



**SACRAMENTO MUNICIPAL UTILITY DISTRICT FINANCING AUTHORITY**  
P.O. Box 15830, Sacramento, CA 95852-1830

Cosumnes Power Plant

July 20, 2011  
SFA 11-015

Christine Stora  
Compliance Project Manager  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

**Re: Cosumnes Power Plant Project (01-AFC-19C)  
Comments on Staff Analysis of Proposed Modifications  
for Fuel Supply Modification, dated June 20, 2011**

Dear Ms. Stora:

The Sacramento Municipal Utility District Financing Authority (SFA) submits the enclosed comments on the Staff Analysis of Proposed Modifications for Fuel Supply Modification, Cosumnes Power Plant Project (01-AFC-19C), dated June 20, 2011.

If there are any questions, please contact Stu Husband at (916) 732-6246.

Sincerely,

Ross Gould, Superintendent  
Thermal Generation and Gas Pipeline Assets

Enclosure

**DOCKET**

**01-AFC-19C**

DATE July 20 2011

RECD. July 21 2011

**Cosumnes Power Plant  
Petition for Post-Certification  
License Amendment**

(01-AFC-19C)

**Comments on Staff Analysis**

Dated June 20, 2011

Submitted to  
**California Energy Commission**

Submitted by  
**Sacramento Municipal Utility District Financing Authority**

July 2011

The Sacramento Municipal Utility District Financing Authority (SFA) has the following comments on the Staff Analysis of Proposed Modifications for Fuel Supply Modification, dated June 20, 2011, for the Cosumnes Power Plant Project (01-AFC-19C).

Staff Analysis, Pages 1 and 8:

On pages 1 and 8, the Staff Analysis states that the Sacramento Metropolitan Air Quality Management District (SMAQMD) has issued an Authority to Construct (ATC) permit for the requested modifications. At this time, the SMAQMD ATC permits are still in draft form.

Staff Analysis, Page 4, Table 3:

Table 3 lists the facility-wide annual SOx emission limit as 21,920 lb/year in the existing conditions of certification. However, the value in existing Condition of Certification AQ-19 is 21,922 lb/year.

Staff Analysis, Page 8, Table 4:

Table 4 lists the Staff suggested net emission increase in the facility-wide annual PM10 emission limit as 2,380 lb/yr. However, the narrative on page 10 and Table 7 on page 11 list the value as 2,379 lb/yr.

Staff Analysis, Page 12, Condition of Certification AQ-17, Note (d)

Condition of Certification AQ-17 specifies the maximum allowable hourly mass emissions for the combustion gas turbines at Cosumnes Power Plant (CPP). Note (d) to the condition specifies the SOx emission factor and is proposed in the Staff Analysis as follows:

- (d) Based on a turbine ~~SOx emission factor of 0.00071 lb/mmbtu and firing at full capacity~~ **aggregate usage of natural gas and digester gas (8.97515E4 lb/mmbtu)**

The source of this aggregate SOx emission factor is the Sacramento Metropolitan Air Quality Management District (SMAQMD) draft Authority to Construct permit. The proposed aggregate SOx emission factor in Note (d) is based on 2,500 scfm digester gas with balance natural gas consumed in a single gas turbine operating at full capacity. However, use of this aggregate SOx emission factor in CPP's emission tracking system

would result in a calculated exceedance of the “facility” daily maximum allowable SOx mass emissions when both gas turbines are operated at or near their rated heat input capacities on the same calendar day.

To correct this situation, SFA proposes to use discrete SOx emission factors for natural gas and digester gas in combination with heat input rates to each gas turbine when tracking compliance with maximum allowable SOx mass emissions. As such, SFA proposes revisions to Note (d) as follows:

- (d) Based on a turbine SOx emission factor of ~~0.00071 lb/mmbtu and firing at full capacity~~ **aggregate usage of natural gas and 2,500 scfm (92.63 mmbtu/hr) digester gas (4.626577E-3 lb SOx/mmbtu) (8.97515E-4 lb/mmbtu) and 1,772.37 mmbtu/hr natural gas (7.00967E-4 lb SOx/mmbtu)**

SFA provided SMAQMD with essentially the same comment on the draft Authority to Construct permit.

Staff Analysis, Pages 12-13, Conditions of Certification AQ-18 and AQ-19:

Condition of Certification AQ-18 specifies the maximum allowable daily mass emissions and AQ-19 specifies the maximum allowable quarterly and annual mass emissions from CPP, including PM10 emissions from the CPP cooling tower. SFA notes that the Staff’s proposed PM10 emission limits are higher than the maximum allowable PM10 emissions proposed in SFA’s petition and in the SMAQMD draft Authority to Construct permits.

The source of the difference is the PM10 calculation methodology used to analyze increased total dissolved solids (TDS) in the cooling tower water supply. Based on the technical literature, SFA proposed that 67.7 percent of the PM emissions in the cooling tower drift are PM10, whereas Staff conservatively assumed that 100 percent of the PM emissions in the cooling tower drift are PM10. As such, Staff’s estimates of PM10 emissions from the CPP cooling tower are higher than those proposed by SFA, and those higher values are reflected in the proposed Conditions of Certification AQ-18 and AQ-19.

SFA disagrees with the Staff Analysis that SFA’s proposed cooling tower PM10 emission calculation methodology using 67.7 percent PM10 fraction is unjustified and inaccurate. In SFA’s petition and data responses, SFA provided relevant justification, including copies of the technical literature, supporting use of less than 100 percent PM10 fraction from CPP’s cooling tower. The SMAQMD reviewed and accepted SFA’s cooling tower PM calculation methodology using the lower PM10 fraction, which is reflected in their draft Authority to Construct permits. On another proceeding, the California Energy

Commission accepted the use of a cooling tower PM10 fraction less than 100 percent on a post certification license amendment for the Elk Hills Power Project (99-AFC-1C).

That said, SFA accepts the maximum allowable PM10 emissions proposed in Conditions of Certification AQ-18 and AQ-19. Furthermore SFA concurs with Staff's conclusion that the cooling tower PM10 emission increases associated with increased TDS in CPP's cooling water supply will be adequately mitigated in accordance with Condition of Certification AQ-53, resulting in no adverse impact to the environment and compliance with applicable laws, ordinance, regulations, and standards.

Existing Conditions of Certification AQ-32, AQ-33, and AQ-36:

Conditions of Certification AQ-32, AQ-33, and AQ-36 address monitoring systems, record keeping, and compliance testing requirements, respectively. In their draft Authority to Construct permits, the SMAQMD made minor revisions to their versions of these conditions to incorporate the addition of digester gas to the Cosumnes Power Plant fuel supply. SFA requests that the Commission make conforming minor revisions to existing Conditions of Certification AQ-32, AQ-33, and AQ-36 to incorporate the digester gas fuel modification and harmonize with the SMAQMD air permits.