



Heart of America Northwest

The public's voice for Hanford
cleanup, clean energy, and nuclear
safety across the Northwest

Comments Central Waste Complex (CWC) & T-Plant Units Closure – reopened comment period November 4, 2020 respond to gerry@hoanw.org and office@hoanw.org

This is a re-opened comment period after we complained that the "fact sheet" which is legally required to accompany a permit modification of this type was not available. That is more than just a one page fact sheet but a detailed summary. Review of the 29 page RCRA Permit Fact Sheet, which details each unit subject to the permit along with estimates of wastes previously stored, revealed numerous concerns and discrepancies.

Overall, the closure of T-Plant and CWC units is a sordid tale of USDOE having been found by USEPA and Washington Ecology to have deliberately violating RCRA and WA State HWMA laws, being ordered to “clean close” just five of the numerous units pursuant to “closure plans” that were to be submitted within 120 days of the orders, and – six years later – USDOE is still fighting against meeting clean closure standards. Not only is clean closure of these intolerably delayed so long as to be out of sight, but Ecology has still not ordered the tremendous quantities of illegally stored wastes to be characterized, removed and treated. In 2014, we urged that all wastes stored in CWC be characterized, treated and removed within three years. RCRA and Washington State’s Hazardous Waste Management Act (HWMA) bar storage of dangerous / hazardous wastes for prolonged periods beyond six months then treatment capacity is available. Commercial treatment capacity was available to treat all wastes within three years at Perma-Fix Northwest in 2014, provided that an order was issued and contracts entered into so that Perma-Fix NW could ensure dedicated permitted treatment capacity. That capacity is available now. Therefore, Ecology should be ordering and adding all units into the permit with a three year compliance period for removal of all wastes. ¹

The closure of these units is long overdue, following documentation that USDOE had illegally operated them for storage of hazardous wastes without permitting:

“On June 26, 2013, USDOE and the U.S. Environmental Protection Agency signed a Consent Agreement and Final Order, Docket No. RCRA-10-2013-0113 (CAFO). The CAFO outlines steps the Permittees must take to satisfy violations that were found during inspections of the Solid Waste Operations Complex (SWOC) in 2012. One of the steps is to close parts of the SWOC that are not in use or were never authorized for use. To meet this CAFO step, USDOE submitted a Class 3 permit modification request in

¹ USDOE can no longer claim that it can not take the Transuranic (TRU) wastes for disposal at WIPP in New Mexico as that site has been reopened for several years. As a USDOE facility, USDOE determines schedules for which ships wastes.

October 2013 to close several inactive dangerous waste management units at the SWOC”

Focus Sheet, June 2020

“The USEPA CAFO was based on information collected during a 2011 USEPA inspection.

The violations included:

- Storage of hazardous waste without a permit.
- Failure to meet closure plan requirements.
- Failure to submit closure notice and closure plans.
- Failure to comply with land disposal restriction requirements.

Changes to the Site-wide Permit are required by the USEPA CAFO issued against USDOE.

These changes are summarized as follows:

- Stop receiving waste in the dangerous waste management units listed in the CAFO.
- Submit closure plans to Ecology within 120 days of the effective date of the CAFO, for the following units: T Plant 271-T Cage; T Plant 211-T Pad; T Plant 221-T Sand Filter Pad; T Plant 221-T R5 Waste Storage Area; T Plant 277-T Outdoor Storage Area; CWC Outside Storage Area A; CWC Outside Storage Area B; and LLBG FS-1 Outdoor Container Storage Area.
- Immediately comply with all applicable final facility standards for the management of dangerous waste found in WAC 173-303-600(l) for the units listed in the CAFO.
- Submit closure plans to Ecology for the T Plant 221-T Railroad Tunnel and CWC 2401-W Building within 120 days of the effective date of the CAFO, unless prior to that date Ecology approves an extension pursuant to 40 Code of Federal Regulations (CFR) 265.112(d)(2), as incorporated and modified by reference in WAC 173-303-400.
- Immediately stop the placement of prohibited dangerous waste in LLBG Trenches 31 and 34, unless the waste meets land disposal treatment standards found in WAC 173-303-140.

