



Response to Comments

Approval Order DE02NWP-002, Revision 3, Waste Treatment Plant Emissions & tBACT Update

Nov. 29 – Dec. 31, 2021

For the **Nuclear Waste Program**

Washington State Department of Ecology

Richland, Washington

January 2022, Publication 22-05-002



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Southwest Region 360-407-6300	Northwest Region 425-649-7000	Central Region 509-575-2490	Eastern Region 509-329-3400
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Region	Counties Served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	3190 160th Ave SE Bellevue, WA 98008	425-649-7000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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DEPARTMENT OF
ECOLOGY
State of Washington

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Introduction

The Washington State Department of Ecology’s Nuclear Waste Program (Ecology) regulates air pollution sources at the Hanford Site. In particular, Ecology is the permitting authority for new or modified sources requiring new source review under Washington Administrative Code (WAC) 173-400-110 at Hanford.

When a new order or a modification to an existing order is proposed, Ecology may hold a public comment period to allow the public to review the proposed order and provide formal feedback. (See WAC 173-400-171 for Public Notice and Opportunity for Public Comment requirements for approval of a notice of construction application.)

The Response to Comments is the last step before issuing the final order. Its purpose is to:

- Specify which provisions, if any, of an order will become effective upon issuance of the final order, providing reasons for those changes.
- Describe and document public involvement actions.
- List and respond to all significant comments received during the public comment period and any related public hearings.

This Response to Comments is prepared for:

Comment Period	Draft Approval Order DE02NWP-002, Revision 3, Waste Treatment Plant Emissions & tBACT Update, Nov. 29 – Dec. 31, 2021
Approval Order Number	DE02NWP-002, Revision 3
Permittee	United States Department of Energy
Original Issuance Date	Jan. 28, 2022
Effective Date	Jan. 28, 2022

To see more information related to the Hanford Site and nuclear waste in Washington, please visit our webpage, [Hanford Cleanup](https://www.ecology.wa.gov/Hanford)².

² <https://www.ecology.wa.gov/Hanford>

Reasons for Issuing the Permit

This Approval Order will authorize estimated air emissions from the Waste Treatment Plant (WTP) at the Hanford Site. The permittee updated estimated emissions calculations for the Low-Activity Waste (LAW) and Laboratory (LAB) portions of the WTP while it operates in the anticipated Direct-Feed LAW (DFLAW) configuration. Additionally, the permittee provided estimated emissions for processing simulated waste during the initial phases of operation and testing.

The WTP is a unique facility. In order to ensure the facility is operating properly before it begins processing tank waste, Ecology and the permittee have agreed to a schedule of commissioning and testing activities. This will include processing simulated waste with limited chemicals to demonstrate that control devices are operating properly, collecting and analyzing samples, and conducting emissions testing. This Approval Order allows the permittee to follow this schedule, once WTP is ready for operation in the DFLAW configuration. It also allows for continued tank waste treatment operations, once commissioning and testing is complete.

Additionally, while updating emissions estimates, the permittee found that acid gases will primarily be removed by the wet control devices at LAW. Previously the carbon adsorber was credited as the most important control device for their removal. Updating the tBACT determination for LAW to address acid gas control helps clarify how to demonstrate compliance with emission limits while still requiring the same level of acid gas removal.

Updated allowable emissions from the WTP will not cause or contribute to a violation of any ambient air quality standard.

Public Involvement Actions

Ecology encouraged public comment on the draft Approval Order DE02NWP-002, Revision 3, during a 30-day public comment period held Nov, 29 through Dec. 31, 2021.

The following actions were taken to notify the public:

- Emailed a notice announcing the start of the comment period to the Hanford-Info email list, which has 1,251 recipients.
- Posted the comment period notice on the Washington Department of Ecology – Hanford’s Facebook and Twitter pages.

The following documents were available for public review on Ecology’s Nuclear Waste Program’s public comment page:

- Notice of Construction application document 24590-WTP-RPT-ENV-20-001, Rev. 0, submitted with Letter 21-ECD-001057
- Draft Approval Order DE02NWP-002, Revision 3, Waste Treatment Plant Emissions & tBACT Update
- Draft Technical Support Document for Approval Order DE02NWP-002, Revision 3

The following public notices for this comment period are in [Appendix A](#) of this document:

- Notices sent to the Hanford-Info email list
- Notices posted on the Washington Department of Ecology – Hanford’s Facebook and Twitter pages

List of Commenters

The table below lists the names of organizations or individuals who submitted a comment on the Draft Approval Order DE02NWP-002, Revision 3. The comments and responses are in [Attachment 1](#).

