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CALIFORNIA ENERGY COMMISSION

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November 18, 2013

Mr. Mohsen Nazemi, Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

RE: COMMENTS ON SCAQMD PRELIMINARY DETERMINATION OF COMPLIANCE FOR THE PALEN SOLAR ELECTRIC GENERATING SYSTEM (09-AFC-7C)

Dear Mr. Nazemi:

Thank you for you and your staff's efforts in preparing the Preliminary Determination of Compliance (PDOC) for the Palen Solar Electric Generated System, dated October 18, 2013. In our review of the PDOC, we provided comments over the telephone to Mr. Roy Olivares of your staff. I wanted to also send this letter to document the more important comments. None of these comments change the substantive approach you took or your results. We also have found at least one additional comment that we had not discovered when we last talked to your staff.

Your staff developed the PDOC analysis using expected hours of operation for several operating modes. This means that the results depend on the assumed operating hours for each of the operating modes, with the objective to estimate worst-case emissions and impacts. The more significant changes in the emissions estimates and analysis that we believe are needed are listed below:

- 1. On Section H of the Facility Permit, in some instances the listed conditions in the rightmost column do not match the conditions listed later in the PDOC beginning on page 73. The applicable conditions for each piece of equipment should be clearly listed in the Final Determination of Compliance (FDOC).
- 2. On page 15, the annual and monthly fuel usage data for each 249 mmBtu/hr (million British thermal units per hour) auxiliary boilers are too high. The correct fuel use values for this boiler are shown on pages 26 and 27 of the PDOC (307 million cubic feet [mmcf] for annual fuel use, 40 mmcf for maximum monthly fuel use) for each boiler.
- 3. On page 24 for the yearly boosting mode operation of the 249 mmBtu/hr boilers, we compute Particulate Matter less than 10 microns (PM10) emissions as 1,126 lb/year, not 1159 and Sulfur Oxide (SOx) emissions as 444.3 lb/year, not 457.5 lbs/year. Values in PDOC Appendix B are correct.

- 4. On page 28, annual monthly fuel use for the night preservation boiler should be 48 mmcf, not 49.7 mmcf and the monthly fuel use should be 4.34 mmcf, not 4.47 mmcf. The correct values are listed on PDOC page 29 and in the individual permit conditions.
- 5. On pages 34/35 for the facility monthly emissions, summary for Volatile Organic Compounds (VOC) emissions from Large Internal Combustion Engines (ICEs) 1 and 2 should be 8.34 lbs/month each, not 100.03 lbs/month. For CO, the monthly emissions should be 29.67 lbs/month, not 356.10 lbs/month.
- 6. On page 35 for the facility annual emissions, VOC emissions from Large ICEs 1 and 2 should be 100.03 lbs/year each, and the total for the year should be 1.68 tons/year, not 1.58 tons/year. This will not change the conclusion that VOC offset requirements are not triggered, which requires 4 tons/year, as shown on page 43. The VOC annual total also needs to be updated on page 43.
- 7. On page 45, the table of Auxiliary Boiler #2 impacts includes PM2.5 but the table above it for Auxiliary Boiler #1 does not include PM2.5. It appears that PM2.5 results were inadvertently left out of the summary for Auxiliary Boiler #1.
- 8. Appendix A (appears after page 100) -- Part B, Facility Monthly Emissions. Monthly VOC emissions from Large ICEs 1 and 2 should be 8.34 lb/month each, not 100.03 lbs/month and for CO the monthly emissions should be 29.67 lb/month, not 356.10 lbs/month (same comment as above for pages 34/35).
- 9. Appendix A -- Part C, Facility Annual Emissions. Annual VOC emissions from Large ICEs 1 and 2 should be 100.03 lbs/year each, not 6.8 lbs/year. The 6.8 lbs/year value is for Fire Pumps 1, 2 and 3.

We appreciate the opportunity to provide these comments and hope that if we can provide you any assistance in the preparation and publication of the FDOC, you will not hesitate to ask. If you have any questions or comments, please contact Ms Jacquelyn Leyva at (916) 654-3846 or jacquelyn.leyva@energy.ca.gov, or please call me at (916) 654-3868.

Sincerely,

Matthew Layton

Supervising Mechanical Engineer

cc: Ms. Jacquelyn Leyva Dockets