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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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January 3, 2000

Mr. Steven H. Wisness
United States Department of Energy
Environmental Assurance, Permits and Policy Division
Richland Operations Office
P. O. Box 550, MSIN: A5-18
Richland, Washington 99352

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Dear Mr. Wisness:

During December 8 and 9, 1999, the Washington State Department of Ecology (Ecology) conducted a Pre-Title V Level 2 Air Inspection at the Hanford Site. The Ecology inspectors, Oliver Wang, Jerry Hensley, and Bob Wilson, would like to express their appreciation to your staff, Paul Krupin, Mary Beth Burandt, and DJ Ortiz for their assistance. In addition, we also want to thank the contractor staff, Steve Szendre, Tom Frazier, Kirk Peterson, Rodger Woodruff, Brad Atencio, Mark Riess, Bob Newell, Curt Clement, Tim Cook, and many facility personnel listed on Attachment 1.

The inspection started on December 8, 1999, with an introductory briefing by Oliver Wang. The main purpose of this inspection was to verify accuracy of existing Hanford air emission units against the entries into the Title V Air Operating Permit (AOP), which is scheduled to be issued early this year.

The first day (12/8/99) Ecology inspectors concentrated on inspecting facilities and emission units near the 300 Area. The second day (12/9/99) Ecology inspected selected facilities and emission units at the 200E and 200W areas. A list of inspected facilities and emission units are shown on Attachment 1.

Mr. Mark Riess and his colleagues gave an extensive Environmental and Molecular Scientific Laboratory (EMSL) tour, and described how Pacific Northwest National Laboratory (PNNL) controlled toxic air emissions by reviewing the User Proposal Form and the Preparation and Risk Form. PNNL maintains an electronic database to track chemical use in the EMSL and currently this unit is operating near full capacity. Oliver Wang reminded Mr. Riess that future expansion of the facility would be considered as "modification" and a new Notice of Construction (NOC) Application would be required.

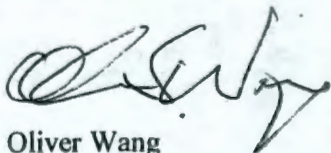
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EMSL, Waste Receiving and Processing (WRAP-1), and all Energy Savings Performance contract (ESPC) Boilers are relatively new facilities. The associated emission controls and records are computer-tracked and automated. The Ecology inspectors were very pleased with the current operation and status of these new facilities. The ESPC project, which installed more than forty (40) standard low emission energy-saving boilers to replace the old coal-fired boilers, substantially reduced site-wide non-rad air pollution. We observed the unit in operation and reviewed the tune-up records. Ecology would like to congratulate DOE-RL and Johnson Control personnel for a job well done.

The second day, Ecology inspected the WRAP-1 facility and the 234-5Z-BA boilers near the Plutonium Finishing Plant (PFP) at 200W, and the Effluent Treatment Facility/Liquid Effluent Retention Facility (ETF/LERF) at 200E. We entered the control room and observed the exhaust stacks. The waste streams contained in the LERF were discussed with Mark Bowman and Roger Szelmezcza of Fluor Daniel Hanford (FDH). In the afternoon, we inspected the 200E Filter Plant Engine, five (5) Tank Farm stacks, and the paint shop in the 400 Area, against general emission standards and hours of operation records.

In general, there were no significant findings during this inspection. The non-rad air-related record-keeping and operating conditions were very satisfactory; however, the following observations require DOE-RL's attention: (1) reasonable precautions to control emissions of the 200E old boiler, and (2) facility closure. Along with a request for additional information, detailed observation statements and regulatory bases are listed in Attachment 2. If you have additional questions, please contact me at 736-3040.