Commenter	Organization
Bill Green	Citizen

Attachment 1: Comments and Responses

Description of comments:

Ecology accepted comments from Nov. 29 – Dec. 31, 2021. This section provides a summary of comments that we received during the public comment period and our responses, as required by WAC 173-400-171(7)(c). Comments are grouped by individual and each comment is addressed separately.

I-1: BILL GREEN

Comment I-1-1

1. GENERAL: Ecology is encouraged to revise the format and content template for Notice of Construction (NOC) Orders of Approval issued pursuant to WAC 1173-400 to be consistent with the format and content requirements of permits issued in accordance with Washington's operating permit program, WAC 173-401, and the federal operating permit program, codified at 40 C.F.R. part 70. Because NOC approval orders are "applicable requirements" under Washington's operating permit regulation, terms and conditions from most of these NOC approval orders are destined to be incorporated into the source's operating permit (401 permit). Such format and content revisions to NOC approval orders would reduce the time and effort required by Ecology to re-work these approval orders to be compatible with Ecology's AOP program. At present Ecology NWP is not meeting its statutory requirements under the Federal Clean Air Act (CAA), specifically the requirement codified at CAA § 502 (b)(4) [42 USC § 7661a (b)(4)]¹². This is not the first time Ecology NWP has run afoul of this particular CAA requirement³. Such CAA non-compliances can result in Ecology being subject to Federal sanctions, including the loss of its approval to operate a permitting program under 40 C.F.R. 70. Modifying Ecology's standard template for NOC orders issued under WAC 173-400 to also be consistent with 401 permit requirements will reduce both time and effort needed to re-work these NOC orders to meet 401 requirements. Such a reduction in time and effort will certainly decrease or eliminate Ecology NWP's apparent violations of CAA § 502 (b)(4) [42 USC 7661a(b)(4)] in the future.

Response to I-1-1

WAC 173-401-600(1), WAC 173-401-605(1), and 40 CFR 70.6(a)(a) require that the Air Operating Permit (AOP) contain terms and conditions that assure compliance with all applicable requirements. However, it does not require that the AOP conditions be identical to the underlying applicable requirements. A Notice of Construction Approval Order (AO) is based upon a different set of regulations and, in many cases, should be formatted in a way which might differ from the AOP format.

¹ 42 USC § 7661a (b) "The Administrator shall promulgate . . . regulations establishing the minimum elements of a permit program to be administered by any air pollution control agency. These elements shall include each of the following: . . . (4) Requirements for adequate personnel and funding to administer the program." (Emphasis is mine.)

² ". . . Since COVID we have lost several staff members and have had a number of concurrent projects, including multiple NOC applications. With our limited resources during this time, processing of these NOC applications took priority over processing revisions to the AOP in accordance with WAC 173-401-700(5).", email from L. Bauder, Ecology NWP to B. Green, et al, 12/14/2021, Subject: "RE: Response to Comments Published" ³ "...As I am the only person in the office (the other engineers are in new positions), I have little time to devote to the AOP...", email from P. Gent, Ecology NWP to D. Hardesty, EPA Region 10, 09/28/2015, Subject: "Hanford AOP Schedule"

³ "...As I am the only person in the office (the other engineers are in new positions), I have little time to devote to the AOP...", email from P. Gent, Ecology NWP to D. Hardesty, EPA Region 10, 09/28/2015, Subject: "Hanford AOP Schedule"

In 2021, Ecology developed a new AO template that will provide a more standardized format for all facilities. This template was based upon input from Ecology regional offices and local clean air agencies across the state. The Nuclear Waste Program intends to use the template for new Approval Orders but did not use it for Revision 3 of DE02NWP-002 because it would require significant revision of all existing requirements, which is beyond the scope of the requested modification.

Comment I-1-2

2. FINDINGS, GENERAL. a) Several of "FINDINGS" comingle NOC Approval Orders under WAC 173-400 with actions taken in accordance with WAC 173-401. For clarity, please identify which regulation, 173-400 or 173-401, is applicable. For example, FINDINGS numbers 6 & 7 seem to refer to actions taken pursuant to WAC 173-401.

b) Also, FINDING 19: "As determined for DE02NWP-002 Revision 2 and subsequent amendments , the following BACT determinations remain in effect for DE02NWP-002, Revision 3". (Emphasis is mine.) Please define the term "amendments" as opposed to the term "revision".

Response to I-1-2

a) The Findings section has historically been intended to convey information regarding the project in the absence of a Technical Support Document and to help ensure that a project is constructed in accordance with the information provided in the Notice of Construction. Therefore, this information may not be a requirement placed directly under the authority of WAC.

