DEPARTMENT OF
ECOLOGY
State of Washington

Response to Comments

Hanford Air Operating Permit, Revision B

March 22 – April 24, 2015, with extension to May 8, 2015

Summary of a public comment period and responses to comments

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THE ENVIRONMENTAL PROTECTION AGENCY ORDER TO ECOLOGY

The Environmental Protection Agency (EPA) issued an Order on May 29, 2015, granting in part and denying in part two petitions for objection to permits 00-05-006, Renewal 2, and 00-05-006, Renewal 2, Revision A (the Hanford Air Operating Permit Renewal 2 and Revision A). The Order is attached as Exhibit F.

The EPA granted Claim 3B "… the Petitioner's request to object to the Hanford Title V Permit on the basis that Ecology's record is inadequate with respect to addressing Subpart H in the Hanford Title V Permit." The EPA also proposed a number of options that could be used to address this inadequacy. Additionally, the EPA clarified the scope of judicial review in a discussion under Claim 4.

Ecology and Health discussed the findings of the Order and selected to implement one of the suggestions in the Order. Ecology will "attach an addendum to the Hanford Title V Permit to correct any omissions or errors – if any – contained in the license with respect to Subpart H, since Ecology also has authority to enforce the NESHAP."

This addendum to the Hanford Title V Permit will be located in the Attachment 2 Section of the permit. The addendum will contain requirements that the Permittee will have to abide by in addition to the requirements in Attachment 2. Health will use the addendum in Attachment 2 to correct the underlying radiological air emission license(s) (RAEL) in the next revision of the Hanford RAEL (FF-01).

In the following "Response to Comments" section, responses that indicate information will be added or placed in the addendum to Attachment 2 indicates that Ecology will, in accordance with the advice from EPA, place any corrections to the license with respect to Subpart H in the addendum.

In the EPA Order, fifteen specific responses to the Hanford AOP Renewal 2 and the Hanford AOP Renewal 2, Revision A were identified. These specific comments were not part of the comments received during the public comment period for the Hanford AOP Renewal 2, Revision B. They have been added as responses 110-124. The responses provided here are not the original responses, but new responses prepared under consideration of the EPA Order.

LIST OF COMMENTERS

Commenter Identification:

The table below lists the names of organizations or individuals who submitted a comment on the Hanford Air Operating Permit modification and where you can find Ecology's response to the comment(s).

Commenter	Organization	Comment Number	Page Number
Johns, William	Citizen	1	[Insert page range(s).]
Green, Bill	Citizen	2	
Conlan, Mike	Citizen	3	
Kaldor, Reed	Contractor to permittee	4	
Green, Bill	Citizen	5 - 38	
Poirier, Jeanne	Citizen	39	
Vanni, Jean	Citizen	40	
Integrated comments from USDOE	USDOE-RL and USDOE-ORP	41 - 71	
Sanders, Beth	Citizen	72	
Thorton, Dale	Citizen	73	
Carpenter, Tom	Hanford Challenge	74 - 109	
Various	Response to EPA Objection	110-124	

RESPONSE TO COMMENTS

The NWP accepted comments on the draft AOP from March 22 through April 24, 2015, with an extension to May 8, 2015. This section provides a summary of comments we received during the public comment period and our responses, as required by the Revised Code of Washington (RCW) 34.05.325(6)(a)(iii).

Each comment is addressed separately. Please refer to the References section of this document for Exhibits A through X. The NWP's responses directly follow each comment in italic font. Verbatim copies of all written comments are attached in Appendix B.

Comment # 110 from USDOE, dated July 28, 2012
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2. It is identified as Comment 50 in Exhibit (2013 R2C).

A number of additional revisions to the FF-01 license have been approved/issued by DOH since the 2/23/2012 version that was included in the AOP public comment draft issued. Prior to final issuance of the AOP renewal, an updated version of the FF-01 needs to be issued and incorporated into the AOP.

Recommendation: Verify all additional radioactive air emissions licensing activities issued/performed since DOH issued the renewed FF-01 on 2/23/2012 are identified and captured in an updated FF-01 for issuance with the final AOP.

Ecology Response:
The additional revisions to the FF-01 license that were issued/approved by DOH since the 2/23/2012 version were incorporated and are part of this revision of the AOP.

No change to the AOP is required.

