



Nez Perce

TRIBAL EXECUTIVE COMMITTEE

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September 16, 2026

Sent Via Electronic Mail to: Hanford@ecy.wa.gov

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United States Environmental Protection Agency
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*Re: Nez Perce Tribe's Comments on the Draft Changes to the United States Department of Energy,
Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion,
Revision 9A, for the Treatment, Storage, and Disposal of Dangerous Waste, WA7890008967*

Dear Ms. Schleif and Mr. Geimer:

The Nez Perce Tribe (Tribe) appreciates the opportunity to comment on the United States Department of Energy, Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 9A, for the Treatment, Storage, and Disposal of Dangerous Waste (Revision 9A). Revision 9A covers 52-unit groups and incorporates more than 5,000 comments received during the 2012 public comment period for the draft Revision 9.

This revision represents far more than an administrative update. Rather, the proposed revised permit establishes an enforceable regulatory framework that will govern the treatment, storage, closure, and disposal of dangerous and mixed waste for both previously- and proposed newly-permitted units across the Hanford Site. Revision 9A has implications not only for regulatory compliance, but also for groundwater protection, cleanup strategies, long-term stewardship, future land use, and preservation of the natural resources.

The Tribe has consistently advocated that cleanup actions at Hanford support the restoration of natural resources to achieve pre-Hanford site conditions. Revision 9A is narrowly intended to satisfy the requirements of RCRA, which the Tribe considers to represent the minimum regulatory standard. That said, the Tribe continues to urge the Washington Department of Ecology (Ecology) to maximize permit restrictions at Hanford that reduce long-term environmental liabilities, minimize reliance on institutional controls, and provide durable protection of groundwater, ecological resources, and future generations. Imposition of such restrictions is well within Ecology's existing authority.

The Tribe's review of Revision 9A revealed several overarching themes. These include: (1) the relationship between the permit and other regulatory frameworks; (2) cleanup priorities; (3) the treatment and disposal of tank waste; (4) the increasing reliance on long-term stewardship and institutional controls; (5) groundwater protection; and (6) the implications of evolving federal policies that may affect implementation of the permit over its lifetime. The Tribe has also identified several facility-specific technical questions and developed related recommendations. The Tribe believes that the true measure of cleanup is not whether risk has been reduced to an acceptable regulatory threshold, but whether the decisions made today increase or diminish the opportunity for future generational use at the Hanford Site. Wise permit restrictions can preserve and strengthen the natural resources, ecological functions, treaty-reserved rights, and cultural connections for those who will inherit the consequences of today's decisions.

The Tribe respectfully encourages Ecology to view Revision 9A as an opportunity to strengthen the long-term trajectory of cleanup at Hanford. Each permit decision should move the Site toward reduced environmental liability, greater ecological resilience, diminished dependence upon institutional controls, and increased opportunity for future restoration.

Based on the history at Hanford, the Tribe does not believe that expediting procedures for treatment, storage, and disposal will aid in the Tribe's advocacy for cleanup efforts. Rather than expanding the footprint at Hanford, the Tribe encourages and supports a strong and enforceable Dangerous Waste Permit with restrictions that hold the permittees accountable for groundwater impacts, transportation and treatment of radioactive waste, and cleanup of the Site. We hope that this letter and our attached comments will assist in this regard.

The Tribe remains committed to working collaboratively with the Washington State Department of Ecology, the U.S. Department of Energy, the Environmental Protection Agency, and other partners to ensure that cleanup decisions reflect both sound science and the enduring responsibility to protect the Hanford landscape for present and future generations.

Please contact Winter Hayes, Legal Policy Analyst, at winterh@nezperce.org or 208.621.4821 if you have any questions or concerns.

