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NUCLEAR REGULATORY COMMISSION
REGION I
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September 27, 2004

T. J. Jackson
Acting Director
Department of Energy
West Valley Demonstration Project
10282 Rock Springs Road
P.O. Box 191
West Valley, NY 14171-0191

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION MONITORING VISIT 2004-01

Dear Dr. Jackson:

On July 13-15, 2004, Robert Prince of this office conducted a routine monitoring visit at the Department of Energy's (DOE) West Valley Demonstration Project to review the activities of West Valley Nuclear Services Company (WVNSC), Inc, the DOE contractor at the site. The purpose of the monitoring visit was to review the status of the recently commissioned Remote-Handled Waste Facility, and the contractor program relative to its radiological impact on public health and safety. The results of this monitoring visit were discussed with you and other members of your staff on July 15, 2004. Details of this review are provided in the enclosed report.

As a result of this review, the monitor determined that the contractor had established and maintained controls, processes, and programs adequate to protect public health and safety.

Please contact me at (610) 337-5216 if you have any questions about this report.

Thank you for your cooperation.

Sincerely,

/RA/

Craig Z. Gordon, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure:
Monitoring Report No. 2004-01

cc:
Paul Piciulo, Ph.D., Program Director, NYSERDA
John Spath, NYSERDA
State of New York

T. Jackson
Department of Energy

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DATE	9/27/04		9/27/04			

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**U.S. NUCLEAR REGULATORY COMMISSION
REGION I**

MONITORING REPORT

Monitoring Visit No.: P00M-032/2004001

Project No.: P00M-032

Location: West Valley Demonstration Project
10282 West Spring Road
West Valley, NY 14171-9799

Visit Dates: July 13-15, 2004

Monitor: Robert Prince
Health Physicist

Approved By: Craig Gordon, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

U.S. Department of Energy (DOE)
West Valley Demonstration Project

NRC Monitoring Report No. 04-01

A routine monitoring visit was conducted July 13-15, 2004, to obtain an overview of site operations and project status at the West Valley Demonstration Project. Areas reviewed included site organization, high-level waste projects, decontamination and decommissioning status of the vitrification facility, operational status of the Remote-Handled Waste Facility and waste management. Based on presentations by cognizant DOE and contractor representatives and tours of selected facilities, the NRC determined that the Department of Energy and DOE contractors established and maintained controls, processes, and programs, which appear adequate to protect public health and safety.

REPORT DETAILS

I. Introduction

This report documents the monitoring visit to the West Valley Demonstration Project (WVDP) on July 13-15, 2004. The purpose of the monitoring visit was to provide an overview of the site organization and current status of site activities, with emphasis on those projects and facilities relating to ongoing decontamination and decommissioning activities. West Valley project leads presented summaries of key program areas to the NRC monitor and provided an opportunity to tour the site. DOE and West Valley Nuclear Services (WVNS) personnel presented status briefings on site activities since the last monitoring visit (November 2003) and included the following:

Organization

Status of decontamination and decommissioning activities

Corrective action program

Status and overview of the recently commissioned Remote-Handled Waste Facility

Radioactive Waste Management

II. Project Status Overview

Since completing the high-level waste solidification work the main focus of the project was directed to cleanup activities and closure of the facilities. The vitrification facility represents the major portion of the decontamination and decommissioning work related to DOE activities. DOE and WVNS personnel presented updated status briefings on activities at the site. Brief summaries for the major projects are presented below.

Remote-Handled Waste Facility (RHWF): The RHWF was commissioned on June 3, 2004 and soon thereafter the first radioactive material handling campaign was initiated. This facility was commissioned after completion of testing of the integrated systems and an extensive Operational Readiness Review. In addition, DOE performed a line management assessment from March 17, 2004 to April 26, 2004 to evaluate the adequacy of WVNS's readiness for operating the facility. The RHWF will be utilized for size reduction and packaging of high activity waste materials. As the name implies, the facility design features allow for remote handling, characterization, and packaging activities to be performed in designated loading and handling areas.

Vitrification Dismantlement Project: Decontamination and decommissioning of the vitrification facility continues. Over the last several months work continued in the General Purpose Cell, the Process Mechanical Cell, and Extraction Cell 2. Some of the more significant activities included the removal of the service wall, pre-filter housings, and the canister decontamination station.

North Plateau: The north plateau concentration contours of Sr-90 in groundwater were reviewed by the NRC monitor, including the results depicted on the site contour map, dated January 12, 2004. WVDP continues to treat this groundwater and to assess the ongoing performance of the permeable treatment wall, which was installed as a passive treatment system to reduce Sr-90 groundwater concentrations. For calendar year 2003, DOE performed a

dose assessment calculation based on monitoring results that resulted in a dose to a maximally exposed off-site individual of 0.014 mrem from this exposure pathway.

III. Radioactive Waste Management

The NRC monitor toured the RHWF to observe ongoing operations. The purpose of the facility is to allow personnel to handle, process and package high activity radioactive material for shipment. The facility is equipped with various state-of-the-art equipment and has been designed to minimize personnel exposures. The monitor noted that each manipulator operator control station is equipped with a touch screen computer station that provides data on ventilation flow rates in various areas of the building, area radiation monitor readings, status of continuous airborne monitor readings, and stack exhaust flow rate. Live-time data is monitored so that the operators can react quickly and initiate corrective actions in a timely manner in the event of radiological or operational concerns. Specific design features such as the use of stainless steel on floors and portions of wall areas were incorporated to facilitate decommissioning.

Since the last NRC monitoring visit WVDP continued to ship and dispose of radioactive waste. Through June 2004, 15,000 ft³ of newly generated waste and 25,000 ft³ of inventory waste were shipped to disposal facilities. WVDP has established milestones for the continued shipment of radioactive waste through 2004.

IV. Exit Meeting

The NRC monitor discussed the results of this visit with DOE site management and WVNS management on July 15, 2004. No areas of concern were identified.

PARTIAL LIST OF PERSONS CONTACTED

Department of Energy, Ohio Field Office - West Valley Demonstration Project

T. J. Jackson, Acting Director
Herman Moore, Team Leader, Facility & Waste Disposition Projects
Tom Vero, General Engineer
Bryan Bower, Planning
Ahmad- Al-Daouk, General Engineer
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Chris Eckert, Health Physicist
David Cook, Facility Representative
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