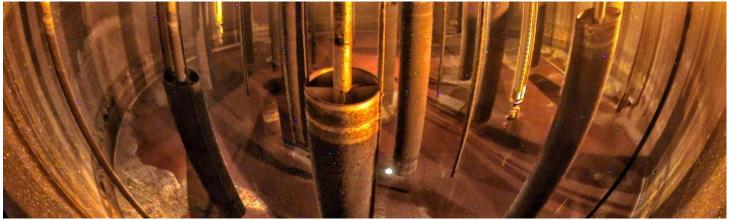


Proposed changes to the Tri-Party Agreement and consent decree on Hanford Site tank waste



Fisheye view of the inside of a tank

- Public comment period May 30 Aug. 2, 2024
- Three regional public meetings in July
- Proposed changes on aspects of tank waste retrieval, treatment, and disposal

Public comment invited

The U.S. Department of Energy (USDOE), Washington State Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA) have signed a settlement agreement and are proposing new and revised cleanup deadlines in the Tri-Party Agreement (TPA) and *Washington v. Energy* consent decree.

This followed mediated negotiations that began in 2020, also known as Holistic Negotiations.

The agencies are holding a 60-day public comment period on the proposed changes to the Tri-Party Agreement and consent decree.

Background

Producing plutonium at the Hanford Site left a legacy of about 56 million gallons of radioactive and chemically hazardous waste stored in 177 underground tanks. USDOE is responsible for the Hanford Site and its cleanup. Ecology and EPA are regulatory agencies overseeing USDOE's cleanup under several key documents including the Tri-Party Agreement (a federal facility compliance agreement), a judicial consent decree and various permits.

For background information on Hanford, visit USDOE's Hanford Site website¹ and Ecology's website².

Highlights of proposed changes

• Maintaining existing time frames for starting treatment of both low-activity and high-level waste by immobilizing it in glass via vitrification.

¹ Hanford.gov

² Ecology.wa.gov/Hanford







- Using a direct-feed approach for immobilizing high-level waste in glass, similar to the Direct-Feed Low-Activity Waste Program.
- Building a waste transfer vault and second effluent management facility to support treating high-level waste.
- Retrieving waste from 22 tanks in Hanford's 200 West Area by 2040, including grouting the low-activity portion of the waste for offsite disposal.
- Designing and constructing 1-million gallons of multi-purpose storage capacity to support tank waste retrievals.
- Evaluating and developing new technologies for retrieving waste from tanks.

Proposed Consent Decree changes

Low-Activity Waste Facility

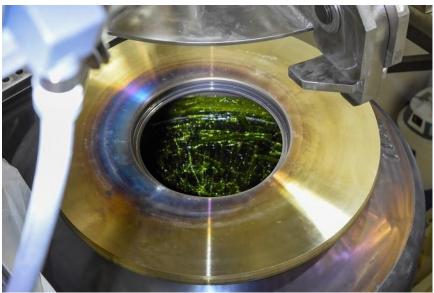
August 2025 low-activity waste vitrification startup milestone unchanged.

High-Level Waste Facility

- Facility will be converted to a direct-feed configuration with the addition of a high-level waste effluent management facility and a waste-transfer vault.
- Current commissioning date (2033) remains the same but may be adjusted after detailed startup schedule is developed.

Pretreatment capabilities

- In 2029, USDOE selects additional pretreatment capabilities to implement after hot commissioning of direct-feed high-level waste.
- Full Waste Treatment and Immobilization Plant startup and initial operations dates will also be revised after high-level waste treatment begins.



Top of a stainless-steel container showing vitrified test glass

Single-shell tank retrievals

- No change to current dates for completing retrieval of waste from five of the remaining single-shell tanks in the A/AX Tank Farms.
- Date for completing retrieval of two other tanks, A-104 and A-105, is extended to allow for development of new retrieval technology. If USDOE determines that retrieving these two tanks is not feasible by the extended deadline, two substitute tanks can be retrieved.



Proposed Tri-Party Agreement changes

End dates

- No change to current dates for retrieving all single-shell tanks (2040), closing the single-shell tank system (2043), and treating all tank waste (2047).
 - However, the agencies acknowledge these dates must be revised (without excusing USDOE from obligation to satisfy milestones as soon as possible).
- Dates will be revised in a "one-time" *Hanford Site River Protection Project System Plan (System Plan)*; these negotiations will occur after high-level waste treatment begins.
 - This negotiation will happen at the same time as the above Consent Decree negotiations.

System Plan negotiations

- Negotiation frequency changed.
- Every three years the agencies will discuss:
 - o Retrieval sequencing for single-shell tanks for the next eight years.
 - Contingency actions, including need for new tank capacity.
- Every six years the agencies will discuss all other System Plan topics.

