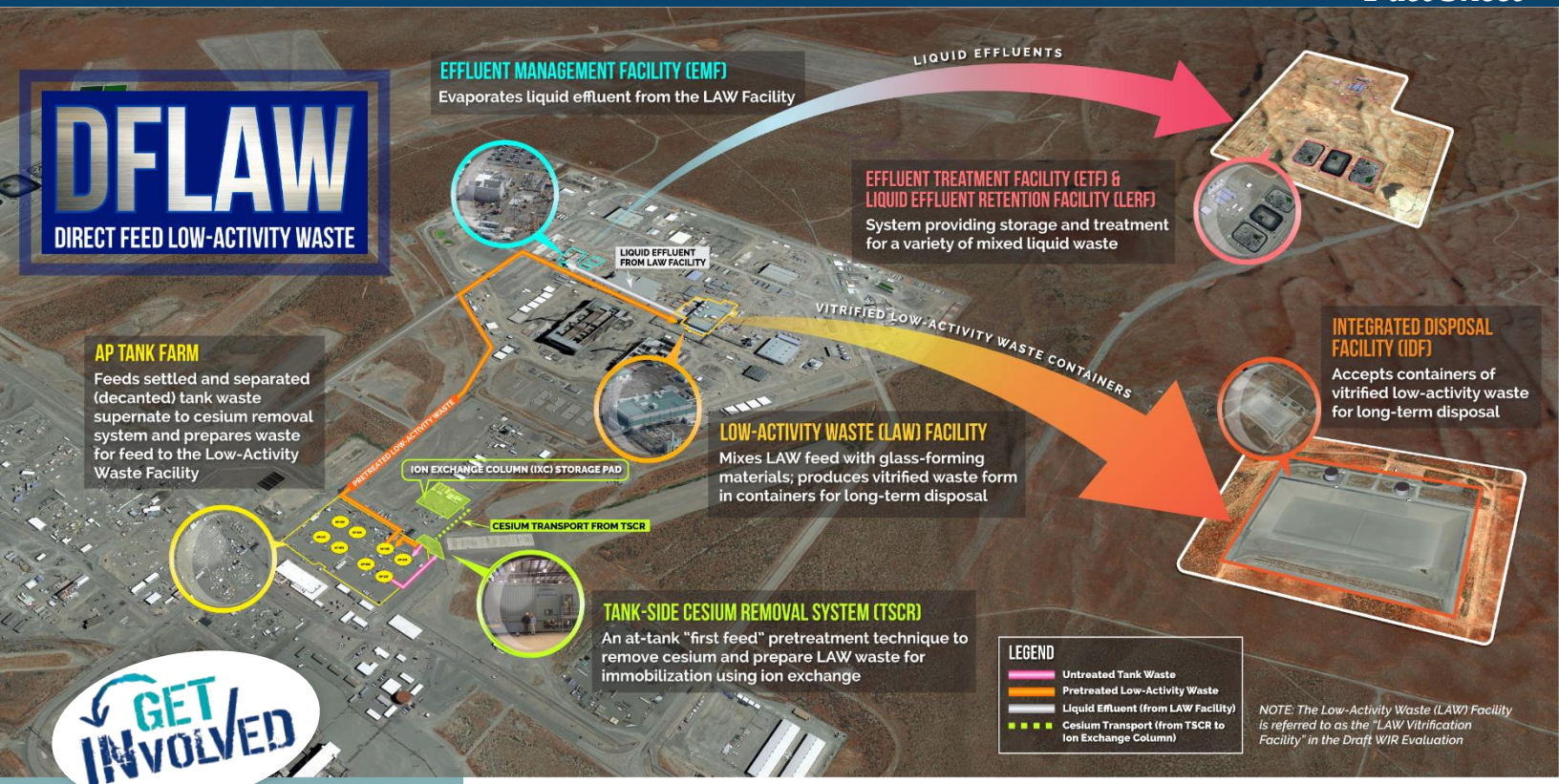
THE HANFORD SITE

PUBLIC COMMENT PERIOD:

