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Washington Department of Ecology
Attn: Daina McFadden
3100 Port of Benton Blvd
Richland WA 99354

99354-167000

July 25, 2025

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3100 Port of Benton Blvd
Richland WA 99354

Dear Ms. McFadden:

Following are comments for the Central Waste Complex Outdoor Storage Area-A (OSA) Proposed Dangerous Waste Permit Modifications. The comment period is from July 16, 2025, to September 5, 2025. The proposed modification adds the OSA to the Hanford Sitewide Dangerous Waste Permit. According to the fact sheet, this modification will incorporate Addendum H, "Closure Plan" and Unit-Specific Permit Conditions for CUG 34, Central Waste Complex (CWC) Outdoor Storage Area-A (OSA-A).

Activated in 2008, (therefore operating without a permit for about 17 years), "the primary purpose of OSA-A was storing **large transuranic mixed (TRUM) waste boxes** that were removed from storage as part of the Waste Retrieval Project. OSA-A is a gravel-covered, rectangular-shaped area that is 252 m (828 ft) long and 140 m (460 ft) wide, with a total area of 35,385 m^2 (380,872 ft^2). OSA-A is an uncovered area **that does not have a constructed secondary containment for management of containers with liquids.** Transfer of additional dangerous or mixed waste into OSA-A is not authorized."

Per the Response to Comments document, OSA-A is an illegal storage site, scheduled to be emptied of waste boxes by September 30, 2026. DOE was allowed to empty it slowly to accommodate PFNW's license capacity for radionuclides because DOE chose not to repackage the waste themselves on the Hanford Site (transferring risk to Richland). According to the Solid Waste Operations Complex and M-091 Milestone Project Managers Meeting Minutes, (CPCC-01382, June 2025), there are seven waste containers still located in OSA-A comprising 332 cubic meters of waste as of May 22, 2025. The meeting minutes note that DOE plans to continue to receive PFNW TRUM Standard Waste Boxes from repackaging OSA-A waste containers. These minutes are located at: https://pdw.hanford.gov/document/AR-35999.

Perma-Fix Northwest is located inside the Richland, Washington City Limits, at 2025 Battelle Boulevard. The PFNW site is just 10 feet above Richland's water table. Most recently, Richland has had a detour from SR 240 through Battelle Boulevard, right past PFNW, during the ongoing road construction. Many homes and businesses are in the area, including mine.

1. I am concerned that the OSA-A is still allowed to operate to send waste to PFNW. I think shipments from OSA-A to PFNW should be suspended now.

2. I do not understand why the OSA-A was not required to have a liner/secondary containment over the course of 17 years, since the waste container contents include liquids, and experience shows waste containers leak.

3. Unit-Specific Permit Conditions Omit an Inspection Plan or Contingency Plan. Why? Shouldn't these boxes have been routinely inspected?

4. Addendum H, Closure Plan, Section H.4.1.2 states: "Boxes are shipped back to the Central Waste Complex for indoor storage." This is contradicted by another sentence that says "The MLLW is moved from OSA-A to *either* the East Outside Storage Area or into compliant indoor storage buildings at CWC. Is the storage of returned waste 100% indoors or indoors and outdoors? It would help if this could be clarified.

5. Addendum H, Closure Plan, Section H.4.1.2 calls for waste to be shipped from the OSA-A to a *"designated off-site receiving facility."* The language should be more specific, since the M-091 Meeting Minutes (CPCC-01382) call out **PFNW** as the "designated" facility. The location should not be hidden in vague language in the permit. Further, the Response to Comments document does not use the term "designated off-site receiving facility." The R2C document calls out "Perma-Fix Northwest" as the receiving facility 102 times, on 49 of the 190 pages, either in comments or in Ecology's responses. And experience shows the use of PFNW is a process fraught with risks. Recent events provide an emphasis for these concerns.

