Closure Unit Groups at T-Plant & Central Waste Complex

Figure 1. Columbia River looking at the Hanford site

- Public comment period Mar. 13- Apr. 28, 2023
- Changes to the Unit-Specific Permit Conditions
- Changes to five of the Closure Plans

Public comment invited

The Washington State Department of Ecology (Ecology) is proposing a change to the Hanford Facility Resource Conservation and Recovery Act Permit, Revision 8C.

This change affects the Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste for the T-Plant and Central Waste Complex (CWC).

The permittees are:

U.S. Department of Energy (USDOE)
P.O Box 450, MSIN: H6-60
Richland, WA 99352

Central Plateau Cleanup Company LLC (CPCCo)
PO Box 1464 MSIN: A7-01
Richland, WA 99352

Background

The Hanford Site occupies 580 square miles in southeastern Washington State. The site produced plutonium for the nation's defense program from 1943 to the late 1980s. Today, waste management and environmental cleanup are the primary missions at Hanford.

Overview & Changes

On Dec. 6, 2021, Ecology issued Modification No. 8C.2021.1F to the Sitewide Permit. This modification incorporated both Closure Plans and Unit Specific Permit Conditions for several groups within the Solid Waste Operations Complex (SWOC). These unit groups included:

- CUG 27, 277-T Building
- CUG 28,277-T Outdoor Storage Area
- CUG 29, 271-T Cage
- CUG 30, 211-T Pad
- CUG 39, 2401-W Waste Storage Building
- CUG 37, 221-T Sand Filter Pad
- CUG 41, 221-T Railroad Cut

On Jan. 5, 2022, USDOE and CPCCo (the permittees) appealed the modification to the Pollution Control Hearings Board (PCHB) board. In lieu of a hearing, Ecology and the permittees agreed to mediation to settle the dispute. A settlement agreement was reached in October 2022. This permit modification would make additional changes to the following T-Plant and CWC units based on the settlement agreement:

