

CALIFORNIA ENERGY COMMISSION1516 NINTH STREET
SACRAMENTO, CA 95814-5512

**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

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| In the Matter of: |) | Docket No. 85-AFC-3C |
| |) | |
| MIDWAY SUNSET COGENERATION COMPANY |) | Order No. 11-0406-02 |
| |) | |
| MIDWAY SUNSET COGENERATION PROJECT |) | ORDER APPROVING A PETITION TO REPLACE UNIT B DRY LOW NITROGEN OXIDE COMBUSTION EQUIPMENT AND MODIFY AIR QUALITY CONDITIONS OF CERTIFICATION |

Midway Sunset Cogeneration Company filed a petition on October 25, 2010 that was later revised and submitted on November 8, 2010 with the California Energy Commission (Energy Commission) requesting to modify the Sunset Cogeneration Project to replace Unit B's GE Dry Low Nitrogen Oxide (DLN) 9 Combustion system with DLN 1+ Combustion System, revise the equipment description for each combustion turbine generators, revise the compliance test submittal time frame and modify applicable Air Quality Conditions of Certification to reflect the allowed emission limits as required by the San Joaquin Valley Air Pollution Control District.

STAFF RECOMMENDATION

Energy Commission staff reviewed the petition and finds that it complies with the requirements of Title 20, section 1769(a) of the California Code of Regulations and recommends approval of Midway Sunset Cogeneration Company's petition to modify the Midway Sunset Cogeneration Project and amend related Conditions of Certification.

ENERGY COMMISSION FINDINGS

Based on staff's analysis, the Energy Commission concludes that the proposed changes will not result in any significant impact to public health and safety, or the environment. The Energy Commission finds that:

- The petition meets all the filing criteria of Title 20, section 1769(a) of the California Code of Regulations concerning post-certification project modifications;
- The modification will not change the findings in the Energy Commission's Final Decision pursuant to Title 20, section 1755;
- The project will remain in compliance with all applicable laws, ordinances, regulations, and standards (LORS), subject to the provisions of Public Resources Code section 25525;

- The proposed modifications to the Air Quality Conditions of Certification will result in a beneficial change by ensuring that the license reflects the correct equipment and required emission limits set in the previous Energy Commission Decision and required by the SJVAPCD; and,
- There has been a substantial change in circumstances since the Energy Commission certification justifying the change and the change is based on information that was not available to the parties prior to Energy Commission certification in that the proposed modifications relate to the most recent air quality emission limit requirements as determined by the SJVAPCD.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts staff's recommendations and approves revisions to the Decision, and the following changes to the Calpine Gilroy Cogen Project Decision. Deleted text is in ~~strikethrough~~, new text is **bold double-underlined**.

AIR QUALITY CONDITIONS OF CERTIFICATION

Changed Conditions of Certification:

AQ-18

Pollutant emissions from ~~each SCR-controlled~~ **the Stack of each** combustion turbine shall not exceed the following limits (in pounds mass per hour, lbm/hr) except during times of start-up or shutdown (as described in Condition of Certification AQ-44):

| | | |
|---------------------------|-------|---------------------------|
| Particulate | 9.98 | lbm/hr |
| Sulfur Compounds | 0.92 | lbm/hr as SO ₂ |
| Oxides of Nitrogen | 17.66 | lbm/hr as NO ₂ |
| Hydrocarbons (nonmethane) | 9.00 | lbm/hr |
| Carbon Monoxide | 54.91 | lbm/hr |

~~Pollutant emissions from each combustion turbine with the Evolution Rotor installed, shall not exceed the following limits (in pounds mass per hour) with the exceptions given below.~~

Gas-Fired Case:

| | | |
|---------------------------|-------|---------------------------|
| Particulate | 9.98 | lbm/hr |
| Sulfur Compounds | 0.92 | lbm/hr as SO ₂ |
| Oxides of Nitrogen | 7.06 | lbm/hr as NO ₂ |
| Hydrocarbons (nonmethane) | 9.00 | lbm/hr |
| Carbon Monoxide | 13.18 | lbm/hr |

- ~~1. NO_x emission concentrations during steady state operation shall not exceed 7.06 lbs/hr over a one-hour average (clock-hour basis). Steady state operation refers to any period that is not a startup or shutdown (as described in Condition of Certification AQ-44). A clock hour in a one-hour average will commence at the top of the hour.~~
- ~~2. Compliance with the NO_x emission limitations during steady state operation shall not be required during short-term excursions limited to a cumulative total of 10 hours per rolling 12-month period.~~
- ~~3. Short-term excursions are defined as 15-minute periods designated by the owner/operator (and approved by the CPM) that are the direct result of transient load conditions, not to exceed four consecutive 15-minute periods when the 15-minute average NO_x concentration exceeds 2.0 ppmvd @ 15 percent O₂. The maximum three-hour average NO_x concentration for periods that include short-term excursions shall not exceed 5 ppmvd @ 15 percent O₂. The maximum three-hour CO concentration for periods that include short-term excursions shall not exceed 25 ppmvd @ 15 percent O₂.~~
- ~~4. Examples of transient load conditions include, but are not limited to the following: initiation or shutdown of combustion turbine inlet air cooling, or rapid combustion turbine load changes. All emissions during short-term excursions shall accrue towards the daily and annual emissions limitations of this permit and shall be included in all calculations of daily and annual mass emission rates as required by this permit.~~
- ~~5. All emissions during short-term excursions shall accrue towards the hourly, daily and annual emissions limitations of these conditions and shall be included in all calculations of hourly, daily, and annual mass emission rates as required herein.~~

Verification: To demonstrate compliance with the emission limits provided, the owner/operator shall provide initial and on-going performance tests as follows:

- a. At least 60 days before commercial operation date of the power cogeneration facility, or 60 days before the permit to operate anniversary date, the owners shall submit to the SJVUAPCD, CARB and the CEC a detailed performance test plan for the power plant's AECS. The performance test will be funded by the owners and conducted by a third party approved by the SJVUAPCD and CARB. The SJVUAPCD will notify the owners and the CEC of its approval, disapproval, or proposed modifications to the plan within 30 days of receipt of the plan. The owners shall incorporate the SJVUAPCD and the Commission's comments or modifications to the plan.

- b. The owners shall notify the SJVUAPCD and the CEC, within five days, before the facility begins commercial operation. The owners shall also notify the SJVUAPCD one week prior to the beginning of testing to allow the SJVUAPCD to observe and/or conduct concurrent sampling.
- c. Compliance with emission limits shall be demonstrated by a SJVUAPCD witnessed sample collection performed by an independent testing laboratory within 60 days after startup of this equipment and annually within 60 days prior to permit anniversary date.
- d. The owners shall submit the results of the compliance test within ~~30~~60 days of completion of the tests. The owners shall submit to the SJVUAPCD, its application for a Permit to Operate via registered mail. The owners shall submit a copy of the application to the CEC within 10 days of its submittal to the SJVUAPCD. The SJVUAPCD shall approve or disapprove the application as prescribed in the SJVUAPCD rules.
- e. The owners shall include all Excursions in the Quarterly Emissions Report as a separate section (such as "breakdowns" or "excess emissions") as well as including them in all daily and annual emission calculations.

IT IS SO ORDERED.

Date: April 6, 2011

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

/Signature/

ROBERT WEISENMILLER, Chairman