Draft Waste Incidental to Reprocessing Evaluation for Vitrified Low-Activity Waste Disposed of Onsite at the Hanford Site, Washington

Fact Sheet



COMMENT PERIOD
May 26 – Sept. 26, 2020

PUBLIC MEETING
June 10, 2020
1 to 4 p.m. PT
(see details on page 3)

Draft WIR Evaluation for VLAW
https://go.usa.gov/xvR4e

Send comments by
Sept. 26, 2020

Email:
VLAWDraftWIR@rl.gov

Mail:
U.S. Department Energy
Attn: Jennifer Colborn
P.O. Box 450, MSIN H6-60
Richland, WA 99354

QUESTIONS?
Email VLAWDraftWIR@rl.gov

Hanford Site Background

The 580-square-mile Hanford Site in southeastern Washington state was created in 1943 as part of the Manhattan Project to produce plutonium for the nation's defense program. Today, waste management and environmental cleanup, including protection of the Columbia River, are Hanford's primary missions.

Fast Facts

- The U.S. Department of Energy (DOE) is on track to start vitrifying (immobilizing in glass) certain Hanford low-activity tank waste by the end of 2023 using the Direct-Feed Low-Activity Waste (DFLAW) approach.
- DOE has prepared a Draft WIR Evaluation to assess whether the vitrified low-activity tank waste can be safely disposed of at Hanford's Integrated Disposal Facility (IDF) as low-level radioactive waste, as has long been envisioned.
- Completing the Draft WIR Evaluation is an important part of the DFLAW mission. It represents a key step toward the safe onsite disposal of Hanford vitrified low-activity tank waste.
- DOE is providing a 120-day public comment period concerning the Draft WIR Evaluation, beginning on May 26, 2020.
- DOE is also consulting with the Nuclear Regulatory Commission (NRC) on the Draft WIR Evaluation.

Public Comment Period for Draft Waste Incidental to Reprocessing Evaluation for Vitrified Low-Activity Waste Disposed of Onsite at the Hanford Site, Washington

Draft Waste Incidental to Reprocessing Evaluation

The *Draft Waste Incidental to Reprocessing Evaluation for Vitrified Low-Activity Waste Disposed of Onsite at the Hanford Site, Washington* demonstrates that the following DOE WIR criteria will be met:

- Key radionuclides will be removed to the maximum extent practical.
- NRC and DOE performance objectives (including doses) for disposal of low-level radioactive waste will be met.
- The wastes will be incorporated in a solid glass form and not exceed Class C low-level radioactive waste concentrations.

Direct-Feed Low-Activity Waste Approach

The DFLAW two-phase approach will entail the following:

- In-tank settling
- Separation of the low-activity supernate (top tank layer, including dissolved saltcake)
- Filtration
- Cesium removal in a Tank-Side Cesium Removal (TSCR) system unit in Phase 1, plus either an additional TSCR unit or a filtration/cesium removal facility in Phase 2
- Vitrification of the pretreated low-activity waste (LAW) at the Hanford LAW Facility

Low-Activity Waste Facility

In the LAW Facility, low-activity waste will be mixed with silica to form glass, fed into two melters and heated to 2,100 degrees Fahrenheit. The glass mixture will then be poured into containers and the vitrified low-activity waste (VLAW) will be disposed of at the Hanford IDF.

The Integrated Disposal Facility was completed in 2006 and is nearly 1,500 feet wide, 765 feet long and 45 feet deep, with a capacity of nearly 1.2 million cubic yards.

Low-Activity Waste Facility

Simulated Vitrified Low-Activity Waste

Sample container with simulated vitrified waste

DOE is Committed to an Open and Transparent Process

Fiscal Year 2020
Finalize Draft VLAW WIR Evaluation
COMPLETE

Fiscal Year 2021
NRC Consultation and Public Review
PLANNED

Fiscal Year 2022
DOE Issues Final WIR Evaluation and Potential WIR Determination
PLANNED

Start up Waste Treatment and Immobilization Plant

Consultation with the Nuclear Regulatory Commission

DOE is consulting with the NRC on the Draft WIR Evaluation, which references the *Performance Assessment for the Integrated Disposal Facility, Hanford Site, Washington*. The NRC is expected to provide a Technical Evaluation Report that will help inform a final WIR evaluation.