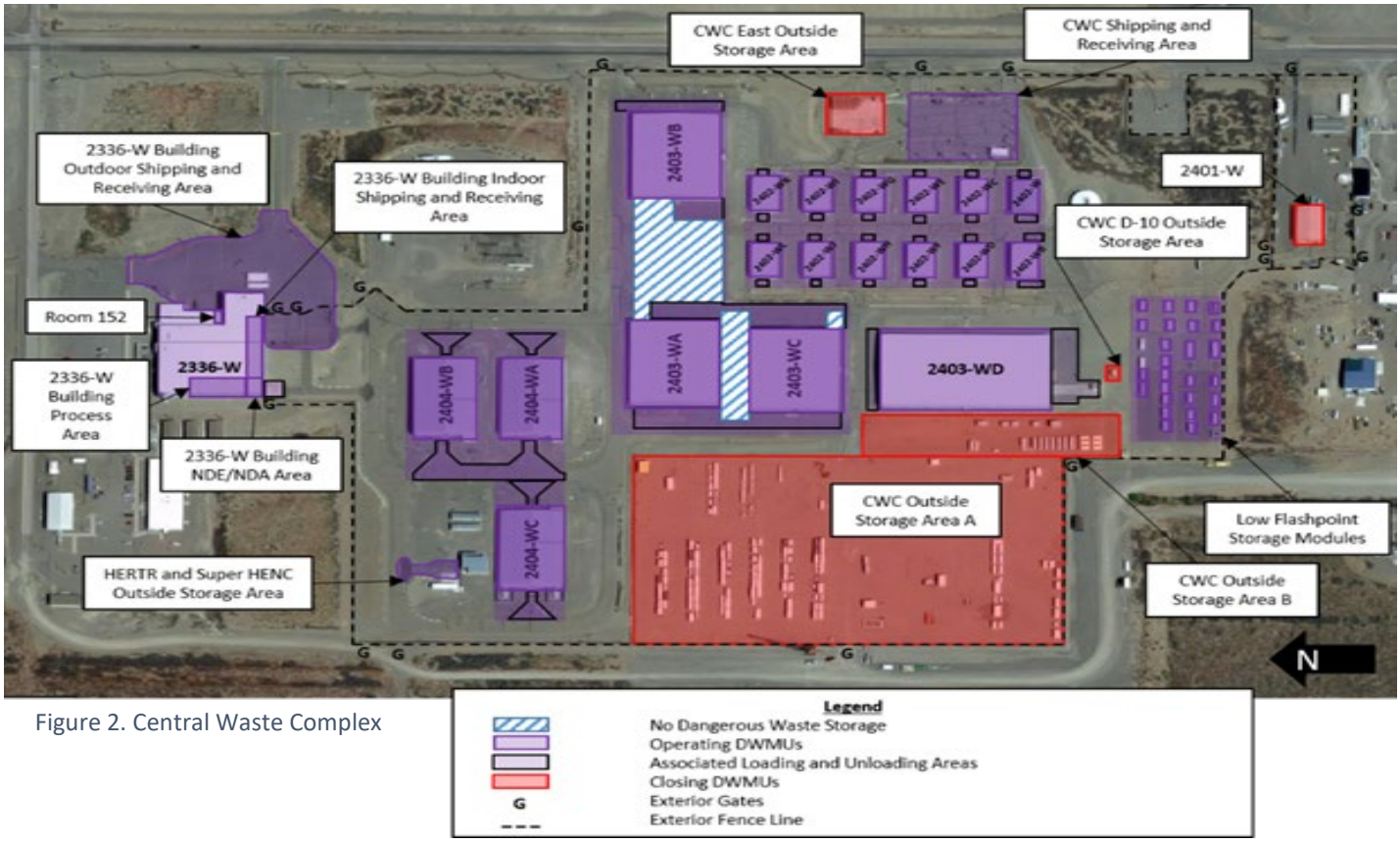


Figure 2. Central Waste Complex

- **CUG 27, 277-T Building**
- **CUG 28, 277-T Outdoor Storage Area**
- **CUG 29, 271-T Cage**
- **CUG 30, 211-T Pad**
- CUG 37, 221-T Sand Filter Pad
- **CUG 39, 2401-W Waste Storage Building**
- CUG 41, 221-T Railroad Cut

All seven units listed will have changes made to the Unit-Specific Permit Conditions, to address the amount of time required for Ecology to be notified of closure plan deviations, and for Ecology's response to that notification.

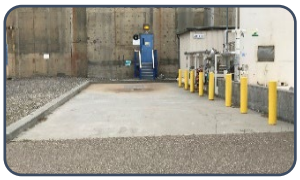
The five units listed in bold above, will have changes made to their Closure Plans to address the agreed to changes for concrete decontamination method, removal of concrete chip sampling, and adjustments to the locations and amount of focused soil samples.

Building Facility Background

The T-Plant Complex is located within the Hanford Site's 200 West Area. T-Plant's main processing building (221-T Canyon Building) was constructed in 1943 for chemical separation of plutonium for uranium fission and activation products. Starting in 1957, T-Plant was used for decontamination operations. Today, the primary missions of T-Plant are treatment and storage of dangerous and mixed waste, waste characterization, container venting, verification sampling, and waste repackaging. Six of the seven closing dangerous waste management units (DWMU) included in this permit modification are located at T-Plant.

The CWC and Waste Receiving Processing Facility (WRAP) are also located within the Hanford Site's 200 West Area. Dangerous waste and mixed waste management operations started at CWC in August 1998. WRAP began dangerous waste and mixed waste operations in March 1997. CWC-WRAP currently provides container storage and treatment of dangerous and mixed waste. One of the seven closing DWMUs included in this permit modification is located at the CWC-WRAP.

Descriptions of T-Plant and CWC units to be closed



211- T Pad (Consent Agreement and Final Order [CAFO])

The 211-T Pad is a curbed, uncoated concrete pad about 59 feet long by 20 feet wide. It was primarily used as secondary containment for tanker trucks performing non-waste chemical transfers. Containerized dangerous and mixed waste was also stored here.

221-T Railroad Cut (non-CAFO)

The 221-T Railroad cut is an uncovered gravel area with railroad tracks. It is about 309 feet long by 50 feet wide at the fence and 33 feet wide at the 221-T Railroad Tunnel end. It was used to store mixed waste in a central accumulation area (CAA) or satellite accumulation area (SAA) while being transferred into or out of the 221-T Railroad Tunnel.

221-T Sand Filter Pad (CAFO)

The 221-T Sand Filter Pad is an uncovered gravel area that is about 180 feet long by 60 feet wide. It was previously used for storing containers of various sizes and volumes, and a variety of waste streams to ensure adequate capacity and operational flexibility to support T-Plant activities. The pad was used to manage dangerous and mixed waste in a CAA or SAA.

271-T Cage (CAFO)

The 271-T cage is an uncoated concrete slab about 20 feet long by 10 feet wide, with curbs on three sides. It is defined on the south side by the 271-T Building and the remaining three sides by metal chain-link fencing covered with a corrugated metal roof. The 271-T Cage may have been used to manage dangerous and mixed waste in a CAA or SAA.

277-T Building (non-CAFO)

The 277-T Building is a pre-engineered, steel structure on an uncoated concrete slab on grade foundation. The building is about 33 feet wide by 39 feet long by 23 feet high. It serves as equipment and material storage to support T-Plant operations. The 277-T Building stored one container of mixed waste with a total volume of 35 yd^3.

