



<b>DOCKET</b> <b>07-AFC-2</b>
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August 15, 2007

Dockets Unit  
California Energy Commission  
1516 Ninth Street, MS 4  
Sacramento, CA 95814

RE: San Gabriel Generating Station  
Application for Certification No. 07-AFC-2

On behalf of San Gabriel Power Generation, LLC (SGPG), a subsidiary of Reliant Energy, and the applicant for the above-referenced San Gabriel Generating Station (SGGS), we are pleased to submit the enclosed document:

- Supplement B to the SGGS AFC, August 2007

This supplement describes changes made to the proposed combustion turbine generators (CTGs) and auxiliary boiler stack. The original equipment included two 180-MW (nominal) natural gas-fired Siemens SGT6-5000F (Siemens 5000F) CTGs, model FD2 equipped with dry low NOx (DLN) combustors and evaporative inlet air cooling. The new CTGs will be Siemens SGT6-5000F model FD3, which are rated at 190 MW. As a result of the change in the characteristics of the CTGs, the capacity of the plant will now be 696 (net) MW instead of 656 MW.

The height of the auxiliary boiler stack has been raised from 100 feet to 150.5 feet to comply with the latest South Coast Air Quality Management District (SCAQMD) Priority Reserve eligibility criteria.

These changes in equipment constitute a minor change to the overall project described in the AFC submitted on April 13, 2007 and supplemented on May 20, 2007. In support of the turbine equipment and auxiliary boiler stack changes, we are enclosing revisions to text, tables, and figures in Chapter 1 – Executive Summary and Chapter 2 – Facility Description and Location; a revised Section 7.1 – Air Quality, with supporting documentation and models; revised Section 7.6 – Public Health, with supporting documentation and models; revisions to Section 7.5 – Noise; and revised visual simulations. This information is consistent with the amended applications that are being submitted to the SCAQMD and U.S. Environmental Protection Agency, Region IX (U.S. EPA) this week.

The change in equipment for the proposed SGGS would not be expected to result in any substantial impacts on Biological Resources (Section 7.2), Cultural Resources (Section 7.3), Land Use (Section 7.4), Worker Safety & Health (Section 7.7), Socioeconomics (Section 7.8), Soils (Section 7.9), Traffic & Transportation (Section 7.10), Hazardous Materials (Section 7.12), Waste Management (Section 7.13),

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Water Resources (Section 7.14), Geologic Hazards and Resources (Section 7.15) or Paleontology (Section 7.16) as compared to those associated with the original project design and discussed in the AFC.

Potential changes to Air Quality, Noise, Public Health and Visual Resources have been evaluated and are discussed below.

**Air Quality.** Information for the new CTGs is being provided to SCAQMD and U.S. EPA Region IX this week. Updated design and operational data were received from Siemens for the turbines. This information changed the exhaust characteristics and increased efficiency and megawatt output. All emission data and dispersion modeling has been updated to reflect the changes.

The revision to the project result in the following specific changes with respect to air quality.

- Decrease plant's proposed NO<sub>x</sub> emission rate from 2.0 ppm down to 1.9 ppm when the units are at full load with duct burners on. This was done to comply with the latest SCAQMD Priority Reserve eligibility criteria.
- Increase plant's maximum hourly PM<sub>10</sub> emissions from 3.85 lbs/hr to 6.0 lbs/hr (with duct firing) to comply with SCQAMD's position that our initial number for this pollutant was too low.
- Modify the estimated number of annual cold/warm/hot starts from 10/50/200 to 20/50/164.
- Modify the ERC requirements for VOC using a worst-case combination of startups, shutdowns, and normal operations to comply with a SCAQMD request.
- Increase the auxiliary boiler stack from 100 feet to 150.5 feet to comply with the latest SCAQMD Priority Reserve eligibility criteria.

Additional modeling was performed to evaluate the effects of these changes:

- Turbine/HRSG startup conditions were remodeled using lower stack exhaust gas velocity and temperature than previously, per SCAQMD request.

- The previous CALPUFF Lite modeling was replaced with an analysis based on the full CALMET/CALPUFF modeling system for evaluation of air quality, acid deposition and visibility impacts in certain Class I areas.
- The previous VISCREEN modeling analysis was expanded to include additional scenarios requested by the U.S. Forest Service.

A revised Section 7.1, Air Quality is included with this submittal. Supporting documentation that changed is also included (i.e., Appendices K-3, K-4, and K-6 and electronic air quality model input and output files).

The previous conclusions that the project's impact on air quality will be below a level of significance are not changed by the reanalyses conducted for this supplement.

**Noise.** Construction noise levels would not change due to the equipment change. Construction noise impacts would still be less than significant as presented in Section 7.5 of the AFC.

Operational noise levels of the new CTGs (Siemens SGT6-5000F model FD3) are identical to the operational noise levels of the CTGs that were previously planned for the project; therefore, there are no changes in operational noise levels attributable to the new CTGs.

Although the increase in the height of the auxiliary boiler stack results in increased sound propagation in the surrounding environs due to less favorable source-to-receiver geometry and decreased shielding effects, modeling results show that no increases greater than 5 dBA were noted at sensitive receptor locations. Operational noise impacts would still be less than significant.

Revised pages and Figure 7.5-2 of Section 7.5, Noise, are included with this submittal to reflect the changes due to the revised modeling for the raised stack height.

**Public Health.** A revised Section 7.6, Public Health is included with this submittal. In addition, supporting documentation that changed is also included (e.g., Appendix P and model). The characterization of the project's emissions of toxic air contaminants and the health risk assessment modeling presented in the original AFC have been revised to account for the change in turbine output described previously and the increase in stack height for the auxiliary boiler. Similar to the original analysis, the revised section demonstrates that maximum potential health risks due to the project are still below the acknowledged significance criteria for carcinogenic and non-carcinogenic pollutants.

**Visual Resources.** The stack of the auxiliary boiler would be approximately 50 feet taller than originally planned. It would now be the same height as the proposed stacks for the heat recovery steam generator (HRSG). All three of these stacks would be lower than the existing EGS stacks. The stack for the auxiliary



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boiler would be smaller in diameter (approximately 3 feet) than the proposed HRSG stacks (approximately 19 feet). As discussed in AFC Section 7.11, Visual Resources, the plant would be visible from unblocked surrounding views within an approximately 5-mile radius to the north, east, west, and south. Existing industrial features and the topographic backdrop result locally in open views to the plant, which reduce the visual impact of the proposed project. Raising the stack of the auxiliary boiler would not be expected to substantially change the visual modification range, which was considered to be not-noticeable to noticeable, with impact levels ranging from low to moderate. These impacts still would be less than significant.

Five replacement figures for the Visual Resource section are included with this submittal.

Seventy-five print copies of the revisions to the AFC are enclosed. We are also sending 75 CDs containing the supplemented AFC with these revisions. Five DVDs containing Air and Public Health Modeling files are also enclosed.

Please include this document in the AFC record.

Very truly yours,

URS CORPORATION

Denise Heick  
Vice President

Enclosure

cc: Bob Lawhn with enclosure

# OVERSIZE DOCUMENT

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