The 211-T Pad, 221-T Sand Filter Pad, 271-T Cage, 277-T Outdoor Storage Area, and the 2401-W Waste Storage Building DWMUs are part of the Hanford Facility’s SWOC, and are

included in the USEPA CAFO list of DWMUs that require a closure plan. USDOE has agreed with USEPA to close these DWMUs, as they were never authorized for hazardous/dangerous waste storage. The 221-T Railroad Cut and the 277-T Building DWMUs, which are not part of the CAFO (non-CAFO), will also be closed.”

Transmittal Letter for RCRA Permit Modification at 10.

The seven (7) units that are the subject of this comment period and proposed permit modification have not stored waste since November 2010 according to the fact sheet – (CAFO indicates that the unit was listed as requiring a closure plan within 120 days of the signing of the Final Order):

- T Plant 277-T Outdoor Storage Area, Closure Unit Group 28 (CAFO)
- T Plant 271-T Cage, Closure Unit Group 29 (CAFO)
- T Plant 211-T Pad, Closure Unit Group 30 (CAFO)
- T Plant 221-T Sand Filter Pad, Closure Unit Group 37 (CAFO)
- CWC 2401-W Waste Storage Building, Closure Unit Group 39 (CAFO)

These two units are also being closed and are part of the draft permit and comment period that were not listed in the Consent Agreement and Final Order (CAFO):

- T Plant 221-T Railroad Cut, Closure Unit Group 41 (**Not** CAFO)
- T-Plant 227-T Building (**Not** CAFO)

Eight (8) units were opened and operated illegally, without USDOE even applying for a permit:

“Respondent conducted storage of RCRA regulated dangerous waste in the units listed below without a permit or interim status in violation of Section 3005 of RCRA, 42 U.S.C. § 6925, WAC 173-303-800, and Condition I.A. of the Hanford Facility RCRA Permit.”²

- a. T-Plant 271 T cage;
- b. T-Plant 211 T pad;
- c. T-Plant 221 T sand filter pad;
- d. T-Plant 221 T - R5 waste storage area;
- e. T-Plant 277T outdoor storage area;
- f. Central Waste Complex ("CWC") outside storage A;
- g. CWC outside storage area B; and
- h. Lower Level Burial Grounds ("LLBG"), FS 1, south of Trench 34, outdoor container storage area. (Only LLBG FS 1 has been closed³)

The agencies' focus sheet does not even mention units (d), (f), (g) and (h).

² Consent Agreement and Final Order (CAFO), US EPA Docket RCRA-10-2013-0113 at 3.11

³ RCRA permit fact sheet at page 13: “One of the 14 identified closing DWMUs (Low-Level Burial Grounds FS-1 Outdoor Container Storage Area) has completed closure. Ecology accepted clean closure certification on October 25, 2016, and Low-Level Burial Grounds FS-1 Outdoor Container Storage Area was removed from the Hanford Site-wide Permit on December 14, 2016.”