277-T Outdoor Storage Area (CAFO)

The 277-T Outdoor Storage Area consists of two uncoated concrete pads and an asphalt area surrounding the 277-T Building. It is 95 ft on the south side by 86 feet on the west side by 135 feet on the north side by 76 feet on the east side. It was previously used for storing containers of various sizes and volumes, and a variety of waste streams to ensure adequate capacity and operational flexibility to support T-Plant activities. The 277-T Outdoor Storage Area may have been used to manage dangerous and mixed waste in a CAA or SAA.

2401-W Waste Storage Building (CAFO)

The 2401-W Waste Storage Building is a pre-engineered steel structure about 50 feet wide by 80 feet long by 20 feet high. It is located on the south end of the CWC. The foundation is integrated into a perimeter concrete curb and the floors are coated with an epoxy resin. The 2401-W Waste Storage Building stored 318 containers of dangerous and mixed waste.

Reviewing the proposed changes

Ecology invites you to review and comment on this proposed T-Plant and CWC permit modification. See the last page for comment period dates and information on how to submit comments.

Copies of the application for the proposed permit, the draft permit and fact sheet, and supporting documentation will be available during the public comment period online at Ecology's website[1] . The documents will also be available electronically at the Hanford Public Information Repositories listed on the next page.

Ecology will consider and respond to all significant comments received during the public comment period. We will document our responses and issue a response to comments document when we make our final permitting decision.

