

**AIR QUALITY
MANAGEMENT DISTRICT****STATEMENT OF BASIS
FOR SIGNIFICANT MODIFICATION
OF TITLE V FEDERAL OPERATING PERMIT**

APPLICATION NO.: TV2006-19-03
DATE: July 3, 2012
REVIEWING ENGINEER: Venk Reddy

A. FACILITY INFORMATION:

FACILITY NAME: Cosumnes Power Plant
Sacramento Municipal Utility District Financing Authority

LOCATION: 14295 Clay East Road
Herald, CA 95638

MAILING ADDRESS: P.O. Box 15830
Sacramento, CA 95852

RESPONSIBLE OFFICIAL: Paul Lau, SFA Representative
(916) 732-6252

CONTACT PERSON: Frank Miller, Facility Manager
(209) 748-5179

B. PURPOSE OF THIS STATEMENT OF BASIS:

The Title V Federal Operating Permit is intended to be a document containing only enforceable terms and conditions as well as any additional information, such as the identification of emission units, emission points, emission sources and processes that makes the terms meaningful. 40 CFR Part 70.7(a)(5) requires that each Title V permit have an accompanying "...statement that sets forth the legal and factual basis for the draft permit conditions". The purpose of this Statement of Basis is to satisfy the above requirement by providing pertinent details regarding the permit/application data and permit conditions in a more easily understandable format. This report will also include background narrative and explanations of regulatory decisions made by the reviewer. It should be emphasized that this Statement of Basis, while based on information contained in the permit, is a separate document and is not itself an enforceable term and condition of the permit.

In addition to this Statement of Basis, the information contained in the Statement of Basis and Operating Permit for the first significant modification to this permit (TV2006-19-02) remains applicable to the facility.

The first significant modification (TV2006-19-02) allowed for the introduction of digester gas into the fuel gas stream of the turbines, revised the calculation methodologies for PM10 from the cooling towers, and allowed the addition of a bag house to serve the existing perlite storage silo.

C. PERMIT ACTIONS:

Previous Permit Actions

The following permit actions have occurred since the initial Federal Operating Permit No. 2006-19-01 was issued:

<u>Permit Action</u>	<u>Date Issued</u>	<u>Permit No.</u>
Initial Title V and Title IV Federal Operating Permit	03-10-2008	TV2006-19-01
1st Administrative Amendment	09-03-2008	TV2006-19-01A
2 nd Administrative Amendment	09-10-2009	TV2006-19-01B
1st Significant Modification	11-04-2011	TV2006-19-02
2 nd Significant Modification	XX-XX-2012	TV2006-19-03

Current Permit Action

This 2nd Significant Modification permit to the initial permit will be assigned the following permit number: TV2006-19-03.

The specific changes to the Title V permit are described in Section E below.

D. FACILITY DESCRIPTION:

SFA Cosumnes Power Plant became operational in October 2005. The facility generates electricity only and does not provide steam for use by others. There are two gas turbine generator units:

- a. baseload gas turbine no. 2 with a non-fired heat recovery steam generator (HRSG).
- b. baseload gas turbine no. 3 with a non-fired heat recovery steam generator (HRSG).

The major components of the facility are the combined cycle gas turbines, HRSGs, steam turbine, emission control systems, exhaust stacks, water treatment systems, fuel delivery systems and electrical transmission and interconnection systems.

Each gas turbine combusts natural gas and digester gas only with no emergency use fuel. Each gas turbine operating at or near maximum load, produces up to 170 megawatts of electrical power, 24 hours per day and 365 days per year. The steam produced by the two HRSGs drives a single steam turbine, which produces up to 190 megawatts of electrical power. The total electrical power produced by the facility is approximately 530 MW.

Each gas turbine is equipped with a selective catalytic reduction (SCR) air pollution control system to reduce emissions of nitrogen oxides (NOx). The SCR system reduces emissions to a level that was determined to be the best available control technology (BACT) at the time the facility was approved for construction in 2002. Carbon monoxide (CO) and volatile organic compound (VOC) emissions are reduced by controlling the combustion process in the gas turbines. Particulate matter (PM10) and sulfur oxides (SOx) emissions are reduced by combusting natural gas and digester gas rather than a liquid or solid fuel.