   NRC Event Notification Report 55181, dated April 16, 2021, shows that PFNW received externally contaminated drums of tritium, shipped from NSSI/Recovery Services in Texas. 21 of 38 drums on the truck were non-compliant with 49CFR173.443(b). One of the drums was offloaded at PFNW and the floorboards of the truck were contaminated. NSSI was suspended by DOH from further shipments to PFNW, because removeable contamination exceeded allowed limits. NRC Event Notification Report 55181 is located at: https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2021/20210415en.html.

   NRC Event Notification Report 56675. In August of 2023, Hanford sent a "weeping box" to PFNW. The 2023 weeping box (wood, with drippy liquids) was PFNW barcode MW23000245 and Hanford PIN HX9-252-006. This was a non-compliant box with radioactive material and chromium shipped from Hanford to PFNW over public roads. The shipper (in this case DOE) was suspended pending a root cause analysis. Notification Report 56675 is located at: https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2023/20230818en.html.

NRC Event Notification Report 57762, dated June 24, 2025, shows that "In early March 2025, a mixed-waste operator at Perma-Fix Northwest (PFNW) sustained a finger sliver while processing waste. Although the wound frisked clean, split 24-hour urinalysis later that month revealed 0.07 and 0.06 pCi Pu per L, projecting a maximum committed effective dose (CEDE) of up to 6 rem. PFNW did not alert the Department [DOH] until June 10, 2025, about **sixty days** after receiving the positive result, and still has not submitted the 30-day written report that was due on April 28, 2025. These delays violate the 24-hour telephone-notification and 30-day written-report provisions of WAC 246-221-250, both incorporated into PFNW's licenses via license condition 11. Bioassay follow-up, dose modelling, and record updates have also lagged, contravening license condition 21, while no timely radiological unusual event file was routed to the Department as required by license condition 23.

"No chelation therapy (Ca- or Zn-DTPA) was administered, and the contract certified health physicist (CHP) did not document why none was indicated. Immediate corrective actions included and include retro-logging the 24-hour call, submitting an overdue SA-300 written report within five working days, and certifying the committed dose by June 20, 2025. They are also to provide supporting records for the Department [DOH] to review during the June 24, 2025, on-site inspection. Should the final dose exceed 5 rem CEDE, PFNW will breach the annual dose limit in WAC 246-221-010(1), and the dose must then be subtracted from the worker's planned-special-exposure allowance under subsection (2). In summary, PFNW's failures in notification, reporting, and bioassay execution constitute serious compliance deficiencies that require immediate, documented remediation to protect the worker and restore conformity with state and license requirements.

"As the maximum calculated CED exceeds 5 rem, this event is being reported as a possible overexposure.

"The Department [DOH] is conducting a responsive investigation. Washington Incident File: WNS-INC-25-04."

Notification Report 57762 is located at:
https://www.nrc.gov/reading-rm/doc-collections/event-status/event/2025/20250624en.html

Defense Nuclear Facilities Safety Board Hanford Weekly Report for June 13, 2025, shows that Hanford Central Waste Complex (CWC) personnel identified **loose radiological contamination** on the outside of two Standard Waste Boxes (SWBs) containing mixed-transuranic waste. The SWBs had been returned to CWC after an offsite vendor completed repackaging the waste to support future shipment to an offsite disposal facility. CPCCo management is working with the vendor to identify the cause and prevent future occurrences. The vendor is PFNW, as identified in the M-091 Project

Managers Meeting Minutes, located at https://pdw.hanford.gov/document/AR-35999. According to the minutes, on June 12, 2025, the CWC was scheduled to receive two shipments of standard waste boxes (SWBs) from PFNW, TR2501 and TR2501-1. While performing radiological receipt of the two SWBs in shipment TR2501-1, **removable radiological contamination** was identified on the exterior of the containers. Work was immediately halted, the containers placed in a safe configuration, and the area around shipment TR2501-1 was posted with the appropriate radiological conditions.
During the recovery plan implementation on Friday, June 13, 2025, and Saturday, June 14, 2025, **9 out of 10 SWBs** on shipment TR2501 were found with external radiological contamination. All containers from both shipments were confirmed to be in good physical condition with no indication of a breach**, indicating the SWBs had been contaminated at PFNW prior to the shipment.**