Single-shell tank retrievals

- Retrieve waste from 22 additional single-shell tanks by 2040.
 - All are in S, SX, and U Tank Farms.
 - This retrieval will occur in the 200 West Area, independent of the Waste Treatment and Immobilization Plant.
 - Low-activity portion of waste will go through pretreatment, followed by alternative treatment (grouting) and be disposed of off-site.
- Tank A-103 retrieval date adjusted from 2022 to 2028.

Alternative treatment

 By the end of 2024, USDOE will select how and where grouting will occur before offsite disposal.



Aerial view of the 200 area of the Hanford Site

- After USDOE apprises Ecology of these selections, additional milestones will be developed to create a critical-path schedule and incorporate these decisions into the Hanford Sitewide Permit.
- Off-site disposal conditions:
 - Grouted waste will be disposed of at facilities outside the state of Washington.
 - o "Just in time" production: USDOE will not treat or store more waste than it can reasonably ship.
- Offsite disposal conditions will remain in place at least through 2040; Ecology and USDOE will meet no later than 2038 to discuss future conditions (if any).







New tank capacity

- One million gallons of new, multi-purpose storage capacity will be ready to operate by 2040.
 - Will be built in the 200 West Area.
 - An analysis of alternatives will be conducted to determine the form for the storage.

Retrieval technology evaluation and development

- USDOE will prepare a technology evaluation document to assess new or refined technologies for retrieval challenges and tank condition issues.
- An expert advisory panel will be tasked with providing analysis and recommendations.
- USDOE will carry forward at least two technologies into development.
- Expert panel will also analyze saltwell pumping for potential use in actively leaking single-shell tanks.

Other proposed changes

- Two new interim milestones to activate cross-site transfer lines.
- New permit modification and construction requirements for the facility that will store containers of immobilized high-level waste until a national storage site is established.
- Interim milestones created for Waste Management Areas Closure, to support closure plan submissions for Waste Management Areas A-AX, B-BX-BY, C, S-SX, T, TX-TY, and U into the Hanford Sitewide Permit.

Reviewing the proposed changes

The TPA agencies invite you to review and comment on these proposed changes. See the last page for comment period dates and information on how to submit comments.

Copies of the settlement agreement, the proposed TPA changes, and the consent decree changes will be available during the public comment period online on Ecology's³ and USDOE's⁴ websites. The documents will also be available electronically at the Hanford Public Information Repositories listed on page 5.

The TPA agencies will consider and respond to comments received during the public comment period and publish those in a response to comments document on the Ecology and USDOE webpages.^{3, 4}

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³ Ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods

⁴ https://www.hanford.gov/pageaction.cfm/calendar



Public meetings

The agencies are holding three hybrid (in-person and virtual) public meetings. You may participate virtually using Microsoft Teams.

July 9, 6 p.m. PT, Richland Public Library, 955 Northgate Drive, Richland, WA 99352.

Join on your computer or mobile app

Click here to join the meeting bit.ly/3K26lal

Or call in (audio only)

- +1 (509) 600-2010 United States, Spokane
- +1 (833) 633-0875 United States (Toll-free)

Phone Conference 982 736 013#

July 10, 6 p.m. PT, DoubleTree Hotel, 415 Capitol Way North, Olympia, WA 98501.

Join on your computer or mobile app

Click here to join the meeting bit.ly/3wDxZHV

Or call in (audio only)

- +1 (509) 600-2010 United States, Spokane
- +1 (833) 633-0875 United States (Toll-free)

Phone Conference 122 171 560#

July 11, 6 p.m. PT, Hood River Hotel, 102 Oak St, Hood River, OR 97031.

Join on your computer or mobile app

Click here to join the meeting bit.ly/3K27mQ4

Or call in (audio only)

- +1 (509) 600-2010 United States, Spokane
- +1 (833) 633-0875 United States (Toll-free)

Phone Conference 595 516 379#

Presentations for the public meetings will be posted prior to each meeting and recordings will be added after.



Workers installing waste transfer line

Hanford's Information Repositories

You can find the Hanford Information Repositories, information on other comment periods, or ways to get involved, at ecology.wa.gov/Hanford and click "Public comment periods" on the left bar or visit Hanford.gov "public involvement opportunities".

Nuclear Waste Program 3100 Port of Benton Blvd Richland WA 99354

Proposed Changes to the Tri-Party Agreement and Consent Decree Public comment period

May 30 - Aug. 2, 2024

Electronic submission (preferred): https://tinyurl.com/TPA-CD-Changes

Public hearings are scheduled on: July 9, 10 and 11

To mail or hand-deliver comments:

Daina McFadden (509) 372-7950 3100 Port of Benton Blvd. Richland, WA 99354 Hanford@ecy.wa.gov







Questions?

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USDOE's Jennifer Colborn at Jennifer.Colborn@rl.doe.gov

EPA's Beth Clemons at Clemons.Beth@epa.gov