



1801 J Street
Sacramento CA 95811
Tel: (916) 444-6666
Fax: (916) 444-8373

Ann Arbor MI
Tel: (734) 761-6666
Fax: (734) 761-6755

May 18, 2009

David Warner
Director of Permit Services
San Joaquin Valley Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356-8718

Re: Comments on Preliminary Determination of Compliance
Northern California Power Agency, Lodi Energy Center
Project No. N-1083490

Dear Mr. Warner:

On behalf of the Northern California Power Agency (NCPA), we appreciate the opportunity to provide comments on the preliminary determination of compliance (PDOC) issued to the NCPA Lodi Energy Center (LEC) project in Lodi, San Joaquin County. Our comments are organized in parallel with the PDOC.

Determination of Compliance Evaluation

Page 3, Proposal: The fourth paragraph of this discussion states that this document is a Determination of Compliance (DOC), which is equivalent to an ATC. However, this document is a preliminary determination of compliance and is not equivalent to an ATC.

Page 11, Table of Commissioning Emissions: PM₁₀ emissions during commissioning may be up to 126.0 lb/day. Please see Table AQ-1, Attachment DA5.1-2. Permitted emissions limits during commissioning activities are also discussed in more detail below.

Page 22, Rule 1080 Compliance for N-2697-0 (Gas Turbine/HRSG); page 54, CEMS Equipment Requirements: The District is proposing to require the NO_x and O₂ CEMS to meet specific requirements of 40 CFR Part 60, Appendix B and F. However, the NO_x and diluent CEMS will also be required to meet the requirements of 40 CFR Part 75 (Acid Rain). The applicable gas turbine NSPS, 40 CFR 60 Subpart KKKK, allows the NO_x diluent CEMS to be installed and certified in accordance with Part 75 instead of Part 60 Appendix B and F (§ 60.4345). We request that the District clarify that the conditions requiring compliance with the Part 60 requirements apply only to the CO

CEMS and that the NO_x and diluent CEMS will utilize the requirements of Part 75 instead. This change should also be made on page 51 (*Section 60.4345 - CEMS Equipment Requirements*). The relevant permit conditions are specified below.

Page 36, Daily Emission Limits During Commissioning: Daily emissions limits for SO_x and PM₁₀ during the commissioning period should be the same as daily limits during normal operation. NCPA has demonstrated through the ambient air quality analysis that operation of the gas turbine/HRSG in compliance with the proposed daily SO₂ and PM₁₀ emission limits of 136.2 lb/day and 240 lb/day, respectively, will not cause or significantly contribute to a violation of any ambient air quality standards, so we believe that the limits during the commissioning period should reflect these higher limits.

Page 71, Emissions Limits for the Auxiliary Boiler: NCPA has proposed to meet a CO emission limit of 50 ppmvd @ 3% O₂ from the auxiliary boiler, not 400 ppm as shown.

Page 74, Rule 4703, Section 5.3, Transitional Operation Periods: The applicant has proposed that the duration of combined startup and shutdown operations last no more than six hours per event, not six hours per day. Please see the changes proposed for Condition 21 below.

Appendix E, page xii, BACT for Auxiliary Boiler, SO_x: Please remove "Cellular type drift eliminator" from Technologically Feasible BACT for SO_x.

Permit Conditions for Unit N-2697-5-0

Condition 13: As discussed above, the daily SO₂ and PM₁₀ emissions limits during the commissioning period should be the same as the limits during normal operation: 136.2 lb/day and 240 lb/day, respectively.

Condition 21: This condition limits the duration of startup and shutdown activities for the CTG/HRSG to six hours in any one day. We are requesting two changes to this condition. First, the condition should limit the duration of startup and shutdown activities to six hours for any single event, consistent with information provided by NCPA in the permit application and supplemental materials, as well as with the District's PDOC analysis demonstrating compliance with Rule 4703, Section 5.3.1.1. Second, we request that the District not limit startup and shutdown activities to six hours per day. NO_x and CO emissions will be monitored during startup and shutdown activities using a certified CEMS, so compliance with daily permitted emissions limits will be assured regardless of how many startup and shutdown events occur in a calendar day. The revised condition should read as follows:

21. The duration of ~~combined any~~ startup ~~and or~~ shutdown period shall not exceed six hours ~~in anyone day~~ for any single event.

Condition 28: Change the word "complied" to "compiled."

Condition 41: Consistent with Conditions 12 and 40, this condition should require source testing to determine compliance with the NO_x, CO, VOC, PM₁₀, and NH₃ emission rates before the end of, rather than within, 60 days after the end of the commissioning period.

Condition 48: This condition would require the CEMS to pass a relative accuracy test during startup and shutdown before the CEMS could be used to measure startup and shutdown emissions to demonstrate compliance with permitted emissions limits. The condition further provides that if the CEMS cannot pass a RA test, startup emission rates obtained from the source test would be used in place of CEMS monitoring data in the demonstration of compliance with emissions limits. However, we do not believe that this requirement is technologically feasible or consistent with monitoring and compliance procedures used by other air districts under similar conditions.

