Enclosure A

26-ECD-0106

Consisting of 7 pages,
including this cover page

INCOMING CORRESPONDENCE COVERSHEET

Author	Addressee	Correspondence No.
RM Geimer/HFO	SN Schleif/DOEC	2604610 DOE-HFO: 26-ECD-0106

Subject: RESPONSE TO "CLOSEOUT OF INSPECTION 25.AQ06 FOR HANFORD AIR OPERATING PERMIT (AOP) DISCHARGE POINTS (DPs) 1.4.2, 1.4.19, 1.4.33"

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Assignee:	N/A
Letter Date:	September 3, 2026
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U.S. Department of Energy
Hanford Field Office
P.O. Box 550
Richland, Washington 99352

September 3, 2026

26-ECD-0106

Ms. Stephanie Schleif
Program Manager
Nuclear Waste Program
Washington State Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354

Dear Ms. Schleif:

RESPONSE TO "CLOSEOUT OF INSPECTION 25.AQ06 FOR HANFORD AIR OPERATING PERMIT (AOP) DISCHARGE POINTS (DPs) 1.4.2, 1.4.19, 1.4.33"

References (1) Ecology letter from S. M. Nolph to R. M. Geimer, HFO, "Closeout of inspection 25.AQ06 for Hanford Air Operating Permit (AOP) Discharge Points (DPs) 1.4.2, 1.4.19, 1.4.33," 26-NWP-070, dated May 15, 2026.

(2) HFO letter from L. Erickson to M. A. Wilson, Ecology, "Request and Justification for Removal of Compliance Testing Requirement from the Hanford Site Air Operating Permit," 05-AMRC-0291, dated June 7, 2005.

This letter provides the U.S. Department of Energy, Hanford Field Office (HFO) response to the Washington State Department of Ecology (Ecology) 25.AQ06 inspection report issued on May 15, 2026, under Reference (1).

The inspection identified several compliance concerns.

DP 1.4.2 – 242-A, Boiler 1, 2, and 3 (>5 MMBtu/hr – Fuel Oil)

1. Performance testing that meets the requirements of approval order 97NM-138 and 40 CFR 63, NESHAP Subpart DDDDD needs to be performed in 2026.

   - Boilers #2 and #3 must be tested for 40 CFR 63, NESHAP Subpart DDDDD compliance.
   - Of the boilers approved by 97NM-138, five boilers need to be tested, unless there are less than five boilers approved by 97NM-138 still in use, in which case all remaining boilers need to be tested.

Response: Hanford Tank Waste Operations and Closure (H2C) has started the procurement of a third-party vendor to perform 40 CFR 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart DDDDD sampling for boilers #2 and #3. The vendor contract is expected to be awarded around September 2026. H2C must also procure and install necessary sampling ports. H2C estimates the sampling ports will be installed by October 2026.

The sampling needs to be performed while the boilers are running at approximately 90% capacity. Accounting for safety margins, operating at full capacity is in the range of 90-100% under steady-state conditions. Ecology has agreed that testing of the boilers will occur when they are operating at full capacity. This is in accordance with the Hanford Site Air Operating Permit (AOP), Renewal 3. That level of steam usage can only be safely and practically achieved when the boilers are connected to the 242-A Evaporator while it is operating a campaign. The next opportunity to run the boilers at or above 90% capacity with the new sampling ports installed would be Evaporator Campaign (EC)-17. EC-17 is scheduled to occur in the 2nd quarter of Calendar Year (CY) 2027. Thus, stack emissions sampling is expected to be completed in the 2nd quarter of CY 2027.

On June 15, 2005, Ecology approved the removal of the 5-year testing requirement for the 242-A boilers per Referecne (2). Ecology also memorialized the removal of the testing requirement in the AOP, stating that emissions will be within the Notice of Construction (NOC) and AOP limits so long as low sulfur fuel continues to be utilized and good combustion practices are maintained. Thus, it is apparent that Ecology and HFO were in agreement that the additional 5-year compliance testing requirements for the boilers did not apply for the years in question. This same language exists in AOP Renewal 1 issued in January 2007 and Renewal 2 issued in April 2013. Notwithstanding the above and that the 5-year compliance testing does not apply under current and past renewals of the AOP, the sampling described herein would also satisfy the testing as originally incorporated under 97NM-138.

2. A sensitivity analysis addressing the use of obstructive stack caps needs to be performed in CY 2026. As an alternative to performing a sensitivity analysis, the obstructive stack caps may be permanently removed. A non-obstructive cap may be used in place of the current obstructive caps.

