



Proposed Changes to the Hanford Site High-Level Radioactive Waste Tank Interim Stabilization Program

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

Request For Public Comment

Your review and comment is requested on proposed changes to the U.S. Department of Energy (DOE) High-Level Radioactive Waste Tank Interim Stabilization Program. The proposed changes remove the single-shell-tank interim-stabilization program from the scope of the Tri-Party Agreement and replace it with schedules and associated agreements to be filed as a court enforceable "consent decree." The proposed agreement will accelerate the removal of remaining pumpable liquids from DOE's single-shell high-level radioactive waste storage tanks and ensure that priority is given to removing pumpable liquids which pose the greatest environmental risk first. Under the proposed changes, a court enforceable legal document called a "consent decree" containing new work schedules and associated agreements will take the place of existing work schedules in the TPA. Outdated TPA work schedules will be deleted. Following consideration of public comment the consent decree will be submitted to a federal judge for approval and filing with the court. The court-ordered consent decree will then replace the language in the TPA pertaining to tank interim stabilization.

The Tri-Parties are seeking public comment on these proposed changes from March 3 through May 3, 1999. All public comments will be considered and responded to before final decisions are made. Because these proposed changes are consistent with DOE's current 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.

If you would like to review the proposed modifications and the consent decree, please visit the public information repository nearest you or review the documents at the Tri-Party Agreement homepage: <http://www.hanford.gov>.

To request a copy of the proposed modifications and consent decree, or to submit comments either written or electronically, contact:

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Background

In 1978, DOE initiated interim-stabilization activities at its 149 single-shell tanks located on the Hanford Site Central Plateau in the 200 Area. The purpose of interim stabilization is to remove remaining pumpable liquids in single-shell tanks to reduce the risk of leaks. During interim stabilization, single-shell tank liquids are pumped and transferred to double-shell tanks, which have no history of leakage. To date, 119 of the 149 single-shell tanks have been interim stabilized. One single-shell tank (C-106) is planned as a retrieval demonstration and will not be interim stabilized. Twenty-nine single-shell tanks remain to be interim stabilized and are the subject of these proposed changes.

Sixty-seven (67) of DOE's single-shell tanks have or are suspected to have leaked more than one million gallons of radioactive waste to area soils and groundwater. Of these, 65 have already been interim stabilized or are in process.

Single-shell-tank interim stabilization was included in the Tri-Party Agreement in 1989, and a significant amount of progress has been made in recent years. However, progress has been far from that expected by the agencies. A number of issues have contributed to increasing dissatisfaction and recognition of the need to accelerate the program. These include slow progress in resolving safety issues such as the potential for the presence of flammable gas; the need for safety equipment upgrades; the need for improvements in project management practices; cuts to the interim stabilization budget, and increasing concern over documented groundwater contamination at 8 of DOE's 12 single-shell tank farms.

By mid-1997, it became apparent that the existing TPA schedule for completing interim stabilization of the remaining single-shell tanks would not be met, and that project delays would continue. Changes DOE proposed to near-term Interim Milestones M-41-22 (which required initiating interim stabilization of six additional single-shell tanks by

If you require additional information, call the Hanford Cleanup toll-free line at 1-800-321-2008.

Background (cont.)

September 30, 1997) and M-41-23 (which required initiating interim stabilization of eight single-shell tanks by March 31, 1998) were disapproved by Ecology in February and March 1998, respectively. On June 8, 1998, Governor Gary Locke and Washington State Attorney General Christine Gregoire notified DOE that Washington State intended to file suit against DOE for failing to meet Interim Milestones M-41-22 and M-41-23. Subsequent to this notice, DOE, Ecology,

U. S. Department of Justice and Washington Attorney General's Office staff began discussing the potential for accelerating the program and for filing revised schedules as a consent decree in an attempt to avoid further delay.

Principal Issues

Proposed milestone changes to the Tri-Party Agreement delete uncompleted interim stabilization milestones and targets. In an agreement among the Tri-Parties, a new and aggressive plan governing the pumping of high-level radioactive waste tanks has been developed as a consent decree to be filed with and enforceable by the courts.