The NO_x and CO CEMS will be equipped with dual-range analyzers. The spans of the low-range analyzers are limited by requirements in 40 CFR Subparts 60 and 75 to ensure their accuracy in monitoring the extremely low levels of NO_x and CO emissions from the CTG/HRSG under normal operating conditions. The high-range analyzers must be accurate at the high concentrations that occur during turbine startups and shutdowns. Relative accuracy (RA) tests must be performed “while the affected facility is operating at more than 50 percent of normal load” (40 CFR Part 60, Appendix B, P.S. 2). In addition, RA tests must be performed under steady state operating conditions to allow the collection of integrated samples consistent with the reference method. Therefore, RA tests cannot be performed during startup and shutdown modes of operation.

Further, we note that 40 CFR Part 75 specifically requires RA testing for the low-range NO_x analyzer only. The accuracy of the high-range analyzer is assured through the use of calibrations and linearity checks; so that RA tests are not necessary.

We also believe it would be difficult to develop a single representative startup emission rate from the source test data. As discussed in the supplemental information we provided regarding compliance with Rule 4703, Section 5.3.1.1, startup times and emissions vary due to many factors, including ambient conditions and how long the turbine has been shut down prior to starting up. It would not be possible to develop a single pound per hour or pound per start emission rate that could be used under all startup conditions that would accurately represent actual emissions.

We propose the following changes to the condition to allow the District to review the initial source test results and ensure that the data collected by the CEMS during startups and shutdowns is representative, without requiring RA testing to be performed:

48. The owner or operator shall install, certify, maintain, operate, and quality-assure a continuous emission monitor system (CEMS) which continuously measures and records the exhaust gas NO_x, CO, and O₂ concentrations. Continuous emissions monitors shall be capable of monitoring emissions during normal operating conditions and during startups and shutdowns, ~~provided that CEMS passes the relative accuracy requirement listed in 40 CFR Part 60, Appendix B, Performance Specification 2 (PS-2). If relative accuracy of CEMS cannot be demonstrated during the startup, CEMS results during startup and shutdown events shall be replaced with startup emission rates obtained from the~~

source test If the NOx and CO CEMs do not accurately assess emissions during start-ups and/or shutdowns (as determined by APCO), then the District-approved source test results for NOx and CO mass emissions shall be utilized as emission factors to determine compliance with emission limits contained in this document.

Conditions 49, 52 and 53: These permit conditions require that all CEMS comply with the requirements of 40 CFR Part 60. EPA has consistently allowed the requirements of 40 CFR Part 75 to supersede Part 60 requirements for NOx and O₂ CEMS, and NSPS Subpart KKKK specifically addresses this issue. These conditions should be revised to state that NOx and O₂ CEMS are subject to Part 75 requirements, and the CO CEMS is subject to Part 60 requirements.

Condition 56: Please correct the basis for this condition from 40 CFR 60.8(d) to 40 CFR 60.7(b).

Conditions 62: Please correct “data” to “date” in the second sentence so that it reads:

The report is due on the 30th day following the end of the calendar quarter and shall include the following: Time intervals, ~~data~~ date and magnitude of excess NOx emissions...

Condition 63: This condition defines “primary re-ignition period” as “the duration of time during which a gas turbine is operated at less than rated capacity in order to reset the dry low-NOx combustion system following a primary re-ignition...” The DLN combustor system that will be used for this project is designed so that it would not require re-ignition as defined in this condition. A failure of the Frame 7 DLN combustor system would result in a turbine shutdown. This condition and the reference to “primary re-ignition period” in Condition 60 should be removed because they do not apply to this turbine and are confusing to the permit holder.

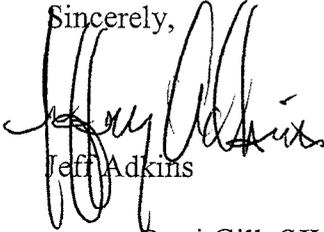
Condition 64: This condition defines “reduced load period” as “the time during which a gas turbine is operated at less than rated capacity in order to change the position of the exhaust gas diverter gate.” The LEC gas turbine will not be equipped with an exhaust gas diverter gate. This condition and the reference to “reduced load periods” in Condition 60 should be removed because they do not apply to this turbine and are confusing to the permit holder.

Acid Rain-Related Conditions

Please include in the FDOC permit conditions to address the monitoring and reporting conditions of 40 CFR Part 75, Acid Rain. Conditions 50 through 63 of Permit To Operate N-2697-1-3 (NCPA Lodi CT#2) could be used to address these requirements.

We appreciate the opportunity to review the PDOC. If you have any questions regarding these comments, or wish to discuss them further, please do not hesitate to call Nancy Matthews or me.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Adkins", written over a printed name.

Jeff Adkins

cc: Rupi Gill, SJVAPCD
 Jagmeet Kahlon, SJVAPCD
 Ed Warner, NCPA
 Rod Jones, CEC
 Sarah Madams, CH2M Hill
 Andrea Grenier