Sincerely,



Samuel Penney
Chairman

NEZ PERCE TRIBE'S COMMENTS ON THE DRAFT CHANGES TO THE UNITED STATES DEPARTMENT OF ENERGY, HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT PERMIT, DANGEROUS WASTE PORTION, REVISION 9A, FOR THE TREATMENT, STORAGE, AND DISPOSAL OF DANGEROUS WASTE, WA7890008967

September 16, 2026

GENERAL COMMENTS

1. *Consultation Requirements and Coordination.* The Nez Perce Tribe (Tribe) unequivocally expresses that its ability to provide thoughtful, substantive, and timely comment is lessened without ample time and the required consultation (either formal government-to-government consultation or more informal coordination) on most matters concerning the Hanford site. The Tribe appreciates the Washington Department of Ecology for engaging in consultation requests on this matter. We encourage the federal agencies to continue making an effort towards early and often consultation, consistent with our government-to-government relationship, and inclusive of tribal input. Ecology is well-positioned to add its encouragement to ours.
2. *Comment Period.* As a sovereign government with its own internal decision-making framework and timelines, the Tribe typically requires a minimum of 60 days to develop comment and submit them to Tribal leadership for review and approval. This is a process common to most governmental entities. Revision 9A, specifically, contains a large amount of material that has been in the works since 2012. The Tri-Party Agencies (DOE, EPA, and Ecology) should consider and provide ample time upon the initial public notice for tribes, government entities, and other organizations to make substantive and deliberate comment, which may even require consultation beforehand. The Tribe considers the length of this comment period inadequate.
3. *Permit Decision Priorities.* The Tribe recognizes that Revision 9A establishes enforceable requirements under the Resource Conservation and Recovery Act (RCRA). However, regulatory compliance and an "acceptable" calculated level of risk should not, by themselves, define successful cleanup. Risk assessments supporting permit decisions should adequately consider chronic and cumulative exposure, multiple pathways, bioaccumulation, ecological receptors, uncertainty, and reasonably foreseeable future Tribal uses of the Hanford landscape. The Tribe requests that Ecology more clearly identify the exposure scenarios and land-use assumptions supporting significant closure and disposal decisions and evaluate whether those assumptions remain protective of natural resources and future generations.

4. *Long-term Stewardship.* The Hanford Nuclear Site (Hanford) sits within the Tribe's ceded territory and Usual and Accustomed (U&A) areas, as defined by the Treaty of 1855. The Columbia River, into which Hanford groundwater flows, and the natural resources of the Hanford plateau are of enduring cultural, spiritual, and subsistence importance to the Nimiipuu (the Nez Perce people). As such, the Long-term Stewardship at the Hanford Site is a high priority for the Tribe. The Tribe recognizes that long-term stewardship and institutional controls will remain necessary where contamination cannot be removed or treated. However, these measures should not become substitutes for cleanup. Revision 9A should favor actions that reduce residual contamination and future stewardship obligations wherever practicable. Where protectiveness depends upon engineered barriers, monitoring, maintenance, access restrictions, records, or other institutional controls, Ecology should clearly identify those dependencies, their expected duration, responsible parties, failure criteria, and contingency measures. Permit decisions should consider whether a remedy remains protective at all points where contamination remains hazardous.
5. *Regulatory Coordination and Long-Term Environmental Protection.* The Tribe supports coordination among RCRA, CERCLA, the Tri Party Agreement (TPA), and other applicable authorities where coordination improves cleanup. However, coordination should not compartmentalize contamination, defer unresolved responsibilities, or weaken independently enforceable requirements. Because Tribal Nations are not parties to the TPA, Ecology should ensure that permit decisions provide meaningful opportunities for Tribal involvement before consequential cleanup, closure, and disposal decisions are finalized.
6. *Groundwater and Vadose Zone.* Protection and restoration of groundwater remain fundamental concerns for the Tribe. Revision 9A should ensure that closure, treatment, storage, and disposal decisions do not create new contaminant pathways, prolong existing sources, or increase future groundwater remediation and long-term stewardship obligations. The Tribe is concerned that contamination may continue to migrate toward groundwater or the vadose zone over time. Source-area closure, vadose-zone contamination, and groundwater impacts should therefore be evaluated as interconnected components of the same environmental system rather than as separate regulatory problems. Deferring groundwater contamination to a future CERCLA or remedial-action decision should not diminish Ecology's permit responsibility to prevent or reduce continuing sources of contamination wherever practicable.

The Tribe requests that Ecology ensure that Revision 9A considers contaminant migration over appropriate long-term timeframes, including uncertainty associated with changing groundwater conditions, engineered barrier performance, and residual contamination remaining in the vadose zone. Permit decisions should seek to reduce the contaminant burden ultimately reaching groundwater and protect groundwater as a resource for future generations.