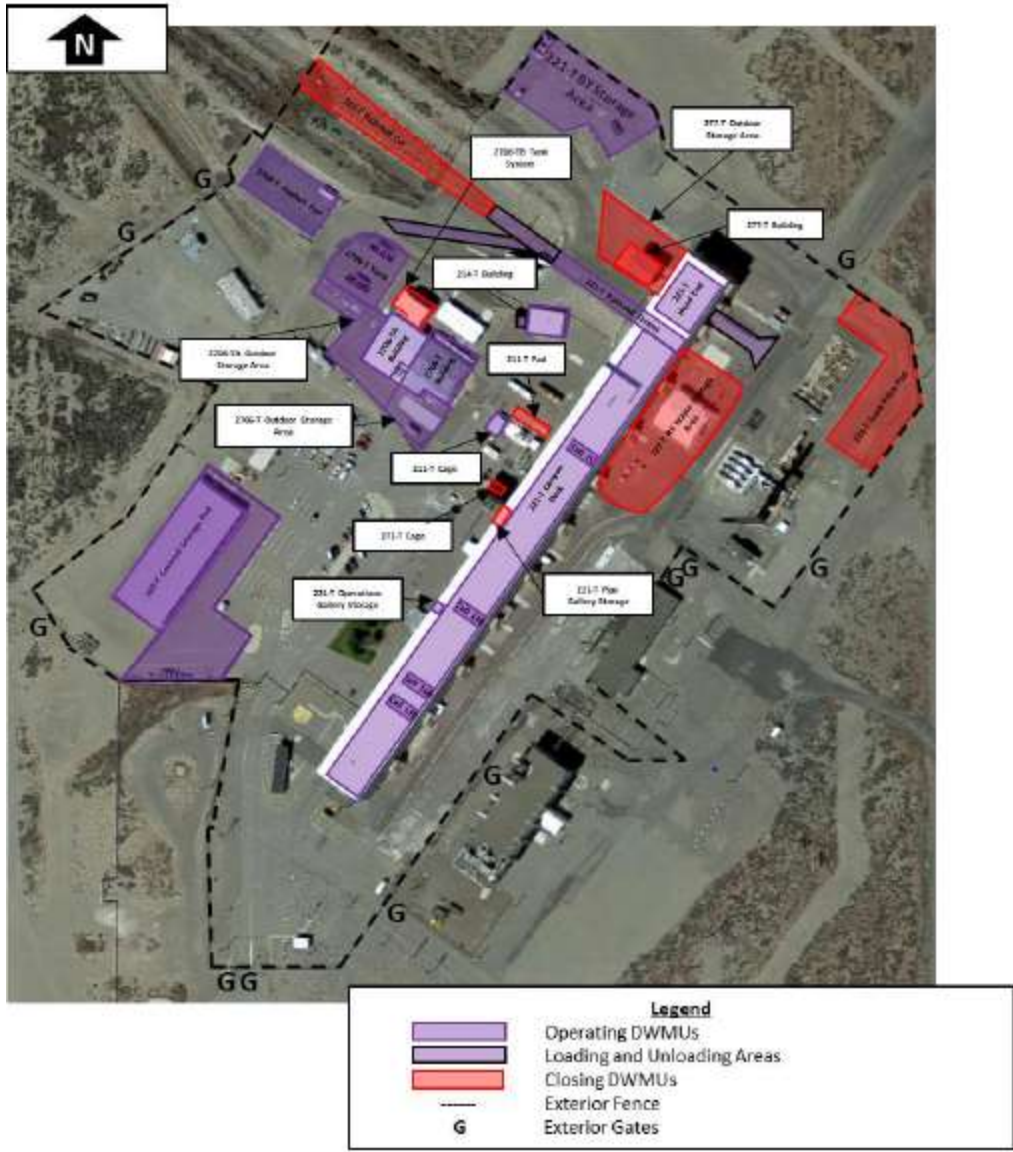


Figure 1 from RCRA Fact Sheet showing T-Plant Dangerous Waste Management Units. Note unit R-5 is on NE side of T-Plant.



Figure 2 from RCRA Fact Sheet showing Central Waste Complex (CWC) and Waste Receiving and Processing (WRAP) facilities and Dangerous Waste Management Units (DWMUs).

USDOE illegally built and stored waste in these buildings / units without ever having applied for permits. This was a potential criminal violation. Despite being ordered to close several units with submission of “closure plans” in 2011 and 2013, the units remain unclosed. Ecology has failed to include closure of these illegally opened and operated units in the permit; and failed to order that the illegally stored wastes be characterized, treated and removed for disposal. Heart of America Northwest commented in 2014 that the USDOE should be ordered to characterize, remove and treat all wastes within three years – for which commercial treatment capacity existed. RCRA and state hazardous waste law bars accumulated storage of dangerous wastes for extended periods when treatment is available. **Heart of America Northwest comments that all wastes should be included in a permit condition and order to be characterized, removed and treated by 2023, which would be nine years after the issuance of the EPA findings of violation (quoted below).**

Closure plans should have been submitted within 120 days of the CAFO. It is inexplicable and unacceptable that six years later, closure has not occurred and permits for closure plans are only now being reviewed for adoption. The cause is inexcusable obfuscation and objection by USDOE to clean closure, which requires sampling of soils under structures, removal of contamination from concrete structures, and meeting MTCA “B” standards (including for cancer and toxic exposure risks). Essentially, USDOE is seeking to leave wastes in place at levels that will recontaminate groundwater, spread contamination at levels dangerous to workers in reused structures or other exposure routes (e.g., soil inhalation) and for future public users of the site. Importantly, no consideration has been given to Tribal exposure scenarios and risks.

