



May 22, 2013

Ms. Barbara Warren  
Executive Director  
Citizens' Environmental Coalition

[REDACTED]

Ms. Joanne Hameister  
Coalition on West Valley Nuclear Wastes

[REDACTED]

Ms. Diane D'Arrigo  
Nuclear Information & Resource Service

[REDACTED]

SUBJECT: Quarterly Public Meeting (QPM) February 27, 2013

REFERENCE: E-mail (360125), B. Warren to M. N. Maloney and L. M. Gordon, "QPM 2/27/13," dated March 19, 2013

Dear Ms. Warren, Ms. Hameister and Ms. D'Arrigo:

The U.S. Department of Energy (DOE) and the New York State Energy Research and Development Authority (NYSEERDA) thank you for your continued interest in the Phase 1 decommissioning work being performed at the West Valley Demonstration Project (WVDP) and the Western New York Nuclear Service Center (WNYNSC) as expressed in your March 19, 2013 e-mail to Moira Maloney and Lee Gordon (Reference). We have prepared responses to your comments and concerns in the format recommended in your e-mail.

### **Public Process Issues**

#### **ISP Review of the Erosion Working Group Recommendations**

DOE and NYSEERDA appreciate your kind remarks regarding the format used during the February 27, 2013 presentation by Lee Gordon. The agencies will continue to strive to use the format as a benchmark for future QPM presentations.

## **HLW Canister Relocation & Storage Project**

The plans for completing this project are being reviewed by the DOE and CH2M HILL B&W West Valley, LLC (CHBWV). DOE has provided updates on the progress of this project at previous QPMs; however, DOE and NYSERDA are open to providing additional updates of the progress of the High-Level Waste (HLW) Canister Relocation & Storage Project at a future QPM.

### **QPM Agenda**

The majority of the planned meeting time for the February 27, 2013 QPM was allocated to discussions associated with the Phase 1 Studies Update and the current status of the demolition of the 01-14 Building. This left a short amount of time for the Project Update portion, where CHBWV provided brief updates on the status of the permeable treatment wall (PTW) and the characterization activities associated with the Characterization Sampling and Analysis Plan (CSAP). CHBWV was in the process of evaluating the PTW performance during the February 27, 2013 QPM. A more detailed update on the PTW can be provided at a future QPM. There was little to report on CSAP activities since the last update that was provided to the public during the November 16, 2012 QPM. The CHBWV update correctly identified that no additional CSAP activities had been completed since November 2012 and that additional CSAP activities will occur once CHBWV has removed additional Balance of Site Facilities (BOSF) from the WVDP.

### **Characterization Sampling and Analysis Plan**

A detailed discussion of the CSAP was provided to the public during the March 24, 2010 Citizen Task Force (CTF) meeting. The CSAP, which is not part of the Phase 1 Study (P1S) process, describes the radiological environmental data collection activities that will specifically support the implementation of the Phase 1 decommissioning actions within the WVDP project premises, which are described in the *"Phase 1 Decommissioning Plan for the West Valley Demonstration Project, Revision 2, December 2010."*

The data collection activities documented in the CSAP will be used to support development of excavation designs, remedial action characterization and post-remediation characterization that will support the soil removal activities associated with Phase 1 decommissioning. The majority of this soil excavation work and its associated CSAP characterization activities will be completed in one or more contracts to be awarded after the completion of the current CHBWV contract.

During the November 16, 2012 QPM, the public was briefed on CSAP characterization and sampling activities that were completed in 2012 at the High-Level Waste Canister Interim Storage Area, two CSAP soil reference areas, and several Balance of Site Facilities (BOSF) that CHBWV had removed from the WVDP. The radiological characterization reports for the High-Level Waste Canister Interim Storage Area and the Balance of Site Facilities were completed in April 2013.

The public was also informed of planned future CSAP characterization activities at several BOSFs during the November 16, 2012 QPM. Additional CSAP sampling activities planned for 2013 include characterization of several BOSF removals, including the Cooling Tower, the Old Sewage Treatment

Plant, and the Vitrification Diesel Fuel Building. DOE will provide an update on planned CSAP activities in 2013 during the Project Update portion of an upcoming QPM.