7. *Treatment and Disposal.* The Tribe is concerned with decisions involving tank-waste retrieval, treatment, grout, disposal, closure, and the generation of additional long-term stewardship obligations. For example, under the Removal, Treat, and Disposal approach, the “removal” part is being addressed in largely specific terms. However, the “treat” and “disposal” part of it are extremely vague and noncommittal. The permit should therefore remain transparent regarding what constitutes treatment, what waste remains after treatment, where that waste will ultimately be disposed, and what environmental liabilities remain.
8. *Changing Federal Requirements.* Changes in treatment pathways, waste classification or disposition, radiation-protection policy—including changes involving ALARA—or other federal requirements that affect assumptions underlying Revision 9A should be evaluated before being incorporated into the permit. The Tribe understands that DOE has recently announced the elimination of ALARA as a Department-wide operational principle and intends to replace it with a different radiation protection framework. The Tribe is concerned that Revision 9A may now rely upon radiation regulations that are no longer consistent with DOE policy or future operational practices. This is explored in more detail in our Technical Comments.

Generally, the Tribe encourages Ecology to evaluate whether Revision 9A accurately represents the current regulatory framework under which DOE intends to operate, much less the framework over the life of the permit. Ecology is urged to evaluate Revision 9A and (current and) future permit modifications to ensure the regulatory environment is accurately represented, and that it moves Hanford toward reduced environmental liability and restoration, rather than perpetuating successive cycles of waste management, institutional control, and long-term stewardship.

TECHNICAL COMMENTS

Comment Group 1: Tank Waste Treatment, Grout Treatment Facility, and Offsite Disposal

Background

The Rev. 9A transmittal formally denies the permit application for the Grout Treatment Facility (GTF), a group of underground vaults in Hanford's 200 East Area that were constructed in the 1980s as a pilot project for treating and disposing of mixed (radioactive and chemically hazardous) tank waste using a grouting process. The GTF was designed to handle approximately 100,000 gallons per day of mixed tank waste by mixing it with cement to form a solid monolith for permanent onsite disposal. After construction and pilot testing in the early 1990s, the approach was abandoned due to questions about grout monolith integrity and leaching characteristics, and in response to concerns raised by citizens and tribal nations. Ecology notified DOE of its intent to deny the GTF permit on August 18, 2009, and the Rev. 9A transmittal letter constitutes the final formal denial. *[Rev. 9A Fact Sheet, Section 2.2.7, pp. 19–20; GTF_fact.pdf [2012 Permit/Part V/CUG-12], pp. FS.3–FS.4]*

The Tribe understands and does not contest the denial of the GTF as originally proposed. However, the Tribe notes a significant tension in the current permit: While formally closing the door on the GTF, Rev. 9A simultaneously incorporates grouting as a planned treatment and disposal method in other contexts. The SST System Tier 1 Closure Plan states that "all SSTs in the SST system are slated to be grouted and landfill closed according to the TC&WM EIS, following completion of waste retrieval." In addition, the proposed Permit Modification Form 26-ECD-0093 (discussed further in Comment 2 below) would authorize shipping up to 600,000 gallons per year of pretreated liquid tank waste offsite via commercial tanker trucks to be grouted at an offsite facility. *[SST_ADD_H_Tier_1_Closure_Plan.pdf [2026 Permit/Part V/CUG-04], p. 24; Proposed Permit Modification 26-ECD-0093]*

Comment 1.1

The Tribe requests that Ecology address this apparent inconsistency. If grouting is an acceptable treatment method for Hanford tank waste — whether for SST in-tank stabilization or for pretreated liquid waste from the Low-Activity Waste Pretreatment System (LAWPS) — the question of whether an onsite grouting facility should be reconsidered, as a safer and more controllable alternative to offsite transport of liquid waste, may be warranted. The technical concerns that led to the GTF's denial — monolith integrity and leaching characteristics — have not been resolved by the decision to transport liquid waste offsite for grouting; they have merely been relocated. The Tribe requests a clear and public explanation of how grouting in the current proposed uses is materially different from the GTF approach that was found not viable, and on what basis grouting now satisfies protective standards that it did not in the 1990s.