The facility has an eight cell cooling tower with a drift eliminator to reduce PM10 emissions and a dust collector connected to a perlite storage silo. Perlite is used for water filtration at the facility.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

1. Update/Revision of Permit Shield from SMAQMD Rule 413, Section 113

Description of modification requested:

Related documents:

06-2012 Title V permit modification application (Attachment C)

The Sacramento Municipal Utility District Financing Authority's (SFA) Cosumnes Power Plant (CPP) is seeking a review and update of Condition 46 of the Title V operating permit which provides a permit shield to the applicant from SMAQMD Rule 413, Stationary Gas Turbines. The applicant proposes to further address the startup provisions of the rule and the exemption provided in Section 113.

Per SMAQMD Rule 207 Section 307.1 b

1. Specific process units for which a shield is sought;

Two Gaseous Fired Turbines permitted under P/O 16006 & 16007 (currently being modified under A/C 22673 & 22674 respectively.)

2. Reason that a Title V permit shield is sought;

Section 113 of SMAQMD Rule 413 provides an exemption from the 9 PPM NO_x emission standard found in SMAQMD Rule 413 Section 302.1d during gas turbine startup and shutdown periods. Provisions are included specifically for combined cycle gas turbines with a rated output greater than or equal to 160 MW, which is applicable to the 170 MW combined cycle gas turbine generator units at CPP. Section 113 of Rule 413 reads as follows:

113 ***EXEMPTION - STARTUP/SHUTDOWN PERIOD:*** *The provisions of Sections 301 and 302 shall not apply to the period of time for the purpose of startup and shutdown of a gas turbine. For a gas turbine with a rated output greater than or equal to 160 MW, which is part of a combined cycle process, the startup period shall not exceed 4 hours following a shutdown of the associated steam turbine of 72 hours or more, and the startup period shall not exceed 3 hours following a shutdown of the associated steam turbine of between 8 hours and 72 hours. In all other cases, the startup period for a gas turbine shall not exceed 1 hour. The shutdown period for a gas turbine shall not exceed 1 hour.*

Currently the startup/shutdown provisions are referred to in condition B-8 of the Title V permit TV2006-19-02 and reads as follows:

8. Startup, shutdown and short term excursions are defined as follows:
 - A. Startup is defined as the time period commencing with the introduction of fuel to the gas turbine and ending at the time that the 15 minute average NO_x and CO concentrations do not exceed 2.0 ppmvd at 15% O₂ and 4.0 ppmvd at 15% O₂, respectively
 - i. In no case shall the startup time period exceed 180 consecutive minutes.
 - B. Shutdown is defined as the 30 minute time period immediately prior to the

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

1. Update/Revision of Permit Shield from SMAQMD Rule 413, Section 113

- termination of fuel flow to the gas turbine.
- C. Short term excursion is defined as a 15-minute period designated by the owner/operator, that is the direct result of transient load conditions, when the 15 minute average NO_x concentration exceeds 2.0 ppmvd at 15% O₂.
- i. No more than four consecutive 15-minute periods shall be designated as short term excursions.
 - ii. For each gas turbine, no more than 40 15-minute periods/calendar year (10 hours/calendar year) shall be designated as short term excursions.
 - iii. Examples of transient load conditions include, but are not limited to the following:
 - (a) initiation/shutdown of combustion turbine inlet air cooling.
 - (b) rapid combustion turbine load changes.

[Basis: SMAQMD Rules 201 and 202]

The applicant has two gas turbines whose exhaust streams are each connected to an individual heat recovery steam generator. The heat recovery steam generators use the heat of the exhaust of the gas turbines to convert water to steam. The steam produced from each of the heat recovery steam generators is used to drive a single common steam turbine. Due to thermal stress considerations in the gas turbine, HRSG, and steam turbine, large combined cycle plants require longer than one hour to achieve thermal stability. Accelerated wear and damage to primary facility equipment and components will result if equipment manufacturer startup recommendations are not followed. Because of this, the startup provisions in Rule 413 were revised to accommodate this situation for large combined cycle turbines. The startup provisions in Rule 413 was revised to allow a startup period, for gas turbines with a capacity of 160 MW or greater, of four hours if the "steam turbine" has been shut down for 72 hours or more, three hours if the "steam turbine" has been shut down from between eight and 72 hours, and one hour if the "steam turbine" has been shut down for eight hours or less. In developing this language, it was envisioned that a shutdown of the "steam turbine" would include a shutdown of the gas turbine and all other downstream equipment (i.e. HRSG and other associated steam piping). This would be true if the steam turbine was associated with only one gas turbine and HRSG. However, since there is only one common steam turbine shared between the two gas turbines, to meet the provisions of SMAQMD Rule 413 Section 113, the applicant would be required to shut down both gas turbines as well as the steam turbine in order to be afforded a start-up time exemption greater than one hour. Conversely, if the applicant shuts down one gas turbine while the second gas turbine continues operating thus keeping the steam turbine on-line, SMAQMD Rule 413 Section 113 would require the startup time of the gas turbine to be 1 hour, since the "associated steam turbine" was not shut down.