A comprehensive plan for removing and treating wastes with enforceable closure plans is long overdue and should be issued, rather than asking for piecemealed comment on incomplete submittals. This reopened comment period is an example of that bungled approach casting further doubt on Ecology’s capacity to administer the RCRA program at Hanford, after years of inadequate oversight and administration of the program allowed USDOE to openly and illegally operate mixed waste storage at these sites without applying for permits to construct, store or close.

The seven units for which Ecology proposes to add to the permit for closure have not stored waste for a decade. The priorities of the Department are clearly backward. The units with waste, or which had waste which was the subject of the Notices of Violation and Orders should be prioritized for permitting with characterization, removal, treatment and clean closure.

Failure to disclose and provide links:

We have to ask why (d) 221-T R5 waste storage area is not listed as being closed as part of this proposal?

Yet, the RCRA Permit WA7890008967, Part V, Closure Unit Groups 27, 28, 29, 30, 37, 39, and 41 Fact Sheet Figure 2 shows 221-T R5 as being a Dangerous Waste Management Unit (DWMU) proposed for closure.

This nondisclosure has likely led the public and other commentators to not comment on an important unit.

The agencies’ focus sheet for the public fails to make any mention of the crucial fact that these units were opened and operated illegally. This is a major public policy issue that the agencies apparently chose not to disclose to the public for comment. One of the most important issues for comment is how units that were opened illegally to illegally store waste – placing worker safety and environment at serious risk – have been delayed from being closed for years, and would not have to be closed for another six years.

Further, the failure to disclose that there were other units that opened illegally and were part of the CAFO is inexplicable.

We object that it took six years for issuance of the response to comments from 2014, the original comment period on the closure plans mandated by the consent order stemming from USDOE’s multiple legal violations. (Response to comments dated April 2020). It is inexcusable

that the Response to Comments was not issued with commitments to meet the ordered closure due to massive violations within one year, rather than six years.

The Focus Sheet and linked material supporting comment should disclose and link to all applicable regulatory orders and actions. This is required.

However, the Focus Sheet and support materials fail to disclose and provide access to the Notice of Violation and Order issued by Ecology, which is different from, and has additional applicable conditions to those in the EPA Consent Agreement and Final Order of 2013 (CAFO). USDOE has not only failed to meet timelines for required actions from that Order, but the agencies have modified the TPA to remove the relevant milestones.

The Closure Plans should have been submitted and clean closure completed by this time.

Adding insult to environmental and potential worker safety injury, Ecology now proposes to take “several years” to adopt requirements for removal and treatment of wastes followed by closure of the other units at CWC and T-Plant, saying additional comment periods will occur in a piecemeal fashion “for adding the remaining units to the Site-wide Permit over the next few years.” Focus Sheet for Closure Plan for T-Plant and Central Waste Complex (CWC) at page 2, July 2020.

This piecemeal approach is unacceptable.

Clean Closure is Required:

Ecology ordered USDOE to plan to meet MTCA B (or A) standards, not industrial cleanup standard (MTCA C) in revised submission. Important action by Ecology. See Transmittal Letter 9-17-20 20-NWP-153.

“The CPS in each closure plan is now based on an evaluation of all exposure pathways, using MTCA Method B (or in some cases MTCA Method A) cleanup levels where applicable.” (CPS = Soil Closure Performance Standard).

HoANW fully supports Ecology’s determination that MTCA C industrial standard was not authorized or applicable it would likely have led to residual contamination levels up to hundreds of times higher for some contaminants than allowed under Method B.