OF NOTE is that no NRC Event Notification Report has been prepared, and no comparison of the removable contamination to requirements of 49CFR173.443(b) has been made for these shipments. The DNFSB Weekly Report for June 13, 2025 is located at: https://www.dnfsb.gov/sites/default/files/2025-06/Hanford%20Week%20Ending%20June%2013%202025.pdf.

A follow up DNFSB Weekly Report for June 20, 2025, states: "Following identification of radiological contamination on two standard waste boxes (SWBs) returned from an off-site repackaging vendor [PFNW] (see 6/13/2025 report), CWC radiological control personnel identified contaminated containers from a second return shipment of 10 SWBs. In total, 11 of 12 containers returned last week from the vendor were found to have either fixed or removable contamination. Five of these containers were decontaminated, and six were wrapped pending overpacking. The drivers who returned the shipments, as well as potentially affected offsite areas, were surveyed for contamination, with none identified. The response by CPCCo personnel to the contamination was appropriate; however, **a significant delay occurred in surveying the drivers and associated offsite areas**. CPCCo is working to establish new processes to prevent similar events from occurring in the future." [No description of the extent of off-site areas surveyed was provided.] The DNFSB update is located at https://www.dnfsb.gov/sites/default/files/2025-07/Hanford%20Week%20Ending%20June%2020%202025.pdf.

Defense Nuclear Facilities Safety Board Hanford Weekly Report for July 4, 2025, states: While relocating containers in a waste storage building, workers discovered a corroded drum with a hole in the bottom surface. The workers responded correctly, and the drum was overpacked the following day to restore confinement. As noted in previous reports (e.g., 6/13/2025, 6/6/2025, and 5/23/2025), CWC personnel have discovered a significant number of inoperable, safety-significant waste drums while replacing pallets and relocating containers to reduce facility fire hazards. Critiques are held after each discovery to collect facts, identify potential causes, and ensure the implementation of compensatory measures. A resident inspector attended the critique for this event. The discussion focused on the response to the event, which went well. However, there was limited discussion regarding potential causes for the drum failure, or actions needed to

get the failure rate under control. Although the resident inspector acknowledges that the drum failure discovery rate has increased due to the increase in drum movements, the drums are expected to confine radioactive contamination under defined conditions. The recent discoveries indicate that there are potentially many drums in the inventory that have failed or are degraded that cannot perform that safety function but have not been identified using the surveillance process. The contractor has not determined the extent of this condition. **This is a safety issue**. The resident inspector discussed his concerns with the DOE facility representative. The DNFSB July 4, 2025 Report is located at: https://www.dnfsb.gov/sites/default/files/2025-07/Hanford%20Week%20Ending%20July%204%202025.pdf.

NRC takes externally contaminated packages seriously but *apparently has not even been informed* of the 11 of 12 non-conforming, contaminated containers shipped from PFNW to DOE over public roads. DOE's lack of concern over the extent of condition for continuing container failures is a problem, especially when multiple containers are shipped to PFNW, exposing the public to risk. After-the-fact off-site surveys are not described and may be inadequate. PFNW shipping to DOE should be suspended.

I think closing OSA-A is a good idea. I would appreciate if Ecology will encourage DOE to treat and repackage waste on-site, to avoid the transportation and contamination risks described above. Shipments of mixed waste from DOE to PFNW should stop. PFNW delays in reporting and failure to appropriately address employee exposures show ongoing serial non-compliance, similar to prior behavior documented in "Risky Business at PFNW" located at https://ananuclear.org/wp-content/uploads/2022/03/2020-12.04-PermaFix-Report-updated.pdf.

Thank you for providing these proposed changes for review.