

March 23, 2004 DOE-NRC Meeting Summary on the DOE West Valley Demonstration Project Decommissioning Plan

Introduction

On March 23, 2004, the U.S. Nuclear Regulatory Commission (NRC) and U.S. Department of Energy (DOE) staff met to discuss the scope and content of the DOE West Valley Demonstration Project (WVDP) Decommissioning Plan (DP). DOE is decommissioning the WVDP in accordance with the 1980 WVDP Act. In February 2002, NRC issued a Final Policy Statement with decommissioning criteria for the WVDP. Under the authority of the WVDP Act, NRC prescribed the License Termination Rule (LTR) (10 CFR part 20, subpart E) as the decommissioning criteria for the WVDP, reflecting the fact that the applicable decommissioning goal for the entire NRC-licensed site is in compliance with the requirements of the LTR. Therefore, DOE plans to prepare a DP describing how it intends to meet the LTR consistent with the Policy Statement. NRC routinely meets with its licensees early in the DP development process to agree on the scope and content. NRC is applying this same approach to DOE for the WVDP DP. In this meeting, DOE and NRC discussed the applicability of information for DOE's DP based on NRC's Consolidated Decommissioning Guidance in NUREG-1757.

In addition to NRC and DOE staff, attendees included representatives of the New York State Energy Research and Development Authority (NYSERDA), New York State Department of Environmental Conservation (NYSDEC), New York State Department of Health (NYSDOH), West Valley Citizen Task Force (CTF), and Coalition on West Valley Nuclear Wastes. The agenda is included as Attachment 1, the list of attendees is Attachment 2, and presentation slides are included in Attachment 3. The end-product was an annotated checklist identifying information that should be included in DOE's WVDP DP (Attachment 4).

Opening Remarks

In NRC's opening remarks, the staff communicated several points. First, NRC interactions related to DOE's DP are guided by "NRC Guidelines for Future Stakeholder Interactions on West Valley." This guidance, which was transmitted to DOE and other stakeholders in October 2000, provides that meetings related to the WVDP Act will be open to public observation. Second, as licensee for the site, NYSERDA is clearly a stakeholder in this matter and NRC looks forward to NYSERDA's comments in this meeting. Staff added that the views of NYSERDA, and all stakeholders, will continue to be valued through the decommissioning process. Third, staff encouraged DOE and NYSERDA to cooperate in this decommissioning effort by sharing information and views. Fourth, the Appendix D checklist is a general listing of topics. DOE should refer to NRC guidance in NUREG-1757 for a complete explanation of information needs related to specific checklist items. Finally, this was an overview meeting related to site decommissioning. Future meetings will likely address specific decommissioning topics. In DOE's opening remarks, DOE staff (1) reviewed the meeting objectives noted in the agenda; (2) noted that the WVDP DP will address residual contamination for the entire West Valley site; (3) stated its intention to submit the WVDP DP to NRC in September 2004; and (4) proposed future meetings on topics important to DP development.

Discussion

NRC staff initiated the discussion with an overview of the DOE DP review process under the WVDP Act. The staff explained that the decommissioning process for DOE's DP follows the same basic steps used for NRC licensees. In this overview, the staff also outlined opportunities for public participation during the decommissioning process. These opportunities include participation during DOE's development of the DP (10 CFR 20.1403), upon NRC receipt of the DP for review (10 CFR 20.1405), during public meetings related to the DP, and during the review of the draft decommissioning Environmental Impact Statement (EIS) after it is published for public comment. After DOE completes decommissioning and returns control of the project premises to NYSERDA, the public will also have an opportunity to participate in NYSERDA's decommissioning/license termination process.

DOE provided an overview of the regulatory framework for site decommissioning citing key provisions of the WVDP Act, Memorandum of Understanding between DOE and NRC, and NRC's Implementation Plan. DOE staff noted that the development of the WVDP DP will proceed in parallel with the development of the decommissioning EIS. DOE plans to treat the DP as a "living document" and revise it at appropriate points in time. DOE added that the implementation of the DP is over four years away and does not include near-term facility deactivation and waste management activities which are outside the scope of both the DP and the decommissioning EIS. In regard to the applicability of NUREG-1757 guidance, DOE stated that emphasis will be placed on those sections of the guidance that contain information relevant to assessing whether the decommissioning criteria have been met. In DOE's view, those sections include:

- Planned Decommissioning Activities (End State)
- Radiological Status of Facilities
- Dose Modeling
- ALARA Analysis
- Final Status Survey

