

NUCON Thermal Oxidation System Phase 3

Research, Development and Demonstration Permit Application



Figure 1. Columbia River looking at the Hanford Site

- Public comment period Aug. 26 12:00 a.m. – Oct. 10, 2024 11:59 p.m.
- This is a research, development, and demonstration (RD&D) permit
- Located in the 200 East Area of the Hanford Site

Public comment invited

The Washington State Department of Ecology (Ecology) is proposing a draft RD&D permit for the NUCON Thermal Oxidation System (TOS) located in the 200 East Area of the Hanford Site.

The permittee is:

U.S. Department of Energy
(Owner/Operator)
P.O. Box 450,
Richland, WA 99352

Background

The Hanford Site occupies 580 square miles in southeastern Washington State. The site produced plutonium for the nation's defense program from 1943 to the late 1980s. Today, waste management and environmental cleanup are the primary missions at Hanford.

Overview & Changes

The U.S. Department of Energy is proposing to construct and operate a TOS developed by NUCON International, Inc. (NUCON^{®1}). This permit would authorize the testing of the NUCON TOS.

NUCON[®] TOS will be temporarily located in the 200 East Area of the Hanford Site. This onsite testing is Phase 3 of experimental testing to demonstrate the feasibility of a process to reduce or remove toxic chemicals from Hanford tank air emissions from Single-Shell Tank BY-108.

Facility Background

The purpose of the NUCON[®] TOS RD&D permit is to authorize the proposed onsite testing of the NUCON[®] TOS to accelerate the permitting of experimental and innovative treatment alternatives.

The NUCON[®] Phase 3 RD&D project will evaluate the effectiveness and capabilities of an innovative control technology for reducing hazardous tank vapors in air emissions from Hanford waste tanks.

¹ NUCON[®] is a registered trademark of NUCON International, Inc., Columbus, Ohio.

