MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
PROPOSED TITLE V OPERATING PERMIT TV38-01

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (831) 647-9411

ISSUED TO:

Calpine King City Cogen, LLC & Gilroy Energy Center, LLC for King City Energy Center
750 Metz Road
King City, CA 93930

PLANT SITE LOCATION:

750 Metz Road
King City, CA 93930

ISSUED BY:

Douglas Quetin, Air Pollution Control Officer

12/01/06
Proposed Effective Date

Nature of Business: Cogeneration & Power Generation

SIC Codes: 4931 - Electric & Other Services Combined
4911 - Electric Power Generation

RESPONSIBLE OFFICIAL:

Name: Mr. Eugene Fahey
Title: General Manager - Central Coast Projects
Phone: (831) 385-4090 x12

FACILITY CONTACT PERSON:

Name: Mr. John Snead
Title: Operations & Maintenance Manager
Phone: (831) 385-4090 x11

ALTERNATIVE RESPONSIBLE OFFICIALS:

Name: Mr. John Snead
Title: Operations & Maintenance Manager
Phone: (831) 385-4090 x11

Name: Ms. Maria Barroso
Title: Compliance Manager
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FACILITY DESCRIPTION

The facility consists of Calpine King City Cogen, LLC, a combined cycle cogeneration plant and the Gilroy Energy Center, LLC for King City Energy Center, a simple cycle combustion turbine.

Calpine King City Cogen, LLC produces most of the electricity through the expansion of fuel combusted (natural gas or fuel oil) in a gas turbine that is connected to a generator. Heat in the gas turbine exhaust is used to produce high-pressure steam in a heat recovery steam generator, which is used to produce additional electricity from a steam turbine/generator. Low pressure steam extracted from this system is used as process steam at the Gilroy Foods' plant. In addition, two auxiliary boilers are located at the facility and are used to provide process steam in order to maximize electrical power production from the steam turbine/generator during peak power production periods or when the gas turbine is not operating. This facility is presently permitted by the District's local permitting program under Permits to Operate (PTO) 11531, 11532, &12303.

The Gilroy Energy Center, LLC for King City Energy Center was constructed and is in operation as authorized by the California Energy Commission's Adoption Order for Docket Number 01-EP-6 dated May 2, 2001 and by District Authority to Construct (ATC) 10738 issued on July 30, 2001 and District Permit to Operate (PTO) 10738 issued on October 22, 2002, the quarterly and annual NO_x emission limits were modified by ATC 11435 issued on February 5, 2003 and PTO 11435 issued on March 3, 2003 and PTO 11609 issued on June 25, 2003, and the testing frequency was modified by PTO 12304. This simple cycle combustion turbine is fired exclusively on natural gas.

EQUIPMENT DESCRIPTION

UNIT 1 - COGENERATION FACILITY CONSISTING OF:

1a. Gas Turbine Generator, General Electric Frame 7, Model EA 7001, Rated At 941.1 MMBtu/Hr Maximum Heat Input And 85.7 MW Maximum Electrical Output, Steam Injection For NO_x Control, 5 Lbm H_2O/Lbm Fuel Design Midpoint.

1b. Water Tube Type Heat Recovery Steam Generator, Nooter/Eriksen, High Pressure Steam Capacity: 272,000 Lbs/Hr @ 1475 psia and 930°F, Low Pressure Steam Capacity: 87,900 Lbs/Hr @ 100 PSIA Saturated.

1c. Steam Turbine Generator, Asea-BBC Dual Admission, Dual Extraction, High Pressure Turbine Model HT-16, Low Pressure Turbine Model LT-25, Generator Model Brush BDAX 7-225ERH, 37.6 MW Rated Electrical Output.

1d. Condenser, Graham Manufacturing Model 79130, Water Cooled Shell And Tube Condenser Rated At 272 MMBtu/Hr.

1e. Cooling Tower, Hamon Cooling Towers, Three Cell Counterflow Cooling Tower Rated At 300 MMBtu/Hr, 24,000 GPM Rating, Drift Loss: 0.002%.

1f. Selective Catalytic Reduction NO_x Control System, Mitsubishi Heavy Industries Titanium Oxide Grid Honeycomb Type Catalyst, 1846 Cubic Feet Of Catalyst, Consisting Of: Twenty Eight Vertically Stacked Catalyst Modules, Each Holding 200 Ceramic Blocks Containing The Active Catalyst, Each Block Measuring 6" x 6" x 16", With 5 mm Catalyst Pitch.

1g. Ammonia Injection System Consisting Of: Two Ammonia Dilution Blowers, Each 10 Hp, 700 SCFM @ 40" W.G. Static Pressure, Combining Anhydrous Ammonia And Dilution Air; Ammonia Injection Grid With Thirty 2 Inch Distribution Pipes Configured Vertically Across The Duct, Each With Twenty Four Injection Nozzles.

2. Two Nebraska Model NS-F-86 Water Tube Boilers, Each Designed To Produce 121,120 Lbs/Hr Saturated Steam at 170 PSIG, Each With Coen Model 275 Type DAF Multi-Staged Low NO_x Burners Designed For A Maximum Heat Input Of 143 MMBtu/Hr And Two Stage Flue Gas Recirculation With A Design Rate Of 15%, And CO Control Provided By An Engelhard Catalytic Carbon Monoxide Converter With 21.24 Cubic Feet Of Ceramic Honeycomb Type Precious Metal Coated Catalyst Consisting Of Twelve Catalyst Modules, Each Measuring 24.5" x 24.5" x 6.4" Located Between The Boiler Flue Gas Outlet And Economizer Inlet On Each Boiler.