Findings 6 & 7 have been preserved from DE02NWP-002, Revision 2, to provide information regarding two amendments to Revision 1 of DE02NWP-002. These amendments were issued under Chapter 173-400 WAC and have no direct relationship to Chapter 173-401 WAC. These amendments were also fully superseded by Revision 2.

b) The discussed amendments were previous approval orders, now superseded, with the text "Amendment" in the name and do not need a definition within this approval order. To help clarify, Finding 19 has been modified to state "DE02NWP-002-002, Revision 2 including subsequent Amendments 1 through 4" to help clarify that these were specific historical issuances.

Comment I-1-3

3. FINDING 21: Either eliminate #21 or edit to read: "The project, if operated in accordance with this NOC Approval Order, will have no significant . . . ", or something similar. Ecology has already determined that absent operating conditions and emission limits specified in this NOC Approval Order, this project certainly could have a ". . . significant impact to air quality." If there was no "significant impact to air quality" from this project then there would be no need for this NOC Approval Order.

Response to I-1-3

Ecology agrees and has modified Finding to state "The project, if constructed and operated in accordance with this Approval Order, will have no significant impact on air quality."

Comment I-1-4

4. APPROVAL CONDITIONS 1.3.4., 1.4.5, and 1.5.5. Add "as required under WAC 173-401- 630 (4)" so the applicable sentences read: ". . . semiannual report as required under WAC 173- 401-630 (4). . ."

Response to I-1-4

Ecology assumes that the referenced condition is 1.3.5, rather than 1.3.4, for this comment. Ecology agrees that it might provide additional clarity about the current compliance method to point to WAC 173-401-615(3)(a) reporting [not WAC 173-401-630(4), which refers to facilities which have been placed on a schedule of compliance]. However, these conditions refer to portions of the Waste Treatment Plant which are not being addressed by this permit modification. Currently, these conditions provide flexibility for the permittee to provide a separate semiannual report with the required information if they chose to separate it from the report already required by WAC 173-401-615(3)(a).

WAC 173-400-110(1)(d) states that "New source review of a modification is limited to the emission unit or units proposed to be modified and the air contaminants whose emissions would increase as a result of the modification." This modification proposes changes only to emission units for the Low Activity Waste (LAW) and Laboratory (LAB) portions of the WTP. Therefore, Ecology has limited revisions for portions of the WTP excluded from this project to changes which are clearly required for grammatical, administrative, regulatory citation, or other non-substantive reasons. Therefore, the text of Conditions 1.3.5, 1.4.5, and 1.5.5 was preserved from Conditions 2.3.2, 2.4.2, and 2.5.2 of the previous revision.

Comment I-1-5

5. TOTAL EMISSION LIMITS, 2.1: ". . . Revision 2 and subsequent amendments, which is [sic] not specifically addressed in the NOC application. . .". a) WAC 173-400 doesn't appear to allow **permitting in advance**, as this condition provides ("which is [sic] not specifically addressed in the NOC application"). Condition 2.1 allows the applicant to bypass requirements for submittal of a "complete" application as codified in WAC 173-400, and allows Ecology to overlook its duty under WAC 173-400 to follow codified requirements for public review and issuance. Ecology exceeds its authority when it uses an NOC Approval Order to nullify codified portions of a regulation lawfully enacted. An NOC Approval Order is not a substitute for the rule-making process. Limit this order to just those emission units (EUs) and activities identified in the application and reproduced in this NOC Approval Order.

b) Specify the difference between a "Revision" and "amendments". See above: ". . .Revision 2 and subsequent amendments, . . .". (Emphasis is mine.) Will an amendment to Revision 2 still be called Revision 2, or Revision 2 as amended on a particular date, or Revision 3? Are "amendments" subject to public review? Please clarify.

Response to I-1-5

The referenced amendments are previous AOs which have been incorporated into DE02NW-002, Revision 3, and do not refer to future permitting actions. Condition 2.1 has been revised to state "DE02NWP-002-002, Revision 2 including subsequent Amendments 1 through 4" to help clarify that these were specific historical issuances whose requirements are not addressed by this modification, in accordance with WAC 173-400-110(1)(d).

Comment I-1-6

6. TOTAL EMISSION LIMITS, 2.1.1. (This comment also applies to 2.2.) List the activities covered by this NOC Approval Order. Failure to actually identify those activities covered by this NOC Approval Order **IN** this NOC Approval Order needlessly, and unnecessarily, complicates both enforcement and compliance. Ecology's conduct of compliance inspections or emission audits will require assimilation of the entire application in addition to the contents of this NOC Approval Order, thereby, increasing time to complete pre-inspection preparation activities and increasing the likelihood non-compliances will be overlooked.

From the standpoint of compliance certification, having to glean covered activities from the application will significantly complicate the certification process, thereby increasing the risk that applicant's management will miss a covered activity or include an activity that is not covered. Either oversight could subject applicant's management to a penalty for non-compliance. (This includes certification required by semiannual reporting conditions - see conditions 1.3.5, 1.4.5 and 1.5.5.)

