

# Proposed Tri-Party Agreement Changes For Mixed Low-Level Waste and Transuranic Mixed Waste

The U.S. Department of Energy (DOE), Washington State Department of Ecology (Ecology) and U.S. Environmental Protection Agency (EPA) - the Tri-Party Agreement (TPA) agencies - recently completed negotiations and are proposing changes to the TPA. These proposed changes affect the schedules for the management of several types of Hanford Site waste (M-091 milestone series). The milestones (cleanup schedules) are for the retrieval, storage, shipment, and treatment/processing of mixed low-level waste (MLLW) and transuranic mixed (TRUM) waste. The TPA agencies want your input on these proposed milestone changes before they are finalized.

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

### The importance of these changes to cleanup

- These proposed changes set a deadline of 2035 to remove all legacy transuranic mixed waste from Hanford. Today there are no requirements or deadlines for removing this waste.
- The changes also delay enforceable milestones for about four years (2012 to 2016) to focus cleanup resources on other Hanford projects during that timeframe.
- When these milestones are completed, workers will have removed the retrievably-stored waste (RSW) from the burial grounds, eliminated the backlog of MLLW and TRUM waste, and shipped the TRUM waste off site.

### **Background**

The Hanford Site, managed by DOE, produced about 60 percent of the United States' plutonium from the mid-1940s to the late-1980s to support national defense. The 586-square-mile site is located in southeastern Washington State. The Central Plateau covers approximately 75 square miles in the middle of the Hanford Site. The legacy waste and contaminated materials from the site's defense mission remain on the Central Plateau in facilities, underground tanks, waste sites, and structures.

The TPA, the legal agreement between DOE, Ecology, and EPA, identifies cleanup actions and schedules, called milestones. The scope of the M-091 milestone series is to complete retrieval and eliminate the backlog of Hanford TRUM and MLLW in storage.

In 2002, about 15,000 cubic meters (equivalent to about 75,000 55-gallon drums) of retrievably stored waste (RSW) were in Hanford's Low Level Burial Grounds.

### PUBLIC COMMENT PERIOD

The Tri-Party Agreement agencies want your feedback on the proposed Tri-Party Agreement milestone changes.

The public comment period will run from May 3 through June 17, 2010

Transuranic (TRU) waste is radioactive waste containing more than 100 nanocuries of alpha-emitting transuranic isotopes, with half-lives greater than 20 years, per gram of waste (alpha particles are given off by the decay of many elements, e.g., uranium, plutonium, and radon). Legacy TRU waste is that waste in storage as of January, 2003.

**Transuranic Mixed (TRUM)** waste is TRU waste that contains both radiological and hazardous (e.g., chemical) components that are subject to RCRA or the Dangerous Waste Regulations.

Low-Level Waste (LLW) is radioactive waste that is not high-level waste, spent nuclear fuel, transuranic waste or byproduct material or naturally occurring radioactive material. LLW can range from very low to very high radionuclide concentrations, but is generally the kind of waste acceptable for shallow-land disposal.

Mixed Low-Level Waste (MLLW) is LLW that contains both radiological and hazardous (e.g., chemical) components that are subject to RCRA or the Dangerous Waste Regulations.

Retrievably-Stored Waste (RSW) is defined as waste that is or was believed to meet the TRU waste criteria when it was placed in burial ground trenches after May 6, 1970. RSW does not include waste in containers that have deteriorated to the point that they cannot be retrieved and stabilized in a manner that would allow them to be transported and designated without posing significant risks to workers, the public or the environment.

Tri-Party Agreement

In 2003, DOE began to remove drums, boxes and cans of debris containing suspect TRUM waste that DOE temporarily buried in Hanford's Central Plateau. This process begins with workers reviewing storage history or process knowledge, uncovering a container, removing it from the ground, and doing non-destructive assay to see if it is MLLW or TRUM waste. If the waste is MLLW, it is treated off-site and sent to the Environmental Restoration Disposal Facility or lined mixed waste trenches. If the waste is TRUM waste, workers prepare it for off-site disposal at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico. Workers have retrieved about two-thirds of the waste from storage so far.

### **TPA Negotiations and Milestones Overview**

Ecology and DOE began negotiations in the fall of 2009 to replace the "to be determined dates" with dates based on Hanford site priorities. During negotiations, they agreed to evaluate changes to the entire M-091 milestone series (cleanup schedules) based on other Hanford site priorities and availability of American Recovery and Reinvestment Act (ARRA) funding,. They propose to realign existing milestones and establish new milestones to ensure continued progress in processing and shipping Hanford waste off site including enforceable milestones



Nuclear chemical operators hired using Recovery Act funds prepare drums to be filled for repackaging at the T Plant Canyon.

for off-site shipment of TRUM waste. Responding to 2009 public comments received on readability, the agencies streamlined the proposed milestones by removing historical text and making embedded requirements stand-alone milestones.

The agencies propose the use of ARRA funding to continue the retrieval of suspect TRUM waste, treatment of MLLW and certification of TRUM waste in Fiscal Years (FY) 2010 and 2011. ARRA funding enabled the agencies to propose near—term (2011) enforceable schedules, including milestones to ship TRUM to WIPP.

With the focus on completion of cleaning up along the Columbia River Corridor and given future funding uncertainty, the agencies propose target dates (not legally-binding) for M-091 work in 2012-2014. The agencies propose enforceable milestones for Fiscal Years 2015 and 2016 as the River Corridor cleanup is completed and funding is available to refocus on MLLW and TRUM retrieval.