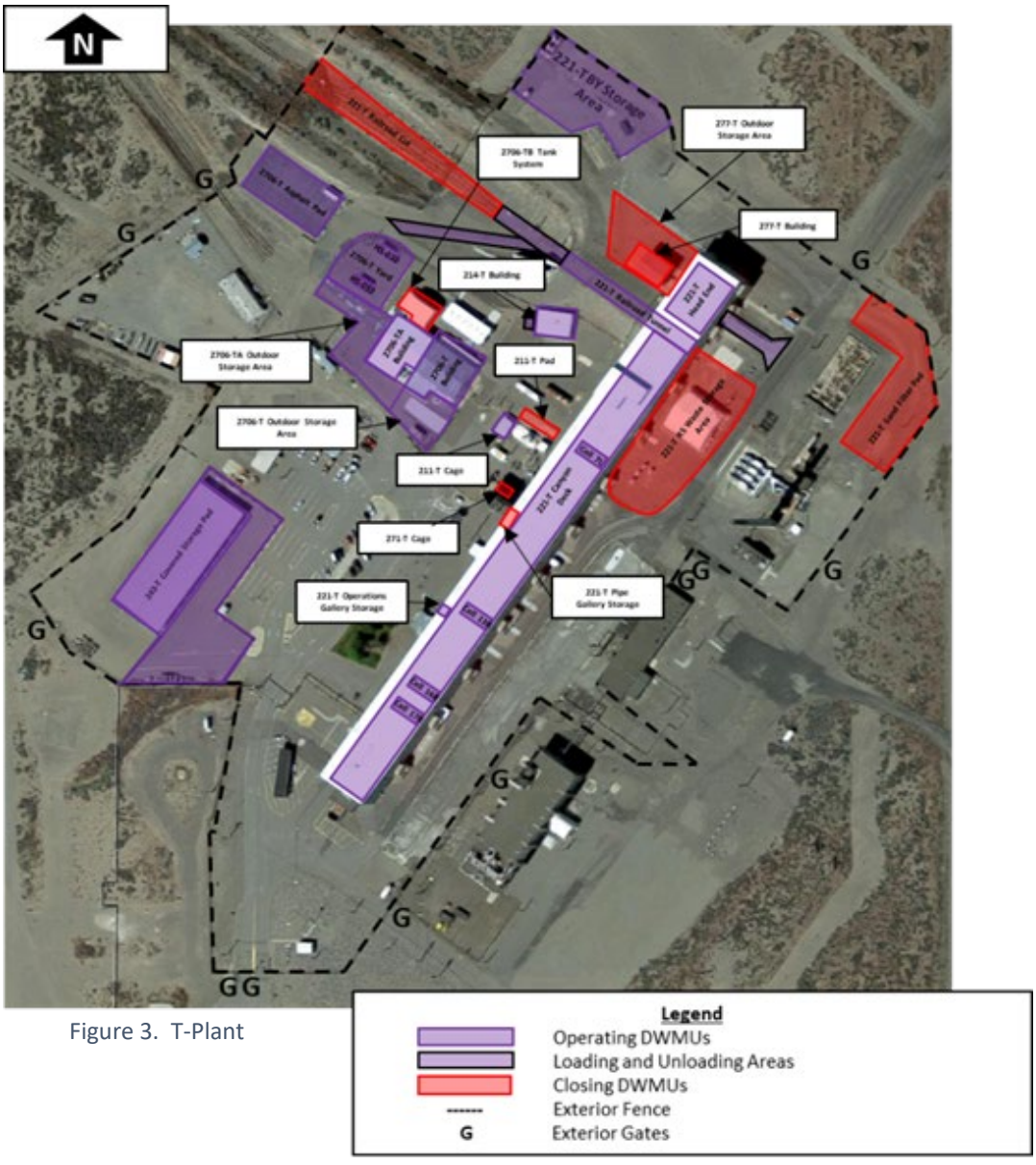


Figure 3. T-Plant

[1] Ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods

Hanford's Information Repositories

Ecology Nuclear Waste Program
Resource Center
3100 Port of Benton Blvd.
Richland, WA 99354
509-372-7950

U.S. Department of Energy
Administrative Record
2440 Stevens Drive, Room 1101
Richland, WA 99354
509-376-2530

Washington State University Tri-Cities
Department of Energy Reading Room
2770 Crimson Way, Room 101L
Richland WA 99354

University of Washington
Suzzallo Library
Box 352900
Seattle, WA 98195
206-543-5597

Gonzaga University
Foley Center
502 E Boone Avenue
Spokane, WA 99258
509-313-6110

Portland State University
Millar Library
1875 SW Park Avenue
Portland, OR 97207
503-725-4542

For information on other comment periods or ways to get involved, go to ecology.wa.gov/Hanford and click "Public comment periods" on the left bar or visit Hanford.gov "public involvement opportunities".

You can also follow us on social media.

@EcologyWAHanford

@ecyHanford

Figure 4. Nuclear Waste Program office - Richland

DEPARTMENT OF ECOLOGY
State of Washington

Nuclear Waste Program
3100 Port of Benton Blvd
Richland WA 99354

SWOC permit modification

Mar. 13 – Apr. 28, 2023

Electronic submission (preferred):
https://nw.ecology.commentinput.com/?id=Fg9Tt

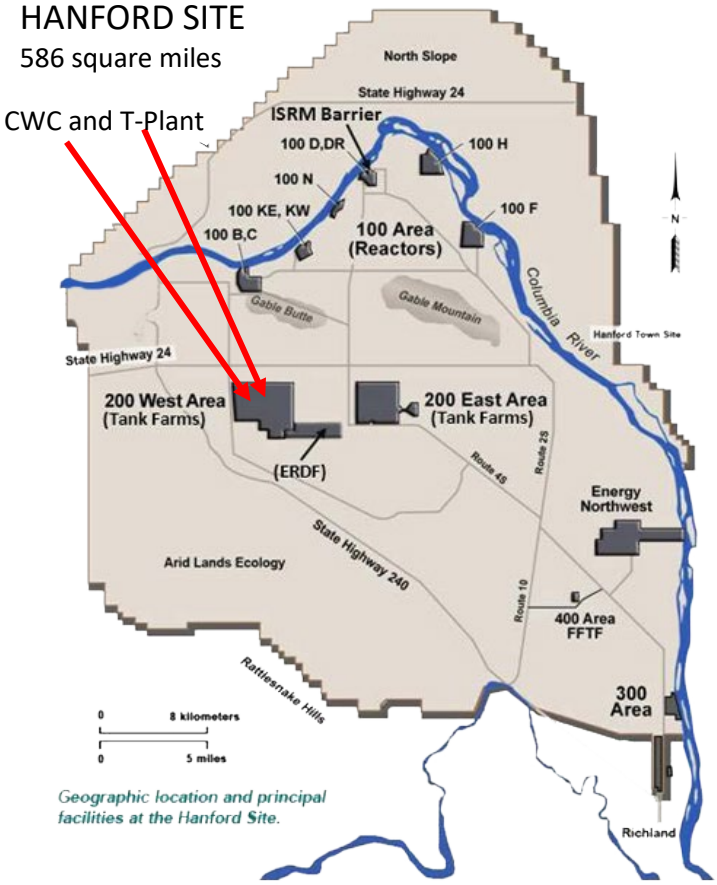
Mail or hand-delivery

Daina McFadden
3100 Port of Benton Blvd
Richland, WA 99354

A public hearing is not scheduled, but if there is enough interest, we will consider holding one. To request a hearing or for more information, contact:

Daina McFadden
509-372-7950
Hanford@ecy.wa.gov

HANFORD SITE
586 square miles



Geographic location and principal facilities at the Hanford Site.

To request an ADA accommodation, contact Ecology by phone at 509-372-7950 or email at Daina.McFadden@ecy.wa.gov, or visit ecology.wa.gov/Accessibility. For Relay Service or TTY call 711 or 877-833-6341.