Comment # 111 from USDOE, dated July 28, 2012
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2. It is identified as Comment 54 in Exhibit (2013 R2C).

EU141 has been closed and should be removed from the FF-01. A report of closure for EU141 (DOE letter 12-ECD-0014) was transmitted to DOH on 6/6/2012.

Recommendation: Revise the FF-01 License to remove EU141 and update the Health SOB to add it to the list of obsolete emission units.

Ecology Response:
This EU141 has been removed from the FF-01 license and ATT 2.

No change to the AOP is required.

Comment # 112 from USDOE, dated July 28, 2012

This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2. It is identified as Comment 63 in Exhibit (2013 R2C).

EU1180 has been closed and no longer exists. It should be removed from the FF-01, along with its approval letter AIR 11-302 and NOC ID 787.

Recommendation: Revise the FF-01 License to remove EU1180 and update the Health SOB to add it to the list of obsolete emission units.

Ecology Response:
EU1180 has been removed from the FF-01 license and ATT 2.

No change to the AOP is required.

Comment # 113 from Bill Green, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 36 in Exhibit (2014 R2C).

Make the following changes to the first (1st) sentence on the signature page of AOP *Attachment 2*, License FF-01.

The first (1st) sentence on the signature page of Permit *Attachment 2* reads:

"Under the Nuclear Energy and Radiation Control , RCW 70.98 the Washington Clean Air Act, RCW 70.94 and the Radioactive Protection- Air Emissions, Chapters 246-247 WAC, and in reliance on statements and representations made by the Licensee designated below before the effective date of this license, the Licensee is authorized to vent radionuclides from the various emission units identified in this license."

Make the following changes to this sentence:
1. Replace the word "Control" with "Act" so it reads "Nuclear Energy and Radiation Act". The *Nuclear Energy and Radiation Act* is the correct title of RCW 70.98[1].
2. Remove the "s" from the end of the word 'Chapters" to reflect that WAC 246-247 is only one (1) chapter in the Washington Administrative Code (WAC).
3. Remove "the Washington Clean Air Act, RCW 70.94". While the Washington Clean Air Act (WCAA) does provide Health with the ability to enforce a License issued pursuant to RCW 70.98 in accordance with several paragraphs of the WCAA[2], the WCAA does not provide Health with the authority to issue a License authorizing "the Licensee [ ] to vent radionuclides from the various emission units identified in this license". Only the *Nuclear Energy and Radiation Act* (NERA), RCW 70.98 provides Health with the authority to issue Licenses. Furthermore, Health does not have rulemaking authority under the WCAA.

Quoting from *Attachment 2*, Section 3.10, *Enforcement actions*:
In accordance with RCW 70.94.422, the department may take any of the following actions to **enforce compliance** with the provisions of this chapter:
(a) Notice of violation and compliance order (RCW 70.94.332).
(b) Restraining order or temporary or permanent injunction (RCW 70.94.425; also RCW 70.98.140).
(c) Penalty: Fine and/or imprisonment (RCW 70.94.430).

(d) Civil penalty: Up to ten thousand dollars for each day of continued noncompliance (RCW 70.94.431 (1) through (7)).
(e) Assurance of discontinuance (RCW 70.94.435).
(emphasis added) *Attachment 2*, Section 3.10

Thus, in Section 3.10 of *Attachment 2* Health correctly acknowledges its authority under the WCAA is confined to various enforcement actions.

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1 *See* http://apps.leg.wa.gov/RCW/default.aspx?cite=70.98&full=true
2 "The department of health shall have all the enforcement powers as provided in RCW 70.94.332, 70.94.425, 70.94.430, 70.94.431 (1) through (7), and 70.94.435 with respect to emissions of radionuclides." RCW 70.94.422 (1)

Ecology Response:
The first two changes recommended in the comment are administrative in nature and do not impact the enforceability or functionality of the permit. The comment has been provided to the Washington Department of Health for their consideration.

The third comment was about removing "the Washington Clean Air Act, RCW 70.94" from the sentence. The purpose of WAC 173-480 is to "… define maximum allowable levels for radionuclides in the ambient air and control emissions from specific sources." The Statutory Authority for this is RCW 70.94.331. Further, WAC 173-480-050 states "all emission units shall meet chapter 246-247 or 246-248 WAC…" The Statutory Authority is given as RCW 70.94.331 and 70.94.422.