Retrievably stored waste removed from trenches awaiting shipment to a treatment/storage/disposal facility.

### The Proposed M-091 Series milestones

The existing M-091 milestones focus on the acquisition and modification of facilities and capabilities to support retrieval, storage, and treatment of wastes. The proposed changes replace existing milestones to establish a comprehensive approach for the safe and stable processing of retrieved and retrievably stored Hanford site wastes. This includes establishing enforceable milestones for the shipment of TRUM waste from the Hanford Site and revising the major milestone definition to focus on completing treatment and off-site shipment of TRUM waste.

### The following table provides a high-level overview of the proposed changes to the M-91milestones.

M-091 Milestone Revisions	
Milestone Title	Milestone Description and Schedule
Acquisition of Capabilities for Retrieval, Storage, and Treatment/Processing TRUM Waste (M-091-01)	Complete the conceptual design for facilities and/or capabilities by September 30, 2016. Complete the definitive design by September 30, 2018. A change package that contains annual construction milestones will be submitted at the completion of definitive design.
Project Management Plan (M-091-03)	The existing milestone to submit an annual revision of the Project Management Plan was modified to address the disposition of "no path forward" wastes that are in storage as of June 30, 2009.
Retrieval and Designation of Control- Handled (CH) RSW (M-091-40)	Annual milestones and target dates are being proposed for retrieval of RSW. This includes enforceable milestones in FYs 2011 and 2015, target dates milestone in FYs 2012, 2013, and 2014, and a completion milestone date of September 30, 2016.
Retrieval and Designation of Remote- Handled (RH) RSW (M-091-41)	Waste, regardless of package size, including the 200 Area caissons (10-foot-tall-boxes buried 14 feet below ground), will be retrieved and designated by December 31, 2018. Non-caisson RH RSW will be retrieved by September 30, 2016.
Treatment of small container CH MLLW (M-091-42)	Waste in above-ground and retrievable storage will be treated to Land Disposal Requirement treatment standards by September 30, 2017.
Treatment of CH large container MLLW and RH MLLW (M-091-43)	The completion date for treatment of MLLW in storage and from retrieval is September 30, 2017.
Certification of CH large container TRUM waste and RH TRUM waste (M- 091-44)	The completion date for treatment of CH large container and RH TRUM waste in storage and from retrieval is September 30, 2035. Three hundred cubic meters (equivalent to about 1,500 55-gallon drums) of large container CH TRUM and/or RH TRUM waste is proposed to be certified each year, 2016 through 2018. By September 30, 2018, a change package with annual milestones to treat or certify and ship the remaining large container CH TRUM and RH TRUM waste by 2035 will be submitted.
Certification and shipment of CH small container TRUM Waste (M-091-46)	Proposed changes include creating annual milestones for treatment/certification of small container TRUM waste. Other proposed changes include adding enforceable milestones to certify TRUM waste in FY 2011, 2015, and 2016 and target milestones in FYs 2012, 2013 and 2014 and complete certification by September 30, 2017. The agencies propose to complete shipment of 1,000 cubic meters of TRUM waste for offsite disposal by September 30, 2011, to complete certification by September 30, 2017, and to complete off-site shipment by September 30, 2018

## How can you become involved?

A 45-day public comment period on the Proposed Tri-Party Agreement Changes for Mixed Low-Level and Transuranic Mixed Waste (Comprehensive Realignment of the M-091 Waste Management Milestones) will run from **May 3 through June 17, 2010**. The TPA agencies would like your feedback on this tentative change package and will consider all comments before finalizing it.

### Please submit comments by June 17, 2010 to:



Paula Call U.S. Department of Energy Richland Operations Office P.O. Box 550, A7-75 Richland. WA 99352

Email: TPACH91@rl.gov

The agencies are considering the need for public meetings.

For more information, contact Hanford Cleanup Line 1-800-321-2008.

The Proposed TPA Change Packages can be viewed on line at http://www.hanford.gov under Hanford Events Calendar.

To access the document, click on More Event Calendar. Select any date during the May 3 to June 17 timeframe.

Click on Public Comment Period for the Proposed Tri-Party Agreement Changes for Mixed Low-Level and Transuranic

Mixed Waste (Comprehensive Realignment of the M-091 Waste Management Milestones)

The proposed changes reflect an extensively rewrite of the milestone language; therefore, the usual practice of showing new text with double-underline, and removed text with strikeout was not used. The draft change package shows only the new text.

For reference, all existing TPA milestones -- including the M-091 series, are located in Appendix D of the TPA Action Plan

The documents are also available for review at the Public Information Repositories listed below.

### HANFORD PUBLIC INFORMATION REPOSITORY LOCATIONS

### Portland

Portland State University Bradford Price and Millar Library 934 SW Harrison Attn: Claudia Weston (503) 725-4542 Map: http://www.pdx.edu/map.html

#### Richland

U.S. Department of Energy Public Reading Room Washington State University, Tri-Cities Consolidated Information Center, Room 101-L 2770 University Drive

Attn: Janice Parthree (509) 372-7443 Map: http://tinyurl.com/2axam2

### Seattle

University of Washington Suzallo Library Government Publications Division Attn: David Maack (206) 543-4664 Map: http://tinyurl.com/m8ebj

### **Spokane**

Gonzaga University Foley Center East 502 Boone Attn: Linda Pierce (509) 323-3834

Map: http://tinyurl.com/2c6bpm

Administrative Record and Public Information Repository: **Address**: 2440 Stevens Center Place, Room 1101, Richland, WA.

**Phone:** 509-376-2530

Web site address: http://www2.hanford.gov/arpir/



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