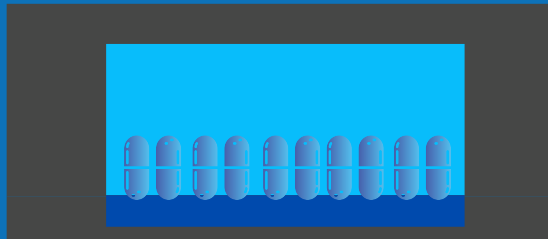


WESF "wessif"

aka. Waste Encapsulation
Storage Facility

The catastrophic-risk facility that stores 1,936 cesium and strontium in capsules under water.



COMMENT DEADLINE: WED. SEPT 30, 2020

WHAT

The WA State Department of Ecology is collecting your input on the updated permit application that would add WESF to the active portion of the RCRA Site-Wide Permit, Section III. WESF contains highly-radioactive stainless steel capsules in underwater storage pools. There is a plan to move the capsules into a safer kind of storage by 2025.

In 2017 the U.S. Department of Energy made a request to add WESF to the RCRA permit to make changes necessary for transfer of waste capsules to dry storage. Ecology sent the WESF permit application back to DOE requiring the addition of missing information about earthquake risks, training, and design of the building.

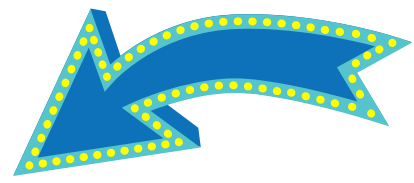
DOE provided the requested information, Ecology updated the documents which are out for review & comments.

The water around the cesium and strontium capsules in the Waste Encapsulation and Storage Facility pools glows a color of blue. The effect is known as the Cherenkov Glow, as the radioactive cesium and strontium decay and lose their radioactivity to become stable atoms.

Photo and caption courtesy DOE



HANFORD CHALLENGE CONCERNS & COMMENTS



Getting the WESF capsules into dry storage sooner rather than later is Hanford Challenge's biggest concern. If a major earthquake or other event causes the water to drain from the WESF capsule storage pools it could trigger a catastrophic release of radioactivity that could make the Hanford Site inaccessible for hundreds of years. We can't let that happen.

Suggested Comments

Include Catastrophic Release Emergency Response Plans: Ensure that robust, specific and detailed emergency response plans for a catastrophic release of radioactivity at WESF are included in the permit.

Ensure Conditions Are Safe Now and In Future: Require that data sets showing the effect of gamma dose on dry concrete are applied to assessments of risk at WESF and other DOE facilities where concrete structures are exposed to high-dose radiation fields. This data has been excluded and has direct relevance to WESF, the casks DOE has designed for dry storage and the pads the casks will sit upon.

Require Concrete Testing: Due to the scarcity of data on the effects of gamma radiation on dry concrete, it is incumbent that Ecology require collection of concrete testing data at WESF for use in assessments under Ecology's permits to make conditions safer now and in the future.

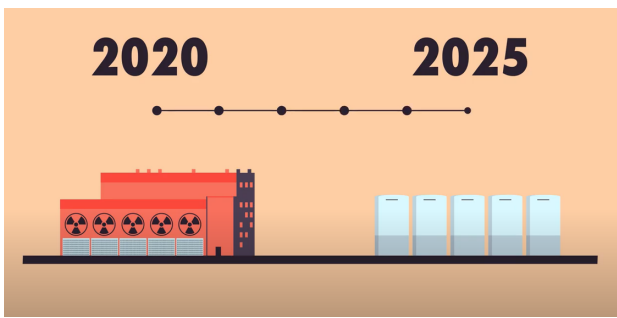
Accelerate Transfer to Dry Storage: Use your regulatory muscle to push up the deadline to get the capsules into dry storage sooner than 2025.

Make Information Accessible: Ensure that plain language materials are provided that explain the permitting history, provide a guide to the documents that are part of the comment period in question, and the context of the action.

