



THE HANFORD SITE

Proposed Permit Modification for the 242-A Evaporator Operating Unit Group

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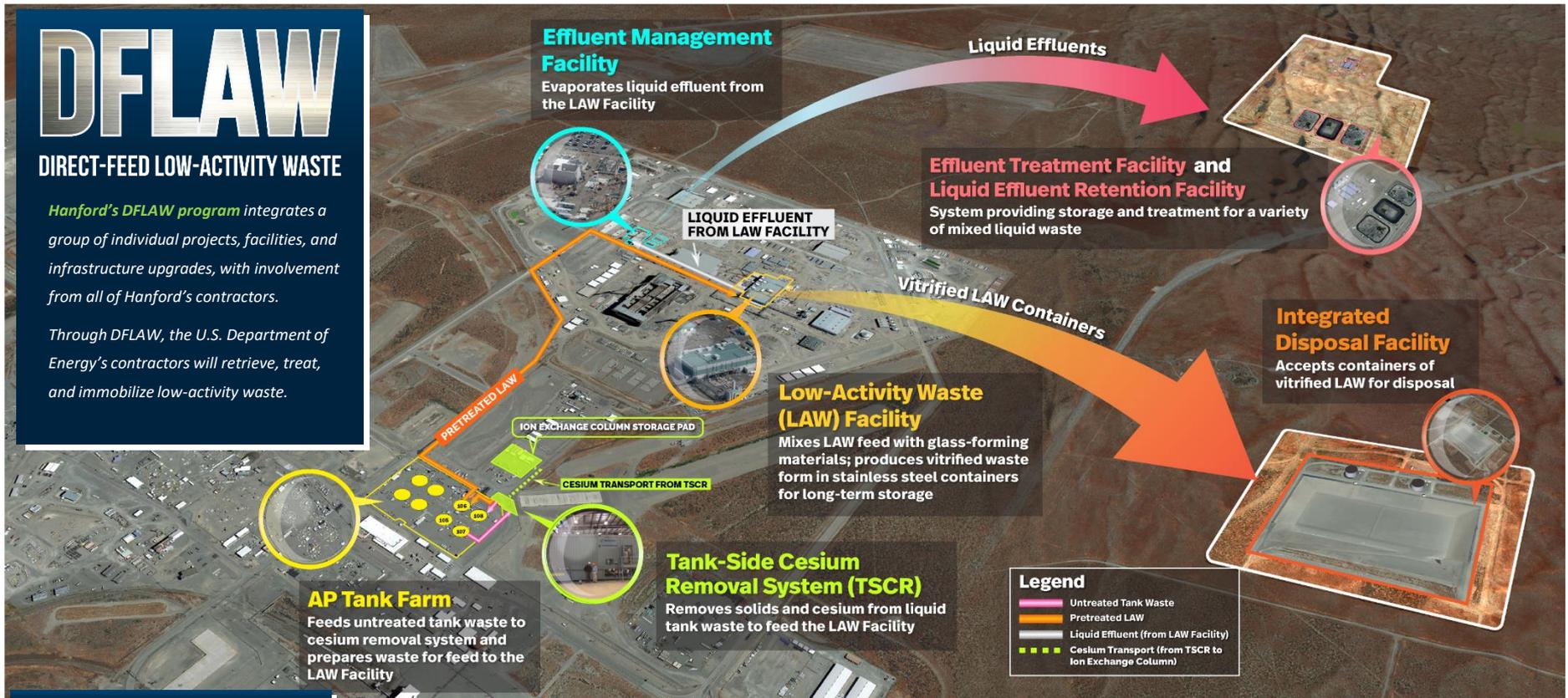
Direct-Feed Low-Activity Waste Configuration

DFLAW

DIRECT-FEED LOW-ACTIVITY WASTE

Hanford's DFLAW program integrates a group of individual projects, facilities, and infrastructure upgrades, with involvement from all of Hanford's contractors.

Through DFLAW, the U.S. Department of Energy's contractors will retrieve, treat, and immobilize low-activity waste.



