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DOCKET
04-AFC-1
DATE AUG 24 2005
RECD. AUG 30 2005

August 24, 2005

Jack Broadbent
Executive Officer/APCO
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Re: San Francisco Electric Reliability Project
BAAQMD Application 12344
Comments on Preliminary Determination of Compliance

Dear Mr. Broadbent:

Thank you for the opportunity to review and comment on the preliminary determination of compliance issued July 26, 2005, for the San Francisco Electric Reliability Project (SFERP). Most of our comments are minor editorial corrections. Our only substantive comments relate to daily startup and shutdown limitations and to the specification of the NOx ERCs that have been proposed for this project.

Substantive Issues

Daily Startup and Shutdown Limitations (Condition 20) Condition 20 as proposed would prohibit the SFERP gas turbines from undergoing more than two startups and shutdowns per turbine in any one day. SFERP believes this condition is overly restrictive for a peaking facility and unnecessary, and requests that the condition be eliminated and replaced with daily emission limits per Table 1 of the engineering evaluation. We can anticipate situations in which a gas turbine would need to operate in what would be considered startup mode more than twice in one day but would still be able to comply with the daily emission limits upon which the engineering evaluation is based. The existing conditions limiting hourly emissions during normal operations and startup and shutdown operations, in combination with the proposed daily limits, will ensure that the gas turbines are operated in conformance with all of the analyses upon which the determination of compliance is based.

NOx ERCs (pages 13 and 14) In the discussion of offset requirements for the project, the PDOC states that the applicant has issued a request for proposals to ERC holders to obtain the required ERCs for the project. In fact, the March 2005 application indicates on Page 8.1-51 that the applicant has signed an option agreement for the purchase of ERCs from Certificate No. 896 to provide the necessary offsets for the project. The NOx ERCs represented by Certificate No. 896 were created through NOx emissions reductions achieved at the nearby Potrero power plant.

Further, Table 5 of the engineering evaluation indicates that 45.8 tons of NOx ERCs will be provided. In fact, as shown in Table 8.1-32 of the March 2005 application, SFPUC will provide 47.5 tons of NOx ERCs, thereby offsetting both the NOx and POC emissions from the SFERP.

Editorial Corrections

Listed below are issues that we have identified in our review of the engineering evaluation and the permit conditions. We request that these issues be addressed as follows:

Emissions During Startup and Shutdown (page 6) The discussion of emissions during startup and shutdown indicates that only one turbine would start up at a time. However, the application indicated that all three turbines could start up simultaneously, and the modeling analysis of ambient air quality impacts during startup demonstrated that the simultaneous startup of all three turbines would not cause the violation of applicable ambient air quality standards. Therefore, the statement that only one turbine will start up at a time should be deleted.

BACT for NOx and CO (page 11) The discussion of best available control technology for NOx and CO refers to the use of dry low NOx combustors in combination with add-on emission control systems to achieve the BACT emission limits. The discussion of BACT for CO refers to the use of steam injection power augmentation. The LM6000 CTGs to be used for this project use water injection, not dry low NOx combustors, to control NOx emissions. Further, the project does not include steam production and there will be no steam injection power augmentation of the CTGs. The text should be corrected.

PM_{10} Emissions and Mitigation (page 13) As stated in the PDOC, because the projected PM_{10} emissions from the new facility are less than 100 tons per year, no PM_{10} offsets are required. However, as indicated in the permit application (page 8.1-54), the City will be providing mitigation for the PM_{10} and $PM_{2.5}$ emissions from the project in the context of the CEC proceeding.

Compliance with Regulation 2, Rule 7: Acid Rain (page 15) This section indicates that SFERP must submit an Acid Rain Permit Application to the District at least 24 months prior to the date on which each unit commences operation. However, the implementing permit condition (Condition 40) provides the alternative language that the turbines may be operated once a Title IV Operating Permit has been issued. For clarity, the discussion on page 15 should state that the turbines may be operated once a Title IV Operating permit has been issued. The applicant filed an Acid Rain permit application for the project on August 23, 2005.

Compliance with NSPS (page 18) Section III.C of the PDOC discusses compliance with 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines.

The PDOC should also indicate that the new gas turbines may be subject to, and if subject, would be in compliance with, the proposed new Subpart KKKK when it is finalized by EPA. The proposed rule will be applicable to gas turbines with a heat input in excess of 1 MMBtu/hr that commence construction after February 18, 2005. Gas turbines subject to Subpart KKKK will be exempt from Subpart GG. If Subpart KKKK is ultimately adopted and is determined to be applicable to the proposed SFERP gas turbines, Subpart GG would not apply.

Subpart KKKK limits NOx and SO_2 from new gas turbines based on power output. The limits for turbines greater than 30 MW are 0.39 lb NOx per MW-hr and 0.58 lb SO_2 per MW-hr. The proposed limits for SFERP of 2.5 ppmc NOx and 0.55 ppmc SO_2 are well below the proposed Subpart KKKK limits, as shown in the following table:

	Proposed Permit Limits			Subpart KKKK Limit, lb/MW-hr
Pollutant	ppmc	lb/hr	lb/MW-hr[a]	
NOx	2.5	4.40	0.09	0.39
SO_2	0.55	1.37	0.028	0.58

Note [a] Based on nominal output of 48.3 MW per gas turbine.

SO_2 Mass Emission Limit (Condition 18g) Condition 18g limits SO_2 mass emissions from each gas turbine to 0.0027 pounds per million Btu of heat input. As shown in the emissions calculations on page 5 of the PDOC, this limit should be 0.0028 lb/MMBtu.

Emission Limits During Startups (Condition 19) Condition 19 limits mass emission rates of NOx, CO, and POC during gas turbine startups and shutdowns. A single limit for each pollutant is provided, regardless of whether the gas turbine is cold, warm, or hot prior to the startup. For this reason, the reference to "Cold" startups in the condition should be eliminated.

Recordkeeping (Condition 25) Condition 25(a) requires SFERP to calculate and record the average hourly heat input rate for every rolling three-hour period. Since compliance with the heat input limit is determined on an hourly average basis, it is not clear why calculation of a rolling three-hour average is being required. Similarly, Condition 25(c) requires calculation of a rolling three-hour average of NOx mass emissions and emission concentrations even though the NOx emission concentration limit applies on an hourly and not a three-hour average basis. We believe that calculating and recording three-hour average heat input rates and NOx emissions and concentrations are not necessary, and that these recordkeeping requirements should be deleted from the condition.

We appreciate the opportunity to review and comment on the preliminary determination of compliance. If you have any questions regarding these comments, or wish to

discuss them further, please do not hesitate to call me or Gary Rubenstein of Sierra Research at (916) 444-6666.

Sincerely,

Karen S. Kubick

Karen S. Kubick, P.E.
Manager, Infrastructure Development

cc: Karen Kubick, SFPUC
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Revised 8-03-05

SAN FRANCISCO ELECTRIC RELIABILITY PROJECT
APPLICATION FOR CERTIFICATION,
DOCKET NO. 04-AFC-1

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I declare that I transmitted the foregoing document via e-mail, or as indicated by first class postal mail, to the above named on the date indicated thereby. I declare under penalty of perjury that the foregoing is true and correct.

John L. Carrier

John L. Carrier, J.D.
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