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March 31, 2014

Mr. Marcel Saulis
Permit Engineer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 90803

**Re: Alamitos Energy Center Air Permit Application Completeness Response
(Facility ID 115394)**

Dear Mr. Saulis:

This letter provides the information the South Coast Air Quality Management District (SCAQMD) requested in your March 13, 2014 electronic mail. The following information is presented in the same order as requested by the SCAQMD.

1. From Table 5.1B.1 Summary of Commissioning Emission Estimates, emission reductions are shown following the steam blows. This implies that the SCR and CO catalysts will be fully functional at that point. Please confirm if this will be the case.

Response: The selective catalytic reduction (SCR) and carbon monoxide (CO) catalysts will be fully functional during the “Restart Combustion Turbine Generators (CTGs) and Run Heat Recovery Steam Generator (HRSG) in Bypass Mode, Steam Turbine Generator (STG) Bypass Valve Tuning, and HRSG Blow Down and Drum Tuning” commissioning activity. Prior to this commissioning activity, the turbines are required to operate at load rates that are less than 70 percent, where the emission controls are less than fully functional.

2. The same table provides a summary of the total emissions per turbine and per 3x1 block. Please clarify if all three turbines will be operated simultaneously during each phase of the commissioning activity listed on the table. Primarily during the first 67 hours, or period of highest unabated emissions, identified with the conclusion of the bypass mode/blowdown/valve and drum tuning. Please provide the sequence of operation for the three turbines up to and including the activity that corresponds to 40% load.

Response: Commissioning of a power block will begin with only the first turbine. Once the first turbine completes several initial commissioning activities, a second turbine will commence commissioning. After the second turbine reaches a certain point in commissioning (i.e., completion of several initial commissioning activities), the last turbine will commence commissioning activities. Operation of multiple turbines during commissioning will not occur until the emission control systems are fully functional.

3. The information you provided indicates that first fire for blocks 1 and 2 will occur on, or about, 2/1/2019. For the activity periods identified in item no. 2 above, please provide the sequence of operation for all the six turbines in blocks 1 and 2.

Response: Commissioning of Block 1 will be completed to the point where the emission control system is fully operational prior to starting Block 2 commissioning. Block 2 commissioning will follow the same process as Block 1 commissioning presented in the response to Item No. 2 above.

4. The basis for determining annual emissions was identified in Table 5.1-17 in footnote (d), as well as in Table 5.1B.4, as 3,320 hours of operation with the balance of start-ups/shutdowns. Thus the total annual hours would be 3689.8 hours (calculated as $3320 + 20 \cdot 90/60 + 125 \cdot 32.5/60 + 350 \cdot 32.5/60 + 495 \cdot 32.5/60$). It appears that the value of 3686 hours was used in subsequent calculations. Please clarify the total annual hours of operation and the methodology for its determination.

Response: The calculation present above is incorrect as it assumes the turbine shutdowns take 32.5 minutes. A shutdown is expected to take 9.5 minutes.

5. The VOC BACT proposed for AEC is 1 ppmvd @ 15% O₂. The BACT limit is 2 ppmvd @ 15% O₂. Please respond if the AEC project will change its proposal to 2 ppm for the technical purposes already discussed for RBEP and HBEP.

Response: In preparing the AEC top-down Best Available Control Technology (BACT) analysis, AES determined, during Step 1, that other facilities have achieved a 1 parts per million by volume, dry (ppmvd) volatile organic compound (VOC) limit. In keeping with the U.S. Environmental Protection Agency's (EPA) guidance on conducting a BACT analysis, AES proposed a VOC BACT level consistent with the most stringent level achieved in practice, excluding differences in the source test methods used to demonstrate compliance with the limit. If the South Coast Air Quality Management District (SCAQMD) determines that, due to the method required to demonstrate compliance with the VOC BACT limit, a 2 ppmvd at 15 percent oxygen VOC BACT level is appropriate, AES is willing to accept this limit, consistent with the VOC BACT limit identified in the Huntington Beach Energy Project Preliminary Determination of Compliance.

Sincerely,



Stephen O'Kane
Vice-President
AES Southland Development, LLC

cc:
Jennifer Didlo/AES
Jeff Harris/ESH

Jerry Salamy/CH2M HILL
Keith Winstead/CEC