The Path to a Phase 2 Decommissioning Decision for the WVDP and WNYNSC

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Phased Decision Making

In 2010, DOE published the Final Environmental Impact Statement and Record of Decision (ROD) for Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project (WVDP) and the Western New York Nuclear Service Center (WNYNSC)

- Phase 1 Decommissioning
  - Phase 1 Facility Disposition
    - Relocate 275 HLW Canisters to new dry cask storage facility
    - Ship legacy Low Level Waste
    - Demolish Vitrification Facility (VF) and Main Plant Process Building (MPRB)
    - Remove ancillary facilities
  - Phase 1 Soil Remediation
    - Remove Below Grade Portion of MPPB (including source area of plume) and VF
    - Remove Lagoons and Liquid Waste Treatment Facility
    - Ship Legacy TRU Waste
    - Remove Remote-Handled Waste Facility and remaining ancillary facilities
    - Remediate all WMA 1 & 2 Soil

- Phase 2 Decommissioning
  - Decisions for:
    - Waste Tank Farm
    - NRC-licensed Disposal Area
    - State-licensed Disposal Area
    - Construction Demolition Debris Landfill

- Final Decommissioning ROD
  - Phase 2 Decommissioning Plan

- Phase 1 Decommissioning ROD
  - Phase 1 Decommissioning Plan
State of New York vs. United States of America, et al., No.06-CV-S10

Provides specific federal and New York State cost allocation for future Remedy Actions for the WVDP and WNYNSC

- In general, the federal government (DOE) will carry out future Remedy Actions at the WVDP/WNYNSC where it bears remedy costs that are 50% or greater (NDA, MPPB, VF, lagoons, North Plateau Groundwater Plume, Waste Tank Farm, contaminated soils, and stream sediments)
- In general, New York State will carry out future Remedy Actions where it bears remedy costs that are greater than 50% (SDA, Cesium Prong, Bulk Storage Warehouse, contaminated soils/stream sediments)

DOE and NYSERDA have agreed to proceed with Phase 2 decommissioning decision making using the NRC’s License Termination Rule criteria as prescribed in the NRC Final Policy Statement to evaluate in an integrated manner all WVDP and WNYNSC facilities, including the:

- High Level Waste Tanks
- NRC-Licensed Disposal Area (NDA)
- State-Licensed Disposal Area (SDA)
- Construction Demolition and Debris Landfill
- Non-Source Area of the Plume
- Creeks
- Cesium Prong
- Contaminated Soils
• DOE and NYSERDA have committed to jointly complete the following activities to reach a Phase 2 Decommissioning Decision by 2020:
  • Phase 1 Studies (P1S) (2011-2018)
  • Probabilistic Performance Assessment (PPA) (2016-2018)
  • Supplemental Environmental Impact Statement (SEIS) (2017-2020)

• The cooperating agencies (NRC, USEPA, NYSDEC, NYSDOH) will:
  • Perform a technical review of these studies
  • Review the draft SEIS Chapters and appendices
  • Perform an independent long-term performance assessment (NRC)

Probabilistic Performance Assessment (2017-2018)

• Develop a probabilistic modeling approach (GoldSim) capable of performing a long-term PPA

• Iterative sensitivity analyses to refine the model, evaluate the nature and magnitude of uncertainty, and determine how uncertainty may be reduced

• Iterative evaluation of potential decommissioning approaches (source term removals, engineered barrier designs) to develop Phase 2 alternatives for analysis in the SEIS

• Perform a long-term PPA to evaluate radiological dose impacts from the Phase 2 closure alternatives analyzed in the SEIS
Supplemental Environmental Impact Statement (2017-2020)

- A joint DOE/NYSERDA SEIS will be prepared to fulfill NEPA/SEQRA requirements and in keeping with the agencies’ commitment to develop an integrated Phase 2 decommissioning decision approach for the WVDP, WNYNSC, and SDA
- DOE, NYSERDA, the PPA contractor, and the SEIS contractor will develop Phase 2 alternatives to be evaluated in the SEIS
- The DSEIS and SEIS will incorporate the long-term PPA
- NRC, EPA, NYSDEC, and NYSDOH are cooperating agencies participating in the development and review of the SEIS
- NRC will review the SEIS and if determined to be acceptable, NRC will adopt the SEIS to fulfill NRC’s NEPA responsibilities under the WVDP Act
- If unacceptable NRC will publish its own SEIS for public review
Phase 2 Decommissioning Plan (DP) Approach (2017-2020):

- Two DPs will be prepared that are consistent with the preferred alternative in the DOE ROD and NYSERDA FS and the cost allocation/responsible parties in the 2010 Consent Decree.

- The DOE DP will address the WVDP Project Premises and soil and streambed contamination within the WNYNSC Retained Premises.
  - NRC would review and analyze DOE's DP against the NRC decommissioning criteria consistent with the WVDP Act and the 1981 DOE/NRC Memorandum of Understanding.

- NYSERDA will prepare a “Proposed DP” to address anticipated license termination for the Cesium Prong, Bulk Storage Warehouse, and soil/streambed sediment contamination outside the WNYNSC. The SDA will also be included to allow a comprehensive view of dose contributions from the entire licensed premises.
  - The NYSERDA “Proposed DP” will not be docketed but would be reviewed by the NRC.
  - After the Part 50 license has been re-instated and if NYSERDA decides to terminate its Part 50 license, a NYSERDA DP will be docketed and formally reviewed by the NRC.

Questions?