Comment 1.2

The Tribe is concerned with the proposed pathway for pretreated tank waste from Tank AP-106 that may be transferred to the Effluent Treatment Facility, loaded for transportation, and shipped offsite for grouting. The Tribe requests that Ecology and DOE clearly identify the regulatory pathway applicable to this waste at each stage of treatment, transportation, grouting, and final disposal, including the relationship between the proposed activity and any Waste Incidental to Reprocessing (WIR) determination.

Comment 1.3

The Tribe requests clarification regarding:

- the waste classification and applicable regulatory requirements at each stage prior to final disposition;
- the point at which a WIR determination applies and the technical and regulatory basis for that determination;
- the constituents remaining in the liquid waste following pretreatment;
- transportation requirements and risk associated with shipment of the liquid waste;
- the receiving facility's treatment and disposal requirements;
- long-term performance and groundwater protection associated with the grouted waste form; and
- whether implementation of this treatment pathway requires additional permit modification, environmental review, or Tribal consultation.

Comment 1.4

The Tribe is concerned that significant changes to the tank-waste treatment and disposal strategy may be incorporated incrementally through permit modifications without adequate consideration of their cumulative effect on the overall cleanup strategy. Changes of this magnitude should be evaluated comprehensively and transparently before implementation.

The Tribe requests that Ecology explain whether onsite grouting alternatives have been evaluated in comparison with offsite grouting, including the relative transportation risks, environmental impacts, treatment effectiveness, long-term disposal performance, and stewardship implications of each alternative.

Comment Group 2: LAWPS, WTP, Pretreatment, and Treatment Effectiveness

Background

The permit includes requirements for both the Low-Activity Waste Pretreatment System (LAWPS) and the Pretreatment Facility (PTF) even though construction of the PTF has been suspended and LAWPS/ Tank-Side Cesium Removal (TSCR) currently performs significant pretreatment functions supporting Direct-Feed Low-Activity Waste (DFLAW). The Tribe is

aware of a recently released red-lined permit modification notification (Form 26-ECD-0093) for the Waste Treatment and Immobilization Plant (WTP). If approved, this modification would be incorporated into Rev. 9A. The modification would authorize the transfer of up to 600,000 gallons per year of pretreated tank waste from Double-Shell Tank (DST) 241-AP-106 — in liquid form — into commercial tanker trucks for transport offsite, where the waste would then be grouted at a receiving facility. This is separate from, and in addition to, the grouting of secondary waste already authorized at the Integrated Disposal Facility (IDF) under Rev. 9A. The Tribe has serious concerns about this proposed modification on both legal and safety grounds, and is troubled by the speed at which it has been developed and positioned for implementation.

Comment 2.1

Regarding legal classification: tank waste at Hanford is a product of nuclear fuel reprocessing. Under the NWPA, such waste is classified as High-Level Waste (HLW), a category that encompasses both the primary reprocessing liquid waste and any associated solid materials. The DOE process for reclassifying a portion of this waste as "waste incidental to reprocessing" (WIR) — permitting management as low-level waste (LLW) rather than HLW — is authorized under DOE Order M435.1-1 and occurs only after the waste has been converted to a solid form. While the waste in DST 241-AP-106 has been pretreated by the TSCR system to reduce cesium-137 concentrations, it remains in liquid form at the point of transfer to tanker trucks. A WIR determination cannot be made for liquid waste. Accordingly, the waste to be transported would retain its classification as Mixed High-Level Waste under federal law — yet it would be transported in commercial tanker trucks rather than under HLW-designated transport requirements. The Tribe request that Ecology clarify the intended disposition of these waste streams with respect to legal classification [*DOE Order M435.1-1; SST_Conditions.pdf [2026/CUG-04], p. 14 (WIR definition); NWPA, 42 U.S.C. § 10101 et seq.*]

Comment 2.2

The proposed transport route would necessarily pass through environmentally sensitive areas, potentially including areas near the Columbia River and within treaty-reserved territories of the NPT and other Columbia Basin tribes. The consequences of a transportation accident involving liquid Mixed High-Level Waste — including radioactive and chemically hazardous constituents — could be severe and irreversible. The Tribe requests that Ecology require, as part of any consideration of Modification 26-ECD-0093: (a) a full environmental review under the State Environmental Policy Act (SEPA) that addresses the transportation pathway and its risks; (b) specific tribal consultation on potential routes; and (c) a legal determination by Ecology addressing the classification of the liquid waste during transport as discussed in Comment 2.1.