Ecology should either copy-and-paste emission units (EUs) and activities it wishes to be addressed by this NOC Approval Order (order) into this order, or, have the applicant supply a listing of the EUs and activities it wants to be covered by this order. Either way, EUs and activities regulated by this order should appear **IN** this order.

Response to I-1-6

By revising text to specifically list all emission units at the WTP, Ecology would potentially cause confusion as to which portions of the facility are addressed by this modification under WAC 173-400-110(1)(d). For future Notices of Construction, if they are submitted, Ecology will evaluate whether it is appropriate to convert the entire Approval Order into a more modern format which might include a table of emission units.

Comment I-1-7

7. TOTAL EMISSION LIMITS, 2.1.2. "These values shall. . .Project (PNNL-12040)." Include actual emission measurements in the criteria for determining whether a TAP or TAPs has/have been exceeded. Actual emission measurements are more accurate than a theoretical calculation, which might be based upon inaccurate, unproven or unproveable assumptions.

Response to I-1-7

Condition 2.1.2 applies to a portion of the WTP which is not addressed by this modification and, in accordance with WAC 173-400-110(1)(d), is beyond the scope of this New Source Review action. This requirement has been maintained from Condition 3.2 of DE02NW-002, Revision 2 and the subsequent Amendments 1-4.

Comment I-1-8

8. TOTAL EMISSION LIMITS, 2.1.3. (" . . .based upon the date of issuance for DE02NWP- 002, Revision 2, . . .most recent amendment. . . new or updated Approval Order. . .") Distinguish the terms "Revision", "amendment", "new [Approval Order]" and "updated Approval Order". Is Ecology intending these terms have a common definition? Comingling such terms adds confusion, needlessly.

Response to I-1-8

The discussed amendments were previous approval orders, now superseded, with the text "Amendment" in the name. To help clarify, Condition 2.1.3 has been modified to state "DE02NWP-002, Revision 2, or the most recent Amendment to Revision 2 which addressed emissions from that emission unit."

Comment I-1-9

9. TOTAL EMISSION LIMITS, 2.2, 2.2.1, 2.2.2, and 2.2.3. See comment 6 above. All emission units and activities regulated by this NOC Approval Order should appear within this NOC Approval Order.

Response to I-1-9

Condition 2.2 applies to a portion of the WTP which is not addressed by this modification and, in accordance with WAC 173-400-110(1)(d), is beyond the scope of this New Source Review action. Therefore, Ecology has minimized the revisions to the text of these conditions to those necessary for grammatical, administrative, regulatory citation, or other non-substantive reasons.

Comment I-1-10

10. GENERAL. Ecology should possess a copy of all plans and manuals required by this NOC Approval Order (e.g., Performance Demonstration Plan, O&M manuals, Fugitive Dust Control Plans, etc.). This NOC Approval Order should also require the applicant to update such documents, promptly, when they modify any of these documents.

From additional Dec. 30 email: Please append the following sentence to my comments #10 and 18(b): "Ecology will conduct any inspections, audits, or similar activities against Ecology's copy of the applicable document(s)." Absent such a notice, the applicant has little incentive to keep these documents updated.

Response to I-1-10

Chapter 173-400 WAC does not require that facility records and documents be stored at the appropriate regulatory agency. Instead, Condition 7.0 of the Approval Order, WAC 173-400-105, and Section 114 of the federal Clean Air Act require that permittees maintain appropriate records and provide them when requested.

Comment I-1-11

11. INITIAL NOTIFICATIONS & SUBMITTALS, 6.0. ("All notifications and . . . be sent to:"). Edit this sentence to read ". . .be sent to the address below or other such address as provided by Ecology:" or something similar. The applicant could be in violation of this NOC Approval Order should Ecology change addresses or change the address where submittals are to be sent.

Response to I-1-11

Ecology agrees and has revised condition 6.0 to state that "All notifications and submittals required under these Approval Conditions shall be sent to the address below or an updated address, if provided by Ecology."

Comment I-1-12

12. MONITORING AND RECORDKEEPING, 7.1 and 7.2. Require actual emission measurements . . . "Emission measurements and [c]alculations of . . .". Actual emission measurements are more accurate than a theoretical calculation, which might be based upon inaccurate, unproven or unproveable assumptions.

Response to I-1-12

With the exception of emissions from the LAB portion of the WTP, records addressed by Conditions 7.1 and 7.2 will be verified with testing required by Condition 3.0. LAB is excluded from performance testing because it has limited, variable emission determined by the number and type of samples in the current inventory. The analysis of these samples, generated from processed waste, will continue to demonstrate that facility emissions are consistent with those measured during performance testing.

