

facilities under DOE Order 430.1A). Waste storage and disposal facilities would be closed as RCRA landfill units under applicable state Dangerous Waste Regulations (WAC 173–303). The tanks would be filled with materials to immobilize the residual waste and prevent long-term degradation of the tanks and discourage intruder access. Tank systems (tanks, ancillary equipment, and soils) would be closed in place and would be covered with a modified RCRA barrier (*i.e.*, a barrier with performance characteristics that exceed RCRA requirements for disposal of hazardous waste).

The main difference between this alternative and the other alternatives are (1) completion of some SST closure actions by 2006, completion of all waste treatment by 2024, and closure of all SST systems by 2028 in contrast to Alternatives 2, 3 and 6, which would complete waste treatment in 2028 and SST tank systems closure in 2028; and (2) no remediation of ancillary equipment and contaminated soil, allowing a comparison with the more extensive remediation analyzed under Alternative 3. Another main difference between this alternative and Alternative 3 is the use of a modified RCRA barrier. Treatment and disposal of treated waste would be the same for Alternatives 3 through 5, allowing for a comparison of the impacts associated with deployment of systems to treat and dispose of transuranic waste (Alternatives 3 through 5) to treatment of transuranic waste via the WTP (Alternatives 2 and 6).

6.0 Landfill Closure/Onsite and Offsite Waste Disposal

Storage: DOE would continue current waste management operations using existing storage facilities that would be modified, as needed, to support SST waste retrieval and treatment.

Retrieval: Waste would be retrieved to the Tri-Party Agreement goal (*i.e.*, residual waste would not exceed 360 cubic feet for 100 series tanks or 36 cubic feet for 200 series tanks, which corresponds to retrieval of 99%) using liquid and non-liquid based retrieval and enhanced leak detection systems.

Treatment: Retrieved waste would be treated with the WTP capacity based on enhanced and/or modified performance of operating systems. Supplemental treatment technologies would be used to immobilize LLW. New non-vitrification treatment capacity to immobilize LLW for disposition would be developed external to the WTP. Waste treatment under this alternative would be completed in 2028, and all SST systems would be closed by 2028.

Disposal: ILAW immobilized via the WTP would be disposed of onsite or at offsite commercial or DOE facilities. IHLW would be stored onsite pending disposal at a national geologic repository. LLW immobilized external to the WTP would be disposed of onsite or at offsite commercial or DOE facilities.

Closure: As operations are completed, all tank waste system waste storage, treatment, and disposal facilities at the Hanford Site would be closed (tank farm systems) or decommissioned (waste treatment facilities). The tanks would be filled with materials to immobilize the residual waste and prevent long-term degradation of the tanks and discourage intruder access. Waste storage and disposal facilities would be closed as RCRA landfill units under applicable state Dangerous Waste Regulations (WAC 173–303). Residual waste in tanks, ancillary equipment, and contaminated soils would be remediated in place as needed in accordance with RCRA requirements, and the closed tank systems would be covered with a modified RCRA barrier.

The main difference between this alternative and the other alternatives is that under this alternative there would not be a separate TRU waste stream (Alternatives 3 through 5). As with Alternative 2, waste would be treated in the WTP and subsequently managed as either ILAW or IHLW.

Preliminary Identification of EIS Issues: The following issues have been tentatively identified for analysis in the EIS. The list is presented to facilitate comment on the scope of the EIS; it is not intended to be all-inclusive or to predetermine the potential impacts of any of the alternatives.

- Effects on the public and onsite workers from releases of radiological and nonradiological materials during normal operations and reasonably foreseeable accidents.
- Long-term risks to human populations resulting from waste disposal and residual tank system wastes.
- Effects on air and water quality from normal operations and reasonably foreseeable accidents, including long-term impacts on groundwater.
- Cumulative effects, including impacts from other past, present, and reasonably foreseeable actions at the Hanford Site.
- Effects on endangered species, archaeological/cultural/historical sites, floodplains and wetlands, and priority habitat.
- Effects from onsite and offsite transportation and from reasonably foreseeable transportation accidents.

- Socioeconomic impacts on surrounding communities.
- Disproportionately high and adverse effects on low-income and minority populations (Environmental Justice).
- Unavoidable adverse environmental effects.
- Short-term uses of the environment versus long-term productivity.
- Potential irretrievable and irreversible commitment of resources.
- The consumption of natural resources and energy, including water, natural gas, and electricity.
- Pollution prevention, waste minimization, and potential mitigative measures.

Related NEPA Decisions and Documents: The following lists DOE other NEPA documents that are related to this proposed Hanford Site Tank Retrieval and Closure EIS.

- 45 FR 46155, 1980, “Double-Shell Tanks for Defense High-Level Radioactive Waste Storage, Hanford Site, Richland, Washington; Record of Decision,” **Federal Register**.
- 53 FR 12449, 1988, “Disposal of Hanford Defense High-Level Transuranic, and Tank Wastes, Hanford Site, Richland, Washington; Record of Decision,” **Federal Register**.
- 60 FR 28680, 1995, “Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Program, Part III; Record of Decision,” **Federal Register**.
- 60 FR 54221, 1995, “Final Environmental Impact Statement for the Safe Interim Storage of Hanford Tank Wastes at the Hanford Site, Richland, WA; Record of Decision,” **Federal Register**.
- 60 FR 61687, 1995, “Record of Decision Safe Interim Storage of Hanford Tank Wastes, Hanford Site, Richland, Washington,” **Federal Register**.
- 61 FR 3922, 1996, “Availability of the Final Environmental Impact Statement for Management of Spent Nuclear Fuel from the K Basins at the Hanford Site, Richland, WA; Notice of Availability of Final Environmental Impact Statement,” **Federal Register**.
- 61 FR 10736, 1996, “Management of Spent Nuclear Fuel from the K Basins at the Hanford Site, Richland, WA. ACTION: Notice of Record of Decision,” **Federal Register**.
- 62 FR 8693, 1997, “Record of Decision for the Tank Waste Remediation System, Hanford Site, Richland, Washington,” **Federal Register**.
- DOE/EA–0479, 1990, Collecting Crust Samples from Level Detectors in Tank