UNIT 2 - SIMPLE CYCLE GAS TURBINE CONSISTING OF:

2a. Simple Cycle Natural Gas Fired Gas Turbine Generator, Model LM6000PD, Rated At 500 MMBtu/Hr Maximum Heat Input And 49.6 MW Nominal Electrical Output, Dry Low NO_x Combustor To Control NO_x Formation.

2b. Selective Catalytic Reduction NO_x Control System.

2c. Oxidation Catalyst For Carbon Monoxide Control.

2d. CEM System Designed To Continuously Record The Measured Gaseous Concentrations, And Calculate And Continuously Monitor And Record The NO_x And CO Concentrations Corrected To Fifteen (15) Percent Oxygen (O_2) On A Dry Basis.

2e. Chiller Cooling Tower With A Design Water Recirculation Rate Of 4,160 Gallons Per Minute.

ANCILLARY EQUIPMENT:

Emergency 170 Bhp Diesel Engine-Fire Pump Set.

Exempt Abrasive Blasting Equipment.

PERMIT SHIELD

Compliance with the conditions contained on this Title V permit shall be deemed compliance with the following applicable requirements as of the date of issuance of this permit based upon the criteria following each applicable requirement:

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions
This facility is subject to the requirements of this part because they are subject to 40 CFR Part 60, Subparts Db and GG. In their Title V application, the source has requested that the requirements of Subpart A be

subsumed under the NSR permit requirements.

The District agrees, and asserts that compliance with the conditions on this Title V Permit shall be deemed compliance with the monitoring, record keeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8, and 60.13.

40 CFR Part 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

The boilers at the facility are subject to the requirements of this part. In their Title V application, the source has requested that the requirements of Subpart Db be subsumed under the NSR permit requirements. This is an appropriate action, due to the fact that facility has emission limits from their NSR permits which are more stringent than the requirements of this part.

The sulfur dioxide limit from Section 60.42b(a) would be 11.4 lbs/hr (143 MMBtu/Hr * 0.8 lb/MMBtu * 0.1). This 11.4 lbs/hr exceeds the 7.55 lbs/hr allowed for each boiler under the NSR permits.

The particulate matter limit from Section 60.43b(b) would be 14.3 lbs/hr (143 MMBtu/Hr * 0.1 lb/MMBtu). Low sulfur fuel requirement (0.05%) is the conventional technology utilized to reduce SO_x emissions and establishes the appropriate particulate matter emission limit from Section 60.43b. The allowance of 14.3 lbs/hr of particulate matter under subpart Db exceeds the 12.65 lbs/hr allowed for each boiler under the NSR permits.

The NO_x limit from Section 60.44b(a) would be 28.6 lbs/hr (143 MMBtu/Hr * 0.2 lb/MMBtu). The emission factor for high heat release rate is utilized based upon the furnace volume of 1795 ft^3 and a heat input of 143 MMBtu/hr. The heat release rate is 79,666 BTU/hr-ft^3 which under the definition contained in Section 60.41b is considered a "high heat release rate". The allowance of 28.6 lbs/hr of NO_x under subpart Db exceeds the 13.8 lbs/hr allowed for each boiler under the NSR permits.

The testing, monitoring, record keeping and reporting requirements contained in Sections 60.45(b), 60.46(b), 60.47(b), 60.48(b), and 60.49(b) will be subsumed under the testing, monitoring, record keeping and reporting requirements established under the NSR permits and required under the Title V permitting process.

40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines

The gas turbines at this facility are subject to the requirements of this NSPS. In addition to the back-end control using SCR, the turbines utilize steam/water injection or dry low NO_x combustors to control NO_x formation.

The NO_x emission factor from Section 60.332(a)(1) would be 113 ppmvd for the Frame 7 turbine. This 113 ppmvd limit far exceeds the 9 ppmvd limit on natural gas (15 ppmvd on fuel oil) established by District Rule 207. Therefore, the NO_x limit from the NSPS will be subsumed under the NSR permit requirements included on this Title V permit.

The allowable NO_x concentration limit derived from §60.332(a)(1) for the LM6000 turbine would be 75 ppmvd. This 75 ppmvd limit far exceeds the 5 ppmvd limit established by the BACT requirements of District Rule 207. Therefore, the NO_x limit from the NSPS will be subsumed under the NSR permit requirements that will be included on the permits.

The SO_2 limit from Section 60.333 would be 150 ppmv for both turbines. Compliance with this limit for

the Frame 7 turbine is assumed due to the worst case limits contained in the facility NSR permits (firing on fuel oil) of 116.1 lbs/hr. The SO_2 concentration at this permitted emission level would be 23.8 ppmv for the turbine [(116.1 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((480,600 SDCFM)*(60 M/Hr)) = 23.8 ppmv]. Compliance with this limit for the LM6000 turbine is assured due to limits established by the BACT requirements of Rule 207 and established in the permit at 0.33 lbs/hr. The SO_2 concentration at this permitted emission level would be 0.13 ppmv for the turbine [(0.33 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((272,396 SDCFM)*(60 M/Hr)) = 0.13 ppmv].