Thus emission limits are established under the authority of RCW 70.94.331 and it is these limits the licenses are based upon. The listing of RCW 70.94 in the paragraph is accurate and doesn't need to be removed.

No change to the AOP is required.

Comment # 114 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 48 in Exhibit (2014 R2C).

The pre filter is missing from the list of abatement technology and the description section requires clarification.

Recommendation: Modify the Abatement Technology Additional Description to read as follows:

Pre Filter: 2 2 in parallel flow paths
HEPA: 2 2 in parallel flow paths with 2 in series
Fan: 1 1 fan abandoned in place

Ecology Response:
The required abatement control devices are listed for the emission unit. If USDOE would like to add additional requirements (e.g. pre-filters) to the license, then they should start a Notice of

Construction Modification with the Department of Health to add additional requirements to their license for this emission unit.

No change to the AOP is required.

Comment # 115 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 49 in Exhibit (2014 R2C).

The damper does not perform an abatement function, and is the reason it is not included in any of the other stack's abatement technology descriptions (with the exception of 296-A-43 with the same comment for removal).

Recommendation: Remove the Radial Damper from the Abatement Technology table for 296-A-20.

Ecology Response:
The damper is a required abatement control device as it is used to limit the permitted flow rate to no greater than 1000 scfm.

No change to the AOP is required.

Comment # 116 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 50 in Exhibit (2014 R2C).

The damper does not perform an abatement function, and is the reason it is not included in any of the other stack's abatement technology descriptions (with the exception of 296-A-43 with the same comment for removal).

Recommendation: Remove the Radial Damper from the Abatement Technology table for 296-A-43.

Ecology Response:
The damper is a required abatement control device as it is used to limit the permitted flow rate to no greater than 1000 scfm.

No change to the AOP is required.

Comment # 117 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 51 in Exhibit (2014 R2C).

Corrections are needed to the Abatement Technology Additional Description Section. 296-A-18 ventilation system contains only 1 abatement train. The heater is non-operational.
This stack exhaust system is identical to the 296-A-19 (EU218) system.

Recommendation: Abatement Technology, Additional Description:
Remove "2 parallel flow paths" from the HEPA, Fan, and Heater descriptions.

Ecology Response:
The current application for this emission unit indicates that it has 2 parallel flow paths and the requirement for a heater. If the emission unit only has one flow path, then submit a Notice of Construction modification to the Department of Health to have the license modified.

The heater is current a requirement for the emission unit. If it is non-functional, then the emission is not operating compliantly. The heater either needs to be made functional or USDOE needs to submit a notice of Construction modification to the Department of Health to have the license modified.

No change to the AOP is required.

Comment # 118 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 52 in Exhibit (2014 R2C).

Additional Requirements section states: "Radial breather filters shall be replaced every 365 days." This filter is an open face filter and this requirement is not applicable.

Recommendation: Replace the additional requirement with the following:
"Breather filters shall be aerosol tested every 365 days."

Ecology Response:
The current license conditions and requirements under WAC 246-247-040(5) allow the Department of Health to set" set requirements and limitations on the operation of the emission unit(s) as specified in a license". *The specification for replacement of the filter every 365 is within the authority of the Department of Health.*

If USDOE wants to change the requirement, a Notification of Construction modification will need to be submitted to the Department of Health.

No change to the AOP is required.

Comment # 119 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 53 in Exhibit (2014 R2C).

Additional Requirements section states: "Radial breather filters shall be replaced every 365 days." This filter is an open face filter and this requirement is not applicable.

Recommendation: Replace the additional requirement with the following:
"Breather filters shall be aerosol tested every 365 days."

Ecology Response:
See the response to comment # 118.

Comment # 120 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 54 in Exhibit (2014 R2C).

Several radionuclides are listed in the "Radionuclides Requiring Measurement" Table that are not listed in the application. The applicable NOC application transmittal (04-ED-028, Attachment 1, Table 9 and Table 10) identify Cs-137, Sr-90, and Am-241 as isotopes contributing greater than 10% of the potential effective dose equivalent. WAC 246-247-035(1)(ii) and 40CFR61.93(4)(i) state: "All radionuclides which could contribute greater than 10% of the potential effective dose equivalent for a release point shall be measured."

