

Changes Proposed to Hanford's Tri-Party Agreement



Single-Shell Tank Waste Retrieval Actions, and Associated Leak Detection, Monitoring and Mitigation and Single-Shell Tank Farm Closure Activities

U.S. Department of Energy * U.S. Environmental Protection Agency * Washington State Department of Ecology

Request for Public Comment

We need your review and/or comments on proposed modifications to Tri-Party Agreement milestones, target dates, and associated requirements for initial single-shell tank waste retrieval activities. The proposed changes establish new requirements governing single-shell tank retrieval activities before September 30, 2006, and represent work necessary to begin to achieve compliance with federal and state hazardous waste requirements. These actions focus on the completion of one full-scale demonstration of retrieval technology, the initiation of a second full scale retrieval demonstration, and retrieval of wastes from a follow-on single-shell tank. These actions will remove to safe storage no less than 800 curies of long-lived radioactive contaminants. Out of date and non-enforceable schedules for this time period within the TPA are deleted.

The public comment period for these proposed changes is October 2, 2000, through November 17, 2000. Following public comment, appropriate modifications will be made. All comments will be considered and a response to comments document prepared before final decisions are made. Because these proposed changes to the Tri-Party Agreement are within the existing project schedule and expected funding, public meetings are not currently scheduled. Should substantial public interest indicate a need for meetings, the Tri-Parties will respond accordingly.

Submit comments in writing to:

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Background: The DOE Office of River Protection's mission is to safely store, retrieve, treat, and dispose of Hanford's 53 million gallons of high-level and hazardous waste presently contained in 177 aging underground tanks at Hanford. These tanks are regulated under Washington States Hazardous Waste Management Act. The 149 single-shell tanks (SSTs) do not meet Washington Administrative Code / Resource Conservation and Recovery Act requirements because they do not have adequate leak detection devices and do not have a double wall to contain the waste. The tank waste was produced during World War II and the Cold War to process plutonium.

The proposed modification deletes general and non-enforceable schedules within the current Tri-Party Agreement, and replaces them with specific enforceable requirements. These requirements include technology development and demonstration activities for SST waste retrieval and transfer of waste from the SST system into DOE's double-shell tank (DST) system. These activities are critical to ensure the retrieval of waste from SSTs in a timely and cost-effective manner.

Initial Plan: The Hanford Site single-shell tanks contain approximately 35 million gallons of waste, which must be retrieved from single-shell tanks and transferred to double-shell tanks. In 1994, the Tri-Party Agreement (TPA) was amended to specify that DOE would retrieve waste from single-shell tanks beginning in 2003 and initiate retrieval from 10 single-shell tanks by 2006. Waste would be retrieved from the remaining tanks

by 2018. The TPA did not specify retrieval technologies, however, it did recognize that waste retrieval from aging single-shell tanks posed technical challenges including the potential for loss of waste to the environment. These challenges would require DOE to demonstrate alternative retrieval technologies and develop and test methods to detect, monitor, and mitigate potential leaks during waste retrieval. In 1999, DOE completed interim waste retrieval from tank C-106. This retrieval action resolved a high-heat safety issue and demonstrated the use of "past-practice" sluicing to retrieve waste from a single-shell tank.

The ability to retrieve waste from single-shell tanks is contingent on the availability of double-shell tank space. Initial plans for waste retrieval were based, in part, on the startup of a waste treatment facility that was scheduled for late 2002. Under that scenario, as waste was removed from double-shell tanks for waste immobilization space would become available to support single-shell tank waste retrieval. Unfortunately, the startup date for a waste treatment facility has been delayed until late 2007. This delay constrains the ability to initiate bulk waste retrieval from single-shell tanks (available DST storage space is limited).

Principal Issues: Due to limited DST storage space Ecology and DOE's Office of River Protection have agreed to retrieve waste from fewer SSTs that contain more hazardous long-lived radioactive waste, instead of retrieving waste from 10 relatively empty SSTs. The Tri-Parties' tentative agreement establishes a risk-based strategy and initial actions necessary for DOE to demonstrate alternative single-shell tank waste retrieval technologies. The technologies are suitable to use in suspect or leaking SSTs to minimize the potential for large leak losses to the environment, and to develop performance and cost data necessary for application to future retrieval actions. These initial retrievals also include development and demonstration of leak detection, monitoring, and mitigation methods. In addition to demonstrating waste retrieval technologies, the initial actions will focus on single-shell tanks that pose the greatest risk to the environment and on maximizing available double-shell tank space. These initial actions and the information they provide regarding the capability of a variety of waste retrieval technologies will aid the parties during the negotiation of Tri-Party Agreement commitments and future retrieval actions.