INFRASTRUCTURE

ELECTRICAL

WATER/SEWER

ROADS

SECURITY

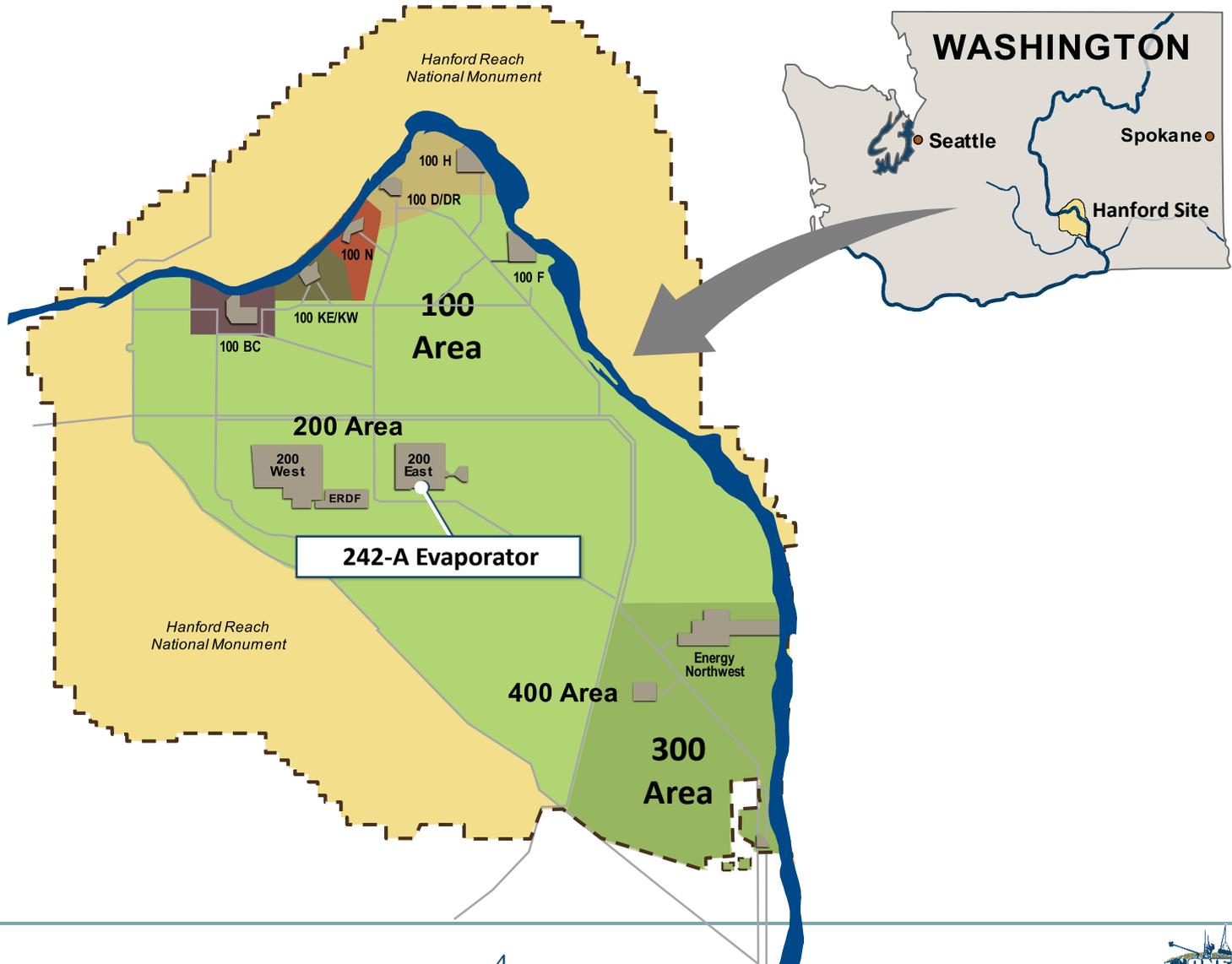
INFORMATION TECHNOLOGY

EMERGENCY PREPAREDNESS

Regulatory Framework for Permitting Action

- The permit conditions set forth in the *Resource Conservation and Recovery Act* (RCRA) permit govern hazardous waste treatment, storage and disposal at Hanford
- The Washington State Department of Ecology, the regulator, issued the RCRA Hanford Dangerous Waste Permit (Revision 8C) that governs hazardous tank waste treatment, storage and disposal activities
- The permittees (the Department of Energy's Office of River Protection and contractor Washington River Protection Solutions) are requesting a Class 2 permit modification to the 242-A Evaporator operating unit group

Where are the Facilities?



Where are the Facilities?