Comment I-1-13

13. MONITORING AND RECORDKEEPING, new 7.8 or revised 7.4. Overlooked are logs and records for required activities described in condition 4.0 ("Emissions from boilers shall be monitored for CO and Oxygen . . . and oxygen trim control"). Create a new condition, condition 7.8, or revise condition 7.4 to include logs and records required by activities described in condition 4.0.

Response to I-1-13

Records for Condition 7.4 should already be interpreted to include those generated for Condition 4.0. The carbon monoxide and oxygen checks, when triggered, are part of the tune-up and maintenance activities themselves to ensure that a boiler has been returned to proper operating condition. Ecology has confirmed with the permittee that these checks are documented in work packages maintained in the operating record.

Ecology considered revising Condition 7.4 for clarity, but the boilers are not emission units which are addressed by this permit modification. Revision this condition would potentially not be in accordance with WAC 173-400-110(1)(d).

Comment I-1-14

14. GENERAL CONDITIONS, 8.1. Revise to read: "Any activity undertaken by the Permittee, or others, in a manner that is inconsistent with ~~the data and specifications submitted as part of the NOC application or~~ this NOC Approval Order, must be subject to Ecology enforcement under applicable regulations." Ecology makes a false equivalence between "Activities Inconsistent [sic] with this Order - " and ". . . the data and specifications submitted as part of the NOC application . . .". This "Order" is not the "application". Plus, the application has already been certified in accordance with regulation. (See WAC 173-400-105) Any mis-representations in "the data and specifications submitted as part of the NOC application" are already subject to enforcement by Ecology.

Response to I-1-14

Ecology considers information provided in the NOC application to be enforceable, even if it is not directly placed in the AO itself. This prevents the need for orders to potentially include many pages of design documents, including information which may not have any impact on air emissions. The use of or in the statement "NOC application or NOC Approval Order" is intentional to indicate that these are different documents and Ecology is not certain how to make this more clear.

It is possible that an application can be prepared without any "false material statement, representation or certification" [WAC 173-400-105(6)] and that a later activity could be inconsistent with that application. Furthermore, it would potentially limit the scope of Ecology's response to an emissions violation if they were only able to pursue it as a false statement certified by a single individual under WAC 173-400-105(6).

Ecology did revise General condition 8.1 to state that inconsistent activities "will be subject" rather than "must be subject" to Ecology enforcement. This matches a recent change in the standard language for this general condition.

Comment I-1-15

15. GENERAL CONDITIONS, 8.4 and 8.5. (" . . . NOC application and this NOC Approval Order . . .") As written ("NOC application and this NOC Approval Order" (Emphasis is mine.)), these conditions are enforceable only if the subject equipment appears in BOTH the NOC application AND this NOC Approval Order. It is not necessary to mention the application, the NOC Approval Order reins, as it must. Afterall, it's the NOC Approval Order that will be enforced, not the application. Edit the sentences to read: ". . . equipment described in the ~~NOC application and this~~ NOC Approval Order . . ."

Response to I-1-15

Ecology considers the NOC Application to be enforceable.

These general conditions are currently in use by Ecology state-wide. The Nuclear Waste Program has determined that the best course of action is to forward this grammatical concern to the team which develops these conditions, rather than make a change for a single approval order or to delay issuance until a potential change to the general conditions can be reviewed.

In regard to construction, WAC 173-400-030(20)(a) defines commence to include both "a continuous program of actual on-site construction of the source" and "binding agreements or contractual obligations...to undertake a program of actual construction of the source." WAC 173-400-030(84) defines source to be "all of the emissions unit(s) including quantifiable fugitive emissions, that are located on one or more contiguous or adjacent properties, and are under the control of the same person or persons under common control, whose activities are ancillary to the production of a single product or functionally related groups of products."

Therefore, work towards any emissions unit which is part of a source can potentially be considered to contribute to a continuous program of construction. The phrase "the equipment described in the NOC application and this NOC Approval Order" is intended to be an inclusive group of all equipment at the source which is directly related to this order. If these general conditions were revised to only include equipment which is directly addressed by the Approval Order it would significantly exceed Ecology's authority to rescind approval to construct.

Comment I-1-16

16. GENERAL CONDITIONS, 8.6, see also 8.8. ("Equipment Operation - Operation of the subject systems is intended for the storage, treatment, and discharge of Hanford Site waste waters ...") It is unclear why Ecology is attempting to regulate "the storage, treatment, and discharge of Hanford Site waste waters" in an air permit (NOC Approval Order) issued pursuant to WAC 173-400 (and possibly incorporated into Hanford's AOP in accordance with WAC 173-401). Please either delete this condition or explain why Ecology is using this NOC Approval Order to trespass on other environmental statutes and the regulations implementing these statutes. (See also 8.8)

Response to I-1-16

Ecology believes that the text "subject systems is intended for the storage, treatment, and discharge of Hanford Site waste waters as described in the NOC applications and any supplemental information provided by the Permittee" was accidentally inserted into the text of General Condition 8.6.

