

CALIFORNIA ENERGY COMMISSION1516 NINTH STREET
SACRAMENTO, CA 95814-5512**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION****In the Matter of:**

PASTORIA ENERGY FACILITY)	Docket No. 99-AFC-7C
)	Order No. 04-1215-03
)	
PASTORIA ENERGY FACILITY, LLC)	ORDER APPROVING MODIFICATIONS
)	TO THE EMISSION REDUCTION
)	OFFSET PACKAGE AND OTHER
)	CHANGES THAT AFFECT AIR QUALITY
)	CONDITIONS OF CERTIFICATION

The Pastoria Energy Facility, LLC, a wholly-owned affiliate of the Calpine Corporation and owner of the Pastoria Energy Facility, filed a petition on March 22, 2004, requesting to: modify the emission reduction credit offset package to clarify assignment of offsets between the Pastoria Energy Facility and the San Joaquin Valley Energy Center, revise the calculation procedure to determine the appropriate SO₂ for PM10 interpollutant offset ratio for consistency with the San Joaquin Valley Air Pollution Control District's (District) procedures, clarify the ammonia slip monitoring parameters, and revise several air quality conditions of certification for conformity with the air district's permits, and correct administrative errors.

The District will approve a Revised Determination of Compliance in December 2004.

STAFF RECOMMENDATION

The 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 Calpine's petition to modify the Pastoria Energy Facility and amend related Conditions of Certification.

COMMISSION FINDINGS

Based on staff's analysis, the Commission concludes that the proposed changes will not result in any significant impact to public health and safety, or the environment. The 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 Commission's Final Decision pursuant to Title 20, section 1755.
- The project will remain in compliance with all applicable laws, ordinances, regulations, and standards, subject to the provisions of Public Resources Code section 25525;
- The modification will be beneficial to the project owner because it will clarify the assignment of emission reduction credit offsets along with emission monitoring parameters for conformity with the District's permits; and
- The change is based on information that was not available to the parties prior to Commission certification because the issue of assignment of offsets was an outcome of staff evaluation of a subsequent project.

CONCLUSION AND ORDER

The California Energy Commission hereby adopts Staff's recommendations and approves the following changes to the Pastoria Energy Facility's Decision. New text is underlined and deleted text is shown in ~~strikeout~~:

AQ-6 ~~CTG~~ The Heat Recovery Steam Generator (HRSG) exhaust duct downstream of the SCR unit shall be equipped with continuously recording emissions monitor (CEM) for NO_x, CO, and O₂. If SCR NO_x control system is used, CTG shall be equipped with an additional CEM for NO_x ahead of the SCR unit, or, alternatively, a continuously recording ammonia monitor. All CEMS shall be dedicated to this unit and shall meet the requirements of 40 CFR Part 60 Appendices B & F (for CO), and 40 CFR Part 75 (for NO_x and O₂), and shall be capable of monitoring emissions during startups and shutdowns, provided the CEM(s) pass the relative accuracy requirements for startups and shutdowns specified herein. If relative accuracy of CEM(s) cannot be certified during startup conditions, CEM results during startup and shutdown events shall be replaced with startup emission rates obtained during source testing to determine compliance with emission limits in conditions **AQ-15, AQ-19 & AQ-20**. [District Rule 2201]

Verification: The project owner shall make the site available for inspection by representatives of the District, CARB and the Commission.

AQ-20 Combined annual emissions from CTGs S-3636-1, 2 and 3, calculated on a twelve consecutive month rolling basis, shall not exceed any of the following; PM₁₀ – 224,343~~233,900~~ lb/year, SO_x (as SO₂) – 84,780 lb/year, NO_x (as NO₂) – 344,484~~344,485~~ lb/year, VOC – 227,619 lb/year and CO – 1,220,166 lb/year. [District Rule 2201]

Verification: The project owner shall provide records of compliance as part of the quarterly reports of **Condition AQ-39**.

AQ-24 Prior to operation the project owner shall surrender offsets for S-3636-1-0, 2-0, 3-0, 4-0, and 5-0, for all calendar quarters in the following amounts, at the offset ratio specified in Rule 2201 (6/15/95 version) Table 1, PM10 – Q1: 58,305 lb, Q2: 58,953 lb, Q3: 59,601 lb, and Q4: ~~59,602~~59,601 lb; SOx (as SO2) – Q1: 20,905 lb, Q2: 21,137 lb, Q3: 21,369 lb, and Q4: 21,369 lb; NOx (as NO2) – Q1: 80,010 lb, Q2: 80,899 lb, Q3: ~~81,788~~ 81,787 lb, and Q4: 81,788 lb; and VOC – Q1: ~~51,193~~ 51,194 lb, Q2: 51,762 lb, Q3: 52,331 lb, and Q4: ~~52,331~~ 52,332 lb. [District Rule 2201]

Verification: ~~The project owner shall submit copies of ERC surrendered to the SJVUAPCD in the totals shown to the CPM prior to no later than 30 days prior to the commencement of operation.~~ No later than 30 days prior to the commencement of operation, the project owner shall submit to the CPM copies of ERCs surrendered to the SJVUAPCD in the totals shown.