- The 242-A Evaporator removes water from double-shell tank (DST) waste, freeing up space to receive waste from single-shell tanks
- Conventional forced-circulation, vacuum evaporation system to reduce waste volume. The evaporator treats the waste by removing water and most volatile organics.
- Waste is received from DST AW-102
- The evaporator produces the following two waste streams:
 - Concentrated slurry (routed back to the DST system for storage pending further treatment)
 - Process condensate (pumped through encased underground pipeline to the Liquid Effluent Retention Facility)

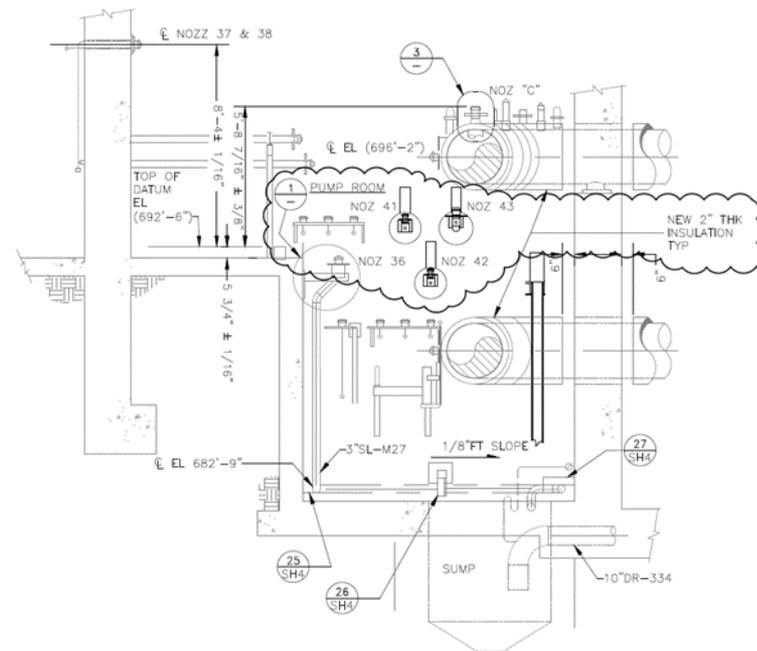
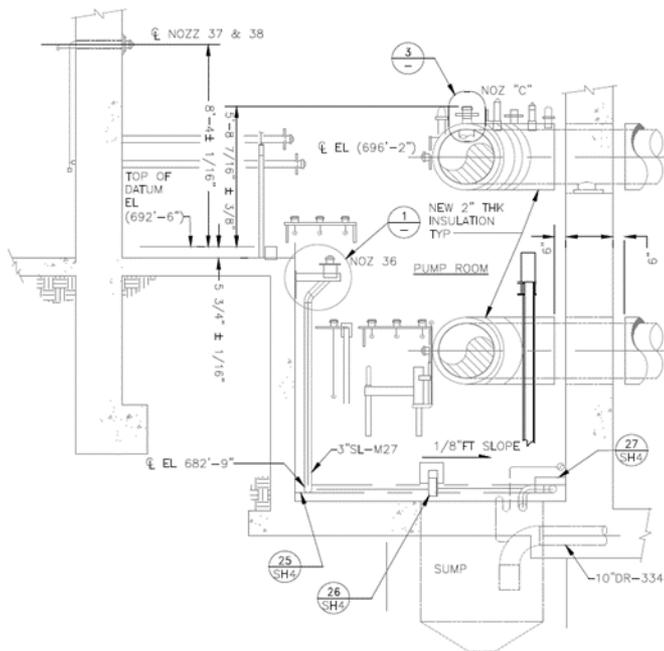
The 242-A Evaporator is a vital facility for tank space management, supporting both Direct-Feed Low-Activity Waste and tank retrieval.