   An alternative means of compliance for the above items is to permanently shut down the boilers in question prior to December 31st, 2026, followed by removal of the boilers no later than December 31st, 2027.

Response: The existing rain caps are part of the original equipment configuration and design for each boiler that was installed as a single integrated assembly that is Underwriters Laboratory listed. The rain caps have functioned as intended as part of compliant boiler operations since original installation and there are no plans or need to remove them.

The emissions analysis provided in the original NOC application was accepted by Ecology and remains sufficient as a basis for the issuance of approval order 97NM-138. HFO requests that Ecology identify the applicable regulatory driver before any sensitivity analysis is performed.

3. Adequate access to the boilers for inspection purposes is to be provided for future inspections. Hanford has unique hazards due to radiation and chemical contamination which merit restricting access to some equipment that would otherwise be inspected in close proximity at a typical facility. However, no such risk was identified for the boilers.

   A normal air quality inspection of a boiler involves the inspector(s) examining the entirety of the boiler in close proximity and taking all photographs. Access at this level was not provided for this inspection, thereby violating the access provisions of the AOP.

   Response: During the in-brief on August 12, 2025, for the AOP 25.AQ06 inspection, it was explained to Ecology that certain areas of the 242-A boiler annex building would be inaccessible due to operating pressure vessels and boiler tuning being performed by a vendor. A “Restricted Access” boundary was created to ensure that the licensed Pressure Boiler Operators (PBO) could perform work adequately and safely. The work area within the restricted boundary allowed only licensed PBOs to enter. This is standard practice throughout the boiler industry to ensure worker safety when work is being performed. To ensure safety for all personnel involved, an administrative control (the “Restricted Access” boundary) was posted to manage the area and prevent injury.

   It was explained to Ecology that the inspection group would be allowed to enter the boiler annex building but would not be allowed within the restricted access work zone to maintain safety conditions for all personnel. The H2C Boiler Program Manager assured Ecology that a licensed PBO could take photos of any areas that Ecology could not safely enter. Ecology was satisfied with the access and expressed no access concerns during the in-brief.

During the physical inspection on August 12, 2025, Ecology had access to interior portions within the front of the boiler annex building (building side with garage doors). Furthermore, the H2C Boiler Program Manager offered Ecology a "back door" view from a man door on the opposite side of the building. Using Ecology's camera, a licensed PBO also worked with Ecology to take photographs of all Ecology's requested areas that were beyond the restricted access boundary.

Ecology was allowed entry into the boiler annex building, provided with any records upon request, able to have any pictures taken within the restricted access area by the licensed PBO, and allowed inspection of the boilers and their operation given work conditions. Every attempt was made to accommodate the inspection in consideration of the safety of all personnel present, including the Ecology inspection group, and without affecting the operational status of the facility or the work going on at the time of inspection.

No access concerns were raised during the on-site inspection. If Ecology had concerns about access, HFO could have worked with Ecology at that time to resolve the issue. To support timely resolution of any issues, HFO requests that Ecology bring any such concerns to our attention immediately during future inspections so they may be addressed at that time.

DP 1.4.19 – LERF Basins 41-44 & P-2025 ETF

4. No compliance concerns were found during this inspection.

DP 1.4.33 – 6608 Biosolids Treatment System

5. The appropriate form needs to be filed to add the diesel fired pump engine to the AOP.

   Response: The Hanford Site considers the portable diesel-powered pump at the sewage lagoon to be a nonroad engine in storage. This pump has been used primarily to transfer wastewater among multiple lagoons and has not been operated at any one location for more than 12 months. Additionally, the pump's current configuration, including the absence of an attached hose, further demonstrates that it is not in use while stored. The pump's primary operating location is approximately 250 feet away, and it is relocated as needed to perform its intended functions.

Furthermore, since the pump is only stored, not operated, at its current location, there are no emissions generated at that site to be evaluated against applicable air regulations. Storing the pump at a single site for more than 12 months does not fulfill the stationary engine criteria if its actual operational use is at varying locations and intervals. Therefore, based on actual usage and compliance with regulatory criteria, the pump remains appropriately classified as a nonroad engine.

If you have any questions, please contact me, or you may contact Heather L. Dale, Assistant Manager for Safety and Environment, at (509) 376-6727.

