

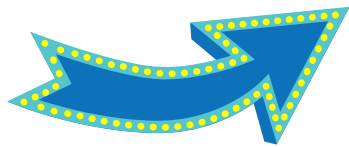


Tank Waste Evaporator

Permit Modification: 242-A Evaporator

COMMENT DEADLINE: TUES. JULY 7, 2020

WHAT?



The U.S. Department of Energy (DOE) is gathering your comments on a modification to the site-wide RCRA permit that will allow its contractor to drill three new holes in the evaporator that concentrates Hanford's high-level tank waste. These holes will be used to attach new pipes that transfer tank waste to the evaporator.

BACKGROUND

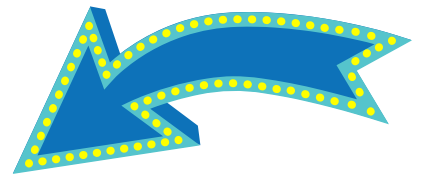
The 242-A Evaporator has been called the "lynch-pin of tank waste treatment." Space is tight in Hanford's 177 underground high-level waste storage tanks AND the process to remove waste from the tanks involves spraying liquid at high-pressure to loosen the tank waste, which creates more waste. The evaporator concentrates these liquids to reduce the amount of tank waste and free up space in the remaining tanks.

It is very important that the evaporator is in safe working order for tank waste removal and treatment to stay on schedule. This comment period is about the U.S. Department of Energy's plan to drill holes into the side of the evaporator to connect three new transfer lines (pipes) that will be used to send waste to and from the evaporator.

Read on to see Hanford Challenge's concerns and sample comments.



HANFORD CHALLENGE CONCERNS



On the surface drilling three holes is no big deal, so why are we mobilizing comments?

Hanford's high-level tank waste is extremely radioactive and contains a dangerous mix of toxic chemicals and radionuclides. Any action at a facility that deals with this highly-radioactive waste is a big deal and must be done safely.

The 242-A Evaporator is old. It was built in 1977 and will be needed through the tank waste treatment mission, at least 40 more years. It is likely that this 43 year old facility will need more major upgrades to work safely and effectively for that long.

The biggest issue with this comment period is what the U.S. Department of Energy didn't clearly say. The 242-A Evaporator has been shut down and the transfer lines it had been relying on don't work anymore. That is critical information that should have been shared more clearly.

SAMPLE COMMENTS

Prioritize Safety: Make sure requirements are in place to protect workers and the environment from the radioactive waste and toxic chemical vapors present in the waste that will be moved back and forth through the new transfer lines and evaporator.

Increase Transparency: It was unclear in the fact-sheet and public meeting materials provided for this comment period that this action was being taken because the existing transfer lines for tank waste were not safe. It was also unclear how important the evaporator is to tank waste treatment. Share the details of the action AND the other problems underpinning that action - like failing tank waste transfer pipes - and the timeline for fixing problems.

Share the Big Picture: When you are soliciting input on anything that deals with treating tank waste, share the big picture of where the facility or action fits with immobilizing Hanford's high-level tank waste in glass. For 242-A, also share the plan for how this aging 43 year old facility will safely work for another 40 years.

Email comments to the WA Dept. of Ecology through the portal [HERE](#).

<http://nw.ecology.commentinput.com/?id=HuitW>

This Say What? Guide is funded through a Public Participation Grant from the Washington State Department of Ecology. The content was reviewed for grant consistency, but is not necessarily endorsed by the agency.

The Site-Wide RCRA Permit

Washington State's tool for protecting human health and the environment.

RCRA = Resource Conservation and Recovery Act

242-A Evaporator Lead Regulator Washington State Dept. of Ecology (State/Ecology)

The State uses the authority it has been granted under the Resource Conservation and Recovery Act (RCRA) to make sure the U.S. Department of Energy protects human health and the environment when it is cleaning up Hanford's mixed waste - waste containing radioactive AND chemical contamination.

For this comment period, the U.S. Department of Energy's contractor that deals with keeping the high-level tank waste safe, Washington River Protection Solutions, drafted changes to the permit so that it can be ready to attach new transfer lines to the 242-A Evaporator to get it in working order. Ecology is reviewing the draft modifications to the permit and your comments to decide how to proceed:

- **Accept** the changes,
- **Deny** the permit modification, or
- **Require changes** before finalizing the permit modification.



Figure 1: Evaporator to AW-Farm Transfer Line Layout

The figure above shows the three new transfer lines needed between the 242-A Evaporator and the AW-Tank Farm. The transfer lines, SL-170, SL-171, SN-275 are planned to replace the existing broken transfer lines plus a new backup transfer line. Testing in 2018 found leaks in SL-167 and corrosion in SL-168. *Image found on page 2,035 of 2,046 of provided permit modification package.*

REFERENCE LINKS FOR MORE INFORMATION



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Department of Energy Documents

- [Fact Sheet for 242-A Evaporator Class Two Permit Modification](#)
- [Presentation for 242-A Evaporator](#) from the June 8 Virtual Public Meeting
- [242-A Evaporator Class 2 Permit Modification](#) Submitted by DOE contractor Washington River Protection Solutions (WRPS) to Washington State Dept. of Ecology
 - *NOTE: This is a 2,046 page file, broken down in its pieces below by page number*
 - Permit Conditions: p. 8 of 2,046 (changes are in red-line strikeout)
 - Structural Analysis for the 242-A Pump Room Wall Nozzle Assemblies Plus Counterweight Lifting Devices (April 2020, WRPS*) p. 82 of 2,046
 - ASME B31.3 Analyses of the 41 to 5 and 43 to 13A Jumpers for the 242-A Evaporator Pump Room (May 2020, WRPS) p. 380 of 2,046
 - 242-A Evaporator Pump Room Jumpers Supporting Analyses (April 2020, WRPS) p. 632 of 2046
 - Material Compatibility and Corrosion Protection Report for Project TIP207, DST Replacement Waste Transfer Waste Transfer Lines 241-AW to 242-A Evaporator (April 2020, WRPS) p. 643 of 2,406
 - ASME B31.3 Analyses of the New SL-170, SL-171, SL-172 and SN-275 Waste Transfer Lines in 241-AW Tank Farm (May 2020, WRPS) p.662 of 2,046
 - 241-AW Tank Farm Waste Transfer Lines SL-170, SL-171, SL-172, and SN-275 Supporting Analysis (April 2020, WRPS) p. 1,944 of 2,046
 - 242-A Evaporator Pump Room Transfer Line Wall Nozzles and Jumper Installation and Inspection Plan (April 2020, WRPS) p. 2,032 of 2,046

Public Interest and Stakeholder Resources

- [Hanford Challenge Sample Comments](#)
- [Hanford Challenge Comments](#)

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Do you have questions?

More info