Confederated Tribes and Bands
of the Yakama Nation

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Treaty of June 9, 1855

August 11, 2025

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RE: Hanford Site – Consultation on Proposed 300 Area Record of Decision Amendment for Waste Site 300-296 (324 Building)

Dear Mr. Harkins and Mr. Terada:

Thank you for attending the government-to-government consultation meeting on August 5 with the Yakama Tribal Council on behalf of the U.S. Department of Energy (DOE) and Environmental Protection Agency Region 10 (EPA) regarding the Draft Proposed Plan (PP) for an amendment to the 2013 Record of Decision (ROD) for the 300 Area of the Hanford Site. We appreciated the opportunity to express our serious concern regarding potential on-site disposal of treated material that we believe contains high-level radioactive waste (HLW), which had leaked onto the B Cell floor of the Hanford 324 Building in 1986 and subsequently into the soil beneath the existing structure (known as Waste Site (WS) 300-296). If allowed to proceed under the Draft Proposed Plan, DOE's amended remedial action would be in clear violation of the Nuclear Waste Policy Act (NWPA), which prohibits shallow land disposal of HLW. We maintain that DOE is simply ignoring well-documented facts regarding the source of the radionuclides spilled at 300-296, and has no legal grounds under federal statutes to use an alternative for disposal of grouted waste that does not comply with the NWPA's requirement for a deep geologic repository. Given that vitrified HLW logs resulting from treatment of similar waste have been stored at Hanford for four decades, the PP's absence of any planned alternative for such interim storage and/or final disposal for 324's contaminated soils is especially troubling. EPA Region 10, as the regulatory agency that enforces the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at Hanford, must ensure that any NWPA disposal restrictions for HLW are enforced as cleanup standards under EPA regulations regarding applicable, relevant, and appropriate requirements (ARARs). There is absolutely

no reason (and no stated justification) why this ARAR should not be in the Proposed Plan as well as the ROD Amendment as an absolute waste disposal restriction. Nevertheless, it is not cited or even mentioned in the draft PP document that is now open for our comments and consultation.

Both of your agencies must confront this issue in the finalization of the ROD Amendment in order to ensure that the cleanup of the 324 Building is fully protective of human health and the environment, which is the threshold requirement for CERCLA statutory compliance. DOE's rationales to date for avoiding the problem have been not only logically unsatisfactory but legally indefensible. Any failure to recognize proper waste classification and disposal standards in this cleanup will not only serve as a dangerous precedent for future remediation of HLW at Hanford, but will also very likely cause substantial delays in the remedial action resulting from public opposition, as well as possible dispute resolution(s) pursuant to the Tri-Party Agreement's enforcement provisions.

Remedial investigations of soils beneath the 324 Building indicate the presence of extremely radioactive cesium-137 and strontium-90 contamination. These radionuclides were discovered during deactivation, decommission, decontamination and demolition activities at the building in 2009, but likely resulted from an unplanned release of liquid within the B cell in 1986 when the West German government was funding HLW vitrification experiments at Hanford. A portion of the spill is believed to have left the cell through a leak in the floor, creating WS 300-296. Logically, if the soil beneath the 324 Building is indeed HLW, the only waste treatment option under federal regulations would be vitrification rather than grout; the sole waste disposal path would be in a deep geologic repository rather than a shallow burial landfill such as ERDF. However, neither the original ROD nor the Proposed Plan/ROD Amendment reaches this conclusion or makes any exceptions to the Preferred Alternative for the soil at 300-296.

In attorney correspondence the Yakama Nation has explained its legal position on this important issue in tremendous detail. See attached copy of letter from Tom Zeilman to Nick Vidargas (October 18, 2022); see also attached copy of letter from Tom Zeilman to Mark Silberstein/Nick Vidargas (February 23, 2024). To briefly summarize, the definition of HLW in the NWPA controls how the 300-296 waste should be classified, which is based solely on the source of the highly radioactive material. According to the facts that we now know about the contaminated soil, it resulted from an accident during treatment of waste that at the time was clearly recognized by DOE as HLW (i.e., it was waste from reprocessing of spent nuclear fuel (SNF)). Indeed, vitrification was being conducted to treat the waste under federal regulations into thirty-four glass forms that were then scheduled to be delivered to a remote town in West Germany for testing of HLW disposal in a proposed salt mine repository. This project was never completed, and the vitrified waste was never shipped for the experiment. However, from the record we know that if the spilled waste was not HLW, neither DOE nor the coordinating West German agencies would have initially attempted to treat it for deep geologic disposal tests. Any conclusion that those thirty "logs" – or the waste in the soil that got away during their treatment – are somehow not HLW would be not only illogical, but would also constitute what federal courts call an agency "post-hoc rationalization."

Moreover, at the time that the 300-296 waste was released onto the B Cell floor, it was well documented in numerous contemporary reports that both DOE contractor PNNL and the West Germans considered the strontium and cesium isotope constituents to be HLW, based on their source from SNF reprocessing.[1] This conclusion is reinforced by the end result of the 1986 experiments – DOE placed the 34 glass logs that were meant for the German repository into dry storage casks, and have been storing them on-site in the 200 Area for almost 40 years. See attached copy of *Vitrified High-Level Radioactive Waste*, report by the U.S. Nuclear Waste Technical Review Board (NWTRB) (November 2017) at 2-3.[2] Any argument by DOE that the waste underneath the 324 Building and the waste being stored in dry casks awaiting deep geologic disposal are in two different classes does not pass the red-face test, and would likely not be accepted by a court of law. The experts at NWTRB clearly believe that the West German dry storage logs at Hanford are HLW. See attached copy of *Spent Nuclear Fuel and High-Level Radioactive Waste in the United States*, report by the NWTRB (November 2017) at Figure 3. DOE cannot simply dismiss what appears to be the position of the federal government within the past decade that vitrified HLW from Hanford reprocessing is being stored on-site.

