



Department of Energy
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, NY 14171-9799
December 18, 2009

Dr. Keith I. McConnell, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: Submission of Revision 2 to the Phase 1 Decommissioning Plan (DP) for the West Valley Demonstration Project (WVDP) for U.S. Nuclear Regulatory Commission (NRC) Information

- REFERENCES:**
- 1) Letter MNM:100583 - 450.4, B. C. Bower to K. I. McConnell, "Submission of Revision 1 to the Phase 1 Decommissioning Plan for the West Valley Demonstration Project for U.S. Nuclear Regulatory Commission Review," dated March 16, 2009
 - 2) Letter (100867), K. I. McConnell to B. C. Bower, "Requests for Additional Information on Phase 1 Decommissioning Plan for the West Valley Demonstration Project," dated May 15, 2009
 - 3) Letter MNM:101194 - 450.4, B. C. Bower to K. I. McConnell, "Submission of U.S. Department of Energy (DOE) Responses to Requests for Additional Information (RAI) for the Phase 1 Decommissioning Plan for the West Valley Demonstration Project for U.S. Nuclear Regulatory Commission Review," dated August 13, 2009
 - 4) Letter MNM:101325 - 450.4, B. C. Bower to K. I. McConnell, "Submission of Additional U.S. Department of Energy Responses to Requests for Additional Information for the Phase 1 Decommissioning Plan for the West Valley Demonstration Project from U.S. Nuclear Regulatory Commission Review," dated September 16, 2009
 - 5) Letter MNM:101587 - 450.4, B. C. Bower to K. I. McConnell, "Submission of Updated U.S. Department of Energy (DOE) Responses to Requests for Additional Information (RAIs) for the Phase 1 Decommissioning Plan for the West Valley Demonstration Project for U.S. Nuclear Regulatory Commission Review," dated November 5, 2009

Dear Dr. McConnell:

Enclosed is Revision 2 to the Phase 1 DP for the West Valley Demonstration Project (WVDP) for NRC information. This revision consists of a complete reissue of the plan due to the large number of changes from Revision 1 (Reference 1), which include three new appendices.



This revision is being submitted for information consistent with the provisions of Section 1.13 of the plan. DOE informally consulted with NRC regarding the content of Revision 2 considering that the technical changes in this revision have been provided to NRC with responses to the RAIs, and NRC concurred that submittal for information purposes is appropriate.

Fifteen paper copies of Revision 2 are provided, along with 15 compact disks. Each compact disk contains an electronic copy of Revision 2 along with electronic copies of key references added with Revision 2.

Revision Content

Revision 2 incorporates changes made in response to the 44 RAIs submitted by NRC on May 15, 2009 (Reference 2). DOE identified the specific changes to be made in Revision 2 to the DP in response to these RAIs in three submittals to NRC (References 3, 4, and 5). Revision 2 also includes other clarifying changes, most of which were made in response to comments on the plan submitted by other agencies.

The more significant changes in Revision 2 include the following:

Executive Summary. Provided for optional surface soil remediation during Phase 1 in selected areas and updated derived concentrations guideline levels (DCGLs) and cleanup goals.

Section 1. Expanded the information on Phase 1 studies, changed the period for the Phase 2 decision from 30 years to the possibility that the decision could be made within 10 years from the issuance Record of Decision and Findings Statement documenting the Phase 1 decision, provided for NRC review of certain detailed designs, and added provision for the preparation of a Waste Management Plan.

Section 3. Updated information on groundwater modeling, geologic interpretation, maximum probable flood, historical earthquakes, and other matters.

Section 5. Added information on analyses of alternate conceptual models, on the probabilistic uncertainty analysis, and a multi-source analysis related to subsurface soil DCGLs. Revised DCGLs and cleanup goals based on the results of these analyses.

Section 6. Added information on As Low As Reasonably Achievable (ALARA) good practices and intergenerational concerns.

Section 7. Replaced Figures 7-6 and 7-8, added new figures showing filled deep excavations, and revised the conceptual schedule. Expanded information on mitigative measures. Added information on the DOE presence after completion of Phase 1. Provided for optional surface soil remediation during Phase 1 in selected areas.

Section 9. Added new Section 9.4.4 on applying data quality objectives. Added new tables and other information on scan surveys. Expanded information on in-process surveys. Revised text for consistency with the contents of Characterization Sample and Analysis Plan and the Phase 1 Final Status Survey Plan.

Appendix C. Made changes to reflect minor changes in the deterministic conceptual models.

Appendix D. Added information on hydraulic barrier wall design. Included provisions for providing final designs to NRC for review. Added information on DOE monitoring, maintenance, and security after Phase 1. Incorporated changes in the groundwater model.

Appendix E. Added new appendix on probabilistic uncertainty analysis details.

Appendix F. Added new appendix on details of subsurface piping and the associated residual radioactivity.

Appendix G. Added new appendix on the conceptual framework for the Final Status Survey Plan.

A complete description of the Revision 2 changes appears in the Record of Revisions following the cover page of the DP.

Revision 2 Based on Preferred Alternative

As with Revision 0 and Revision 1, Revision 2 to the DP is based on the preferred alternative in the Revised Draft Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western New York Nuclear Service Center, which is referred to in the plan as the Decommissioning EIS. If changes to that document occur during the course of the National Environmental Policy Act process that affect the DP, such as changes to the preferred alternative, or if a different approach is selected in the Record of Decision, the DP will be revised as necessary to reflect the changes. Please note that many of the comments received during the public comment period for the Revised Draft Decommissioning EIS stated that the 30-year time period for making the decision on the approach to Phase 2 of the decommissioning was too long. Therefore, as the agencies consider the public comments, DOE is evaluating the potential to reduce this time period. In recognition of this potential change, this plan acknowledges that the Phase 1 decision could be made within 10 years from the issuance of the record of Decision and Findings Statement if the Phased Decisionmaking Alternative is selected.

Dr. Keith I. McConnell

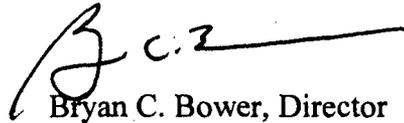
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For Further Information

Please let us know if NRC needs any additional references or other information related to Revision 2 to the plan. Please refer any questions about this submittal to Moira Maloney of my staff at (716) 942-4255.

Sincerely,



Bryan C. Bower, Director
West Valley Demonstration Project

- Enclosures: 1. Revision 2 to the Phase 1 DP for the WVDP (15 copies)
2. Compact Disk (15 copies)

cc: M. A. Gilbertson, DOE-HQ, EM-50, w/o enc.
M. J. Letourneau, DOE-HQ, EM-11, CLOV, w/enc.
J. Moon, DOE-HQ, EM-51, FORS, w/o enc.
M. A. Pearson-Hurley, DOE-HQ, EM-52, FOR, w/o enc.
M. N. Maloney, DOE-WVDP, AC-DOE, w/enc.
L. Camper, NRC, w/o enc.
C. Glenn, NRC, w/o enc.
R. Tadesse, NRC, w/o enc.
P. J. Bembia, NYSERDA, w/enc. (6 copies)

DOE Reading Rooms (w/enc.)

Ashford Office Complex Public Reading Room (West Valley, NY)
Hulbert Library, Springville, NY
U.S. DOE, FOIA Reading Room (DOE-HQ, Room 1E-190)

MNM:101793 - 450.4