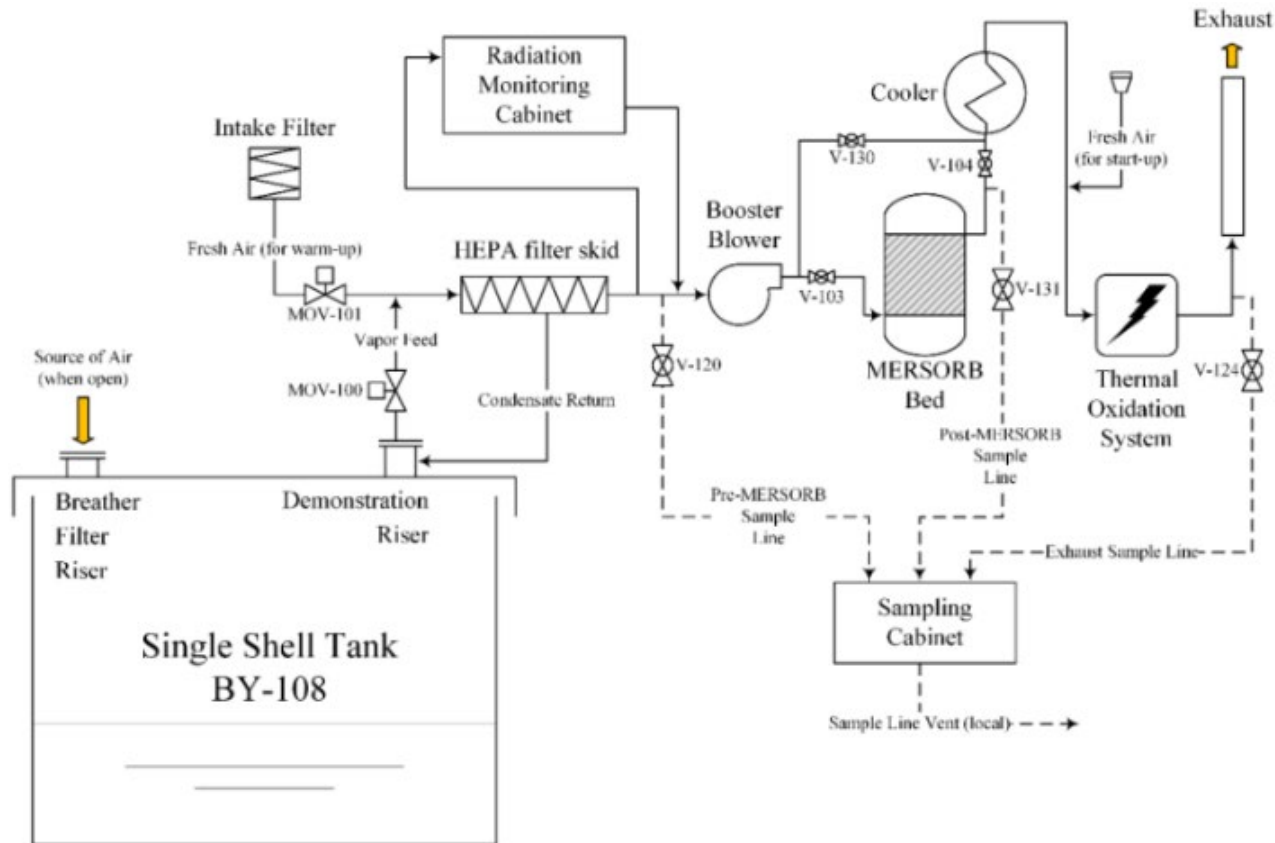


Figure 2 General System Diagram of the NUCON® TOS to be installed on Hanford Single-Shell Tank BY-108.

Reviewing the proposed changes

Ecology invites you to review and comment on this proposed draft RD&D permit modification. See the last page for comment period dates and information on how to submit comments.

Copies of the application for the proposed permit, the draft permit, fact sheet, and supporting documentation will be available during the public comment period online at Ecology's website². The documents will also be available electronically at the Hanford Public Information Repositories listed on the next page.

Ecology will consider and respond to all significant comments received during the public comment period. We will document our responses and issue a response to comments document when we make our final permitting decision.

² [Ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods](https://ecology.wa.gov/Waste-Toxics/Nuclear-waste/Public-comment-periods)

Hanford's Information Repositories

Ecology Nuclear Waste Program
Resource Center
3100 Port of Benton Blvd.
Richland, WA 99354
509-372-7950

Washington State University Tri-Cities
Department of Energy Reading Room
2770 Crimson Way, Room 101L
Richland WA 99354

University of Washington
Suzzallo Library
Box 352900
Seattle, WA 98195
206-543-5597

Gonzaga University
Foley Center
502 E Boone Avenue
Spokane, WA 99258
509-313-6110

Portland State University
PSU Library is temporarily closed
Millar Library
1875 SW Park Avenue
Portland, OR 97207
503-725-4542

For information on other comment periods or ways to get involved, go to ecology.wa.gov/Hanford and click "Public comment periods" on the left bar or visit Hanford.gov "public involvement opportunities".

You can also follow us on social media.