The applicant is requesting a permit shield to accommodate the need for an extended startup period during a cold start situation. To rectify this situation, the term "shutdown of the associated steam turbine" in Rule 413 will be interpreted to include the shutdown of the HRSG and steam piping associated with each gas turbine generator. This will allow the gas

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

1. Update/Revision of Permit Shield from SMAQMD Rule 413, Section 113

turbines at the CPP facility to have a startup period of up to three hours in the case where a combustion turbine and its associated HRSG and steam piping are shutdown from between eight and 72 hours and up to four hours for a shutdown of 72 hours or more, regardless of whether the steam turbine remains operational or is shutdown. Though Rule 413 would allow up to a four hour startup period, a more restrictive permit condition limits the startup period to a maximum of three hours.

Without the requested permit shield, CPP would need to modify the majority of their gas turbine startups which would result in additional wear and thermal stress to their equipment with no corresponding benefit to air quality. For example, a combustion turbine startup with a cold turbine and HRSG (shutdown of greater than 8 hours) that is forced to meet Rule 413's one hour startup period will be purposefully tripped offline when the gas turbine cannot meet the 9 ppm requirement in the one hour startup period due to insufficient heat in the turbine and associated equipment. The turbine will be started once again with no guarantee that the combustion turbine and associated equipment will be sufficiently warmed up to meet the 9 ppm requirement on this second try. This stepwise approach will result in additional startup NOx emissions and will lengthen the period that the combined cycle turbine is not efficiently generating beneficial electrical power to the grid. Another possible operating scenario is to purposefully shutdown both gas turbines and steam turbine for more than eight hours in order to be allowed to utilize the three-hour startup provisions allowed under Rule 413. This again will increase overall startup NOx emissions, increase wear and tear on equipment as a result of coming offline and being restarted, and reduce efficient power production with the need for the utility to schedule replacement power at a greater cost to their customers.

3. Proposed duration of the Title V permit shield.

The duration of the permit shield will be the life of the equipment.

Condition B-9 would be added as follows:

9. For purposes of SMAQMD Rule 413, startup is defined as the time period commencing with the introduction of fuel to the gas turbine and ending at the time that the 15 minute average NOx concentration does not exceed 9.0 ppmvd at 15% O₂.

- i. The startup period shall not exceed 4 hours following a shutdown of the associated steam turbine or associated HRSG and steam piping of greater than 72 hours.**
- ii. The startup period shall not exceed 1 hour following a shutdown of the associated steam turbine or associated HRSG and steam piping between 8 hours and 72 hours.**
- iii. The startup period shall not exceed 1 hour following a shutdown of the associated steam turbine or associated HRSG and steam piping of less than or equal to 8 hours.**

[Basis: SMAQMD Rule 413 and US EPA Title V White Paper Number 2]

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

1. Update/Revision of Permit Shield from SMAQMD Rule 413, Section 113

Condition B-1 will be revised to reflect the 9.0 PPM limit during an event involving the “turbine system” and will be presented as follows.