AQ-26 SOx ERCs may be used to offset PM10 emission increases at a ratio of ~~2.93~~1 lb SOx ÷ for each 1 lb PM10 emissions for SOx reductions occurring within 15 miles of this facility; and at a ratio of 3.4 lb SOx ÷ for each 1 lb PM10 emissions for SOx reductions occurring greater than 15 miles from this facility. A different SOx/PM10 ratio may be used upon concurrence of the federal EPA and the District. [District Rule 2201]

Verification: ~~The project owner shall submit copies of ERC surrendered to the CPM no later than 30 days prior to the commencement of operation.~~ No later than 30 days prior to the commencement of operation, the project owner shall submit to the CPM copies of ERCs surrendered, and if the SOx/PM10 ratio(s) used are different than those specified above. The project owner shall in the same submittal provide the CPM with documentation showing federal EPA and District concurrence with the SOx/PM10 ratio used.

AQ-30 Compliance with the startup NOx, CO, and VOC mass emission limits shall be demonstrated from one of the CTGs (S-3636-1, 2, or 3) upon initial operation and at least every seven years thereafter by District witnessed in situ sampling of exhaust gases by a qualified independent source test firm. CEM relative accuracy shall be determined during startup source testing in accordance with methodology approved by the District. If CEM data is not certifiable to determine compliance with NOx and CO startup emission limits, then source testing to measure startup NOx and CO mass emission rates shall be conducted at least once every 12 months. [District Rule 1081]

Verification: The project owner shall provide records of compliance as part of **Condition AQ-33.**

AQ-58 Prior to operation the project owner shall surrender offsets for S-3636-1-0, 2-0, 3-0, 4-0, and 5-0, for all calendar quarters in the following amounts, at the offset

ratio specified in Rule 2201 (6/15/95 version) Table 1, PM10 – Q1: 58,305 lb, Q2: 58,953 lb, Q3: 59,601 lb, and Q4: ~~59,602~~~~59,604~~ lb; SOx (as SO2) – Q1: 20,905 lb, Q2: 21,137 lb, Q3: 21,369 lb, and Q4: 21,369 lb; NOx (as NO2) – Q1: 80,010 lb, Q2: 80,899 lb, Q3: ~~81,788~~ 81,787 lb, and Q4: 81,788 lb; and VOC – Q1: ~~51,193~~ 51,194 lb, Q2: 51,762 lb, Q3: 52,331 lb, and Q4: ~~52,334~~ 52,332 lb. [District Rule 2201]

Verification: ~~The owner/operator shall submit copies of ERC surrendered to the SJVUAPCD in the totals shown to the CPM prior to or upon startup of the CTGs or cooling tower. No later than 30 days prior to the commencement of operation, the owner/operator shall submit to the CPM copies of ERCs surrendered to the SJVUAPCD in the totals shown.~~

AQ-67 Prior to operation the project owner shall surrender offsets for S-3636-1-~~0~~, 2-~~0~~, 3-~~0~~, 4-~~0~~, and 5-~~0~~, for all calendar quarters in the following amounts, at the offset ratio specified in Rule 2201 (6/15/95 version) Table 1, PM10 – Q1: 58,305 lb, Q2: 58,953 lb, Q3: 59,601 lb, and Q4: ~~59,602~~~~59,604~~ lb; SOx (as SO2) – Q1: 20,905 lb, Q2: 21,137 lb, Q3: 21,369 lb, and Q4: 21,369 lb; NOx (as NO2) – Q1: 80,010 lb, Q2: 80,899 lb, Q3: ~~81,788~~ 81,787 lb, and Q4: 81,788 lb; and VOC – Q1: ~~51,193~~ 51,194 lb, Q2: 51,762 lb, Q3: 52,331 lb, and Q4: ~~52,334~~ 52,332 lb. [District Rule 2201]

Verification: ~~The owner/operator shall submit copies of ERC surrendered to the SJVUAPCD in the totals shown to the CPM no later than 30 days prior to the commencement of operation. prior to or upon startup of the CTGs or cooling tower.~~

AQ-89 The HRSG exhaust duct shall be equipped with a continuously recording emission monitor upstream of the SCR unit for measuring the NOx concentration for the purposes of calculating ammonia slip. Project owner shall check, record, and quantify the calibration drift (CD) at two concentration values at least once daily (approximately 24 hours). The calibration shall be adjusted whenever the daily zero or high-level CD exceeds 5%. If either the zero or high-level CD exceeds 5% for five consecutive daily periods, the analyzer shall be deemed out-of-calibration. If either the zero or high-level CD exceeds 10% during any CD check, analyzer shall be deemed out-of-calibration. If the analyzer is out-of-calibration, the project owner shall take appropriate corrective action and then repeat the CD check. [District Rule 2201]

Verification: The project owner shall make the site available for inspection by representatives of the District, CARB and the Energy Commission.

AQ-90 ERC Certificate Numbers S-1554-2, C- 375-2, C-376-2, N-195-2 (or certificates split from these certificates) shall be used to supply the required NOx offsets, ERC Certificate Number S-1549-1 (or a certificate split from this certificate) shall be used to supply the required VOC offsets and ERC Certificate Number N-270-5 (or a certificate split from this certificate) shall be used to supply the required SOx

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and PM10 offsets, unless a revised offsetting proposal is received and approved by the Energy Commission [District Rule]

Verification: The project owner shall submit copies of the surrendered ERC certificates to the CPM no later than 30 days prior to the commencement of operation.

IT IS SO ORDERED.

Date: December 15, 2004

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

WILLIAM J. KEESE, Chairman