Comment 2.3

The Tribe notes the unusually rapid development of this proposal. Decisions of this magnitude — affecting the treatment pathway of a significant fraction of Hanford's liquid tank waste and

potentially establishing precedent for large-scale offsite liquid waste transport — should be subject to robust public and tribal participation. The Tribe requests that Ecology not approve Modification 26-ECD-0093 until and unless the concerns raised in this comment have been fully addressed through a transparent public process, and encourages Ecology to consider whether construction of an onsite grouting facility would be a preferable alternative that avoids the transportation risks and legal ambiguities described above. See also Comment Group 1. *[LAWPS_Conditions.pdf [2026 Permit/Part III/OUG-01], Sections III.1.B.6.a, III.1.B.12.a, pp. Conditions.5–6]*

Comment 2.4

The Tribe requests that Ecology and DOE clearly describe the anticipated treatment configuration, including whether DFLAW represents an interim configuration that is expected eventually to transition to operation of the PTF, what functions would then transfer or change, and where separation of low-activity and high-level waste streams occurs within each configuration.

Comment 2.5

The Tribe requests Ecology use greater specificity regarding the use of the term "treated waste." Current pretreatment includes solids separation and cesium removal through TSCR. Ecology should identify which dissolved chemical and radioactive constituents remain following filtration and cesium removal, how those constituents are addressed during subsequent treatment, and how the permit demonstrates that the resulting waste streams meet applicable treatment and disposal requirements. This information is particularly important where treatment decisions affect subsequent waste classification, transportation, vitrification, grouting, disposal, or long-term environmental performance.

Comment Group 3: ALARA

Background

The draft Rev. 9A permit contains numerous references to the principle of "As Low As Reasonably Achievable" (ALARA) as a standard for minimizing radiation exposure. However, DOE has recently rescinded ALARA as an internal policy standard. Ecology has acknowledged that the Rev. 9A permit was drafted prior to this policy change and has indicated that ALARA references will be updated through future permit modifications. The Tribe appreciates Ecology's candor on this point.

Complete removal of ALARA would not only raise exposure thresholds but also reduce incentives to minimize radiological releases. Furthermore, it is incongruent with USEPA cleanup and risk-based closure standards in both RCRA and CERCLA regulatory frameworks. Finally, complete abandonment of ALARA would likely skew cost-benefit analyses to favor short-term industry gains over long-term public safety. Reduction of dose should be paramount in

radionuclide cleanups. Regulations designed to protect human health and the environment should not be lessened just to quicken permitting and reduce “regulatory burden.” Without ALARA, and with less restrictive dose/risk limits, cleanups would result in more radioactive waste left in place that is accomplished currently. This is contrary to how cleanup should proceed, and begs the question of how this increase of residual contamination will impact future land use, monitoring, and long-term stewardship. There is little question that it will present a significantly increased burden that will be passed on to future generations.

The Tribe is nonetheless concerned that agreeing to permit conditions that reference ALARA as a controlling standard — when DOE has formally abandoned that standard and no replacement standard has yet been established — creates regulatory uncertainty that may ultimately be detrimental to protective outcomes. ALARA's strength as a regulatory tool was precisely its requirement to continuously reduce exposure; a permit that references ALARA but is administered by a permittee that no longer adheres to ALARA may provide less protection in practice than it appears to on paper.

Comment 3.1

The Tribe requests that Ecology: (1) identify all permit conditions that reference ALARA, and commit to a specific timeline for updating those conditions through a formal permit modification process with public notice and comment; (2) specify what dose optimization standard will replace ALARA before finalizing the permit; and (3) ensure that any replacement standard provides at least the level of protection as ALARA. The Tribe should not be placed in the position of either accepting an already-obsolete standard or waiting indefinitely for modifications that may never materialize.

Comment 3.2

The Tribe asks Ecology to evaluate whether:

- the removal of ALARA affects permit assumptions;
- worker protection assumptions remain valid;
- inspection and characterization requirements require revision;
- risk analyses supporting closure remain protective;
- cleanup decisions continue to represent best available protection; and
- permit conditions require modification before final approval.