These values are well below the 150 ppmv SO_2 allowed for in the NSPS. Therefore, the SO_2 emission standard from this NSPS will be subsumed under the NSR permit requirement that will be included on the permits.

The testing and monitoring requirements contained in Sections 60.334 and 60.335 will be subsumed under the testing and monitoring requirements established under the NSR permits and that is included on this Title V permit. This will include the annual emissions testing requirement and the requirement to monitor operations with the use of CEMs.

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

1. The Frame 7 gas turbine pollutant mass emission rates in the exhaust discharged to the atmosphere shall not exceed the following limits [District Rule 207; District Rule 403 limit of 617.9 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO_2 limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	30.1	722
Carbon Monoxide (CO)	20.0	480
Ammonia (NH_3)	13.9	334
Particulate Matter <10 microns (PM_{10})	2.5	60
Volatile Organic Compounds (VOC)	1.0	24
Sulfur Dioxide (SO_2)	0.5	12

These limits shall not apply during start-up, which is not to exceed five (5) hours, or shutdown, which is not to exceed two (2) hours, or during periods of oil firing. SCR catalytic controls, steam injection and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

2. During periods of natural gas firing, the auxiliary boiler pollutant mass emission rates in the exhaust discharged to the atmosphere shall not exceed the following limits from each boiler [District Rule 207; District Rule 403 limit of 30.8 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO_2 limit of 2000 ppmv; 40 CFR Part 60, Subpart Db SO_2 limit of 11.4 lbs/hr, PM_{10} limit of 14.3 lbs/hr, and NO_x limit of 28.6 lbs/hr]:

Pollutant	Lbs/Hour
Oxides of Nitrogen (NO_x)	7.25
Carbon Monoxide (CO)	2.65
Particulate Matter <10 microns (PM_{10})	0.60
Volatile Organic Compounds (VOC)	0.20

Sulfur Dioxide (SO_2)	0.085

These limits shall not apply during boiler shutdown, for a period not to exceed 30 minutes, or during cold start-up, for a period not to exceed three (3) hours, or during hot start-up, for a period not to exceed 30 minutes. During boiler shutdown or start-up, and during operations at or below 40 percent load, procedures incorporating good engineering practices shall be utilized to the fullest extent practical to minimize all pollutant emissions.

3. While firing on natural gas the emission concentration of oxides of nitrogen, as NO_2, in the Frame 7 turbine exhaust discharged to the atmosphere shall not exceed 9 ppmvd, calculated as a clock hour average at 15 percent O_2, dry. [District Rule 207; District Rule 404 NO_x limit of 200 ppm; 40 CFR Part 60, Subpart GG NO_x limit of 200 ppm]

   This limit shall not apply during start-up, which is not to exceed five (5) hours, or shutdown, which is not to exceed two (2) hours. SCR catalytic controls, steam injection and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

4. During periods of natural gas firing, the emission concentration of oxides of nitrogen, as NO_2, in the auxiliary boiler exhaust discharge to the atmosphere shall not exceed 40 ppmvd at boiler loads greater than 40 percent and 100 ppmvd at boiler loads of 40 percent or less, calculated as a clock hour average at 3 percent O_2, dry. [District Rule 207; District Rule 404 NO_x limit of 350 ppm]

   These limits shall not apply during boiler shutdown, for a period not to exceed 30 minutes, or during cold start-up, for a period not to exceed three (3) hours, or during hot start-up, for a period not to exceed 30 minutes. During boiler shutdown or start-up, and during operations at or below 40 percent load, procedures incorporating good engineering practices shall be utilized to the fullest extent practical to minimize all pollutant emissions.

5. The emission concentration of ammonia in the Frame 7 turbine exhaust discharged to the atmosphere shall not exceed 10 ppmvd, calculated as a three hour rolling clock hour average at 15 percent O_2, dry. [District Rule 207]

6. The emission concentration of carbon monoxide in the Frame 7 turbine exhaust discharged to the atmosphere shall not exceed 10 ppmvd, calculated as a three hour rolling clock hour average at 15 percent O_2, dry. [District Rule 207]

   This limit shall not apply during start-up, which is not to exceed five (5) hours, or shutdown, which is not to exceed two (2) hours. SCR catalytic controls, steam injection and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

7. The heat input rate to the LM6000 Turbine shall not exceed 500 MMBtu/hr and the unit shall only be fired on natural gas. [District Rule 207]

8. The maximum daily combined emissions from the LM6000 Turbine, including start-ups and shutdowns, shall not exceed the following limits: [District Rule 207]

Pollutant	Lbs/Day
Oxides of Nitrogen (NO_x)	233.95
Carbon Monoxide (CO)	172.13
Particulate Matter <10 microns (PM_{10})	60.00
Volatile Organic Compounds (VOC)	28.80
Ammonia (NH_3)	150.48
Sulfur Dioxide (SO_2)	7.92

9. The pollutant mass emission rates in the exhaust discharged to the atmosphere from the LM6000 Turbine shall not exceed the following limits: [District Rules 207, 403, & 404]

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	8.65	207.6
Carbon Monoxide (CO)	6.31	151.4
Particulate Matter <10 microns (PM_{10})	2.50	60.0
Volatile Organic Compounds (VOC)	1.20	28.8
Ammonia (NH_3)	6.27	150.5
Sulfur Dioxide (SO_2)	0.33	7.9