Public Involvement

The DOE is committed to an open and transparent process and looks forward to input from states, Tribal Nations, stakeholders, and the public.

A 120-day comment period will begin May 26, 2020, and will continue through Sept. 26, 2020. Comments received after that time will be considered to the extent practical. A public webinar meeting will be held on June 10, 2020, from 1 to 4 p.m. PT. To participate via GoToWebinar, please follow the instructions below:

Visual (presentation only):
Click the GoToWebinar link:
https://attendee.gotowebinar.com/register/8264612597350934798;
ID 391-705-595

Audio:
1. Dial +1 509-372-3087 (local) or +1 800-664-0771 (long distance)
2. Enter Conference ID: 1333#

There are several opportunities to learn more about this Draft WIR Evaluation.

- Review the Draft WIR Evaluation online at the Hanford website at https://go.usa.gov/xvR4e.
- Participate in the webinar public meeting. Presenters from DOE, federal contractors and the NRC will provide detailed briefings and answer questions.
- Provide comments via email or mail during the comment period.

All comments should be submitted by Sept. 26 to VLAWDraftWIR@rl.gov (preferred) or in writing to:

U.S. Department Energy
Attn: Jennifer Colborn
P.O. Box 450, MSIN H6-60
Richland, WA 99354

For more information on the Draft WIR Evaluation, please visit the Hanford website. Questions? Please email VLAWDraftWIR@rl.gov.

Please contact Jennifer Colborn, Jennifer_M_Colborn@rl.gov, (509) 376-5840, at least 10 working days prior to the event to request disability accommodation.

FREQUENTLY ASKED QUESTIONS

Q: Why is DOE issuing the Draft WIR Evaluation now?

A: Recognizing that it will take approximately 2 years to complete the NRC consultation and consider public comments before a final WIR Evaluation and potential WIR determination may be issued, the Draft WIR Evaluation is an important step to enable DOE to meet the current schedule for the DLFAW mission.

Q: What does the Draft WIR Evaluation for VLAW show in terms of worker and public safety?

A: The Draft WIR Evaluation explains that disposal of the VLAW in the IDF will meet performance objectives and performance measures (including dose limits) to protect workers, the public and a hypothetical inadvertent human intruder.

Q: What is the performance assessment (PA)?

A: The PA is a tool used to estimate the effects that waste disposed of at the Hanford IDF might have over the compliance period of 1,000 years, and beyond. The PA applies complex and detailed analytical models to predict the fate and transport of radionuclides. The analytical results inform decision-makers about the anticipated risks, including projected, potential doses to a hypothetical member of the public and a hypothetical inadvertent human intruder.

Q: Why is a WIR determination needed to manage the waste as low-level radioactive waste, if the waste is processed through the LAW Facility?

A: DOE is required to evaluate (in a WIR evaluation) and determine (in a potential WIR determination) that certain waste from reprocessing of spent nuclear fuel meets WIR criteria, and thus is incidental to reprocessing of spent nuclear fuel, is not high-level radioactive waste, and is to be managed (disposed of) as low-level radioactive waste. The Draft WIR Evaluation is part of this process.

Public Involvement Opportunity

We want to hear your comments on the Draft Waste Incidental to Reprocessing Evaluation for Vitrified Low-Activity Waste Disposed of Onsite at the Hanford Site, Washington

Comment Period:

May 26 – Sept. 26, 2020

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PUBLIC INVOLVEMENT OPPORTUNITY

Draft Waste Incidental to Reprocessing Evaluation for Vitrified Low-Activity Waste Disposed of Onsite at the Hanford Site, Washington

Draft WIR Evaluation for VLAW Comment Period
U.S. Department of Energy
P.O. Box 450, H6-60
Richland, WA 99352