



## Department of Energy

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Richland, Washington 99352  
JUL 11 1995

0041622

95-PCA-398

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Dear Messrs. King and Newman:

### 300 AREA BOILER SOURCE TEST RESULTS -- SULFUR DIOXIDE EMISSIONS

This letter is a follow-up letter to a letter from Mr. J. E. Rasmussen, U.S. Department of Energy, Richland Operations Office (RL), to Messrs. R. C. King and A. R. Newman, State of Washington Department of Ecology (Ecology), "Continued Operation of 300 Area Package Boiler," 95-PCA-343, RL-EAP, dated June 7, 1995, providing preliminary results indicating that the 300 Area package boiler emissions are below the 1000 ppm sulfur dioxide standard [corrected to seven percent oxygen as identified under Washington Administrative Code 173-400-040(6)]. This letter provides the final source testing results (Enclosure 1) as committed confirming that the 300 Area boilers are currently operating below the emission standard for sulfur dioxide.

We believe that the actions taken are sufficient to close the compliance plan Milestone A-20-03 identified in the Hanford Site Air Operating Permit Application, Appendix B (Enclosure 2). The source testing for the 300 F-384-02 (#2) and 300 F-384-005 (package boiler) units verifies compliance with the emission standards for sulfur dioxide, thus eliminating the need for additional corrective action. RL believes that this letter provides sufficient information to document closure of the Air Operating Permit, Appendix B, Milestone A-20-03. In support of this position, the following information is provided.

- The #2 boiler unit (100,000 lb. steam/hr. max output) was source tested and determined to be 807.7 ppm, which is below the 1000 ppm sulfur dioxide standard.

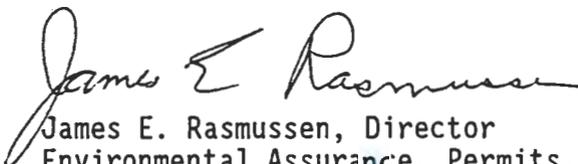
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- The package boiler unit (60,000 lb. steam/hr. max output) was also source tested and determined to be 768.7 ppm, which is below the 1000 ppm sulfur dioxide standard.
- The #2 boiler, package boiler, and the 300 F-384-006 (#6) boiler units use equivalent fuel combustion properties (i.e. the mixture of fuel and air is equivalent from boiler to boiler), thus, making sample data from the #2 and package boiler units representative enough to sufficiently bracket the operating parameters of the #6 unit (80,000 lb. steam/hr. max output).

Based on RL direction and the information provided in this letter, the Hanford Air Operating Permit team lead will be contacting the assigned Ecology permit writer for the Hanford Site Air Operating Permit, Mr. O. S. Wang, to concur with early closure of the Air Operating Permit application compliance plan schedule Milestone A-20-03.

Should you have any questions, please contact Mr. H. M. Rodriguez of my staff on (509) 376-6421.

Sincerely,

  
James E. Rasmussen, Director  
Environmental Assurance, Permits,  
and Policy Division

EAP:HMR

Enclosures:

1. American Services Associates  
Consultants Specializing in  
Air Sampling, 300 Area Final  
Source Test Results
2. Hanford Site Air Operating  
Permit Application, Appendix B

cc w/encl:

- B. L. Curn, WHC
- B. J. Dixon, ICF KH
- D. S. Gleason, ICF KH
- D. R. Herman, ICF KH
- K. A. Peterson, WHC



June 14, 1995

**Purpose**

A series of source emission tests were conducted on May 25th and 26th, 1995 at Westinghouse Hanford - ICF Kaiser Companies 300 area Power plant in Richland, Washington. Two (2) oiled fired boilers were tested for Particulates, Visual Emissions (Opacity), Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>) and Carbon Monoxide (CO). The testing was performed to determine if the boilers were meeting the WASHINGTON STATE DEPARTMENT OF ECOLOGY (WDOE) emission standards. The boilers were tuned or optimized before these source test were performed. AMERICAN SERVICES ASSOCIATES (ASA) worked with plant personnel to perform the optimizations prior to evaluating the emissions from these boilers. Details of the optimization process is included in this report.

**Summary**

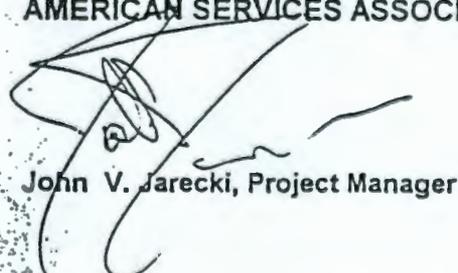
A set of three (3) samples were collected and analyzed for each of the two (2) boilers. Testing methods used to gather this data were from the USEPA procedures as published in the 40 Code of Federal Regulations Part 60 (40CFR60). The average results from the three (3) runs are shown in the following table:

Sample Type	Steam	NOx	SO2	Particulate	CO	Opacity
Units *	lb/hr	ppm	ppm	gr/dscf	ppm	%
USEPA Method Used		M7E	M6A	M5	M10	M9
Stationary Boiler #2	33,000	160.2	807.7	0.03	2.03	0%
Package Boiler	33,000	166.7	768.7	0.02	2.5	0%

\* All concentrations reported in this table were corrected to 7% Oxygen per the WDOE regulations.

John V. Jarecki, Tracy Prevo and Gayla S. Robbins performed these tests for American Services Associates. Mr. Richard W. Brown coordinated the boiler optimization and test activities for the Westinghouse Hanford - ICF Kaiser Companies.

AMERICAN SERVICES ASSOCIATES

  
 John V. Jarecki, Project Manager



EXPIRES \_\_\_\_\_



COMPLIANCE PLAN SCHEDULE

Milestone Number	Description of Corrective Action	Target Date
A-10-01	Assess and correct the various air management systems and procedures to ensure all notices and reports are submitted to the appropriate air agencies in a timely manner.	12/29/95
A-20-01	NESHAP Federal Facility Compliance Agreement (incorporated by reference, as signed February 7, 1994)	As Agreed
A-20-02	PUREX will assess and discuss with Ecology and EPA continuous NOx monitoring requirements during deactivation	08/01/95
A-20-03	A schedule for re-assessing the SO <sub>2</sub> emissions from the 300 Area boilers, emission points 300 F-384 002, 300 F-384 005, and 300 F-384 006 and to schedule the actions necessary to bring the emission units into compliance will be developed.	08/01/95
A-30-xx	TBD	
A-40-xx	TBD	
A-50-xx	TBD	

## CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
J. E. Rasmussen, RL (K. A. Peterson, WHC)	R. C. King, Ecology A. R. Newman, Ecology	Incoming: 9503354 Xref:9553563D

Subject: 300 AREA BOILER SOURCE TEST RESULTS -- SULFUR DIOXIDE EMISSIONS

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