These limits shall not apply during start-up, which is not to exceed one (1) hour. SCR catalytic controls and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

10. The pollutant concentrations discharged to the atmosphere from the LM6000 Turbine shall not exceed the following limits, calculated at 15 percent O_2: [District Rule 207]

Pollutant	Concentration (ppm)	Averaging Period
Oxides of Nitrogen (as NO_2)	5.0	1-hour clock hour
Carbon Monoxide (CO)	6.0	3-hour rolling clock hour
Ammonia (NH_3)	10	3-hour rolling clock hour

These limits shall not apply during start-up, which is not to exceed one (1) hour, or shutdown. SCR catalytic controls and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

11. The pollutant emission rates discharged to atmosphere from the LM6000 Turbine during a start-up shall not exceed the following limits. These limits apply to any start-up period which shall not exceed one (1) hour. [District Rule 207]

Pollutant	Lbs/Start-Up
Oxides of Nitrogen (as NO_2)	35.00
Carbon Monoxide (CO)	27.00
Volatile Organic Compounds (as CH_4)	1.20

12. The Frame 7 turbine and auxiliary boilers shall only be fired on natural gas, except that No. 2 fuel oil may be used during training/testing of the auxiliary boilers, as described in Condition 22, or during periods of

natural gas curtailment by the utility, or in the events of natural gas supply malfunction or disruption not within the control of Calpine King City Cogen, LLC. In any event, No. 2 fuel oil shall not be used for more than 240 hours per year per piece of equipment. [District Rule 207]

13. During periods of No. 2 fuel oil firing, the Frame 7 turbine pollutant mass emission rates in the exhaust discharged to the atmosphere shall not exceed the following limits [District Rule 207; District Rule 403 limit of 617.9 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO_2 limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Sulfur Dioxide (SO_2)	116.1	2786
Oxides of Nitrogen (NO_x)	47.8	1147
Carbon Monoxide (CO)	22.0	528
Ammonia (NH_3)	13.9	334
Particulate Matter <10 microns (PM_{10})	10.0	240
Volatile Organic Compounds (VOC)	1.0	24

These limits shall not apply during start-up, which is not to exceed five (5) hours, or shutdown, which is not to exceed two (2) hours. SCR catalytic controls, steam injection and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

14. During periods of No. 2 oil firing, the auxiliary boiler pollutant mass emission rates in the exhaust discharged to the atmosphere shall not exceed the following limits from each boiler [District Rule 207; District Rule 403 limit of 30.8 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO_2 limit of 2000 ppmv; 40 CFR Part 60, Subpart Db SO_2 limit of 11.4 lbs/hr, PM_{10} limit of 14.3 lbs/hr, and NO_x limit of 28.6 lbs/hr]:

Pollutant	Lbs/Hour
Oxides of Nitrogen (NO_x)	13.8
Particulate Matter <10 microns (PM_{10})	12.65
Sulfur Dioxide (SO_2)	7.55
Carbon Monoxide (CO)	2.85
Volatile Organic Compounds (VOC)	0.25

These limits shall not apply during boiler shutdown, for a period not to exceed 30 minutes, or during cold start-up, for a period not to exceed three (3) hours, or during hot start-up, for a period not to exceed 30 minutes. During boiler shutdown or start-up procedures, incorporating good engineering practices shall be utilized to the fullest extent practical to minimize all pollutant emissions.

15. While firing on No. 2 fuel oil, the emission concentration of oxides of nitrogen, as NO_2, in the Frame 7 turbine exhaust discharged to the atmosphere shall not exceed 15 ppmvd, calculated as a clock hour average at 15 percent O_2, dry. [District Rule 207; District Rule 404 NO_x limit of 200 ppm; 40 CFR Part 60, Subpart GG NO_x limit of 200 ppm]

This limit shall not apply during start-up, which is not to exceed five (5) hours, or shutdown, which is not to exceed two (2) hours. SCR catalytic controls, steam injection and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

16. During periods of No. 2 fuel oil firing at boiler loads greater than 40 percent, the emission concentration of oxides of nitrogen, as NO_2, in the auxiliary boiler exhaust discharged to the atmosphere shall not exceed 69 ppmvd, calculated as a clock hour average at 3 % O_2, dry. [District Rule 207]

This limit shall not apply during boiler shutdown, for a period not to exceed 30 minutes, or during cold start-up, for a period not to exceed three (3) hours, or during hot start-up, for a period not to exceed 30 minutes. During boiler shutdown or start-up, procedures incorporating good engineering practices shall be utilized to the fullest extent practical to minimize all pollutant emissions.