1. Emissions from the following equipment shall not exceed the following emission limits,.
[Basis: SMAQMD Rule 202]

Pollutant	Maximum Allowable Emissions Gas Turbine No. 2 and Gas Turbine No. 3
VOC	A. 1.4 ppmvd at 15% O ₂ , averaged over any 3 hour period (A)
NO _x	B. 2.0 ppmvd at 15% O ₂ , averaged over any 1 hour period (A) (B) C. 30 ppmvd at 15% O ₂ , averaged over any 1 hour period (C) D. 9.0 ppmvd at 15% O₂ (D)
CO	E. 4.0 ppmvd at 15% O ₂ averaged over any 3 hour period (A)

- (A) **Excluding** periods containing startups or shutdowns as defined in **Condition No. B-8 Gas Turbines**.
(B) **Excluding** periods containing short term excursions as defined in **Condition No. B-8 Gas Turbines**.
(C) **Applicable only** for periods containing short term excursions as defined in **Condition No. B-8 Gas Turbines**.
(D) Excluding the startup period defined in **Condition No. B-9 Gas Turbines**. **Compliance with the 9-ppm NO_x emission standard is determined pursuant to SMAQMD Rule 413, as amended through March 24, 2005.**

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emission Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

1. Update/Revision of Permit Shield from SMAQMD Rule 413, Section 113

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change or clarification of a permit shield does meet the criteria describing a "Significant Modification" to the Title V permit under SMAQMD Rule 207 Section 233.3.

Therefore, the change or clarification of a permit shield is classified as a "Significant Modification" to the Title V permit.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

2. Addition of General Permit Shield

Description:

Related documents:

None.

SMAQMD will add a general permit shield to the Title V permit that will state compliance with the Title V permit shall be deemed compliance with all applicable requirements identified in the Title V permit. This is permitted under SMAQMD Rule 207 Section 307.1 which states as follows

307 **TITLE V PERMIT SHIELD:**

307.1 Except as provided in this Rule, the District may expressly provide in the Title V permit a provision stating that compliance with the conditions of the Title V permit shall be deemed compliance with any applicable requirements as of the date of the Title V permit issuance, provided that:

- a. The Air Pollution Control Officer either:
 1. Includes and specifically identifies such requirements in the Title V permit;
or
 2. Determines in acting on the Title V permit application or revision, in writing, that other requirements specifically identified are not applicable to the stationary source, and the Title V permit includes the determination or a concise summary thereof

Condition 47 of the Title V permit will now include this permit shield.

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emissions Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change or clarification of a permit shield does meet the criteria describing a "Significant Modification" to the Title V permit under SMAQMD Rule 207 Section 233.3.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

2. Addition of General Permit Shield

Therefore, the change or clarification of a permit shield is classified as a "Significant Modification" to the Title V permit.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

3. Update of CAM Conditions

Description:

Related documents:

None

Part 70 was revised when Part 64 was promulgated. One of the changes was to §70.6(c)(5)(iii), which now requires that annual compliance certifications "identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under part 64 of this chapter occurred."

The facility is exempt from CAM requirements because it is subject to NSPS and Acid Rain monitoring requirements.

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emissions Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change or clarification of CAM conditions is considered administrative per SMAQMD Rule 207 Section 202.3. This change will incorporate more frequent reporting.

Therefore, the change or clarification of CAM requirements is classified as an "Administrative Amendment" to the Title V permit.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

4. Change of Responsible Official

Description of modification requested:

Change of the Plant Site Contact

from: Frank Miller
Facility Manager
(209) 748-5179

to: Paul Lau
Authority Representative and AGM, Power Supply & Grid Operations
(916) 732-6252

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emission Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change of Responsible Official does meet the criteria describing an "Administrative Amendment" to the Title V permit under SMAQMD Rule 207 Section 202.2.

Therefore, the change of Responsible Official is classified as an "Administrative Amendment" to the Title V permit.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

5. Change of Permit Language from ROC to VOC

Description of modification requested:

To be consistent with SMAQMD rule language, the word ROC (reactive organic compounds) is being replaced with VOC (volatile organic compounds). The acronym is used interchangeably. Offset credits surrendered by the applicant for ROC are equivalent to VOCs. References not yet updated to VOC in place of ROC in the rules/permits/ERCs and are considered to be VOC.

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emission Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change of permit language is classified as an "Administrative Amendment" to the Title V permit.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

6. Additional Clarification for Source Testing of the Turbines

Description of modification requested:

To be consistent with the permitting language of the local district permit and the Title V permit, the source testing requirement is being revised to include the use of digester gas into the emission source testing. Condition 17 will be revised to include language to include the use of the digester gas during the emission source test.

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emission Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change of permit language is classified as an "Administrative Amendment" to the Title V permit.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

7. Additional Clarification for the Silo Dust Collector

Description of modification requested:

The silo dust collector emission factor was incorrectly stated as 0.02 gr/dscf. The correct emission factor is 0.02 gr/acf. The air flow units are being revised to 585 acfm. This change does not change the calculated emission of the equipment.

