



Comments submitted to WA State Department of Ecology electronically:
<https://nw.ecology.commentinput.com/?id=HW4Bm6StZ>

September 19, 2025

To Whom It May Concern,

Thank you for the opportunity to comment on the draft Renewal 4 of the Hanford Site Air Operating Permit (AOP).

Hanford Challenge is a non-profit, public interest, environmental, and worker advocacy organization located in Seattle, WA. We are an independent 501(c)(3) organization incorporated in the State of Washington since 2008 and registered in Oregon. Our mission is to create a future for the Hanford Nuclear Site that secures human health and safety, advances accountability, and promotes a sustainable environmental legacy.

Hanford Challenge has members who work at the Hanford Site. Other members of Hanford Challenge work and/or recreate near Hanford, where they may also be affected by hazardous materials emitted into the environment by Hanford. All members have a strong interest in ensuring the safe and effective cleanup of the nation's most toxic nuclear site for current and future generations, and who are therefore affected by conditions that endanger human health and the environment.

Commercial and industrial businesses that emit large amounts of air pollution must get an air operating permit. An Air Operating Permit is a master document that lists all of the air pollution requirements that apply to a business or industry. The Department of Ecology and other clean air agencies in Washington State issue these permits.

Please update the Hanford Site Air Operating Permit to address the following concerns:

Specify How the US Department of Energy's (DOE) Hanford Contractors Demonstrate Compliance: It remains unclear how DOE Hanford contractors are expected to demonstrate ongoing compliance with emission limits.

We urge the Washington State Department of Ecology to revise the AOP to include:

- Specific monitoring protocols and data reporting formats
- Defined performance metrics and thresholds for compliance
- Public access to compliance data and enforcement outcomes
- Clear contractor responsibilities and corrective actions in case of violations

These additions would strengthen transparency, accountability, and public trust in the permitting process.

Ensure the Air Operating Permit Functions as a Standalone Document: The Air Operating Permit (AOP) should serve as a complete, self-contained set of instructions for demonstrating compliance. As currently drafted, the permit requires readers to cross-reference multiple external regulations, approval orders, and technical standards—many of which are complex, scattered, or subject to interpretation.

This lack of clarity creates barriers for public understanding, regulatory oversight, and contractor accountability.

We urge the Washington State Department of Ecology to revise the AOP so that it:

- Clearly outlines all compliance demonstration methods within the permit itself
- Consolidates relevant requirements from external documents into accessible summaries
- Provides step-by-step guidance for contractors, regulators, and the public
- Includes plain-language explanations and visual aids where appropriate

A permit that requires extensive outside research to interpret is not truly protective or transparent. Ecology has the opportunity to set a precedent for clarity and accessibility in environmental permitting as it sets out to do per its website: <https://ecology.wa.gov/regulations-permits/permits-certifications/air-quality-permits>

Increase Specificity for Air Emission Sampling Methods: There are often multiple categories listed of methods such as OSHA, NIOSH or EPA but the AOP lacks the specifics necessary to know how to demonstrate compliance. For example:

- What OSHA method for what hazardous air pollutant?
- How long of a sample or what is the minimum volume?
- Is it allowed to switch from one method to another at will?
- How can accurate trending occur with the random/inconsistent use of sample methods?
- What studies have been done to show that the various methods are equivalent?
- What is the protocol for requesting EPA administrator approval of changes to sampling methodology? Has the EPA administrator delegated this authority to Ecology staff?

Increase Specificity for Sampling Frequency when Methods are Specified: Regarding sampling frequency, in many units a specific sampling method is stated, yet details regarding sampling frequency are not available. At times the AOP seems to confuse recordkeeping with sampling. For example:

- Test Method: EPA Method 7A of 40 CFR 60, Appendix A.
- Test Frequency: If Ecology requires under WAC 173-400-105(4)
 - Have these units ever been sampled with the referenced method?
 - Did they pass?

- How do the requirements justify no routine sample frequency?

Align Sampling Instructions with Enforceable Procedures: The draft Air Operating Permit (AOP) references sampling frequency “when visible emissions are observed.” However, if no personnel are explicitly tasked with observing emissions, and no procedures exist to ensure such observations occur, this condition cannot reliably trigger sampling. In effect, the requirement becomes unenforceable.

