

**Environmental Defense Institute**  
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Sent By Email: Hanford@ecy.wa.gov

Posted By Web Form: <http://wt.ecology.commentinput.com/?id=7mped>

**RE: Proposed Class 3 Permit Modification 8C.2018.4D to the *Hanford Facility Resource Conservation and Recovery Act Permit, Dangerous Waste Portion, Revision 8C, for the Treatment, Storage, and Disposal of Dangerous Waste, Part V, Closure Unit Group 25, Plutonium Uranium Extraction (PUREX) Plant Storage Tunnels, WA 7890008967***

Dear Ms. McFadden,

The Environmental Defense Institute (EDI) appreciates this opportunity to comment on Proposed Class 3 Permit Modification 8C.2018.4D. The Washington State Department of Ecology (Ecology) is proposing a change to the Hanford Facility Resource Conservation and Recovery Act (RCRA) Permit, Revision 8c. This change affects the Dangerous Waste Portion for the Treatment, Storage, and Disposal of Dangerous Waste for the Plutonium Uranium Extraction (PUREX) Plant Storage Tunnels. The proposed changes are located in Part III, Operating Unit 2.

In EDI's view, Ecology has inadequately reviewed Hanford's RCRA permit application and yet has determined that these changes satisfy all requirements needed to qualify for the proposed changes are located in Part III, Operating Unit 2 **that** resulted in filling PUREX Tunnel One with grout to stabilize it, and a plan that is already in action to fill PUREX Tunnel Number Two with grout.

Following the collapse of PUREX Tunnel 1 the Department of Energy and Ecology inappropriately agreed to a response action to stabilize Tunnel 1 by filling the void space in the tunnel with grout. The agencies are proposing to stabilize Tunnel 2 with grout as well. Ecology is updating its Resource Conservation and Recovery Act (RCRA) Permit with a proposed permit modification that reflects actions taken to grout Tunnel 1 and the proposed interim closure action to grout Tunnel 2. RCRA gives Washington State the authority it needs to regulate the Hanford Site, for all cleanup sites that have both radioactive and chemical wastes. The draft changes include a proposal to fill Tunnel 2 with engineered grout to protect human health and the environment from a future collapse. Ecology has stated that grouting Tunnel 2 will not prevent the removal of the grouted waste when a final closure decision is made. Because the tunnels will no longer accept waste, this proposed permit modification will add the PUREX Storage Tunnels as a closing unit to the Hanford Facility RCRA Permit, Revision 8c.

## **EDI considers these PUREX Tunnel permits to be a violation of RCRA.**

DOE continues to demonstrate a consistent pattern of violations of environmental laws, hazardous waste regulations and the Hanford Site-wide Permit. The following are examples:

1. Offers no independent data confirming what waste left in the “PUREX Tunnels,” (i.e. core sampling to accurately characterize waste in/on rail cars. The historical unreliability of DOE waste data speaks for itself;
2. Violates Land Disposal Regulations (LDR) in: IDAPA 58.01.05.009 and 58.01.05.011; 40 CFR 265.13 and 268.7; and NRC under [10 CFR part 61 to include:](#)
  - a. Leaving waste in tunnels in place;
  - b. Once a tunnel waste dump is remediated, all the contaminated material –including soil – is considered a new waste and thus must be managed according to RCRA/NRC Land Disposal Regulations;
3. Continues Tunnel 1 burial in the “Active LLW” in a flood zone in violation of Land Disposal Regulations;
4. There is not a good inventory of the radioactive and chemical materials stored in the PUREX Tunnels. If the tunnels contain materials that qualify as high-level radioactive waste, then certain legal requirements must be followed for appropriate disposal, which do not include leaving such waste in shallow land burial;
5. Long-lived radionuclides such as plutonium could be buried in the tunnels in amounts that exceed the legal disposal limits at Hanford;
6. The agreed-upon remedy for these kinds of waste is removal, treatment and disposal in licensed repositories and landfills;
7. Hanford Challenge and other organizations have expressed a deep concern that the tunnels will be filled with grout and then abandoned in place, rather than removed. Cement is not an acceptable long-term disposal medium for nuclear waste;
8. Any permit that the State of Washington issues should include with it a deadline requiring the federal government to cut up and remove the grouted tunnel waste within a certain number of years.
9. Documents indicate that there may be explosive and ignitable chemicals stored in the PUREX tunnels.