The next agenda item discussed was proposed actions to be evaluated in the WVDP DP. In this discussion, DOE staff stated that the WVDP DP will provide for a three phased approach to decommissioning. Phase 1 will begin after the issuance of the Record of Decision (ROD) for the decommissioning EIS. Phase 1 decommissioning will result in following facility status:

- Process Building will be deactivated while maintaining its capability to safely store and remove High-Level Waste (HLW) canisters
- Low-level Waste Treatment Facility and lagoons will be decommissioned
- HLW tanks will be closed in place
- NRC Licensed Disposal Area (NDA) will be surrounded by a slurry wall and covered with a geomembrane cap
- Hydrofracture wells will be grouted
- School House will be surveyed and left in place

Phase 2 involves continued storage of HLW canisters until the geologic repository is available for disposal. In Phase 3, the HLW canisters will be removed from the Process Building and shipped to the geologic repository. After the removal of HLW canisters, the Process Building

and remaining support areas will be decommissioned. DOE will complete the Final Status Survey (FSS) to confirm that the LTR criteria are met. DOE's final decommissioning activity involves the turnover of the WVDP premises to NYSERDA.

The last agenda item involved a detailed discussion on the annotated DP checklist. In Attachment 4, checklist items are designated: "A" if applicable, "N" if not applicable, and "?" if applicability was not resolved in the meeting. DOE and NRC generally agreed on the applicability of checklist items. There were many checklist items that both NRC and DOE agreed were not applicable because they dealt with how DOE would conduct decommissioning rather than meeting the LTR criteria (i.e. DOE Radioactive Waste Management, Health and Safety, and Environmental Monitoring Programs). NRC recognizes that DOE conducts their work under DOE regulations and orders. Certain checklist sections required additional discussion. After some discussion, DOE and NRC agreed that (1) information in Section V.b "Unrestricted Release Using Site-specific Information" could be included in Section V.c "Restricted Release Using Site-specific Information;" and (2) information in Section XII "Radioactive Waste Management Program" is not needed except with respect to supporting DOE's ALARA position for restricted release since this information may influence decisions related to removing other waste associated with restricted release.

In some areas, the checklist needed to be supplemented to address additional information for this site. NRC presented an update to the existing checklist for institutional controls resulting from the LTR Analysis in SECY-03-0069 and revisions to NUREG-1757 Vol. 2, for engineered barriers. The risk-informed, graded approach outlined in Attachment 1 of SECY-03-0069 provides an approach that gives a basis for selecting both general types of institutional controls and site-specific restrictions on future access and land use. The checklist was modified to reflect the need to apply this approach. In addition, the staff added a statement to the checklist recognizing that those checklist items related to the entity responsible for institutional controls do not need to be addressed for the West Valley site because the West Valley Policy Statement recognized that either the Federal or State government will ultimately be responsible for institutional controls and that either entity would be acceptable to NRC. Finally, a new checklist item on engineered barriers was added to show the location of the information to be provided consistent with the new guidance in NUREG-1757, Vol. 2, Section 3.5. The staff also noted that DOE should discuss in this section the need for robust engineered barriers, particularly for erosion control, and that the applicability of NUREG-1620 and NUREG-1623 guidance on erosion protection should be considered by DOE for both the caps and drainages on the site that could impact the performance of the capped areas. A new checklist item was also added for Waste Incidental to Reprocessing (WIR).

For some checklist items, issues were tabled for follow-up after the meeting. The specific checklist items requiring follow-up include:

- NRC explained that DOE's application of the LTR to WVDP premises/facilities only is not consistent with the Commission's Policy Statement or the LTR. NRC emphasized that the LTR applies to the entire site and further discussion with DOE is needed on this point.
- In regard to checklist Section IX "Project Management and Organization" and Section XIII "Quality Assurance", NRC committed to get back to DOE on whether or not

applicable items checked should be limited to the Final Status Survey (FSS), or have broader applicability to areas such as engineering data, calculations, and modeling data.

- In discussing “available data” for checklist items, DOE indicated uncertainty as to what data is available for many checklist items. NRC will determine at a later date whether the “available data” supporting DOE’s DP is sufficient.
- NRC emphasized the importance of the public participation process (10 CFR 20.1403) in site decommissioning and asked DOE for its detailed plans for this process.