Comment Group 4: Pretreatment Facility Status and LAW/HLW Separation Process

Background

The WTP permit (OUG-10) currently contains, within the same unit, both a chapter addressing the Pretreatment Facility (PTF, Chapter 4D) and conditions referencing the LAWPS (OUG-01) as the current operational pretreatment approach. The Tribe understands that PTF construction

has halted and its future is uncertain; the LAWPS/TSCR system is currently operational and performing the primary cesium removal function that the PTF was originally designed to perform as part of the baseline WTP configuration. The Direct-Feed Low-Activity Waste (DFLAW) program, which routes pretreated low-activity waste (LAW) directly from DSTs through LAWPS to the WTP LAW Vittrification Facility, is currently the active operational pathway. [*LAWPS_Conditions.pdf* [OUG-01], p. Conditions.3; *WTP_Ch4D.pdf* [OUG-10, Pretreatment Facility chapter]]

Comment 4.1

The Tribe requests Ecology clarify DOE's current plan: Is it to eventually complete PTF construction and transition from DFLAW to the full baseline WTP configuration (in which PTF separates waste into LAW and High-Level Waste [HLW] streams), or is DFLAW now the intended long-term operational configuration, with PTF potentially never completed?

Comment 4.2

In the DFLAW configuration, please clarify how and where does the separation of LAW and HLW occurs. The original baseline design performed this separation in the PTF. If PTF is not operational, the permit should clearly describe the current and planned LAW/HLW separation process, including which physical systems perform this function and how the resulting HLW sludge fraction is managed.

Comment 4.3

Please clarify what permit conditions apply to the WTP PTF chapter during the period when PTF is not operational. For example, the PTF could be in some form of standby, deferred construction, or pre-operational status. If so, please clarify Ecology's oversight authority during these non-operational periods.

Comment 4.4

Clarity on these questions is important both for effective public oversight and to understand the full risk picture associated with the WTP system. The Tribe requests that Ecology require DOE to provide, within a specified timeframe, a written explanation of the current and projected status of PTF and how LAW/HLW separation is being accomplished under the current DFLAW configuration. [*LAWPS_Fact_Sheet.pdf* [OUG-01], p. 3; *WTP_Conditions.pdf* [OUG-10], Section III.10 unit description]

Comment Group 5. Waste Characterization and Monitoring

Background

As perhaps the most prominent example, the T Plant permit conditions reference "available process knowledge" as a method for designating waste generated during closure activities. The

Tribe understands that "use of process knowledge" (also referred to as "use of knowledge") is a recognized method under RCRA for characterizing waste when direct sampling is impractical. However, the Tribe has concerns about the extent to which this method is being relied upon at T Plant, given the complexity and hazardous nature of the waste streams managed there.

[T_Plant_ADD_C_Process_Information.pdf [OUG-09], p. Addendum C.15]

T Plant handles materials including remote-handled transuranic (TRU) waste, large-container contact-handled TRU waste, and TRU mixed waste. These waste streams can be highly heterogeneous, and the actual composition of waste at the time of designation may differ from historical process records, particularly given the age of some of the materials stored at T Plant and the potential for chemical or radiological changes over time.

The Tribe supports the use of direct physical sampling and analysis — using available onsite laboratory facilities or portable hazardous categorization (HazCat) equipment — as the preferred method for waste characterization wherever technically feasible, rather than relying on process knowledge as the primary basis.

Comment 5.1

However, if process knowledge is used – particularly for TRU waste management at T Plant - the Tribe suggests that Ecology insist on increased rigor the equals or exceeds the TRU waste characterization requirement for “acceptable knowledge” under the WIPP RCRA permit. Specifically, AK includes, but is not limited to:

- Process Knowledge: Detailed descriptions of the operational activities or manufacturing processes that created the waste.
- Material Inputs: Records of raw materials, chemicals, and physical inputs used in those processes.
- Timeline: The specific operational time periods or date ranges when the waste stream was generated.
- Radiological/Hazardous Data: Information identifying specific radioactive isotopes and hazardous chemical constituents mixed within the transuranic waste.
- Auditable Record: All collected AK data must be assembled into a traceable, comprehensive record managed by a qualified [Acceptable Knowledge Expert](#).
- Verification: Generator sites use AK alongside supplemental checks (like real-time radiography) to confirm no prohibited items are present.
- Approval Process: Generator site characterization programs utilizing AK must be certified by the Department of Energy (DOE), baseline-approved by the EPA, and audited under the oversight of Ecology and the WIPP RCRA permitting authority.