One of the highest priorities in the new plan includes pumping tanks that contain complex organic wastes. Such wastes, if released to the environment, could mobilize radioisotopes, causing them to migrate faster through area soils to groundwater beneath the Hanford site. Earlier pumping schedules focused on pumping tanks with the highest volume of liquid waste first. The new plan also changes the order in which the tanks will be pumped, shifting the near-term focus away from some tank farms and towards others. There are also emergency pumping plans in place to turn immediate attention to any tank should it begin to leak.

New Strategy

Washington State and the U.S. Department of Energy have approved a draft consent decree that will establish court-enforceable, technically sound schedules for pumping liquid nuclear waste out of DOE's remaining 29 (unstabilized) single-shell tanks. The agreement comes eight months after the Governor and the state Attorney General threatened to sue DOE for failing to meet its commitment to stabilize the tanks. After negotiations became deadlocked, Secretary of Energy Bill Richardson met with Governor Locke and Attorney General Gregoire in October 1998 to reach agreement on legal provisions of the consent decree. Since then, a joint technical team representing Ecology, DOE, and DOE contractors have developed a schedule that will be included in the decree. In addition, changes are proposed to delete out of date single-shell-tank interim stabilization milestones from the Tri-Party Agreement.

Key elements of the proposed consent decree include:

- Pumping the tanks that pose the greatest environmental risk first, thus providing additional protection for the Columbia River and public health.
- Accelerating the schedule for pumping so that 98 percent of approximately 6.2 million gallons of remaining pumpable liquid is removed by September 30, 2003, with the final two percent scheduled to be removed by September 30, 2004.
- Increasing DOE funding to a level that will support successful execution of the new schedule for tank stabilization.

Historical Note

The U.S. Department of Energy's Richland Operations Office manages the Hanford Site in southeastern Washington State. Hanford was established during World War II as part of the top secret Manhattan Project to produce plutonium for nuclear weapons. Weapons material production was halted in the late 1980s. The Hanford Site is now engaged in the world's largest cleanup effort to deal with the legacy of radioactive and hazardous wastes that resulted from the plutonium production era. Hanford's cleanup program is regulated by the U.S. Environmental Protection Agency and the Washington Department of Ecology under a long term compliance contract called the Tri-Party Agreement. This agreement sets the framework and timelines on the cleanup work so that Hanford meets current environmental standards.

Description of Proposed Consent Decree Schedules for the Completion of Single-Shell Tank Interim Stabilization

Task Number	Description	
	Pumping to be Initiated by:	Projected Pumping Completion Date:
T-104	Already initiated	May 30, 1999
T-110	Already initiated	May 30, 1999
SX-104	Already initiated	December 30, 2000
SX-106	Already initiated	December 30, 2000
S-102	July 30, 1999	March 30, 2001
S-106	July 30, 1999	March 30, 2001
S-103	July 30, 1999	March 30, 2001
U-103	June 15, 2000	April 15, 2002
U-105	June 15, 2000	April 15, 2002
U-102	June 15, 2000	April 15, 2002
U-109	June 15, 2000	April 15, 2002
A-101	October 30, 2000	September 30, 2003
AX-101	October 30, 2000	September 30, 2003
SX-105	March 15, 2001	February 28, 2003
SX-103	March 15, 2001	February 28, 2003
SX-101	March 15, 2001	February 28, 2003
U-106	March 15, 2001	February 28, 2003
BY-106	July 15, 2001	June 30, 2003
BY-105	July 15, 2001	June 30, 2003
U-108	December 30, 2001	August 30, 2003
U-107	December 30, 2001	August 30, 2003
S-111	December 30, 2001	August 30, 2003
SX-102	December 30, 2001	August 30, 2003
U-111	November 30, 2002	September 30, 2003
S-109	November 30, 2002	September 30, 2003
S-112	November 30, 2002	September 30, 2003
S-101	November 30, 2002	September 30, 2003
S-107	November 30, 2002	September 30, 2003

Other Consent Decree Commitments include the Following:

- C-103 No later than December 30, 2000, DOE will determine whether the organic layer and pumpable liquids will be pumped from tank C-103 together or separately, and will establish a deadline for initiating pumping of this tank. The parties will incorporate the initiation deadline into this schedule as provided in Section VI of the decree.