Recommendation: Remove the following isotopes from the "Radionuclides Requiring Measurement" Table: Y-90, Cs-134, Pa-231, Pu- 238, Pu-239, Pu-240, Pu-241.

Ecology Response:
The current license conditions and requirements under WAC 246-247-040(5) allow the Department of Health to set" limits on emission rates for specific radionuclides from specific emission units". *The specification for the radioisotopes are allows under WAC 246-247-040(5)*

No change to the AOP is required.

Comment # 121 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 55 in Exhibit (2014 R2C).

Several radionuclides are listed in the "Radionuclides Requiring Measurement" Table that are not listed in the application. The applicable NOC application transmittal (04-ED-028, Attachment 1, Table 9 and Table 10) identify Cs-137, Sr-90, and Am-241 as isotopes contributing greater than 10% of the potential effective dose equivalent. WAC 246-247-035(1)(ii) and 40CFR61.93(4)(i) state: "All radionuclides which could contribute greater than 10% of the potential effective dose equivalent for a release point shall be measured."

Recommendation: Remove the following isotopes from the "Radionuclides Requiring Measurement" Table: Y-90, Cs-134, Pa-231, Pu- 238, Pu-239, Pu-240, Pu-241.

Ecology Response:
The current license conditions and requirements under WAC 246-247-040(5) allow the Department of Health to set" limits on emission rates for specific radionuclides from specific emission units". *The specification for the radioisotopes are allows under WAC 246-247-040(5)*

No change to the AOP is required.

Comment # 122 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 56 in Exhibit (2014 R2C).

Several radionuclides are listed in the "Radionuclides Requiring Measurement" Table that are not listed in the application. The applicable NOC application transmittal (04-ED-028, Attachment 1, Table 9 and Table 10) identify Cs-137, Sr-90, and Am-241 as isotopes contributing greater than 10% of the potential effective dose equivalent. WAC 246-247-035(1)(ii) and 40CFR61.93(4)(i) state: "All radionuclides which could contribute greater than 10% of the potential effective dose equivalent for a release point shall be measured."

Recommendation: Remove the following isotopes from the "Radionuclides Requiring Measurement" Table: Y-90, Cs-134, Pa-231, Pu- 238, Pu-239, Pu-240, Pu-241.

Ecology Response:
The current license conditions and requirements under WAC 246-247-040(5) allow the Department of Health to set" limits on emission rates for specific radionuclides from specific emission units". *The specification for the radioisotopes are allows under WAC 246-247-040(5)*

No change to the AOP is required.

Comment # 123 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 57 in Exhibit (2014 R2C).

Several radionuclides are listed in the "Radionuclides Requiring Measurement" Table that are not listed in the application. The applicable NOC application transmittal (04-ED-028, Attachment 1, Table 9 and Table 10) identify Cs-137, Sr-90, and Am-241 as isotopes contributing greater than 10% of the potential effective dose equivalent. WAC 246-247-035(1)(ii) and 40CFR61.93(4)(i) state: "All radionuclides which could contribute greater than 10% of the potential effective dose equivalent for a release point shall be measured."

Recommendation: Remove the following isotopes from the "Radionuclides Requiring Measurement" Table: Y-90, Cs-134, Pa-231, Pu- 238, Pu-239, Pu-240, Pu-241.

Ecology Response:
The current license conditions and requirements under WAC 246-247-040(5) allow the Department of Health to set" limits on emission rates for specific radionuclides from specific emission units". *The specification for the radioisotopes are allows under WAC 246-247-040(5)*

No change to the AOP is required.

Comment # 124 from USDOE, dated December 19, 2013
This comment was submitted as part of the public comment period for the Hanford AOP Renewal 2, Revision A. It is identified as Comment 58 in Exhibit (2014 R2C).

AIR 13-607, 6-20-13, approved the demolition and removal of the old 296-A-21 K-1 exhauster (EU486); closed the 296-A-21 stack (EU 141); and inadvertently obsoleted the new 296-A-21A K-1 Exhauster upgrade stack.
Tanks Farms currently operates two stacks at the 242A Evaporator: 1) 296-A-21A Evaporator building vent (242A-003, EU1294), and 2) 296-A-22 Evaporator vessel vent (242A-002, EU142)

Recommendation: Re-instate EU 1294, P-242A-003 (296-A-21A) back into the FF-01 license.

Ecology Response:
The addition has occurred.

No change to the AOP is required.