Sincerely,

COREY LOW

Digitally signed by COREY LOW
Date: 2026.09.03 13:19:29 -07'00'

On behalf of
Raymond M. Geimer
Manager

ECD:BRT

cc: T. G. Beam, H2C
C. Buck, Wanapum
C. J. Caldwell, Ecology
L. Contreras, YN
S. L. Dahl-Crumpler, Ecology
J. T. Hamilton, H2C
A. L. Johnson, HMIS
M. Murphy, CTUIR
G. A. Pierce, H2C
C. R. Ramos, HMIS
C. S. Sabin, HMIS
A. Smith, NPT
G. J. Warwick, H2C
M. F. Williams, Ecology
Administrative Record
Ecology Correspondence (nwpmail@ecy.wa.gov)
H2C Correspondence
HMIS Correspondence
Environmental Portal, G3-35

Enclosure B

05-AMRC-0291

Consisting of 5 pages,
including this cover page

0065378

Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

05-AMRC-0291

JUN 07 2005

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

RECEIVED
JUN 13 2005
EDMC

Dear Mr. Wilson:

REQUEST AND JUSTIFICATION FOR REMOVAL OF COMPLIANCE TESTING REQUIREMENT FROM THE HANFORD SITE AIR OPERATING PERMIT

The U.S. Department of Energy, Richland Operations Office (RL) requests that the Hanford Site Air Operating Permit (AOP) be revised to remove the requirement for performing follow-up stack testing of the fossil fuel fired steam generating units (boilers) listed in Tables 1.1 and 1.3 of Attachment 1 of the AOP. These boilers provide steam service to the 200 and 300 Area Hanford Site and are owned and operated by Johnson Controls, Inc (JCI). The proposed change to the AOP is attached. RL requests that the proposed change be evaluated and processed as part of the current AOP renewal application process.

JCI met with your staff on February 10, 2005, and April 26, 2005, to discuss the revision. Your staff indicated they would be receptive to this change and our request to process it as part of the current AOP renewal.

The Notice of Construction (NOC) approval order and the AOP state, "Follow-up compliance tests shall be conducted on selected boilers once every five years." RL requests that the compliance (stack) testing required in the NOC Approval Order 97NM-138 be removed from the approval order and the AOP. RL and JCI assert that past and present compliance will continue to be demonstrated through adherence to good combustion practices, source testing previously performed, annual emission reports, and through the current maximum achievable control technology (MACT) standards.

Compliance source (stack) testing was conducted in September 2003 after 5 years of boiler operation. Representative boilers were selected for testing in accordance with an Ecology approved test plan. Testing confirmed that the JCI boilers do not exceed emission limits required by the NOC approval order. JCI maintains compliance with the emission limits stated in the NOC by implementing good combustion practices and using low sulfur fuel. There are no foreseeable changes in operations that would increase current emission levels or cause the emission limits required by the NOC approval order to be exceeded.

Annual emissions reports are submitted to Ecology for review. Annual emissions from JCI boilers are calculated using the U.S. Environmental Protection Agency (EPA) approved method of applying emission factors to fuel use data to estimate emissions from boilers (EPA publication: "Preferred and Alternative Methods for Estimating Air Emissions from Boilers"). These annual reports provide a source for current as well as past information regarding boiler use and emissions.

JCI boilers currently meet the maximum degree of reduction in emissions of Hazardous Air Pollutants (HAPs) that is achievable, otherwise referred to as the maximum achievable control technology (MACT) standards. The Clean Air Act requires that for existing major sources, MACT can be no less stringent than the average emission limitation achieved by the best performing 12 percent of existing sources from data available to EPA. For existing liquid fuel boilers, less than 6 percent of all units used additional control techniques to reduce HAPs. For existing gaseous fuel boilers, no units were using additional control techniques to reduce HAPS. From this information, MACT standards were generated. According to Section 63.7506(c) of the Federal Register (page 55255), "Existing small liquid fuel boilers and existing small gaseous fuel boilers are not subject to any requirements in 40 CFR 63 Subpart D or Subpart A including the emission limits, work practice standards, performance testing, monitoring, startup, shutdown, and malfunction (SSM) plan, site specific monitoring plans, recordkeeping and reporting requirements found in this subpart."

In summary, the current MACT standards clearly state that existing units in any of the liquid or gaseous fuel subcategories do not have emission limits and therefore, are not required to conduct stack tests or fuel analyses. In addition, new units (boilers) in any of the liquid fuel subcategories that do not burn residual oil, only have to submit a signed statement in the Notification of Compliance Status Report indicating only liquid fossil fuels were burned. No initial or follow-up compliance (stack) testing is required. Therefore, if the current JCI boilers were installed today under current regulations, stack testing would not be required by the current MACT standards.

With proper maintenance and operation, compliance with good combustion practices, and use of low sulfur fuel, the JCI boilers will continue to demonstrate compliance with MACT standards and NOC emission limits. The Annual Emissions Report will continue to illustrate and document this compliance.