This condition has been corrected to "Equipment Operation - Operation of the facility must be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with O&M manuals, unless otherwise approved in writing by Ecology."

Comment I-1-17

17. GENERAL CONDITIONS, 8.8. QUESTION: Why even have this NOC Approval Order if compliance with the order does NOT "relieve the Permittee of its obligation under any state" regulation, including WAC 173-400? (Emphasis is mine.) Suggest editing to read: "Nothing in this NOC Approval Order must be construed so as to relieve the Permittee of its obligations under any other regulation or law ~~local, or federal laws or regulations.~~", or something similar that conveys the message that compliance with this NOC Approval Order will be considered to be compliance with the requirements of WAC 173-400.

Response to I-1-17

If the AO were to relieve the permittee of the requirements of Chapter 173-400 WAC it could potentially be interpreted as the permittee no longer being bound by requirements such as WAC 173-400-040 (General standards for maximum emissions), WAC 173-400-108 (Excess emissions reporting), or the requirement to file new NOC application prior to modification of the facility.

This AO and the associated NOC application satisfy the requirements of WAC 173-400-110(2) for the proposed project. The requirements of Chapter 173-400 WAC should still be evaluated for any future projects or activities at the source, including those related to the emission units covered by this AO.

Comment I-1-18

18. GENERAL CONDITIONS, 8.11.

a) Edit the first sentence to read: "...shall address fugitive dust at the WTP construction site adjacent to the Hanford 200 Area ~~and the Material Handling Facility.~~" The Material Handling Facility (MHF), previously named the Marshalling Yard, is not the subject of this NOC Approval Order. The MHF is geographically separated by tens of miles from the facility contemplated by this NOC Approval Order, plus the MHF, or its predecessor, has existed for well over a decade. (The facility covered by this NOC Approval Order is not yet operational.) Additionally, the MHF is regulated separately under previously-issued permits, which include the requirement to control fugitive dust and the requirement to have a dust control plan.

Furthermore, the MHF is NOT otherwise regulated by terms, conditions, and limitations specified in this NOC Approval Order. Should Ecology now wish to include the MHF in this NOC Approval Order, then Ecology must include the required application material, plus any terms, conditions, and limitations Ecology deems necessary to control emissions; then restart public review.

The MHF has a history with regard to controlling fugitive dust. On March 12, 2003, the MHF, then referred to as the Marshalling Yard, was issued both a notice of violation (NOV) (No.20030006) and an Administrative Order (AO) by the Benton Clean Air Authority (BCAA) for uncontrolled blowing dust. The AO specified actions required to address findings in the NOV. One of the actions required by the AO was the:

"submit[ta]l of] a dust control plan to the BCAA within 5 calendar days of receipt of this order. This plan will be subject to review and comment by the BCAA. The plan will include a site map. In addition, it will include a schedule of implementation, applications, and maintenance of control measures. If water is used as a control measure, or in conjunction with other control measures, include access to, available quantity, location of water sources, and method and rates of application" and "If the primary and contingency control measures outlined in the dust control plan subsequently prove to be inadequate or ineffective, Bechtel National will select and utilize additional control measures."

The contractor (Bechtel National) operating the Marshalling Yard at the time BCAA issued both the NOV and the AO did not appeal either as it was entitled by statute to do. As of 2013, BCAA was unable to locate any documentation formally rescinding the AO-required Marshalling Yard dust control plan or any documentation modifying contents of this plan. The Hanford Site, its contractors and sub-contractors, also, have not come forward with any such documentation. Sometime prior to 2013, Ecology replaced the dust control plan required by BCAA's AO with a less restrictive dust control plan.

b) Last 2 sentences ("A copy of this plan . . . These documents shall . . .") For clarity, replace the term "documents" with the term "plan" so the sentences read: ". . . when activities regulated by the documents plan are occurring. These documents plan shall be made. . .". Also, require the applicant supply Ecology with a copy of the plan. Additionally, provide the applicant promptly update Ecology's copy when the plan is modified.

From additional Dec. 30 email: Please append the following sentence to my comments #10 and 18(b): "Ecology will conduct any inspections, audits, or similar activities against Ecology's copy of the applicable document(s)." Absent such a notice, the applicant has little incentive to keep these documents updated.

Response to I-1-18

General Condition 8.11 has been preserved from Condition 9.8 of DE02NWP-002, Revision 2, and does not place any new or additional requirements on the permittee.

Ecology determined that modifying or removing this condition could be considered new source review for a portion of the facility which is not part of the project, which would potentially be inconsistent with WAC 173-400-110(d).