### **North Plateau Permeable Treatment Wall**

The increasing gross beta concentrations in Wells 801, 803, 804, and 8612 downgradient of the PTW (as shown in Figure 4-6 of the WVDP Annual Site Environmental Report [ASER] Calendar Year 2011) were not unexpected; and they reflect the continued northeast migration of the leading edge of the North Plateau Plume, which was severed by the 2010 installation of the PTW as discussed in the 2011 ASER. The placement of the PTW was chosen to not impact the Construction Demolition Debris Landfill (CDDL) immediately north of the PTW. As a result, the PTW did not capture the leading edge of the North Plateau Plume.

The WVDP expects groundwater concentrations downgradient of the PTW to eventually decrease as the plume is diluted by precipitation and by treated groundwater exiting the PTW. As discussed during the QPM, groundwater monitoring from piezometers immediately downgradient of the PTW have shown decreases in Strontium-90 (Sr-90) activity of approximately 75 percent in groundwater exiting the PTW, indicating that the PTW is successfully removing Sr-90. Preliminary analyses of 2012 gross beta concentrations in groundwater from Wells 801, 803, 804, and 8612 suggest that gross beta and associated Sr-90 concentrations are decreasing compared to the 2011 gross beta concentrations.

The report that Bryan Bower referred to at the February 27, 2013 QPM was in the process of being prepared by CHBWV staff and the 75 percent reduction in Sr-90 concentration provided during the project update was a preliminary estimate based on knowledge available at that time. It is DOE policy to not release technical reports and associated data until they have had a complete technical peer review and have been finalized for release. This approach is no different from that followed by other organizations that routinely prepare technical reports and disclose data. The draft report has been completed by CHBWV and has been submitted to DOE for review. If requested, the results can be presented to the public at a future QPM.

### **Public Participation via Web and Phone**

The agencies and CHBWV have upgraded the teleconference capabilities for the QPM and CTF meetings, thus providing enhanced audio quality for those individuals participating remotely.

### **Technical Issues Arising from this Meeting**

#### **Erosion Working Group**

In December 2011, DOE and NYSERDA selected soil erosion as the first Potential Area of Study (PAS) to be evaluated as part of the PIS process and authorized the formation of the Erosion Working Group (EWG) to evaluate the soil erosion PAS. Although the Subject-Matter Experts (SME) comprising the EWG are acknowledged soil erosion experts, they will not be limited to studying gully erosion if their expertise is also applicable for evaluating other PIS PAS, such as the slope stability and slope failure PAS.

## **Work Practices & Air Monitoring**

DOE will provide a discussion of demolition work practices and air and radiological monitoring associated with the 01-14 Building demolition at the May 22, 2013 QPM. DOE and CHBWV are committed to the radiological protection of workers, the public, and the environment from all radiological activities at the WVDP, including the demolition of the 01-14 Building, in accordance with the requirements in DOE Order 458.1, Radiation Protection of the Public and the Environment.

Prior to demolition, CHBWV deactivated and isolated utilities, removed contaminated piping and equipment, foamed/grouted equipment and piping, and applied fixative to contaminated areas of the 01-14 Building. CHBWV is using standard construction equipment and employing radiological work practices in the demolition of the 01-14 Building. A water spray is used during demolition to reduce the potential dispersion of particulate material during demolition. Demolition equipment is surveyed for radiological contamination at the end of the work day and is decontaminated if necessary. Radiation contamination surveys are performed approximately every 30 minutes at several points along the perimeter of the demolition site. To date, all radiation survey results have been within background conditions.

CHBWV monitored personal silica exposure and continuously monitored for total particulate matter (PM) during demolition with a focus on worker exposure limits. However, CHBWV did not monitor for PM10 and PM2.5 specifically. CHBWV also monitors air quality during demolition at 12 air monitoring stations located within and along the perimeter of the 01-14 Building demolition site. These air samples are monitored approximately every 30 minutes during demolition and at the end of each work shift. An additional breathing zone air sampler is located in the cab of the demolition excavators. To date, all air sampling results have been indistinguishable from background conditions.