@EcologyWAHanford



@ecyHanford

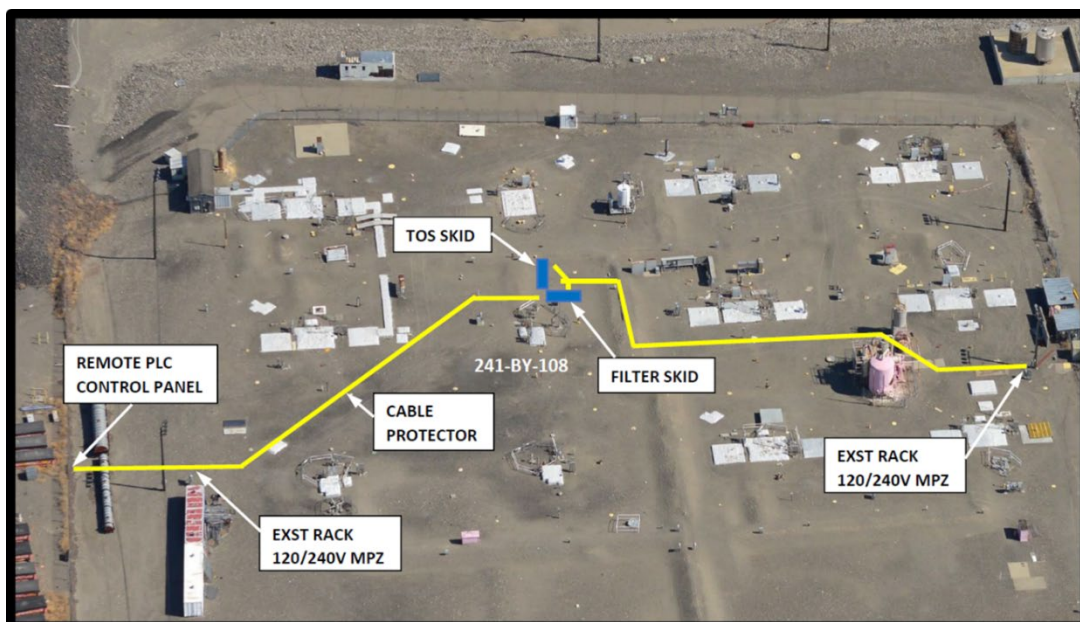


Figure 3: NUCON Phase 3 Research, Development, and Demonstration Project Site Plan.



Nuclear Waste Program
3100 Port of Benton Blvd
Richland WA 99354

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Electronic submission (preferred):
[NUCON RD&D permit application](#)

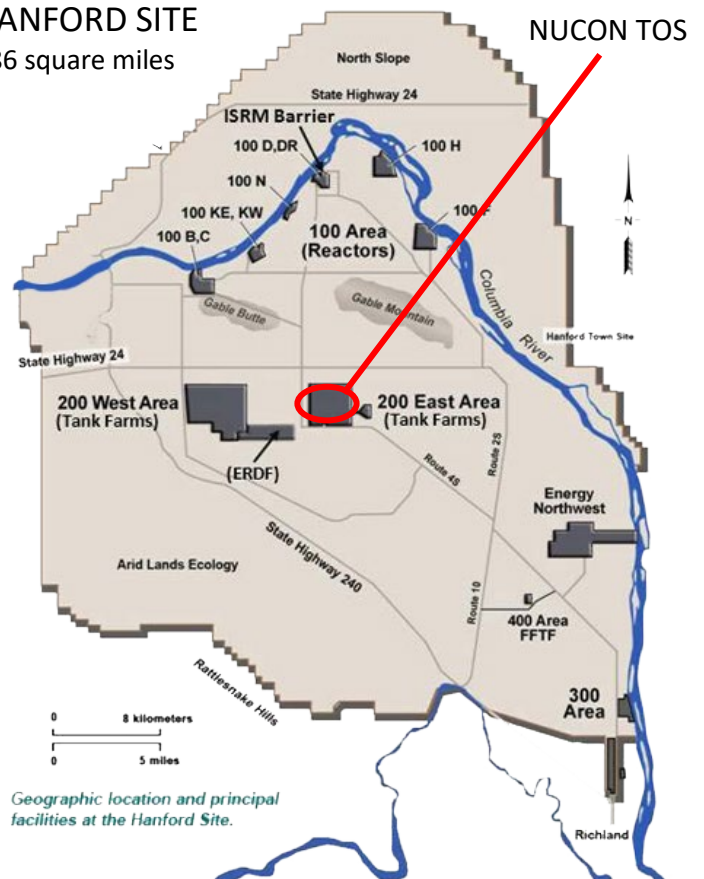
Mail or hand-delivery

Daina McFadden
3100 Port of Benton Blvd
Richland, WA 99354

A public hearing is not scheduled, but if there is enough interest, we will consider holding one. To request a hearing or for more information, contact:

Daina McFadden
509-372-7950
Hanford@ecy.wa.gov

HANFORD SITE 586 square miles



To request an ADA accommodation, contact Ecology by phone at 509-372-7950 or email at Daina.McFadden@ecy.wa.gov, or visit ecology.wa.gov/Accessibility. For Relay Service or TTY call 711 or 877-833-6341.