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research**

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April 28, 2006

Li Chen
Air Quality Engineer
South Coast AQMD
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Subject: RECLAIM/Title V Facility Permit for the Inland Empire Energy Center
(Facility ID 129816)

Dear Mr. Chen:

At the request of Inland Empire Energy Center LLC (IEEC LLC), we recently performed an air quality modeling analysis to evaluate the ambient PM₁₀ impacts associated with the proposed revised permit conditions for this project. The IEEC facility is located near Romoland, Riverside County and is comprised of primarily two natural gas-fired General Electric S107H combined cycle gas turbines (without duct burners) and a 157 MMBtu/hr natural gas-fired auxiliary boiler. As discussed in the IEEC LLC's permit application package submitted to the South Coast Air Quality Management District (SCAQMD) on April 20, 2006, these permit changes were made possible due to a decrease in the expected PM₁₀ emission rate for the gas turbines from 10 lbs/hr to 7.5 lbs/hr. The requested permit changes also included a new permit condition limiting the combined daily operation of the gas turbines and auxiliary boiler to 60 hours per day.

For the modeling analysis, it was assumed that each gas turbine was operated for 24 hours per day with a PM₁₀ emission rate of 7.5 lbs/hr. The auxiliary boiler was assumed to operate for 12 hours per day with a PM₁₀ emission rate of 1.12 lbs/hr. Both the EPA-approved ISCST3 and CTSCREEN dispersion models were used for this analysis. Due to the more sophisticated (and more accurate) algorithms used by the CTSCREEN model developed by the EPA to estimate ambient impacts in elevated terrain, the CTSCREEN model was used to refine the estimates of ambient impacts in the hills located to the south, south east, and east of the IEEC project site. The following table summarizes the results of this modeling. Copies of the modeling files for this analysis were emailed to Tom Chico with the SCAQMD modeling group on April 21, 2006.

Table 1				
Maximum Modeled Impacts				
($\mu\text{g}/\text{m}^3$)				
Pollutant	Averaging Period	Single Gas Turbine Only	Auxiliary Boiler Only	Combined Impact for Two Gas Turbines and Auxiliary Boiler
ISCST3 Modeling (excluding receptors analyzed by CTSCREEN)				
PM ₁₀	24-hour	1.08	1.17	2.30
CTSCREEN Modeling				
PM ₁₀	24-hour	1.20	0.14	2.47

If you have any questions or need further information, please don't hesitate to contact me.

Sincerely,



(FOR)

Gary Rubenstein
Senior Partner

cc: Yi-Hui Huang, SCAQMD
John Yee, SCAQMD
CEC Dockets Office, Docket #01-AFC-17C
Barbara McBride, Calpine
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