Comment 5.2

The Tribe requests that Ecology review the T Plant Waste Analysis Plan (Addendum B) and ensure that process knowledge is used only in cases where direct sampling is genuinely impracticable, and that the specific circumstances justifying the use of knowledge approach are documented and available for Tribal and public review.

Comment 5.3

Ecology should identify specific circumstances in which process knowledge may substitute for direct characterization, establish the uncertainty associated with that substitution, and demonstrate that the selected characterization method is capable of identifying constituents relevant to treatment, disposal, worker protection, and environmental release. DOE should be made to petition Ecology in a publicly-noticed form to request any deviation from the specific circumstances specified in the permit.

Comment Group 6: IDF Closure and Long-Term Barrier Performance

Background

The IDF Closure Plan specifies a final cover system — designated the "Modified RCRA Subtitle C Barrier" — consisting of eight layers of material with a combined minimum thickness of 1.7 meters (5.5 feet). This cover is designed for a performance period of 500 years and is intended to minimize moisture infiltration, control biointrusion and human intrusion, and provide long-term containment for the waste disposed of in IDF. *[IDF_ADD_H.pdf [2026 Permit/OUG-11], Section H.4.3, pp. Addendum H.18–H.20]*

The Tribe has serious concerns about whether a minimum cover thickness of 5.5 feet is adequate for a facility that will serve as the long-term disposal site for immobilized low-activity waste (ILAW) glass from the WTP and other waste streams not approved for disposal at the Environmental Restoration Disposal Facility (ERDF). The waste disposed at IDF contains long-lived radionuclides — including technetium-99 and iodine-129 — with half-lives orders of magnitude longer than the 500-year design period of the cover. Although the ILAW glass form is itself engineered for long-term durability, no engineered cover can be assumed to remain fully effective over timescales measured in tens of thousands of years without maintenance — yet the stated purpose of post-closure institutional controls is precisely to ensure the cover "functions as designed" (Permit Condition III.11.O.2). If the cover degrades faster than anticipated, or institutional controls lapse, the 5.5-foot minimum thickness provides limited margin.

[IDF_Conditions.pdf [OUG-11], Section III.11.O.2, p. Conditions.22; IDF_ADD_H.pdf, Section H.4.3, p. Addendum H.18]

Comment 6.1

The Tribe requests that Ecology require DOE to conduct a more rigorous evaluation of whether the minimum cover thickness is adequate, with a particular analysis of the performance implications for longer timescales. This evaluation be made available for public and Tribal review. The IDF is intended to be permanent; the minimum protective standard for its cover should reflect that permanence.

Comment Group 7: Groundwater Monitoring and Public Accessibility

Background

The Non-Radioactive Dangerous Waste Landfill (NRDWL) and Solid Waste Landfill (SWL) Closure Unit groundwater monitoring plan specifies that statistical analysis of groundwater sampling data "will be conducted... after sample data is available in the HEIS database." The Hanford Environmental Information System (HEIS) is the DOE environmental data management system used to meet the data delivery requirements of WAC 173-303-645(8)(j). Data is made available to Ecology through the Environmental Dashboard Application, an interface to HEIS. Results are required to be available within 120 days of initial sample collection.

[NRDWL_ADD_D_GW_Monitoring.pdf [CUG-20], Sections D.2.11, D.2.13, p. Addendum D.37]

The Tribe does not have direct access to the HEIS database. This means that, for a monitoring program covering a unit in proximity to the Columbia River and areas of Tribal cultural and natural resource importance, the Tribe cannot independently and in a timely manner review groundwater monitoring data that is available to Ecology and the permittee. The Tribe must rely on periodic reports and Tribal-Ecology communication to obtain information that Ecology receives through direct database access.

Comment 7.1

The Tribe requests that Ecology work with DOE under an enforceable schedule to: (1) make NRDWL (and all Hanford RCRA permit units') groundwater monitoring data available through a publicly accessible interface — such as a public-facing data portal or a periodic data posting to a publicly accessible website — so that the Tribe and other interested parties can review monitoring results in a timely manner. Alternatively, but less preferable, would be for DOE to provide the Tribe with timely electronic access to HEIS data for units near areas of Tribal interest, comparable to the access provided to Ecology. Transparent, accessible environmental data is fundamental to meaningful Tribal participation in Hanford oversight.