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emission Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change of permit language is classified as an "Administrative Amendment" to the Title V permit.

E. DESCRIPTION OF TITLE V PERMIT MODIFICATION (continued):

8. Additional Clarification for the Cooling Towers

Description of modification requested:

The description of the cooling towers incorrectly states that there is a "mist" eliminator. The correct term is a "drift" eliminator. The text of the cooling tower in the facility description will be changed to drift eliminator.

Equipment Modifications:

There are no additions or deletions to the equipment listed in the Title V permit.

Emission Modifications:

There are no changes to the allowable emissions in the Title V permit.

Basis for the Applicable Federally Enforceable Requirements:

SMAQMD Rule 207 Title V - Federal Operating Permit Program

Compliance Status:

The permittee complies with the applicable federally enforceable requirements.

Category of Title V Permit Modification (see categories in Attachment B):

The change of permit language is classified as an "Administrative Amendment" to the Title V permit.

F. APPLICABLE FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS AND EQUIPMENT SPECIFIC REQUIREMENTS:

Except as noted below, the Applicable Federally Enforceable General Requirements and Equipment Specific Requirements will remain the same as those described in the Statement of Basis for the 09-14-2011 Title V permit amendment, and TV2006-19-02. The requirements will not be repeated here (see Title V permit file for Applicable Federally Enforceable General Requirements and Equipment Specific Requirements).

The following Applicable Federally Enforceable Equipment Specific Requirements are those that are modified or added to the permit -

1. General

Modified Condition Nos.: 19D, 43, 44, 45 B-1 - Gas Turbines, B-8 – Gas Turbines, B-2 – Gas Turbines, B-3 – Gas Turbines, B-4 - Gas Turbines, B-12 – Gas Turbines, B-14 – Gas Turbines, B-15 – Gas Turbines, B-17 Gas Turbines
New Condition Nos.: 47, B-9 – Gas Turbines.

Due to the addition of condition B-9 – Gas Turbines, some of the condition cross references have changed as well as numbering in the rest of the section.

G. RECOMMENDATION:

Revise the Title V Federal Operating Permit as described in this Statement of Basis.

See Title V Permit No. TV2006-19-03 for equipment descriptions and permit conditions.