17. The sulfur content on any No. 2 fuel oil used as fuel in the Frame 7 turbine or auxiliary boilers shall not exceed 0.05 percent by weight. All fuel received must be certified to contain 0.05 percent sulfur, or less, by weight. [District Rule 207, District Rule 412 limit of 0.5% by weight sulfur]

18. The Frame 7 turbine shall undergo no more than one cold start-up and one shutdown per day. [District Rule 207]

19. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall maintain a turbine start-up protocol for both hot and cold start-up, which details the procedures that will be used to minimize the pollutant emissions, and shall amend this protocol based on operating experience. [District Rule 207]

20. Daily NO_x emissions from all combustion equipment at the facility shall not exceed 1,070 pounds per day. During periods of oil firing as allowed for on the permits for the Frame 7 Turbine and the Boilers, the allowable daily NO_x limit is increased by the incremental hourly NO_x limit for oil firing versus the natural gas hourly NO_x limit for all hours the equipment was actually operated on fuel oil. [District Rule 207]

21. Cumulative emissions, including emissions generated during Start-ups and Shutdowns, from all equipment at Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall not exceed the following quarterly and annual limits: [District Rule 207]

Pollutant	Pounds Of Emissions				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Annual
NO_x (as NO_2)	72,452	73,178	73,905	73,905	293,440
SO_x	1,748	1,768	1,787	1,787	7,090
VOC	4,762	4,815	4,868	4,868	19,313
PM_{10}	12,071	12,204	12,339	12,339	48,953
CO	58,445	59,095	59,744	59,744	237,028

Note: During periods of oil firing as allowed for on the permits for the Frame 7 Turbine and the

Boilers, the allowable emissions are increased by the incremental hourly limit for oil firing versus the natural gas hourly limit for all hours the equipment was actually operated on fuel oil.

22. Training/testing of the auxiliary boilers shall be allowed only under the following conditions [District Rule 207]:

a. Only one boiler may be tested in a calendar day,

b. The District shall be notified a minimum of 30 calendar days prior to the date of training/testing on No. 2 fuel oil,

c. The District has the authority to postpone training/testing of the auxiliary boilers due to adverse ambient air-quality conditions,

d. Each boiler may be used for training/testing on fuel oil a maximum of two (2) times per calendar year, and

e. The training/testing on fuel oil shall not exceed two (2) full-load equivalent hours.

23. Operation must be conducted in compliance with all data and specifications submitted in the applications to the California Energy Commission and the MBUAPCD. [District Rule 207]

24. Equipment must be properly maintained and kept in good operating condition. [District Rule 207]

25. Equipment shall not be operated unless the air pollution control equipment is in full use. [District Rule 207]

26. The PM_{10} emissions from the Frame 7 cooling tower shall not exceed 20 pounds per day. [District Rule 207]

27. Water treatment chemicals containing chromium shall not be used in the cooling towers. [District Rule 207, 40 CFR Part 63.400]

28. The Gilroy Energy Center, LLC for King City Energy Center shall hold Sulfur Dioxide Allowances in the compliance subaccount for the LM6000 Turbine (Unit 2) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the LM6000 Turbine. [District Rule 219]

29. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity. [District Rule 400]

30. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall cause to be operated an ambient air monitoring station at a site approved by the District in Southern Monterey County, for PM_{10}, O_3, and standard meteorological parameters on a continuous basis, in accordance with EPA requirements contained in 40 CFR Part 58, and as deemed necessary in accordance with the Air Resources Board guidelines. The air monitoring station instrumentations shall be compatible with the District's daily data retrieval polling methods.

The operation of the air monitoring station shall continue for the life of the project or until the Air Pollution Control Officer determines that good cause exists to discontinue monitoring. Good cause includes adequate technical justification submitted by the permitted that successfully proves that the continuation of all or part of the monitoring requirement is no longer necessary. [District Rule 207]

31. Calpine King City Cogen, LLC shall comply with the requirements of 40 CFR Part 68 - Risk Management Plans. Calpine King City Cogen, LLC's Risk Management Plan must be revised and updated as required by 40 CFR §68.190. Calpine King City Cogen, LLC shall certify compliance with these requirements as part of the annual compliance certification required by 40 CFR Part 70 and this permit. [40 CFR Part 68]

32. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES

33. An annual performance test of the Frame 7 gas turbine shall be conducted prior to January 1 of each year. Calpine King City Cogen, LLC shall conduct performance tests in accordance with EPA Method 20 for NO_x and O_2, EPA Method 10 for CO, EPA Method 18 for hydrocarbons, the collection method specified in BAAQMD Method 1B and the analysis specified in EPA Method 350.3 for ammonia to verify compliance with conditions 1, 3, 5 and 6. Calpine King City Cogen, LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

a. Oxides of Nitrogen, as NO_2: ppm at 15% O_2, dry and lb/hr.

b. Carbon Monoxide: ppm at 15% O_2, dry and lb/hr.

c. Ammonia: ppm at 15% O_2, dry and lb/hr.

d. Volatile Organic Compounds (VOC) and TOG: ppm and lb/hr.

and the following process parameters:

e. Natural gas consumption.

f. Electricity generated during the test.

g. Ammonia injected, NH_3/NO_x mole ratio, and lb/hr.

h. Steam/water injection rate and steam/water to fuel ratio.

34. A performance test of the LM 6000 turbine shall be conducted every 4,000 operating hours, but not less frequent than once every three years nor more frequent than once a year. The Gilroy Energy Center, LLC for King City Energy Center shall conduct performance tests in accordance with EPA Method 20 for NO_x and O_2, EPA Method 10 for CO, EPA Method 18 for hydrocarbons, the collection method specified in BAAQMD Method 1B and the analysis specified in EPA Method 350.3 for ammonia to verify compliance with conditions 9 and 10. The Gilroy Energy Center, LLC for King City Energy Center shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

a. Oxides of Nitrogen, as NO_2: ppm at 15% O_2, dry and lb/hr.

b. Carbon Monoxide: ppm at 15% O_2, dry and lb/hr.

c. Ammonia: ppm at 15% O_2, dry and lb/hr.

d. Volatile Organic Compounds (VOC) and TOG: ppm and lb/hr.

and the following process parameters:

e. Natural gas consumption.

f. Electricity generated during the test.

g. Ammonia injected, NH_3/NO_x mole ratio, and lb/hr.

35. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall cause annual testing to be performed to verify compliance with the Ammonia (NH_3) slip limits contained in Conditions 5, 8, 9 and 10. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall conduct this testing in accordance with the collection method specified in BAAQMD Source Test Procedure ST-1B and the analysis specified in EPA method 350.3. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 7 days prior to the actual date of testing shall be provided so that a District observer can be present. [District Rule 207]

36. An annual performance test of the auxiliary boilers shall be conducted prior to January 1 of each year. Calpine King City Cogen, LLC shall conduct performance tests in accordance with EPA Method 7E for NO_x, EPA Method 10 for CO, EPA Method 3A for O_2 to verify compliance with conditions 2 and 4. Calpine King City Cogen, LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30

days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, a test of the exhaust gas in the auxiliary boiler exhaust stacks, for [District Rule 207]:

a. Carbon Monoxide: ppm at 15% O_2, dry and lb/hr;

b. Oxides of Nitrogen, as NO_2: ppm at 15% O_2, dry and lb/hr;

and the following process parameter:

c. Natural gas consumption rate.

37. No testing is specified for the emission limitations contained in conditions 13, 14, 15 and 16 while firing on fuel oil. Fuel oil is for emergency use only, and the District has no intention of the facility operating the equipment on fuel oil just to perform compliance testing.

38. Testing of all fuel oil delivered to the facility shall be conducted prior to or upon receipt of the fuel oil. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall conduct testing in accordance with ASTM D1552-83 or ASTM D1552-83 to verify compliance with condition 17. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall furnish the District written results of the test prior to firing the fuel oil, but in no case later than thirty (30) days of completion.

39. Calpine King City Cogen, LLC shall conduct monthly measurements of the cooling tower water total dissolved solids in accordance with EPA Method 160.1 to verify compliance with the cooling tower PM_{10} emission limit as specified in condition 26. The PM_{10} emissions shall be calculated as the product of the cooling tower recirculating water flow rate times the total dissolved solids in the cooling water times the cooling tower drift loses, as follows [District Rule 207]:

PM_{10} lb/day = 0.012 x F x TDS x DL

where: F = cooling tower recirculation water flow rate

TDS = total dissolved solids in the cooling water

DL = drift loss of 0.002%

40. Gilroy Energy Center, LLC for King City Energy Center shall conduct monthly measurements of the cooling tower water total dissolved solids (TDS) in accordance with EPA Method 160.1. The TDS value from the latest testing shall be used in the following equation to calculate PM_{10} emissions. PM_{10} emissions from the cooling tower shall be calculated as the product of the cooling tower recirculating water flow rate times the total dissolved solids in the cooling tower water times the cooling tower drift loss times the number of hours of operation, as follows:

$$PM_{10} \text{ lbs/day} = 5.0E\text{-}4 * F * TDS * DL * H$$

Where: F = cooling tower recirculating water flow rate in gpm

TDS = total dissolved solids in the cooling water in ppm
DL = drift loss of 0.0047%
H = number of hours of operation

41. No testing is specified for the generic (Rule 400) opacity requirement from condition 29 while firing on natural gas. When firing on fuel oil continuously for a period of 120 hours and at intervals of seven (7) days during continuing operation on fuel oil , Calpine King City Cogen, LLC shall conduct testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with condition 29.

MONITORING AND RECORD KEEPING REQUIREMENTS

42. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall demonstrate compliance by using properly operated and maintained continuous emission monitors on all combustion equipment (during all hours of operation including equipment Start-up and Shutdown periods, except for periods of CEM maintenance performed in accordance with District requirements) for all of the following parameters: [District Rule 207]

a. Firing hours and Fuel Flow Rates.
b. Oxygen (O_2) Concentrations, Nitrogen Oxide (NO_x) Concentrations, and Carbon Monoxide (CO) Concentrations.
c. Ammonia Injection Rates.

Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall calculate and record the total Firing Hours, the average hourly Fuel Flow Rates, and pollutant emission concentrations.

Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

d. Heat Input Rate.
e. Corrected NO_x concentrations, NO_x mass emissions (as NO_2), corrected CO concentrations, and CO mass emissions.

For each source, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall record the parameters specified in d. and e. of this Condition every 15 minutes (excluding normal calibration periods). As specified below, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall calculate and record the following data:

f. Total Heat Input Rate for every clock hour.
g. The NO_x mass emissions (as NO_2), and corrected average NO_x emission concentration for every clock hour.
h. The CO mass emissions for every clock hour, and corrected average CO emission concentration for every three-hour rolling clock hour period.

i. On an hourly basis, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.

j. For each calendar day, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.

k. For each calendar quarter, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.

l. For each calendar year, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.

43. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall calculate and record on a daily basis, the Volatile Organic Compound (VOC) mass emissions, Fine Particulate Matter (PM_{10}) mass emissions, Sulfur Dioxide (SO_2) mass emissions, and Ammonia (NH_3) mass emissions from each combustion source and the cooling tower. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall use the actual heat input rates, actual Start-up times, actual Shutdown times, and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented as follows: [District Rule 207]

a. For each calendar day, VOC, PM_{10}, SO_2, and NH_3 mass emissions shall be summarized for each source.

b. On a daily basis, the cumulative total VOC, PM_{10}, SO_2 and NH_3 mass emissions shall be summarized for each calendar quarter and for the calendar year.

44. The Gilroy Energy Center, LLC for King City Energy Center shall monitor SO_2 emissions from the LM6000 Turbine in accordance with 40 CFR Part 72 and 75. [District Rule 219]

45. CEMs shall be installed and operated on the LM6000 Turbine. This system shall be designed to continuously record the measured gaseous concentrations, and calculate and continuously monitor and record the CO, CO_2 or O_2, and NO_x concentrations corrected to fifteen (15) percent oxygen (O_2) on a dry basis. [District Rules 201, 213, and 219]

The equipment installed for the continuous monitoring of CO shall be maintained and operated in accordance with 40 CFR Part 60 Appendix F, and the equipment installed for the continuous monitoring of CO_2 or O_2 and NO_x shall be maintained and operated in accordance with 40 CFR Parts 72 and 75.

For periods of missing CO data, CO hourly values shall be substituted from valid hourly average data from the previous thirty (30) unit operating days, excluding periods of startup and shutdown. The CO data shall be substituted based on equivalent incremental load ranges.

46. A written Quality Assurance program for the LM6000 Turbine CEM must be established in accordance with 40 CFR Part 75, Appendix B for NO_x and 40 CFR Part 60, Appendix F for CO which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity and leak testing, record keeping and reporting implementation, and relative accuracy testing. [District Rule 219]

47. The ammonia emissions shall be monitored by the using the following ammonia slip calculation: [District Rule 207]

NH_3 slip (ppmvd @ 15% O_2) = ((NH_3 fed ppm - (NO_x in ppm - NO_x out ppm))*(20.9-15)/(20.9-O2)))*b

Where:

NH_3 fed in ppm = ((NH_3 injection rate, lb/hr*a)/(Q*Fd*4.4096E-8))((20.9 - O_2%)/20.9)
4.4096E-8 = (K-factor constant) corrects for the molecular weight of ammonia
a = Ammonia Concentration (in % by weight/100)
b = Correction Factor based on source test data
Q = Fuel Flow mmbtu/hr
Fd = 8710 scf/mmbtu

48. A continuous monitoring system must be operated to monitor and record the fuel consumption and the mass ratio of steam to fuel being fired in the Frame 7 Turbine. This system must be accurate to within ± 5 percent. [District Rule 207; 40 CFR Part 60, Subpart GG]

49. Continuous emission monitoring systems must be calibrated and operated to measure each auxiliary boiler exhaust for NO_x, CO and O_2. The system shall continuously record the NO_x and CO concentrations corrected to a value of 3 percent O_2, dry, and the NO_x and CO mass emission rates in pounds per hour. The system shall meet all the requirements of Rule 213 and shall be certified at least once per year. [District Rule 207; District Rule 213]

50. Instrumentation must be operated to measure the SCR catalysts inlet temperature and pressure differential across the SCR catalysts. [District Rule 207]

51. Instrumentation must be operated to measure the auxiliary boiler oxidation catalyst inlet temperature and pressure differential across the oxidation catalyst. [District Rule 207]

52. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall monitor and record all start-up, shutdown, and operational profiles in a log maintained on site. [District Rules 207 and 218]

53. Calpine King City Cogen, LLC shall monitor and record all periods of oil firing in a log maintained on site and shall submit a summary of this data on an annual basis, at renewal time of the District (non Title V) Permit to Operate. [District Rule 207]

54. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall submit to the Air Pollution District upon request at the time of annual District (non Title V) Permit to Operate renewal, the annual natural gas fuel consumption, annual electricity generated, and annual emissions of NO_x, CO, TOG, and ammonia from this equipment for the preceding calendar year. [District Rule 207]

55. As applicable Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall maintain the following general records of required monitoring information [District Rule 218]:

A) the date and time of sampling or measurements;
B) the date(s) analyses were performed;
C) the company or entity that performed the analyses;
D) the analytical techniques or methods used;
E) the results of such analyses;
F) the operating conditions existing at the time of sampling or measurement; and
G) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.

56. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. [District Rule 218]

REPORTING REQUIREMENTS

57. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall report breakdowns which results in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within one hour of the occurrence, this one hour period may be extended up to six hours for good cause by the APCO. The APCO may elect to take no enforcement action if Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center demonstrates to the APCO's satisfaction that a breakdown condition exists.

The estimated time for repair of the breakdown shall be supplied to the APCO within twenty-four (24) hours of the occurrence and a written report shall be supplied to the APCO within five (5) days after the occurrence has been corrected. This report shall include at a minimum [District Rule 214]:

A) a statement that the condition or failure has been corrected and the date of correction; and

B) a description of the reason(s) for the occurrence; and

C) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and

D) an estimate of the emissions caused by the condition or failure.

58. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall submit monthly reports to the District, in a District approved format, within 30 days from the end of the month and these shall include [District Rules 207, 213 & 218]:

A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess

(if known), corrective actions and preventative measures adopted; and

B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and

C) time and date of each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of system repairs and adjustments; and

D) all information pertaining to any monitoring as required by the permit (conditions 42 - 45, 47 - 49, and 52 - 54); and

E) a negative declaration specifying when no excess emissions occurred; and

F) a summary of actual monthly emissions from the CEM for all equipment which operated.

59. The Gilroy Energy Center, LLC for King City Energy Center shall submit quarterly Electronic Data Reports (EDR) to EPA for the LM6000 Turbine. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in §75.64. [40 CFR Part 75]

60. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall submit the total quarterly emissions, to verify compliance with Condition 21, to the District within 30 days from the end of each calendar quarter. [District Rule 207]

The total quarterly emissions for NO_x and CO shall be reported based upon the actual recorded CEM data as specified in Condition 41. Quarterly emissions of SO_x (as SO_2), PM_{10}, and VOC shall be reported as specified in Condition 42.

61. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218]

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

A) identification of each term or condition of the permit that is the basis of the certification; and

B) the compliance status; and

C) whether compliance was continuous or intermittent; and

D) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

GENERAL CONDITIONS

62. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]

63. In an enforcement action, the fact that Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]

64. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218]

65. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]

66. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]

67. For applicable requirements that will become effective during the permit term, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [District Rule 218]

68. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]

69. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall report any violation of any requirement contained in this permit to the District within 96 hours after such

occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]

70. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218]

71. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]

72. Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]

73. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall submit to the District relevant evidence which demonstrates [District Rule 218]:

A) an emergency occurred; and

B) that Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center can identify the cause(s) of the emergency; and

C) that the facility was being properly operated at the time of the emergency; and

D) that all steps were taken to minimize the emissions resulting from the emergency; and

E) within two working days of the emergency event, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center provided the District with a description of the emergency and any mitigating or corrective actions taken.

74. Upon presentation of credentials, Calpine King City Cogen, LLC and the Gilroy Energy Center, LLC for King City Energy Center shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:

A) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;

B) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;

C) to inspect any equipment, operation, or process described or required in this federal operating permit; and,

D) to sample emissions from the source.

****

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE IV ACID RAIN PERMIT

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (831) 647-9411

Effective December 1, 2001 through November 30, 2006

ISSUED TO:

Gilroy Energy Center, LLC for King City Energy Center
750 Metz Road
King City, CA 93930

PLANT SITE LOCATION:

750 Metz Road
King City, CA 93930

ISSUED BY:

Douglas Quetin, Air Pollution Control Officer

12/01/06
Effective Date

ORIS Code: 10294

Nature of Business: Electric Power Generation

SIC Code: 4911 - Electric Power Generation

DESIGNATED REPRESENTATIVE:

Name: Mr. Eugene Fahey
Title: General Manager - Central Coast Projects
Phone: (831) 385-4090 x12

ALTERNATIVE DESIGNATED REPRESENTATIVES:

Name: Mr. John Snead
Title: Operations & Maintenance Manager
Phone: (831) 385-4090 x11

Name: Ms. Maria Barroso
Title: Compliance Manager
Phone: (831) 385-4090 x13

ACID RAIN PERMIT CONTENTS

1) Statement of Basis

2) The applicable SO_2 and NO_x emissions limitations.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1) STATEMENT OF BASIS

Statutory and Regulatory Authorities: In accordance with District Rules 218 and 219 and Titles IV and V of the Clean Air Act, the Monterey Bay Unified Air Pollution Control District issues this permit pursuant District Rules 218 and 219.

2) SO_2 AND NO_X EMISSIONS LIMITATIONS

	Pollutant	Requirement
UNIT 2	SO_2 Emissions Limitation	The Gilroy Energy Center, LLC for King City Energy Center shall hold SO_2 allowances, as of the allowance transfer deadline, in this unit's compliance subaccount not less than the total annual emissions of SO_2 for the previous calendar year from this unit.
	NO_x Emissions Limitation	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.

3) COMMENTS, NOTES AND JUSTIFICATIONS

None

4) PERMIT APPLICATION

Attached

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is: ☐ New ☒ Revised

STEP 1

Identify the source by plant name, State, and ORIS code.

Gilroy Energy Center, LLC for King City Energy Center	CA	10294
Plant Name	State	ORIS Code

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a." For new units, enter the requested information in columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
2	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Gilroy Energy Center, LLC for King City Energy Center.
Plant Name (from Step 1)

STEP 3

Read the standard requirements

Permit Requirements

(1) The designated representative of each affected source and each affected unit at the source shall:
(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
(2) The owners and operators of each affected source and each affected unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

STEP 3, Cont'd.

Nitrogen Oxides Requirements The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

(1) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting
authority:
(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

Gilroy Energy Center, LLC for King City Energy Center

Step 3, Cont'd.

Liability, Cont'd

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

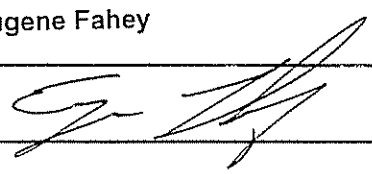
No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided,* that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Certification

Read the certification statement, sign, and date

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Eugene Fahey	
Signature 	Date 9-22-06