If you have any questions, please contact D. J. Ortiz, Office of the Assistant Manager for the River Corridor, on (509) 376-0950 or Mary Jarvis, Environmental Services Division, (509) 376-2256.

Sincerely,

James P Darby for

Leif Erickson, Assistant Manager
for the River Corridor

AMRC: DJO

Attachment

cc w/attach:
W. E. Green, FHI
D. W. Hendrickson, Ecology
O. S. Wang, Ecology
P. A. Weiher, JCI
Environmental Portal
Administrative Record (JCI, NOC Approal
Order 97NM-138, HS Air Operating
Permit 2005)

Order 97NM-138, will be used to determine monthly emission levels for individual boilers, and collectively for the 200 East, 200 West, and 300 Area. If Ecology or the Permittee determines that emission factors different than the factors specified in Regulatory Order 97NM-138 are appropriate, the public will be provided with an opportunity for review. WAC 173-400-115 compliance with the standard may be determine based on a certification from the fuel supplier containing the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41b. An annual report including records of fuel supplier certifications and a certification by the owner or operator that the records of fuel supplier certifications submitted represent all of the fuel combusted during the year. Logs of boiler tuneups and significant boiler maintenance activities will be kept.

2.6 STEAM GENERATING UNITS SOURCE TESTS

No Source testing is required. ~~All source tests for these boilers will be conducted using EPA and Ecology approved procedures with the test boilers operating at full capacity. Tests are to be conducted on a maximum of five boilers selected on the basis of boiler capacity and fuel type. The procedure for selecting the test boilers will be agreed to by Ecology and DOE before conducting the tests. A procedure for selecting a representative subset of boilers for testing once every 5 years will be developed before the initial 5 year follow-up test. The public will be provided an opportunity for review of the procedure as part of an AOP modification or renewal.~~

~~The following list is an inventory of the larger boilers that are subject to testing (maximum of 5 boilers):~~

~~Distillate oil-fired boilers~~	~~Number of units~~
~~200 BHP~~	~~5~~
~~350 BHP~~	~~3~~
~~700 BHP~~	~~2~~

~~Natural gas-fired boilers~~	~~Number of units~~
~~200 BHP~~	~~2~~
~~300 BHP~~	~~4~~

2.7 SO_2 EMISSIONS COMPLIANCE

Tier 1: Fuel-Oil Fired Combustion Units:

Required records	Calculation model (Section 3.1)
1. Amount and type of fuel burned 2. Vendor documentation or fuel analysis once per year.	Model 1

Enclosure C

June 15, 2005 Ecology Letter

Consisting of 3 pages,
including this cover page

0065604

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
3100 Port of Benton Blvd • Richland, WA 99352 • (509) 372-7950

June 15, 2005

RECEIVED
JUN 20 2005
EDMC

Mr. Leif Erickson
Assistant Manager for the River Corridor
Richland Operations Office
United States Department of Energy
P.O. Box 550, MSIN: A3-04
Richland, Washington 99352

Dear Mr. Erickson:

Re: Request and Justification for Removal of Compliance Testing Requirement from the Hanford Site Air Operating Permit (05-AMRC-0291) 65378

The Washington State Department of Ecology (Ecology) received the referenced request from your office on June 9, 2005. The request is to remove the compliance testing requirement for the fossil fuel fired boilers, operated by Johnson Controls, Inc. (JCI), from the Hanford Air Operating Permit (AOP). My staff have discussed and reviewed this issue with Mr. P. A. Weiher, of JCI, in the last few months, and agreed with the request as long as JCI continues to use low sulfur fuel and implement good combustion practices and the maximum achievable control technology standards.

Ecology approves the proposed change, and will implement necessary modifications in the AOP. There are required public reviews, as described in Washington Administrative Code 173-401-800, during the AOP renewal process currently in progress. Please coordinate with Mr. W.E. Green, of Fluor Hanford Inc., for timely inclusion of the proposed changes in the renewal supplemental package to be submitted in September 2005. Ecology plans to issue the Hanford AOP renewal, incorporating JCI boiler test elimination, in June 2006. If you have any questions, please contact Oliver Wang at (509) 372-7932.

Sincerely,

Michael A. Wilson
Program Manager
Nuclear Waste Program

Oliver Wang
Professional Engineer
Nuclear Waste Program

cc: See next page

cc: Mary Jarvis, USDOE
D.J. Ortiz, USDOE
William Green, FH
Patrick Weiher, JCI
Stuart Harris, CTUIR
Gabriel Bohnee, NPT
Russell Jim, YN
Todd Martin, HAB
Ken Niles, ODOE
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