Proposed Permit Modification Overview

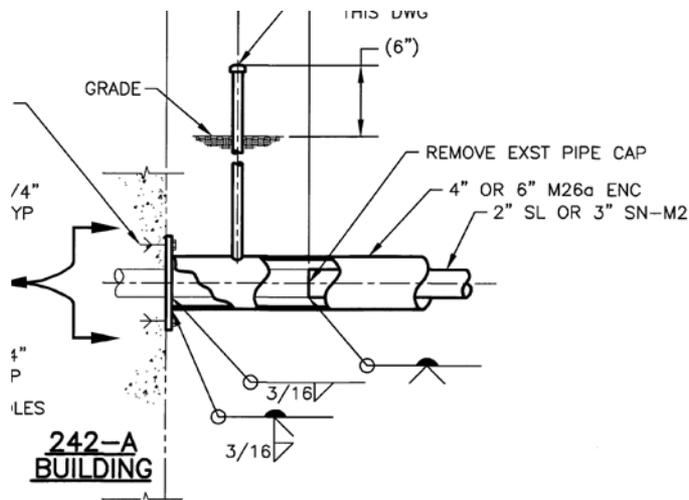
- A permit modification is needed to fulfill the requirements of WAC 173-303-830(4)(b)(iv) for a Class 2 permit modification.
- This proposed permit modification would allow for three new wall penetrations in the 242-A Evaporator facility to connect three new DST transfer lines.
- Permit modifications would allow for the following:
 - Isolation of existing feed and slurry transfer lines in 242-A Evaporator pump room
 - Installation of new wall nozzles
 - Installation of new jumpers

- Nozzle 41 – new 2-inch nozzle connection point to transfer line SL-170
- Nozzle 42 – new 2-inch nozzle connection point to transfer line SL-171
- Nozzle 43 – new 3-inch nozzle connection point to transfer line SN-275

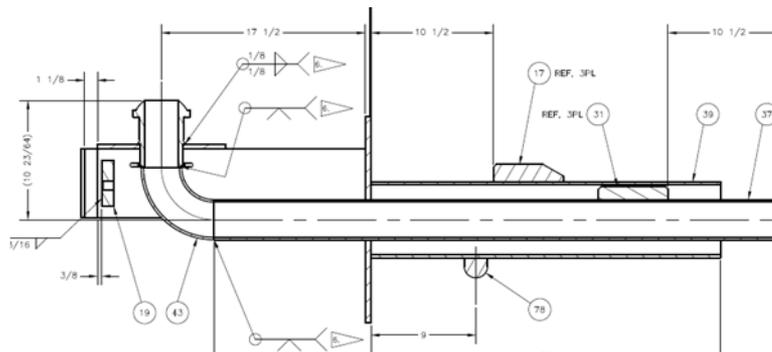


Installation of Wall Nozzles

- New wall nozzle encasements will extend through the pump room wall to achieve compliant secondary containment
- The figures below show a comparison between wall nozzle configurations as they pertain to the encasement
- Nozzle size and orientation within the pump room are unchanged



Pump Room Nozzles With Variance Due to Secondary Containment Stopping at the Pump Room Outer Wall



Replacement Pump Room Nozzles With Secondary Containment Extending to the Inside of the Pump Room Wall.

The 60-day public comment period is open through July 7.

Submit comments via mail or electronically (preferred) to the Washington State Department of Ecology at the address below:



Daina McFadden

Washington State Department of Ecology

3100 Port of Benton Boulevard

Richland, WA 99354

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

Questions?

The Hanford Reach
White Bluffs Overlooking the Columbia River