Reliance on Hanford Waste Acceptance Criteria that defines: “A container or inner liner is ‘empty’ when:

- (a) (i) “No more than one inch of waste remains at the bottom of the container or inner liner; or
- (ii) “No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size; or
- (iii) “No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.”<sup>1</sup>

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<sup>1</sup> WAC 173-303-160

Given that the PUREX Plant was used for the recovery of uranium and plutonium from irradiated reactor fuel, Hanford apparently offers no risk assessment on the very real possibility of fissile materials (i.e., plutonium) in the containers in sufficient quantities to pose a significant criticality hazard especially if the grouting changes the container configuration. Regardless, high-level waste must be appropriately disposed in accordance with the Nuclear Waste Policy Act in a deep geological repository, not in a shallow tunnel! Using the PUREX Tunnels as a high-level waste dump would set an unacceptable/illegal precedent for other DOE sites and the whole country.

The long-term “hands-off” NRC/EPA/Ecology regulatory climate at the Department of Energy (DOE) Hanford waste treatment operations is tragic. The consequence of this regulatory vacuum is that there is nearly non-existent enforcement of environmental laws on the most dangerous and hazardous operations in the world treating high-level radioactive waste. Non-enforcement of environmental laws in this context means no federally mandated hazardous waste permits that otherwise would impose operating, pollution, and reporting criteria are being imposed to ensure ongoing compliance with all applicable laws.

Clearly, Hanford is not unique, because at every DOE facility throughout this country a similar scenario exists. For example, a citizen suit against DOE’s Los Alamos National Laboratory convinced the Federal District Court for New Mexico that DOE was falsifying radiation release reports required under the Clean Air Act. Subsequently, the Court issued a Consent Decree that imposed a court supervised independent monitoring program to ensure compliance with the law. [See *Concerned Citizens for Nuclear Safety v. DOE*, Consent Decree, Civ. No. 94-1039 M, filed March 25, 1997]

A 1998 lawsuit brought by Keep Yellowstone Nuclear Free; the Environmental Defense Institute; the Snake River Alliance Education Fund; the Sierra Club and the Jackson Hole Alliance contended that “DOE made its critical decisions about the Plutonium Incinerator behind closed doors and out of the public view, in violation of federal law.” The minutes clearly demonstrate that as early as 1996 the DOE and Idaho Department of Environmental Quality had secret discussions underway for what later became a highly controversial project for nuclear waste incineration, the Advanced Mixed Waste Treatment Facility (AMWTF). The April 10, 1996 minutes recited “... DOE’s current plans for the Advanced Mixed Waste Treatment Facility (AMWTF).”<sup>2 3</sup>

Hanford’s permit poses an immediate and long-term threat to Columbia River region’s environment, public health and safety in apparent violation of the Nuclear Waste Policy Act (NWPA)<sup>4</sup>, Resource Conservation Recovery Act (RCRA)<sup>5</sup> and other relevant federal statutes

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<sup>2</sup> See Federal District Court for Idaho, Civil No. 91-0035-S-EJL

<sup>3</sup> Also see 1995 Settlement Agreement and Federal Court Consent Order against DOE’s Idaho National Laboratory.

<sup>4</sup> 42 USC ss 10101 et seq.

<sup>5</sup> 42 USC ss 6901 et seq.

applicable to mixed hazardous high-level (HLW) and transuranic (TRU) radioactive waste treatment, storage and disposal.<sup>6</sup>

Respectfully submitted

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<sup>6</sup> The Nuclear Waste Policy Act, Resource Conservation Recovery Act, and the Clean Air Act are cited in the Hanford Cleanup Agreement as salutatory compliance standards.