



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

January 25, 2013

Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

RE: U.S. EPA Comments on the Proposed Significant Title V Revision and Permit to Construct for the Unit 3 Repowering Project at the Los Angeles Department of Water and Power – Scattergood Generating Station

Dear Mr. Nazemi,

Thank you for the opportunity to review the proposed significant title V permit revision and Permit to Construct with a Prevention of Significant Deterioration (PSD) approval for the repowering project at the Los Angeles Department of Water and Power (LADWP) – Scattergood Generating Station. Currently, the South Coast Air Quality Management District (AQMD) is delegated the PSD program by the U.S. Environmental Protection Agency (EPA) for all PSD pollutants except greenhouse gases (GHGs). GHGs are regulated under the PSD program by AQMD Rule 1714, which was approved into the California State Implementation Plan on January 9, 2013. As a result, the AQMD's PSD approval is subject to review by EPA's Environmental Appeals Board except as it pertains to GHGs.

The EPA offers the following comments on the proposed project. We provide these comments to ensure the project meets federal Clean Air Act requirements, the permit provides the necessary information so that the basis for the permit decision is transparent and readily accessible to the public, and the permit record provides adequate support for the decisions.

If you have any questions, please do not hesitate to call me at (415) 972-3974 or Lisa Beckham of my staff at (415) 972-3811 or Beckham.Lisa@epa.gov. For questions regarding the air quality impact analysis please contact Cleveland Holladay at (415) 947-4140 or Holladay.Cleveland@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gerardo C. Rios".

Gerardo C. Rios
Chief, Air Permits Office

Enclosure

U.S. EPA Region 9 Comments on the South Coast Air Quality Management District (AQMD) Proposed Permit for the Repowering Project at the LADWP – Scattergood Generating Station

Project Description

The repowering project consists of replacing the existing 460 MW steam utility boiler (Boiler #3) with a GE 7FA natural gas-fired combined cycle generating system rated at 318.3 MW and two GE LMS100 natural gas-fired simple cycle turbines each rated at 103 MW. The project also includes the derating of Boiler #1 from 185 MW to approximately 120.7 MW and the installation of a 3,622 HP diesel fueled emergency generator.

According to AQMD's draft permit, the project triggers federal major nonattainment new source review (NNSR) for emissions of PM₁₀, VOC, and NO_x (through RECLAIM); non-major NNSR review for PM_{2.5}; and prevention of significant deterioration (PSD) review for NO_x, and greenhouse gases (GHGs).

Comments

Greenhouse Gas BACT Analysis

1. The GHG BACT analysis applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation at the Scattergood Generating Station (see 40 CFR 52.21(j)(3), as incorporated by reference in Rule 1714). The GHG BACT analysis does not identify other turbine models or other potential facility configurations that may result in higher thermal efficiencies and therefore lower GHG emissions from the proposed equipment at the facility (e.g., using a combined-cycle combustion turbine in place of the proposed simple-cycle units). Please consider and analyze as necessary other potential turbine models and configurations that would make the specific project more thermally efficient.¹
2. GHG BACT for Combined-Cycle Combustion Turbine – the GHG BACT analysis sets the GHG BACT limit for the combined-cycle gas turbine using the estimated heat rate at 50% load. The permit record identifies the combined-cycle unit as a base load unit. The AQMD's analysis does not provide a basis for why this is an appropriate determination for a unit that, generally, will not operate at this low of a load level. This value is even lower than the 60% load level upon which the BACT limit for the simple-cycle gas turbines is based and which the record identifies as load-following units. The practical operating range of the combined-cycle gas turbine should be considered in the final permit decision concerning the GHG BACT limit for the combined-cycle gas turbine.

¹ We note that the AQMD's GHG BACT analysis includes and considers, in Steps 1 and 2 of the analysis, LADWP's efforts beyond the Scattergood Generating Station to reduce energy demand and increase the production of renewable energy sources in the local area as "lower emitting alternative technologies". While we are encouraged by LADWP's initiatives, the BACT analysis should be specific to technologies directly applicable to the proposed modification. For example, thermal efficiency would generally be considered a potential "lower emitting technology" for this modification. It is unclear whether AQMD intended to analyze "alternatives" to the project as a whole as part of the BACT analysis or to evaluate alternatives to the proposed equipment that would meet the project needs and result in reduced GHG emissions from the Scattergood Generating Station Repowering Project.

3. GHG BACT for Emergency Engine – AQMD did not conduct a BACT analysis for the emergency engine. Consistent with Rule 1714, BACT must be applied to all proposed equipment associated with this project. Please provide a GHG BACT analysis for the emergency engine and incorporate any applicable conditions into the final permit decision.