Comment I-1-19

19. GENERAL CONDITIONS, 8.12. Correct the reference to Chapter 70.94 RCW. Those portions of Chapter 70.94 RCW not repealed were recodified at Chapter 70A.15 RCW.

Response to I-1-19

Ecology has made this correction. This update was not caught when transferring the condition from Revision 2 to Revision 3.

Comment I-1-20

20. APPENDIX A. Reformat the "Appendix A" heading so that Tables 1 and 2 appear immediately below the heading rather than being separated from the heading by blank pages.

Response to I-1-20

Due to the amount of information in the tables, Ecology's technical editors determined that it would be better to insert the extra blank pages rather than to try to reduce the size of the tables themselves. In part, this is driven by a need to maintain minimum font sizes for accessibility.

Comment I-1-21

21. APPENDIX A, TABLE 1. Provide the calculation used by Ecology to convert from "lb/averaging period" as displayed in WAC 173-460-150 to "grams/second" required by this NOC Approval Order.

Response to I-1-21

The exact formula will depend upon averaging period. Due to the fact that WTP emissions are based upon steady state, continuous operation, Ecology has determined that it would be more straightforward to place all limits in the format of grams per second. These rates can then be directly compared to the emission rates measured during performance testing without the need for the permittee to do the calculations below for each TAP.

A = TAP-specific emission rate in grams per second

B = pounds per gram = approximately 2.20462E-03

C = seconds per minute = 60

D = minutes per hour = 60

E = hours per day = 24

F = days per year = 365 (based upon EPA policy to disregard leap years or other adjustments)

*The following equation would be used if WAC 173-460-150 lists an averaging period of "1-hr":
 $A*B*C*D$.*

*The following equation would be used if WAC 173-460-150 lists an averaging period of "24-hr":
 $A*B*C*D*E$.*

*The following equation would be used if WAC 173-460-150 lists an averaging period of "year":
 $A*B*C*D*E*F$.*

Example Calculations:

*Nitrogen Dioxide (CAS 10102-44-0) for LV-S3 would be calculated as
 $1.26E-01 * 2.20462E-03 * 60 * 60 = 1.00$ pounds per hour*

*Bromomethane (CAS 74-83-9) for LV-S3 would be calculated as
 $2.65E-02 * 2.20462E-03 * 60 * 60 * 24 = 5.05$ pounds per 24 hours*

*Acrylonitrile (CAS 107-13-1) for stack LV-S3 would be calculated as
 $1.48E-12 * 2.20462E-03 * 60 * 60 * 24 * 365 = 1.03E-07$ pounds per year*

In certain cases, the values calculated above are slightly different than those listed for the abated emission rate in the NOC application. This is due to the fact that Ecology typically rounds limits to no more than three significant figures and the permittees used a more precise value for their estimated emission rate when calculating potential emissions for Chapter 173-460 WAC.

Comment I-1-22

22. GENERAL. A new public comment period will be required before conditions in this NOC Approval Order (DE02NWP-002, Revision 3) can be added to Hanford's Air Operating Permit (AOP), because the current public review conducted under WAC 173-400 does not meet the minimum requirements for public review pursuant to WAC 173-401, The Operating Permit Regulation.

Response to I-1-22

Ecology agrees with this comment for this specific AO. WAC 173-401-722(1)(e) allows for incorporation of conditions from an AO into an operating permit without a separate comment period only if the AO comment period meets procedural requirements substantially equivalent to those of Chapter 173-401 WAC. While this is possible, Ecology generally prefers to hold separate comment periods instead of adding complexity by meeting the requirements of both Chapters 173-400 and 173-401 WAC simultaneously.

Appendix A. Copies of All Public Notices

Public notices for this comment period:

- Notices sent to the Hanford-Info email list
- Notices posted on Washington Department of Ecology – Hanford’s Facebook and Twitter pages

From: [Washington Department of Ecology](#)
To: [McFadden, Daina \(ECY\)](#)
Subject: DE02NWP-002 NOC approval order for WTP public comment period notification
Date: Monday, November 29, 2021 11:01:53 AM



Public comment period

DE02NWP-002 NOC approval order for WTP

30-day comment period

Ecology is holding a 30-day comment period for Approval Order DE02NWP-002, Revision 3, Nov. 29, through Dec. 31, 2021. The permittee, the U.S. Department of Energy (USDOE), has requested revisions to the air Notice of Construction Approval Order for the Waste Treatment Plant (WTP) to address updated waste composition and estimated emissions. These changes are for the Low Activity Waste (LAW) and Laboratory (LAB) portions of the WTP. This permit revision does not authorize any physical changes to LAW or LAB design. The WTP is located on the Hanford Site in southeastern Washington.

What changes are being proposed?

