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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.

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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.

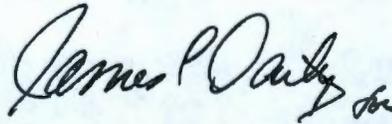
Mr. Michael A. Wilson
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If you have any questions, please contact D. J. Ortiz, Office of the Assistant Manager for the River Corridor, on (509) 376-0950 or Mary Jarvis, Environmental Services Division, (509) 376-2256.

Sincerely,



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 Approval
Order 97NM-138, HS Air Operating
Permit 2005)

October 2003

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 SO₂ 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