Comment 7.2

The 300 Area Process Trenches Post-Closure Unit (PCUG-01) is subject to an ongoing corrective action groundwater monitoring program. The monitoring plan specifies that the compliance period for this unit formally ended in 2022 (24 years after the unit's 1998 closure). However, because concentrations of cis-1,2-dichloroethylene (cis-1,2-DCE) in at least one downgradient monitoring well (399-1-16B) are not projected to fall below the permit limit of 16 µg/L until after 2050, the compliance period has been extended under WAC 173-303-645(7)(c). Under that provision, monitoring must continue — and the compliance period remains open — until concentrations have not exceeded the applicable limit for three consecutive years.

Trichloroethylene (TCE) concentrations have been below the applicable limit of 4 µg/L since 1999 and are no longer a concern. *[300_APT_ADD_D_GW_Monitoring.pdf [PCUG-01], Sections D.2.1 (Table D-7, p. Addendum D.49), D.2.4 (pp. Addendum D.51–D.52)]*

The Tribe requests that Ecology confirm, in its response to these comments, that groundwater monitoring at the 300 Area Process Trenches is actively ongoing, that monitoring data are being regularly collected and reviewed, and that the current cis-1,2-DCE concentrations are being tracked against the permit's compliance standard. The 300 Area Process Trenches are located near the Columbia River; any unmonitored release of chlorinated solvents at this location could reach river-dependent resources of Tribal significance. The Tribe also requests information on the most recent monitoring results and the projected timeline for achieving the three-consecutive-year compliance demonstration at the problematic well.

Comment Group 8: Facility-Specific Safety and Closure Concerns

Background

In 2012, periodic inspection of Double-Shell Tank 241-AY-102 revealed that the primary tank had leaked waste into its annulus (secondary containment). The estimated leak volume was between 190 and 520 gallons, and at least seven distinct leak points were identified through video examination, located both along weld seams and in the base material of adjacent floor plates. DOE's investigation determined that "service-induced internal pitting corrosion due to the historic waste composition and operating conditions appears to be the primary degradation mechanism leading to failure of the tank." DOE concluded the tank could not be repaired and put back into service. [*DST_241-AY-102_ADD_H_Closure_Plan.pdf* [CUG-45], Sections H.3.1 (pp. Addendum H.9–H.10), H.3.3 (p. Addendum H.15)]

The Rev. 9A permit establishes an extended closure period for Tank 241-AY-102. Final closure of the tank is deferred until closure of the 241-AY Tank Farm, which in turn is deferred until closure of the entire DST System Operating Unit Group (OUG-12). The closure plan acknowledges that "closure of the DST System is not anticipated to occur within the next 30 years." In the meantime, some ancillary equipment associated with Tank 241-AY-102 must remain in service to support ongoing management of waste in the adjacent Tank 241-AY-101. [*DST_241-AY-102_ADD_H_Closure_Plan.pdf*, Sections H.4 (p. Addendum H.20), H.5.6 (p. Addendum H.27), H.3.4 (p. Addendum H.17)]

A tank whose floor has already failed due to pitting corrosion — with seven identified leak points — will remain in this compromised state for a minimum of three additional decades while residual waste continues to be present in the tank and annulus. Pitting corrosion is an ongoing process; the conditions that caused the initial leaks have not been resolved by stopping waste transfers. Every year of deferred closure is a year in which additional degradation of the already-compromised tank floor may occur, increasing the risk of further migration of radioactive and hazardous constituents into the soil and ultimately toward groundwater and the Columbia River.

Comment 8.1

The Tribe requests that Ecology require DOE to consider and document options for accelerating the closure timeline for Tank 241-AY-102, including: (1) expediting retrieval of residual waste

from the tank and annulus to the maximum extent practicable; (2) implementing interim stabilization measures (such as in-tank grouting of residual waste, if technically feasible prior to final closure) on an accelerated schedule rather than waiting for full DST System closure; and (3) establishing a tank-specific monitoring program that provides early warning of any additional leakage between the primary tank floor and the annulus. A 30-year default deferral for a known leaking tank is not an acceptable protective outcome.