This Approval Order will address four items:

1. Waste composition and the resulting air emissions have been updated for the most recent Direct Feed LAW design.
2. USDOE and Ecology have agreed upon the composition of simulant used to test the LAW facility before tank waste is treated. Emissions from commissioning and testing with this simulant will now be covered by the Approval Order.
3. Air emissions have been modeled to the new ambient air boundary. The new boundary is closer to the WTP site and modeling now includes areas which were previously excluded.
4. Removal of acid gases, primarily hydrogen chloride and hydrogen fluoride, is now identified as primarily taking place in the wet control devices instead of the carbon bed adsorber for LAW. The carbon bed adsorber will still be constructed and operated for removal of volatile organic chemicals and organic toxic air pollutants.

Comment period starts: Nov. 29, 2021

Comment period ends: Dec. 31, 2021

Read Plan

Ecology invites you to review and comment on this approval order. The draft approval order is online at the Nuclear Waste Program's [public comment page](#). Copies of the proposed modification are located on the [Administrative Record](#).

Please submit comments by **Dec. 31, 2021**. Electronic submission (preferred):

[DE02NWP-002 NOC approval order for WTP](#)

Mail or hand-deliver to:

Daina McFadden
3100 Port of Benton Blvd
Richland WA 99354
Fax 509-372-7971

Public hearing

A public hearing is not scheduled, but if there is enough interest, we will consider holding one.

Comment

Daina McFadden

Permit Communications Specialist

✉ Daina.McFadden@ecy.wa.gov

☎ 509-372-7950

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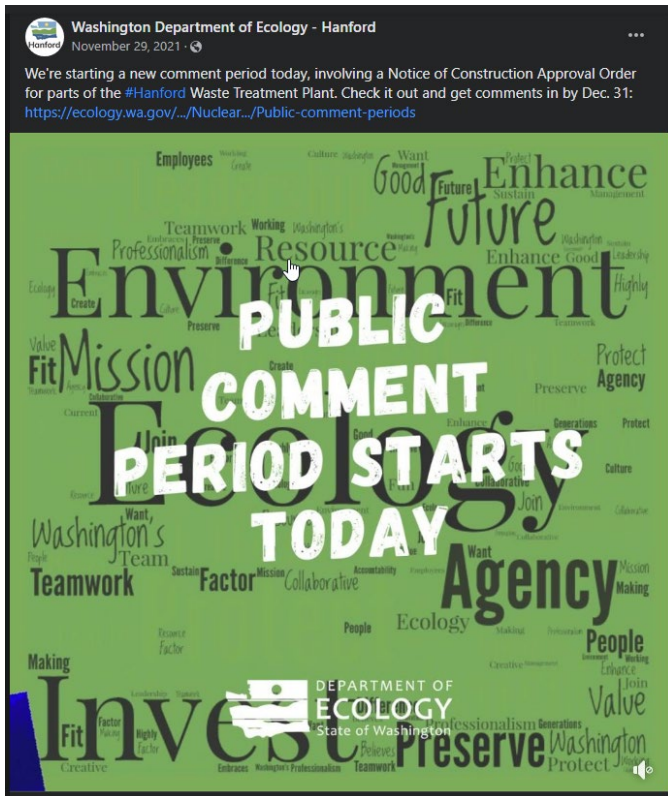
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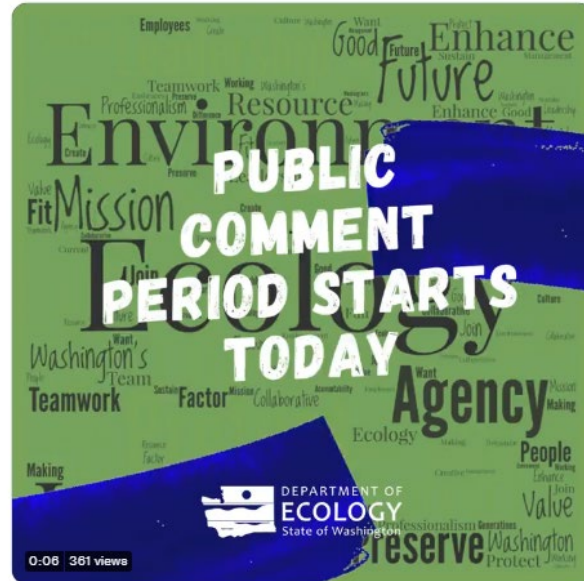


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Washington Department of Ecology · 300 Desmond Drive SE · Lacey, WA 98503

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We're starting a new comment period today, involving a Notice of Construction Approval Order for parts of the #Hanford Waste Treatment Plant. Check it out and get comments in by Dec. 31: ecology.wa.gov/Waste-Toxics/N... @EcologyWA @HanfordSite @RiverProtection @EPAnorthwest



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