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August 28, 2017 17-NWP-107

Mr. Doug Shoop, Manager
Richland Operations Office
United States Department of Energy
PO Box 550, MSIN: H5-20
Richland, Washington 99352

Re: Inspection Close-out Letter for Air Operating Permit (AOP) Discharge Points: 1.4.14 and 1.4.22

Dear Mr. Shoop:

As part of continuous compliance verification, the Department of Ecology (Ecology) conducts facility inspections of units subject to the Hanford Site AOP and Approval Orders. This letter communicates the results of an inspection of discharge points 1.4.14 and 1.4.22 performed by Daniel Heuston on June 8, 2017.

Compliance with the applicable conditions of AOP 00-05-06 Renewal 2, Revision B and respective Approval Orders was the basis for the inspection. Records were reviewed for the time period January 1, 2015, to June 8, 2017. The results of the inspection and compliance status are provided below.

1.4.14 CWC

Ecology has determined that discharge point 1.4.14 was in **continuous compliance** from January 1, 2015, to June 8, 2017. Please see below for details of compliance determination.

- **Condition: Visible emissions shall not exceed limits specified in WAC 173-400-040(2).**
  - Records for opacity determinations were not provided as there were no visible emissions observed.

- **Condition: VOC emissions shall not exceed 3.5 tons per year.**
  - Records of material assessment, inventory, and calculations were provided. The Solid Waste Information Tracking System (SWITS) database is used to track all containers handled and stored at the Central Waste Complex (CWC). The information contained within the SWITS database includes waste characterization providing which Volatile Organic Compounds (VOC) are present and at what quantities. This waste characterization data is then used in the calculations to conservatively overestimate the annual VOC emissions. The results of the analysis indicate the combined VOC emissions are far below the established VOC emission limit, which demonstrates compliance with this condition.

- **Condition: All Toxic Air Pollutants (TAPs), as submitted in the Permittee's Notice of Construction (NOC) Application, shall be below their respective Acceptable Source Impact Level (ASIL).**
  - Records of material assessment, inventory, and calculations were provided. The SWITS database is used to track all containers handled and stored at the CWC. The information contained within the SWITS database includes waste characterization providing which TAPs are present and at what quantities. This waste characterization data is then used in the calculations to conservatively overestimate the annual TAPs emissions. The results of the analysis indicate that all TAPs are below their respective ASIL, which demonstrates compliance with this condition.

1.4.22 P-296W004 001

Ecology has determined that discharge point 1.4.22 was in **continuous compliance** from January 1, 2015, to June 8, 2017. Please see below for details of compliance determination. The Waste Receiving and Processing Facility (WRAP) facility is currently in Min-Safe Mode (Cold Standby), but is still conducting routine inspections and performing necessary maintenance.

- **Condition: Emission Controls Monitors**: Source data from an Organic Vapor analyzer using a Photoionization detector (PID) with at least an 11.7eV lamp, or other device capable of detecting TAPs, was conducted by the facility to provide verification of de minimis (i.e., parts per million levels) fugitive emissions in the drum storage and NDE/NDA areas. The results of source test information, conducted on or at the source locations in lieu of downstream at the stack, have been provided to the permit writer under separate cover. This information has been determined to satisfy the previous approval order condition for this source in performing one-time monitoring. This monitoring demonstrates TAP emissions are below the estimates provided in the NOC application and T-BACT analysis for the drum storage and NDE/NDA areas. As such, no additional sampling or monitoring will be required under this approval order. The facility will continue to perform at least once every two years, and make available upon request or inspection, results from any Industrial Hygiene program measurements to further demonstrate compliance with limits contained herein. The test plan for conducting these measurements shall also be maintained on file and made available upon request and/or inspection by Ecology.
  - An Industrial Hygiene (IH) program has been developed and Industrial Hygienists are available on an as needed basis to perform readings of VOCs using a PID. Results of IH measurements and instrument calibration were documented and provided to Ecology as part of the inspection, which demonstrates compliance with this condition.

- **Condition: Total Emission Limits:** For toxic compounds not included in the T-BACT analysis, the emission limits shall be the Small Quantity Emission Rate (SQER). A modification submittal of a NOC application will be required if the SQER limit would be exceeded for compounds not addressed under the T-BACT assessment. The calculation/measurement methods described in Section 4 of the NOC Approval Order DE03NWP-002, or other method as approved by Ecology, may be used to document compliance with the SQER limit.
  - The SWITS database is used to track all containers handled and stored at WRAP. The information contained within the SWITS database includes waste characterization providing which TAPs are present and at what quantities. This waste characterization data is then used in the calculations to determine if ASILs and SQERs are exceeded. The records indicate identified TAPs are below their respective SQERs, which demonstrates compliance with this condition.

- **Condition: An internal annual assessment of the facility container tracking system, such as SWITS of the data management system (DMS), shall be conducted by the facility to document/verify de minimus emissions from the source.** This assessment will be maintained on file, made available for Ecology inspector requests, and compiled into emission estimates that will be reported annually beginning as part of the Calendar Year 2003 nonradioactive inventory of airborne emissions.
  - The SWITS database is used to track all containers handled and stored at WRAP. The information contained within the SWITS database includes waste characterization providing which TAPs are present and at what quantities. The air emission inventories are annually reported to Ecology electronically, which demonstrates compliance with this condition.

- **Condition: Total Emission Limits:** The processing and repackaging activities described in the NOC application will be permitted without requiring additional emission controls, provided that the emissions from the stack, venting the 100 and 300 Series Waste Process Lines, the 200 and 400 Restricted Waste Process Lines, the process area. The storage areas are maintained below the level described in and meeting T-BACT (according to WRAP Module 1 Best Available Control Technology Assessment, WHC-SD-W026-TI-005, January 1993, Westinghouse Hanford Company, Richland, Washington).
  - Documentation for implementing T-BACT was not provided as the WRAP facility ceased active processing and repacking activities on September 30, 2011. The facility is currently in Min-Safe Mode but is still conducting regulatory inspections and performing necessary maintenance.

If you have any questions, please contact me at daniel.heuston@ecy.wa.gov or (509) 372-7895.

Sincerely,

Daniel Heuston, P.E.

Daniel Heuston, PE
Environmental Engineer 3
Nuclear Waste Program

cc electronic:

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