
R. Humphrey, Construction and Project Administration Manager
T. Kocalski, Facility Transition Manager
R. Lawrence, Transition Projects Manager
J. Little, Executive Vice President
D. Meess, Manager, Vitrification and IRTS Operations Engineering Manager
W. Poulson, President
D. Shugars, Engineering Manager
P. Vald, Engineer, Facility Transition
P. Valenti, Vitrification Operations Manager

3.0 State of New York

P. Piciulo, Program Director, NYSERDA