

**EPA comments for Project # C-1083169  
GWF Hanford (C-4140)**

**1. LAER - PDOC Evaluation and Gas Turbine Emission Calculations**

While the PDOC contains conditions for startup and shutdown (SU/SD) operating scenarios (e.g., mass limits, duration of startups and shutdowns, definitions of operating scenarios, etc.), it must also contain limits on the number of such events when operating under simple- or combined-cycle operation, since the evaluation is based on an assumed number of these events (pages 19-20 of the PDOC). Likewise, the calculations were based on a total of 8,541 hours of operation per year rather than the maximum of 8,760 hours in a year. For these reasons, the proposed permit conditions must include limits on the capacity utilization and/or hours of operation to properly reflect the scenarios used in the emission calculations.

**2. 40 CFR 60 Subpart IIII**

Page 69 of the PDOC evaluation concludes that Subpart IIII of 40 CFR 60 applies to the compressed ignited internal compression engine (CI-ICE) and that all applicable standards of this subpart "are less restrictive than current District requirements..." While this may be true, to satisfy Title V requirements, the District must provide a demonstration for multiple applicable streamlining requirements that is consistent with the protocol established in Subsection II.A. of "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" ("White Paper No. 2"). Please add an appropriate demonstration to the evaluation for this project and provide a copy to EPA prior to issuing a Certificate of Conformity ("COC") for this project.

**3. 40 CFR 63 Subpart ZZZZ**

The PDOC evaluation must determine on the record whether the CI-ICE is a source that would be subject to Subpart ZZZZ of 40 CFR 63 and indicate any requirements that apply to this source. Please determine whether it is 1) an area source per section 63.6585; 2) a new or an existing stationary RICE per section 63.6590(a); 3) an existing stationary RICE that meets the criteria contained in section 63.6590(b)(3); and/or 4) a stationary RICE subject to Regulations under 40 CFR Part 60 and meets the criteria contained in section 63.6590(c). Please update the evaluation and add any permit conditions as necessary.

**4. Emission rates during startup and shutdown events vs. steady-state operation**

Page 12 of the PDOC states that the VOC, PM10 and SOx emission rates during startup and shutdown are *equivalent* to the steady state emission rates. Based on the data in the tables on page 12, this statement appears to be inaccurate. Steady state emission rates are as follows: VOC – 1.19 lb/hr; PM10 – 3.03 lb/hr; and SOx – 0.33 lb/hr; while startup and shutdown rates respectively are as follows: VOC – 1.70, 1.70 lb/hr; PM10 – 1.93, 2.03 lb/hr; and SOx – 0.35, 0.35 lb/hr. Please revise the text on page 12 stating that these emission rates are equivalent.

## **5. SCR operation and startup and shutdown events**

It is unclear if the PDOC assumes operation of the SCR during startup and shutdown events. If it is the District's intention, as part of BART that the SCR should be in operation as soon as technically feasible, please add conditions to both require its use and monitoring provisions to ensure the SCR unit is in operation during startup and shutdown events. Examples of such conditions could include: 1) require the installation and maintenance of a working temperature gauge at the inlet or the catalyst bed of the SCR system and 2) require the monitoring and recording of the temperature over which the control system ought to be operating.

## **6. Monitoring, Recordkeeping, and Recording for Visible Emissions**

Visible emissions from the electrical generator lube oil vents and from the exhaust of the diesel-fired internal combustion engine are subject to SIP-approved District Rule 4101. While subsection 6.1 of the rule identifies US EPA Method 9 for visual determination of the opacity, provisions for monitoring, recordkeeping, and recording should be considered and are required under Title V (per section 9.0 of District Rule 2520). Examples of considerations include: 1) requirement to conduct periodic monitoring/inspection and to record the opacity readings (along with their times and dates); 2) requirement to conduct the monitoring while the equipment is operating and during daylight hours; 3) requirement to take corrective action that eliminates the visible emissions during X hours and report the visible emissions as a potential deviation in accordance with the permit's reporting requirements; 4) requirement to verify and certify within X hours that the equipment causing the visible emissions has been fixed; and 5) requirement that the operator maintain and make available upon request records of emission point(s), of descriptions of corrective actions taken, of date and time emissions were abated, and of records of emission readings. Please include these requirements as appropriate into the final permit or FDOC. Issuance of the COC is contingent upon the District adding the necessary conditions to the Title V portion of the permit.

## **7. Subsection 60.4345(e) of 40 CFR 60 (NSPS Subpart KKKK) CEM Quality Assurance Plan**

Please propose conditions in the actual permit or final Determination of Compliance (FDOC) that require the owner or operator to develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of subsection 60.4345.

## **8. Subsection 60.4350(a) through (f) of 40 CFR 60 (NSPS Subpart KKKK) data calculation protocols**

Please propose conditions in the actual permit or final Determination of Compliance (FDOC) that capture the requirements contained in paragraphs (a), (b), and (d) through (f) of subsection 60.4350. As currently proposed, the requirements contained in paragraphs 5.0 through 5.3.3, of Appendix P in 40 CFR 51 do not apply here as the project does not involve any fossil-fuel fired steam generators, nitric acid plants, nor sulfuric acid plants.

**9. Requirement to operate Continuous Emission Monitoring Equipment during all startup, shutdown, and malfunction events**

Please propose a permit condition that requires the operator to keep the Continuous Emission Monitoring running during all startup, shutdown, and malfunction events provided that the CEM data is certifiable to determine compliance with startup and shutdown emission limits. Even though it may be implicit that CEM equipment is required to operate during all startup, shutdown, and malfunction events, it should be clarified to the operator through an explicit permit condition.