The New Strategy: Key elements of the proposed milestone change include:

- Implement a risk-reduction strategy for SST waste retrieval ("worst tank waste" first)
- Demonstration of single-shell tank waste retrieval and leak detection, monitoring and mitigation technologies.
- Transfer of no less than 800 curies of long-lived, mobile radionuclides into approximately 2 million gallons of DST space for retrieval of S-112 and S-102
- Complete construction for tank C-104 retrieval action which will transfer approximately 23,000 curies of plutonium {approximately 17% of the total plutonium inventory in SSTs} into approximately 800,000 gallons of DST space.
- Update of the tank closure work plans.
- Assessment of options to create more tank space.

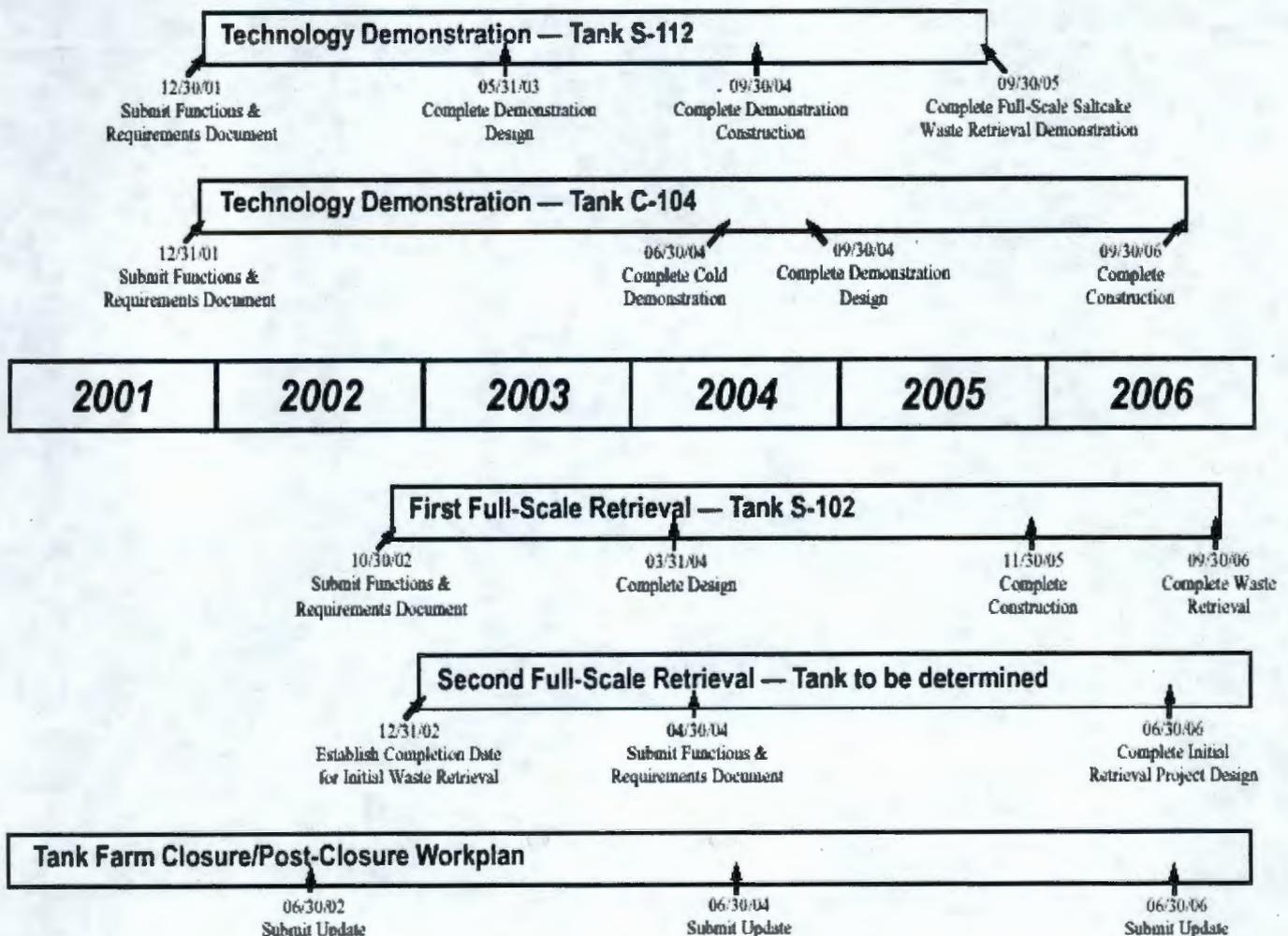
Future negotiations are scheduled in 2004 for SST waste retrieval activities after 2006. Information learned from these retrieval demonstrations will establish any appropriate schedule adjustments. Complete descriptions of the proposed milestones and specific information about the above items are available at Ecology and DOE websites

(<http://www.ecy.wa.gov/programs/nwp/index.html> and www.hanford.gov/orp/index.html) or at any of the Public Information Repository Locations listed below.

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Hanford Cleanup Toll-Free Line: 1-800-321-2008	

For more information, call Suzanne Dahl, Washington State Department of Ecology, (509) 736-5705 or Bob Lober, U.S. Department of Energy-Office of River Protection, (509) 373-7949.

Proposed Milestones for Retrieval Activities



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