Approved by: _____ Date: _____

ATTACHMENT A

SMAQMD RULES THAT ARE
"APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
FOR COSUMNES POWER PLANT

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	101	General Provisions and Definitions 09/03/1998 adoption	Yes - no related conditions are included in the permit because of general nature of the rule.
●	●	102	Circumvention 11/29/1983 adoption	Yes - no related conditions are included in the permit because of general nature of the rule.
	●	103	Exceptions 11/29/1983 adoption	No - source does not operate the type of equipment described in this rule.
	●	104	General Conformity 11/03/1994 adoption	No - the rule's purpose is to have the SMAQMD review federal conformity findings.
●	●	105	Emission Statement 09/05/1996 adoption	Yes - related conditions are included in the permit..
		107	Alternative Compliance	No - it is not a SIP approved rule.
●		108	Minor Violations	No - it is not a SIP approved rule.
●	●	201	General Permit Requirements 11/20/1984 adoption	Yes - no related conditions are included in the permit because of the general nature of the rule.
●		202	New Source Review	Yes - related conditions are included in the permit.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		203	Prevention of Significant Deterioration	No - it is not a SIP approved rule.
		204	Emission Reduction Credits	No - it is not a SIP approved rule.
		205	Community Bank and Priority Reserve Bank	No - it is not a SIP approved rule.
		206	Mobile and Transportation Source Emission Reduction Credits	No - it is not a SIP approved rule.
●	*	207	Title V Federal Operating Permit Program	Yes - related conditions are included in the permit. (*Although this is not a SIP approved rule it is applicable because it is part of the approved Title V Permit Program.)
		208	Acid Rain	No - it is not a SIP approved rule.
		209	Limiting Potential to Emit	No - it is not a SIP approved rule.
		210	Synthetic Minor Source Status	No - it is not a SIP approved rule.
		211	MACT at Major Sources of Hazardous Air Pollutants	No - it is not a SIP approved rule.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		213	Federal Major Modifications	No - it is not a SIP approved rule but the requirements within it are part of EPA's NSR reform and thus federally applicable
●	●	214	Federal New Source Review	Yes - related conditions are included in the permit.
		215	Agricultural Permit Requirements and New Agricultural Permit Review	No - it is not a SIP approved rule.
●	*	301	Stationary Source Permit Fees	Yes - related conditions are included in the permit. (*Although this is not a SIP approved rule it is applicable because it is part of the approved Title V Permit Program.)
●		302	Hearing Board Fees	No - it is not a SIP approved rule.
		303	Agricultural Burning Permit Fees	No - it is not a SIP approved rule.
●		304	Plan Fees	No - it is not a SIP approved rule.
●		305	Environmental Document Preparation and Processing Fees	No - it is not a SIP approved rule.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		306	Air Toxics Fees	No - it is not a SIP approved rule.
●	●	307	Clean Air Act Fees 09/26/2002 adoption	Yes - no related conditions are included in the permit because of limited applicability.
		310	Permit Fees - Agricultural Source	No - it is not a SIP approved rule
●	●	401	Ringelmann Chart 04/05/1983 adoption	Yes - related conditions are included in the permit.
●		402	Nuisance	No - it is not a SIP approved rule.
●	●	403	Fugitive Dust 11/29/1983 adoption	Yes - related conditions are included in the permit.
●	●	404	Particulate Matter 11/20/1984 adoption	Yes - related conditions are included in the permit.
	●	405	Dust and Condensed Fumes 11/29/1983 adoption	No - the source does not operate such a process.
●	●	406	Specific Contaminants 11/29/1983 adoption	Yes - related conditions are included in the permit.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●	●	407	Open Burning 11/29/1983 adoption	Yes - no related conditions are included in the permit.
	●	408	Incinerator Burning 11/29/1983 adoption	No - the source does not operate an incinerator.
	●	409	Orchard Heaters 11/29/1983 adoption	No - the source does not operate orchard heaters.
	●	410	Reduction of Animal Matter 11/29/1983 adoption	No - the source does not operate equipment for the reduction of animal matter.
	●	411	Boiler NOx	No - the source does not operate a boiler subject to this rule.
	●	412	Stationary IC Engines at Major Stationary Sources of NOx 06/01/1995 adoption	No - the source does not operate an IC engine.
●	●	413	Stationary Gas Turbines 03/24/2005 adoption	Yes - related conditions are included in the permit. (see discussion of streamlining applicable requirements and permit shield)