Nevertheless, DOE has attempted to assert an equally indefensible argument for why the presumed HLW is *not really waste at all*. See attached copy of letter from Mark Silberstein to Tom Zeilman (August 30, 2023). DOE characterizes the material spilled onto the 324 Building floor as a radioactive "product," merely because "treatment" of waste is being re-labelled as "production." Aside from the facts that we know about the vitrification of HLW when the 324 Building spill occurred, DOE insists that Order 435.1 and Manual 435.1-1 (*Radioactive Waste Management*) somehow exclude the accidentally released radioactive material from the definition of HLW. DOE maintains that, under a new definition of "reprocessing" in the Manual, "reprocessing of SNF [Spent Nuclear Fuel] does not include post-separation activities, such as those activities used to produce the Cs-137 and Sr-90 nitrate solutions product and the associated processes used to produce heat sources." Given that this definition was added to the 435.1 Manual only in January 2021 (35 years after the spill), DOE appears again to be using a post-hoc rationale to try and avoid the regulatory paths that cleanup of HLW would need to follow in order to comply with NWPA mandates. The documented record indeed shows that PNNL ultimately regarded the vitrified West German logs as HLW, now awaiting final disposal in a still-unlicensed national geologic repository.

In addition, any recent DOE citations to Order 435.1 were never subjected to an agency rulemaking process (formal or informal) and therefore do not have the force of law.

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[1] For citations to these documents, see the attached February 23, 2024 letter.

[2] The Nuclear Waste Technical Review Board was established by the 1987 Nuclear Waste Policy Amendments Act (NWPAA) to evaluate the technical and scientific validity of activities related to managing and disposing of HLW and spent nuclear fuel (SNF) undertaken by DOE. The purpose of the Board is to provide independent expert advice to Congress and the Secretary of Energy on related technical and scientific issues, and to review the technical and scientific validity of DOE's implementation of the NWPA. In accordance with this mandate, the Board conducts ongoing technical and scientific peer review of DOE activities related to the management and disposition of SNF and HLW. The Board reports its findings, conclusions, and recommendations to Congress and the Secretary of Energy.

"Interpretive" regulations such as these are entitled to less agency deference than legislative regulations promulgated through notice-and-comment rulemaking and published in the Code of Federal Regulations. In addition, DOE's reclassification of HLW under 435.1 is now no longer subject to the 40-year old deferential Chevron legal standard for interpretation of statutory authority in agency regulations. See *Loper Bright Enterprises v. Raimondo*, 603 U.S. (2024). As a result, the source-based definition of HLW controls the outcome of the disposal scheme despite anything the agency may claim otherwise in its 435.1 Order and Manual.

As was pointed out in previous correspondence, DOE's faulty logic in this case potentially could also be applied to any downstream waste component that is bound for treatment in any Hanford facility. This includes the Waste Treatment Plant (WTP) scheduled to eventually go online pursuant to Tri-Party Agreement milestones. If DOE could simply self-regulate the vitrified HLW as a "product" instead of a "waste" requiring proper treatment and disposal under congressionally mandated restrictions, the possible implications could be enormously damaging to the future of the Hanford Site and Columbia River. Moreover, DOE's effort here to arbitrarily and capriciously re-label liquid HLW as a product merely because it is being converted into a solid through treatment for subsequent testing is simply not credible. If that conclusion is considered acceptable the potential erosion of trust in DOE (and EPA) decision making could be even more damaging going into the future of waste cleanup at Hanford. This is especially true given your agencies' assurance to us a year ago that the proposed TPA milestones for remediating leaked radionuclides in the 200 Area tank farms under the 2024 holistic settlement agreement will meet all CERCLA standards for cleanup and disposal.

Given what appears to be an entrenched DOE position on this vital question, it is imperative that EPA assert its CERCLA authority and require the Nuclear Waste Policy Act and its land disposal restrictions to be incorporated as ARARs for WS 300-296 remediation in the Final Proposed Plan and 300 Area ROD Amendment. So far we have seen nothing in writing that would convince us that the TPA agencies are making a sincere effort to: 1) either rationally answer the critical question of why the PP's preferred alternative would treat the 300-296 soil waste differently than the 1986 treated waste now in dry storage, or 2) acknowledge the presence of HLW in soil and ensure that the NWPA is cited as an ARAR for treatment and disposal of the targeted waste buried beneath the 324 Building. Your agencies have decades of experience properly citing RCRA treatment and disposal regulations for mixed radioactive/hazardous waste in CERCLA RODs, and any regulatory path that the NWPA requires for ultimate disposition of HLW should be included as an ARAR as well. It is that simple.

We understand that this matter may represent an outlier of sorts, and certainly the identified high-level waste was not expected when the original ROD was signed over a decade ago. However, we are at a critical juncture in Tri-Parties decision making – one that can either lead to a wisely reasoned regulatory action, or a clear step in the wrong direction that could have profound effects on both agency trust and future decisions about the cleanup of the Hanford tanks. We hope that you will accept our recommendation and make the correct decision.

If you have any questions or would like to arrange further meetings on this issue with Yakama Nation ER/WM managers/staff, please contact Laurene Contreras at lcontreras@ynerwm.com or 509-830-2499.

Sincerely,

Gerald Lewis

Gerald Lewis
Chairman
Yakama Tribal Council

cc: Laura Buelow, EPA
Anne McCartney, EPA
Nick Vidargas, EPA
Casey Sixkiller, WA Ecology
Stephanie Schleif, WA Ecology
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