The WVDP also monitors air quality at its ambient air monitoring network located along the perimeter of the WNYNSC. To date, all results have been within background conditions. DOE cannot provide real time air monitoring results as real time monitoring is not performed at the off-site air monitoring stations at the WNYNSC perimeter.

## **Strontium Plume**

The portion of the strontium plume that is beyond (downgradient of) the PTW is routinely monitored. This monitoring shows Sr-90 concentrations in groundwater near the margins of the North Plateau in Wells 803, 804, and 8612 are below the DOE-STD-1196-2011 derived concentration standard (DCS) of  $1.1E-06$   $\mu\text{Ci/mL}$  for process effluents. As the leading edge of the plume continues to migrate, gross beta and associated Sr-90 concentrations at these well points may increase, however, the portion of the plume downgradient of the PTW is expected to begin to decrease with time as a result of radioactive decay and by dilution from precipitation and mixing with treated groundwater exiting the PTW. DOE will continue to monitor groundwater downgradient of the PTW to evaluate whether conditions within the leading edge of the north plateau plume warrant additional remediation efforts. The groundwater monitoring results from the leading edge of the plume will continue to be reported in the ASER.

Ms. Warren, Ms. Hameister and Ms. D'Arrigo  
Page 5  
May 22, 2013

## **HLW Canister Relocation & Storage Project**

DOE is open to providing an update of the HLW Canister Relocation & Storage Project at a future QPM. The plans for this project are still being developed and will be reviewed by DOE and U.S. Nuclear Regulatory Commission (NRC) personnel in addition to CHBWV and its subcontractors.

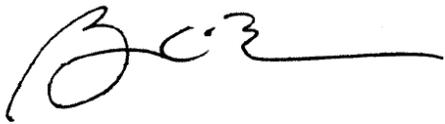
### **Exhumation at the NDA and SDA**

The agencies currently have no plans for exhuming waste at the NRC-Licensed Disposal Area (NDA) or the New York State-Licensed Disposal Area (SDA). DOE and NYSERDA will consider the future decommissioning or long-term stewardship of the NDA and SDA in their Phase 2 decision, which is scheduled to be made within 10 years of the issuance of the DOE Record of Decision (ROD) and the New York State Environmental Quality Review (SEQR) Findings Statement. The Phase 2 decision may or may not include exhumation of waste from the NDA and SDA. The HLW Canister Interim Storage Pad will be located immediately west of the rail spur in the South Plateau area of the WNYNSC. Its location will not impact any potential future activities that may occur at the NDA or SDA. The pad will be sized to accommodate the 57 casks containing the 275 HLW canisters, 2 evacuated canisters, 1 non-routine HLW canister, and 2 spent nuclear fuel debris drums currently stored in the Main Plant Process Building.

### **For Additional Information:**

DOE and NYSERDA value your continued interest in the Phase 1 decommissioning of the WVDP and WNYNSC. Should you have any questions or comments regarding this letter, please contact Moira Maloney at (716) 942-4255 or Lee Gordon at (716) 942-9960, extension 4963.

Sincerely,



Bryan C. Bower, Director  
U.S. Department of Energy  
West Valley Demonstration Project



Paul J. Bembia, Director  
West Valley Site Management Program  
New York State Energy Research & Development  
Authority

cc: J. R. Craig, DOE-EMCBC, Office of the Director  
R. E. Holland, DOE-EMCBC, Office of the Director  
M. N. Maloney, DOE-WVDP, AC-DOE  
Z. Z. Zadins, DOE-WVDP, AC-DOE  
L. M. Gordon, NYSERDA-WVDP, AC-NYS  
A. Zipp, NYSERDA-Albany  
B. Logue, The Logue Group  
C. Glenn, NRC  
P. A. Giardina, USEPA

Ms. Warren, Ms. Hameister and Ms. D'Arrigo  
Page 6  
May 22, 2013

P. W. Concannon, NYSDEC-Region 9  
D. J. O'Hehir, NYSDEC-Region 9  
L. E. Bennett, CHBWV, WV-Adm  
D. Rawal, ECS



File #61806