We urge the Washington State Department of Ecology to revise the AOP to:

- Define clear procedures for observing visible emissions, including roles, frequency, and documentation
- Ensure that sampling protocols are tied to proactive monitoring—not passive or incidental observation
- Clarify how compliance will be verified if emissions are not observed due to lack of assigned oversight
- Include contingency measures to prevent emissions from going unmonitored due to procedural gaps

Without these updates, the permit risks creating a loophole where emissions may go unsampled simply because no one is required to look. This undermines both environmental protection and public accountability.

Impossible to Judge the Effectiveness of the Permit Without Specifics: Without the sampling methods and sampling frequency specified in the Air Operating Permit, it is impossible to judge the permit’s effectiveness. This applies to many different units in the AOP. Please update the AOP to specify methods and sampling frequency to increase transparency, consistency, and confidence in the permit’s ability to both cite limits and clarify what is needed to demonstrate compliance with the Air Operating Permit at the Hanford site.

Incorporate Requirements Instead of Referencing old/outdated Notice of Construction: The permit renewal should incorporate the actual requirements instead of referencing old notice of construction (NOC), some of which are over 20 years old and no longer reflect current regulations. Please update the AOP to incorporate the requirements directly.

Address Synergistic Effects of Radiation and Chemical Carcinogens: We echo the concern raised by longtime Hanford health advocate, Bill Green: the Air Operating Permit (AOP) treats radioactive and non-radioactive carcinogens as separate regulatory categories, without accounting for their additive or synergistic health impacts.

This siloed approach fails to reflect current scientific understanding. Studies have shown that combined exposure to ionizing radiation and chemical carcinogens can result in amplified biological effects—posing greater risks to workers, nearby communities, and ecosystems than either exposure alone.

We urge the Washington State Department of Ecology to revise the AOP to:

- Incorporate cumulative risk assessments that account for synergistic interactions
- Require integrated monitoring and reporting of co-occurring contaminants
- Consult with toxicologists and radiation health experts to inform permit conditions
- Prioritize precautionary measures where synergistic risks are plausible but not fully quantified

Hanford's legacy demands a permitting framework that reflects the complexity of its hazards. Addressing synergistic effects is not just scientifically sound—it's ethically necessary.

Create a Working Group to Address Issues and Suggest Improvements to Hanford's Air Operating Permit: There is concern that a lack of awareness, training, and expertise on air operating permits is partially to blame for the lack of specificity and problems with the Air Operating Permit. One way to address this is to create a working group with expertise to review and suggest improvements to Hanford's AOP, to ensure that Hanford employees and the public are able to understand the permit, know what the regulations are, and know how to demonstrate compliance with the permit.

Ensure Accuracy and Consistency of Citations: We echo Bill Green's longstanding concern regarding citation accuracy in the Air Operating Permit (AOP). In particular, the outdated reference to RCW 70.92—rather than the correct RCW 70.98—was flagged as early as 2016. Ecology acknowledged the need for correction, yet the error persists in this renewal.

Accurate citations are essential for regulatory clarity, legal enforceability, and public trust. We urge Ecology to:

- Conduct a thorough review of all statutory and regulatory citations in the AOP
- Correct outdated or incorrect references, including RCW 70.92 → RCW 70.98
- Ensure consistency across permit sections and supporting documents
- Consider engaging the Hanford working group or other stakeholders to assist in this review

This is a straightforward fix that would significantly improve the permit's usability and credibility.

Clarify EPA Guidance References: The Air Operating Permit references "guidance issued by the United States Environmental Protection Agency" but fails to specify which documents are being used. Without titles, publication dates, or document numbers, it's unclear what standards are informing permit conditions. We urge Ecology to clearly identify each EPA guidance document referenced, explain its relevance to the permit, and ensure that all cited materials are current and publicly accessible. This clarity is essential for transparency, enforceability, and public understanding.

Provide all Relevant Documentation in an Easily Accessible Format: It has been difficult to find all relevant documents that are part of the AOP 4 Renewal. Please make all documents publicly available in a central location for ease of access, including Hanford's application and Notice of Construction Applications for activities involving radionuclides. Without all relevant information the public lacks the opportunity to meaningfully participate in the permitting process.

Sincerely,

A handwritten signature in black ink that reads "Nikolas F. Peterson". The signature is written in a cursive, flowing style.

Nikolas Peterson, Executive Director
Hanford Challenge