PSD NO_x BACT Analysis

4. The proposed permit contains PSD BACT limits for the turbines for NO_x emissions during periods of startup and shutdown, but the permit record does not provide a basis for these limits. Please provide a BACT analysis that demonstrates that the chosen limits represent BACT during periods of startup and shutdown.

PM PSD Applicability Analysis

5. Pursuant to Rule 1702 and 40 CFR 52.21 this project may trigger PSD if it results in a significant net emissions increase of 25 tons per year of particulate matter (PM). The AQMD's analysis does not specify whether this project is subject to PSD for PM emissions. Please evaluate whether this project requires PSD review for PM and revise the final permit decision accordingly.

Additional Impacts Analysis

6. The PSD additional impacts analysis should also consider visibility impacts on Class II areas and impacts as a result of growth associated with the project (i.e., general commercial, residential, industrial and other growth).

Air Quality Impact Analysis

7. Please provide justification for the following:
 - a. Non-use of overwater receptors in the significant impact modeling for NO₂.
 - b. Use of the urban option in the modeling.
8. Please clarify whether the property boundary of the Scattergood Generating Station is fenced and whether receptors are placed along the fence and outward from the property.
9. Please clarify whether modeling receptors were placed along Grand Avenue, which runs through the Scattergood Generating Station property. Grand Avenue is considered "ambient air" because public access to it cannot be precluded (see, e.g., April 30, 1987 EPA Memo from G.T. Helms to Bruce Miller, <http://www.epa.gov/scram001/guidance/mch/ama3.txt>). As a result, receptors should be placed along Grand Avenue.
10. Class I PSD increment analysis – The AQMD's analysis states:

“The results of the Class I PSD increment analysis showed that the model predicted concentrations are well below the EPA proposed Class I significance thresholds. Therefore, no further modeling was required for PSD increment analysis.” (see page 44)

It is not clear what information the AQMD relied upon in making this determination. Please clarify the results of the Class I PSD increment analysis or identify where this information is available in the permit record. The AQMD makes a similar conclusion regarding acid deposition which should also be clarified.

Rule 1325 – Federal PM_{2.5} New Source Review Program

11. The analysis of the applicability of this rule to the proposed project did not evaluate PM_{2.5} precursors. Please ensure the record includes an evaluation of the applicability of PM_{2.5} precursors to Rule 1325.
12. There are several required elements of the PAL permit that do not appear to have been included in the proposed permit (e.g. PAL effective date, PAL expiration date, and information regarding PAL renewals). As identified in Rule 1325(c)(7), please ensure the final permit decision contains all of the required PAL permit elements.

Title V Permit Requirements

13. The AQMD's analysis includes a review of applicable rules and regulations for the proposed equipment. However, the proposed permit does not necessarily incorporate the applicable requirements of these rules and regulations (e.g. 40 CFR 60 Subpart KKKK, 40 CFR 60 Subpart IIII, and 40 CFR part 64 (for VOC²)). Consistent with Rule 3004, please ensure the final permit decision includes the emission limits and operational requirements that ensure compliance with all regulatory requirements (including "applicable requirements" as that term is defined in 40 CFR part 70).
14. The AQMD's analysis provides an accurate explanation that the proposed emergency engine complies with 40 CFR 63 Subpart ZZZZ by complying with 40 CFR 60 Subpart IIII. However, the permit contains regulatory citations to 40 CFR 63 Subpart ZZZZ. Please review and revise the final permit conditions to correctly incorporate the applicable requirements of 40 CFR 60 Subpart IIII.

Proposed Permit Language

15. Condition F2.1 of the proposed permit identifies that the operator shall calculate the PM_{2.5} emissions "for each of the major sources at the facility". It is not clear from the permit language whether PM_{2.5} emissions from all PM_{2.5} emitting units are included when determining compliance with the PM_{2.5} plantwide applicability limit (PAL). Please verify that the permit requires compliance with the PM_{2.5} PAL by determining PM_{2.5} emissions from all PM_{2.5} emitting units at the facility.
16. Conditions A63.2 and A63.3 in the proposed permit contain instructions for how the operator will determine compliance with various emission limits. In several instances these conditions instruct the permittee to "calculate the emission limit(s)". This language is somewhat confusing and implies that

² 40 CFR part 64 requires CAM to be included at the time of significant revision of the title V permit for large pollutant-specific emission units (PSEUs).

the operator is calculating what the emission limit will be, rather than calculating actual emissions to determine compliance with the limit. Please review this permit language and ensure the final permit decision accurately reflects the AQMD's intent. (For example, the language could read "calculate compliance with the emission limit(s)").