Sincerely,



Oliver Wang
Professional Engineer
Nuclear Waste Program

OSW:ld

cc: Paul Krupin DOE-RL
Mary Beth Burandt DOE-RL
Ron Skinnerland, Ecology
Laura Cusack, Ecology
Jerry Hensley, Ecology
Bob Wilson, Ecology

Administrative Record:
Central Files
Reader Files

Attachment 1
Pre-Title V Non-Rad Air Level 2 Inspection Facilities Visited

12/8/99

Inspection Briefing	Paul Krupin, Mary Beth Burandt (DOE-RL), Steve Szendre, Tom Frazier (FDH), Brad Atencio, Mark Riess, Rodger Woodruff, David Brawn, Jim Larsen, Pete Rojas, and Eric Hamberg (PNNL)
Environmental Molecular Science Laboratory (EMSL)	POC: Mark Riess, Rodger Woodruff, David Brawn, Jim Larsen, Eric Damberg, Pete Rojas, and Brad Atencio (PNNL)
300 Area ESPC Boilers (331 and 342)	POC: Tim Cook, Patrick Weiher, Bryan Greenamyre (JCI), Kirk Peterson, and Russ Johnson (FDH)
300 Area Old Boilers (Closure Status)	POC: Curt Clement (DYN)
324 Plasma Arc Furnace	POC: Dave Rasmussen (FDH)

12/9/99

Waste Receiving and Processing Module 1 (WRAP-1)	POC: Harlan Boynton (FDH), Jim Geary (WMH), Ron Higgins, and Michael Collins (DOE-RL)
PFP ESPC Boilers	POC: Tim Cook (JCI)
200E Effluent Treatment Facility (ETF) and Liquid Effluent Retention Facility (LERF)	POC: Roger Szelmezcza and Mark Bowman (FDH)
200E Filter Plant Engine 282ED001	POC: Curt Clement and Jim Day (DYN)
200E Old Boiler (Closure Status)	POC: Curt Clement and Jim Day (DYN)
241-AN Tank Farm Primary Stack 296-A-29 (200E P-296AN 001)	POC: Dale Dyekman (LHMC) and Terry Winward (BAT)
241-AP Tank Farm Primary Stack 296-A-40 (200E P-296AP 001)	POC: Dale Dyekman (LHMC) and Terry Winward (BAT)
244-CR Vault Stack 296-C-05 (200E P-244CR 001)	POC: Dale Dyekman (LHMC) and Terry Winward (BAT)
241-SX Tank Farm Primary Stack 296-S-15 (200W P-296SX 001)	POC: Dale Dyekman (LHMC) and Terry Winward (BAT)
241-SY Tank Farm Primary Stack 296-S-23 and 296-S-28 (200W P-296SY 001)	POC: Dale Dyekman (LHMC) and Terry Winward (BAT)
200E and 200W Paint Shops (Closure Status)	POC: Robert Newell (FDNW)
400 Area Paint Shop	POC: Robert Newell (FDNW)

Attachment 2
Observations and Follow-up Issues

Observations:

- (1) **Reasonable precautions to control emissions of the 200E old boiler:** The closure status of the old boilers at 300 Area was very good. However, the closure condition for the 200E old boiler provided the potential for air emissions. Residual coal piles at or near the old coal storage area were observed. These residual coal piles can be the source of fugitive emissions and dust. In general, after the closure of a facility or emission unit, the responsible operator shall continue to control air pollution sources according to the general standards requirements in WAC 173-400-040. Ecology reminds DOE-RL and its contractors that they are required to take reasonable precautions to control fugitive emissions and dust until sources such as the residual coal piles are removed [WAC 193-400-040 (3) and (8)].
- (2) **Facility Closure:** During the inspection, Ecology was concerned that there did not appear to be a clearly defined procedure for identifying closed or obsolete emission units or activities. Ecology reminds DOE-RL that, following issuance of the Air Operating Permit, DOE will be required to inform Ecology of changes to the Permit, such as facility closures, according to the Permit revision requirements of WAC 173-401. Ecology suggests that DOE implement a site-wide process for making such Permit revision requests to Ecology. At that point, Ecology will ensure that the closed facilities no longer represent a source of regulated air pollutants, and will revise the Air Operating Permit accordingly.

Follow-up Issues

Ecology Inspector Jerry Hensley has the following requests:

1. A letter from PNNL (or DOE-RL) requesting cancellation of the approval order for the 324 Plasma Arc Furnace project.
2. Information pertaining to calculations and logic that the ETF staff used to justify accepting waste (constituents) not listed in the NOC application.
3. Dates from the 400 Area paint shop as to when operations were started there, when the 200 Area shops were closed down, and when controls for the painting booth were added and modified.