Percentage of Pumpable Liquids Remaining to be Removed:

93% of Total Liquid	September 30, 1999
38% of Organic Complexed Pumpable Liquids	September 30, 2000
5% of Organic Complexed Pumpable Liquids	September 30, 2001
18% of Total Liquid	September 30, 2002
2% of Total Liquid	September 30, 2003

Completion of Interim Stabilization. DOE will complete interim stabilization of all 29 remaining single shell tanks by September 30, 2004.

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Description of Proposed Milestone Change to the Tri-Party Agreement

(The following Tri-Party Agreement milestones will be deleted following public comment and approval of the consent decree by the court)

Milestone Number	Due Date	Description
M-41-00	9/30/00	<p>Complete single-shell tank interim stabilization</p> <p>Complete interim stabilization activities for all single-shell tanks except 241-C-106 (to be retrieved in accordance with milestone M-45-03). Complete intrusion prevention for all single-shell tanks except 241-C-106.</p> <p>This is dependent upon the following assumption:</p> <p>(1) Safety studies will be completed with the objective of allowing pumping in accordance with interim milestones.</p> <p>(2) Work commences in the tank farms on October 1, 1993, for interim stabilization preparations, as required by the milestone schedule. During the stand down in tank farms, schedules for the following interim milestones may be affected: M-41-01, M-41-02, M-41-10, M-41-15, and M-41-16. Every effort will be made to recover the original schedule as specified below.</p> <p>Interim milestones for the start of pumping and target milestones for completion for each group of tanks will be reviewed and affirmed annually with Ecology and EPA. Upon start of pumping, efforts to continue pumping will be continuously supported so that pumping is conducted as expeditiously as practical. If pumping is interrupted to a degree that jeopardizes the target milestone, the Unit (Project) managers shall meet in an effort to agree on a recovery plan. If such an agreement cannot be made at the Unit (Project) Manager level, a formal recovery plan will be prepared and submitted to Ecology and EPA for approval that supports the major milestone date of September 2000, if technically achievable.</p>
M-41-22	9/30/97	Start interim stabilization of six single-shell tanks.
M-41-23	3/31/98	Start interim stabilization of eight single-shell tanks.
M-41-24	9/30/98	Start interim stabilization of nine single-shell tanks.
M-41-25	3/31/99	Start interim stabilization of three single-shell tanks.
M-41-26	9/30/99	Start interim stabilization of two single-shell tanks.
M-41-27	9/30/00	Complete salt well pumping of single-shell tanks.
M-41-27-T03	9/30/98	Complete salt well pumping of five single-shell tanks.
M-41-27-T04	9/30/99	Complete salt well pumping of eight single-shell tanks.
M-41-27-T05	9/30/00	Complete salt well pumping of 16 single-shell tanks.
M-40-07	6/30/95	<p>Commence Operation of a Vapor Treatment System in Tank 241-C-103.</p> <p>Provide a report documenting Operational Test Procedure Results and commence permitted operation of a vapor treatment system for tank 241-C-103, unless otherwise agreed to by the parties following submittal of the Engineering Evaluation of Alternatives (EEA) for treatment of tank 241-C-103 vapor space. The EEA will document the need and options for treatment of potentially hazardous/toxic vapors being discharged from the tank 241-C-103 vapor space. All pertinent characterization data will be considered,</p> <p>including: meteorological, area, source, personnel monitoring, aqueous/organic layer analysis, vapor characterization, estimates of the vapor characterization after removal of the organic layer, and the schedule for this removal. Once selected, design procurement, and permitting will be initiated.</p> <p>Operation of this vapor treatment system is anticipated to provide relief from worker restrictions at Tank 241-C-103 in regard to noxious vapor emissions (provided characterization of other C Farm Tanks does not identify other potential sources of noxious vapors.)</p>

Hanford Public Information Repository Locations

SEATTLE

University of Washington
Suzzallo Library
Government Publications Room
(206) 543-1937 ATTN: Eleanor Chase

SPOKANE

Gonzaga University
Tri-Party Information Repository
Foley Center
East 502 Boone
(509) 323-3839 ATTN: Connie Scappelli

RICHLAND

U.S. Department of Energy Public Reading Room
WSU Consolidated Information Center, Room 101L
2770 University Drive
(509) 372-7443 ATTN: Terri Traub

PORTLAND

Portland State University, Branford Price Millar Library
Tri-Party Information Repository
651 SW Hall , 5th Floor
(503) 725-3690 ATTN: Michael Bowman

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