Public Comment

NYSERDA representatives expressed a number of concerns including:

- Strong objection to participating as an observer in this meeting and desire for more involvement in the decommissioning process.
- Disagreement with the recent NRC letter, which outlined the staff position that DOE’s decommissioning actions occur before NYSERDA’s decommissioning actions.
- Long-term stewardship responsibility.
- North Plateau groundwater plume will not meet the LTR dose limits.
- Need to understand DOE’s plans for public participation.
- Viability of DOE’s decommissioning process and idea of government neutral DP.
- Existing characterization data for HLW tanks are not adequate to support performance assessment.
- Potential disconnect in DP and EIS information if DP submittal is September 2004 and EIS submittal is November 2006.
- Potential orphan transuranic (TRU) waste if the Waste Isolation Pilot Plant (WIPP) is not available for disposal of West Valley wastes.
- What requirements apply to West Valley WIR (DOE orders, or Commission Policy Statement).
- Need for broader public participation beyond CTF to satisfy 10 CFR 20.1403.
- NYSERDA should be involved in the development of the WVDP DP document.
- Need for QA data supporting DOE’s decommissioning process (supporting NRC’s emphasis for high quality data).

Subsequent to the meeting the Coalition on West Valley Nuclear Wastes submitted a letter with a list of comments (Attachment 5) that can also be found in the Agencywide Documents Access and Management System (ADAMS) ML040970357. The comments from the Coalition are listed as an appendix to the letter and are summarized below:

- DOE's presentation to NRC is mostly wishful thinking rather than a serious decommissioning plan. DOE shouldn't waste NRC's time with this.
- For NEPA purposes, DOE cannot segregate "deactivation" and "decommissioning" activities. They must all be part of the same EIS process.
- Is DOE preparing a decommissioning plan under 10 CFR Part 50, and what is the applicability of 50.82(b)(4) indicating that delayed decommissioning may be considered "only when necessary to protect public health and safety."
- Reclassification of high-level waste as "incidental waste" is illegal under the WVDP Act.
- DOE's proposal for the HLW tanks is disposal not decommissioning. Disposal is governed by a different subsection of the WVDP Act.
- Geophysical testing of the hydrofracture test wells (WMA 11) needs to be done before those wells are grouted and closed.
- DOE's proposed decommissioning plan has not addressed provisions of the License Termination Rule (LTR) that must be met for restricted release, such as consideration of the advice of the community and demonstrating that the loss of institutional controls does not produce unacceptably high radiological doses.
- Gradually spreading North Plateau plume of Sr-90 contaminated ground-water is being used as an excuse for major portions of DOE's proposed DP (e.g., DOE claims its not their problem, and NYSERDA's does not have license authority to take remedial action because the license is in abeyance).
- Disagree with idea that DP is "governmental neutral."
- For NYSERDA, the definition of residual radioactivity in 20.1003 will require that the SDA source terms be included in dose calculations.
- DOE intends to rely on "available data," meaning old data, for too many parts of the DP, including surface water hydrology where the most recent stream data is apparently from the 1980s and early 1990s. Given the importance of this type of data to decisionmaking about site release, NRC needs defensible, good-quality data.
- With regard to meteorology and climatology, DOE needs to use the best and most recent studies about the increasing frequency or severe weather events resulting from climate change (or global warming) in the Great Lakes region.

- NRC should not approve a DP that has gaps in it that DOE assumes will be filled in the future by the granting of exemptions to the LTR.
- Unclear how to proceed with 20.1403(e) if dose caps of 100 or 500 mrem cannot be met with the failure of institutional controls.

A NYSDEC representative noted that some of their concerns were covered in the above comments. NYSDEC added that DOE must also consider the Resource Conservation and Recovery Act in decommissioning.

Closing Remarks and Follow-up

NRC and DOE staff agreed that the meeting was useful and productive. DOE proposed that future meetings be scheduled periodically to address specific topics important to the development of the WVDP DP. NRC staff reiterated the point that the decommissioning criteria apply to the entire site rather than some portion of the site. In response to DOE's plans to use "available data" to address some checklist items, NRC staff stated that it would need to see this data to determine its adequacy for the needs of the WVDP DP.

Finally, as a follow-up to this meeting, NRC staff considered whether the focus of Appendix D checklist items in Sections IX "Project Management and Organization" and XIII "Quality Assurance Program" should be limited to the FSS. For Section IX, NRC staff agrees that checklist information should focus on the FSS. For Section XIII, NRC staff believes checklist information should support the FSS as well as engineering data, calculations, and modeling.