“Since many of the SWOC DWMUs did not have complete records of what waste had been stored within them or the waste types were unknown, it was decided that all the known waste constituents at SWOC facilities would be used on the CPS list. Most of the DWMUs will be sampled and analyzed for all the SWOC dangerous waste constituents. For DWMUs with adequate records of specific waste stored there, only those waste constituents will be addressed.”

All DWMUs should be required to be sampled. None of these units have “adequate records.” Wastes stored have not been characterized -e.g., prior to leaking, USDOE misidentified almost all of the stored wastes in CWC as solid debris. Then drums started leaking liquids with Plutonium. If the stored wastes were not characterized and are misidentified, the information on soil sites, including T-Area, is certainly not adequate.

It is appropriate for Ecology to require “clean closure” for units that have contaminated concrete, including 271-T Cage, the 277-T Outdoor Storage Area, the 277-T Building, and the 211-T Pad DWMUs.

Worker health plan must be developed and incorporated into the permit in a worker health and safety plan for abrasive or spray “decontamination” of cement surfaces, which involves removal of top layer of cement. These surfaces should be presumed to be beryllium surfaces unless USDOE characterization demonstrates otherwise. Thus, only beryllium workers and beryllium work protections should be permit conditions. Sampling required by Ecology does not appear to discuss meeting beryllium sampling requirements from CBDPP. High pressure steam should not be permitted if beryllium or organic chemicals or small, easily spread and inhalable particles of radioactive elements, are found to be present.

Set an enforceable schedule for removal of all wastes from CWC. Do not reply that this is outside scope of these comments. **The draft permit should be covering all CWC units.** The delays in permitting an illegally opened set of facilities is inexcusable.

In 2013 and 2014, HoANW and many commenters urged that Ecology should set an enforceable schedule to remove the waste within 3 years from all of CWC units that did not have a permit (interim status is not, and was never, legally applicable). Three years was a generous time period, for waste that should never have been stored for over six months. Perma-Fix NW was able to expand capacity to meet a treatment schedule if an order was issued that they could rely on for expanding capacity.

Instead of removing waste within three years, Ecology now wants to give USDOE thirteen years from when the violation order was issued, with a date of 2026 for removal of waste from outdoor storage. Ecology has failed to order illegally stored waste in indoor facilities to be removed at any time. From Response to Comments:

CWC – The Hanford hazardous waste permit for the Central Waste Complex (CWC) should require USDOE to remove and treat all illegally stored wastes within 3 years. Our state's Department of Ecology should include a schedule for removing and treating the 68,000 drums of wastes stored illegally inside CWC within 3 years, as well as a schedule to remove and treat all of the waste stored outside.

Updated Ecology Response: Thank you for your comment. Ecology agrees waste stored illegally in container storage areas should be removed as soon as possible. With the exception of CWC Outside Storage Areas (OSA) A and B, all waste previously stored in unauthorized container storage areas has been removed. In addition, in 2017 Ecology established Tri-Party Agreement Milestones for removal of remaining waste containers from CWC OSA-A and B (TPA Milestone M-091-52-T01 and M-091- 52-T04). All waste containers are scheduled to be removed from these areas by September 30, 2026. To date, more than 100 waste containers have been removed from OSA-A, and less than 100 waste containers remain. Although the established schedule is longer than desired, it is based on the ability of Perma-Fix Northwest to accept mixed waste and stay within their annual radiological limits per the Department of Health license. In addition, competing priorities from waste generated from the Plutonium Finishing Plant demolition project affected the ability of Perma Fix Northwest to accept the waste on a

more expedient schedule. In regards to the “68,000 drums of waste stored inside CWC,” the approximate number of containers is 10,500. Further, this waste is being stored in compliance with Permit Condition I.A under interim status technical standards (WAC 173-303-400). While much of this waste is in storage greater than one year: as required by TPA Milestone M-026, USDOE submits an annual report identifying all waste, along with treatment plans and schedules for waste in storage greater than one year (Land Disposal Restrictions Report). By submitting this report, USDOE is satisfying Site Treatment Plan requirements under the Federal Facility Compliance Act of 1992, which allows mixed waste to be stored until it can be treated and disposed.