SUBMIT COMMENTS

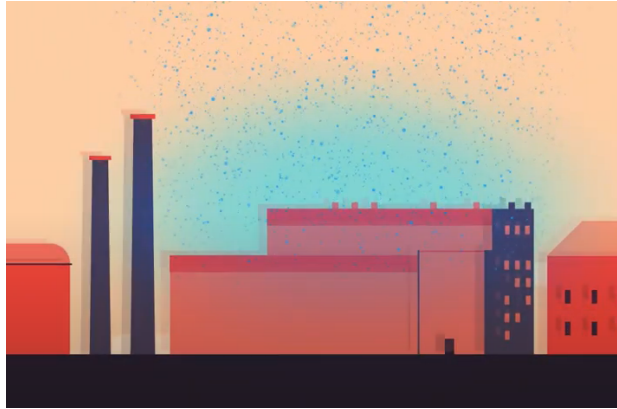
Send comments to WA State Dept. of Ecology through the portal [HERE](http://nw.ecology.commentinput.com/?id=DJWB3).

<http://nw.ecology.commentinput.com/?id=DJWB3>



RISK

The main risk at WESF is water draining from the pools that store the radioactive capsules. Once exposed, the extreme radioactivity of the capsules makes human entry impossible and results in widespread release of contamination.



This risk is mitigated by moving the capsules into dry cask storage by 2025. Hanford Challenge and others believe that the risk is too great to wait five years and should happen as soon as possible.

Images are stills from a Hanford Challenge [animated video](#) about WESF. Animation: [Lucy Woodworth Design](#).

What is the Site-Wide RCRA Permit?

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

RCRA = Resource Conservation and Recovery Act

Comment Period 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 Ecology has submitted a revised version of the original permit application to add WESF to the Site-Wide RCRA Permit, Section III as Operating Unit Group 14 for public review and input. This is being done to allow the strontium and cesium capsules to be transferred to casks at WESF prior to moving them to their new dry cask storage location.

Following this comment period, Ecology will review your comments and decide how to proceed:

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

REFERENCE LINKS

Background on WESF

- Sept 2020 *IEEE Spectrum* Article "[Hanford Has a Radioactive Capsule Problem](#)"
- Dirk Dunning Sept 2020 Presentation on WESF [The Catastrophe Potential at the Waste Encapsulation Disposal Facility](#)
- Recording of Sept 14, 2020 Columbia Riverkeeper Virtual Meeting "[Why Scientists Fear a Chernobyl-Like Catastrophe at Hanford](#)"
- VIDEO: [Hanford Challenge Animated Video about WESF](#)

Public Interest and Stakeholder Resources

- [Hanford Challenge Sample Comments](#)
- [Hanford Challenge Narrative, Worst Case Scenario at WESF](#)
- [April 2016 Hanford Advisory Board Budget Advice #288](#)
 - Asks DOE to increase funding to accelerate movement of capsules to dry storage by Fiscal Year 2019 (page 4), obviously this didn't happen

Public Comment Period Documents

- [Dept. of Ecology Webpage](#) with permit application documents
- [Dept. of Ecology Focus Sheet](#): Provides Overview of Comment Period and Proposed Changes
- [Feb 2018 Ecology's Completeness Review](#) of DOE WESF Permit Application
 - States that application was incomplete and requests additional info
- [May 2018 Supplemental Information](#) Provided by DOE at Ecology's Request
 - Only includes a letter which references information that is not attached
- [Permit Conditions](#) for this new addition to the RCRA Permit
 - Permit conditions are the requirements that must be followed for safety and compliance. Conditions start on page 7 of the linked document.
 - This is a fairly accessible document that explains the three parts of WESF that are included in Operating Unit Group 14, which is the focus of this comment period.
- [Aug 2020 Response to Public Comments](#) Related to WESF Permit Modifications



More info