Ecology’s response improperly asserts that “interim status” standards apply. However, interim status was never available to USDOE for the CWC and wastes stored there because CWC was built without a permit many years after RCRA’s authorization for preexisting facilities to have interim status had expired. The annual identification report does not meet legal requirements because much of this waste has not been characterized – which was one of the EPA national inspection findings. Further, the inspection and release of liquid wastes from drums identified as solid “debris” demonstrate that the wastes have not been properly characterized and designated. The drum whose wastes were designated at “solid debris” leaked plutonium, nitric acid, beryllium and sulfuric acid “which are extremely hazardous to workers as an inhalation hazard.” Findings of Violations and Order, Exhibit C, Violations A.1. This is a serious set of legal violations that Ecology has now allowed to continue for years beyond when Ecology assured us the violations would be cured. And Ecology proposes to allow the wastes to continue to be stored for another six years.

In the never finalized draft CWC permit and Condition Fact Sheet (2016), Ecology proposed that USDOE would have fourteen days from issuance of the permit to submit plans to ensure that wastes do not contain free liquids. Nearly five years have gone by without demonstrating that no free liquids are stored.

The Draft CWC permit and condition fact sheet (never issued) from 2016 improperly described the outside waste management areas as “waste management areas.” They have no containment. They do not meet standards for storage. It is not adequate to say that there is no treatment allowed. That is inane.

Notice of Violation and Order for CWC documented that the outside storage areas:

The CWC outdoor expansion area has no secondary containment, roof cover, or adequate container covers.

Exhibit C.9 at page 9.

These units should not be identified as waste management areas because outside areas without impermeable surfaces and containment are not legal to use as waste management areas. In the 2016 draft, we were assured that containment would be achieved for oversize containers within 360 days. Part III, Operating Unit Group 6-FS.10, Condition III.6.O.4.d.

The Notice of Violation and Order required USDOE to “complete characterizations ... no later than the dates specified in milestones M-091-42 and M-091-43.” Order at 1.8.5.2. However,

Ecology has allowed these milestones to be deleted, essentially giving USDOE a get out of jail free card for characterization and removal of illegally stored wastes; and, now wishes to extend this noncompliance for another six years – with no interim requirements to meet vital safety standards for storage of wastes.

At this point in time, we ask if Ecology and USDOE believe that a court will not order more rapid characterization, containment, removal and treatment of wastes, if we file a legal challenge to the continued illegal storage of wastes that have not been properly characterized and are illegally stored?

Quantities of CWC waste should be disclosed as part of a comprehensive CWC closure plan:

Response to HAB member question regarding waste quantities at CWC 2018:

There are currently slightly over 130 non-standard TRU containers stored outside at the Central Waste Complex (CWC). In addition, a number of non-standard containers are also stored inside the CWC.

Ecology comment urging correction:

From: Lowe, Steven (ECY) [mailto:slow461@ECY.WA.GOV]

Sent: Thursday, August 9, 2018 7:26 AM

To: Lindsay Strasser <LStrasser@prosidian.com>

Cc: Whalen, Cheryl (ECY) <CWHA461@ECY.WA.GOV>; Elsethagen, Kelly (ECY) <kels461@ECY.WA.GOV>

Subject: RE: Follow Up Questions from 8.7.18 RAP Meeting

Lindsay,

The answer to the question about how many transuranic boxes are stored at CWC is misleading at best. The last inventory I saw (attached below) is from 2014 and at that time there were over 500 TRU boxes alone. The commenter was probably interested in how many total packages of TRU waste there are in CWC, and that number is an order of magnitude greater. Since there have been no shipments to WIPP since, those packages are still on site. Further, the LDR report is a submittal under the TPA tracks only the mixed waste portion, and excludes a number of TRU waste packages that are non-mixed and come from other sources. The bottom line is all these TRU packages need to be assayed and processed (checked for prohibited items, repackaged, etc) and sent to WIPP at some point.

Steve Lowe
Ecology