SMAQMD RULES THAT ARE
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 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
	●	414	Natural Gas Fired Water Heaters 08/01/1996 adoption	No - no related conditions are included in the permit because it applies only to sellers and installers.
		417	Wood Burning Appliances	No - it is not a SIP approved rule.
●	●	420	Sulfur Content of Fuels 11/29/1983 adoption	Yes - related conditions are included in the permit.
●	●	441	Organic Solvents 11/29/1983 adoption	Yes - no related conditions are included in the permit because of limited applicability.
●	●	442	Architectural Coatings 09/05/1996 adoption	Yes - related conditions are included in the permit.
	●	443	Leaks from Synthetic Organic Chemical and Polymer Manufacturing 09/05/1996 adoption	No - the source does not operate synthetic organic chemical or polymer manufacturing equipment.
	●	444	Petroleum Solvent Dry Cleaning 08/13/1981 adoption (U.S. EPA lists 11/29/1983 adoption incorrectly)	No - the source does not operate petroleum solvent dry cleaning equipment.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		446	Storage of Petroleum Products 11/16/1993 adoption	No - the source does not store petroleum products.
●		447	Organic Liquid Loading 04/02/1998 adoption	No - the source does not operate organic liquid loading equipment.
●		448	Gasoline Transfer into Stationary Storage Containers 02/02/1995 adoption	No - the source does not operate gasoline transfer equipment.
●		449	Transfer of Gasoline into Vehicle Fuel Tanks 09/26/2002 adoption	No - the source does not operate gasoline transfer equipment.
●		450	Graphic Arts Operations 10-24-2008 adoption	No - the source does not operate a graphic arts process as defined in the rule.
●	●	451	Surface Coating of Miscellaneous Metal Parts and Products	Yes - no related conditions are included in the permit because of limited applicability.
●		452	Can Coating 09/05/1996 adoption	No - the source does not operate a can coating process.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
●		453	Cutback and Emulsified Asphalt Paving Materials 11/29/1983 adoption	No - the source does not manufacture or apply cutback or emulsified asphalt paving materials.
●		454	Degreasing Operations 04/03/1997 adoption	No - the source does not operate degreasers subject to this rule.
●		455	Pharmaceuticals Manufacturing 11/29/1983 adoption	No - the source does not manufacture pharmaceuticals.
●		456	Aerospace Coating Operations 09/05/1996 adoption	No - the source does not coat aerospace parts.
		457	Methanol Compatible Tanks	No - it is not a SIP approved rule.
●		458	Large Commercial Bread Bakeries 09/05/1996 adoption	No - the source does not produce bread products.
●		459	Automotive, Truck and Heavy Equipment Refinishing Operations 10/02/1997 adoption	No - the source does not refinish vehicles.
●		460	Adhesives and Sealants	No - it is not a SIP approved rule.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
		463	Wood Products Coatings	No - it is not a SIP approved rule.
	●	464	Organic Chemical Manufacturing Operations 07/23/1998 adoption	No - the source does not manufacture organic chemicals.
	●	465	Polyester Resin Operations	No - it is not a SIP approved rule.
●	●	466	Solvent Cleaning	Yes - related conditions are included in the permit.
		485	Municipal Landfill Gas	No - it is not a SIP approved rule.
		496	Large Confined Animal Facilities	No - it is not a SIP approved rule.
	●	501	Agricultural Burning 11/29/1983 adoption	No - the source does not conduct agricultural burning.
●		601	Procedure before the Hearing Board	No - it is not a SIP approved rule.
●		602	Breakdown Conditions: Emergency Variance	No - it is not a SIP approved rule.
●	●	701	Emergency Episode Plan 05/27/1999 adoption	Yes - no related conditions are included in the permit because of limited applicability.
		801	New Source Performance Standards	No - it is not a SIP approved rule. Note: there are equivalent federal regulations.

SMAQMD RULES THAT ARE
 "APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS"
 FOR COSUMNES POWER PLANT

Rule is Applicable	Rule is SIP Approved	Rule No.	Rule Title	Is the Rule an "Applicable Federally Enforceable Requirement"?
		901	General Requirements	No - it is not a SIP approved rule. Note: there are equivalent federal regulations.
		902	Asbestos	No - it is not a SIP approved rule. Note: there is an equivalent federal regulation.
		903	Mercury	No - it is not a SIP approved rule. Note: there is an equivalent federal regulation.
		904	Airborne Toxic Control Measures	No - it is not a SIP approved rule. <i>Note: there are equivalent federal regulations for some of the listed ATCMs.</i>
		1002	Fleet Inventory	No - it is not a SIP approved rule.
		1003	Reduced-Emission Fleet Vehicles/Alternative Fuels	No - it is not a SIP approved rule.
		1005	Mobile Source Emission Reduction Credits/Banking	No - it is not a SIP approved rule.
		1006	Transportation Conformity	No - it is not a SIP approved rule.

ATTACHMENT B

Categories of Title V Permit Modifications in SMAQMD Rule 207

Category of Title V Permit Modification:

The following are the categories of Title V permit modifications as defined in SMAQMD Rule 207. The category of the Title V permit modification is important because it specifies the public and U.S. EPA noticing requirements.

Category: "Administrative" Title V permit modification

SMAQMD Rule 207 Section 202 defines a Title V permit modification as an "Administrative" Title V permit amendment if any of the following conditions are met:

- 202.1 Corrects typographical errors.
- 202.2 Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the stationary source;
- 202.3 Requires more frequent monitoring or reporting by the responsible official of the stationary source.
- 202.4 Allows for change in ownership or operational control of a source where the Air Pollution Control Officer determines that no other change in the Title V permit is necessary, provided that a written agreement containing a specific date for transfer of Title V permit responsibility, coverage, and liability between the current and new responsible official has been submitted to the Air Pollution Control Officer.
- 202.5 Incorporates into the Title V permit the conditions of a preconstruction permit that is issued to an existing Title V stationary source through Rule 202, NEW SOURCE REVIEW and meeting the procedural requirements specified in Sections 401 through 408 of this Rule and the compliance requirements in Section 305 of this Rule.

Category: "Minor" Title V permit modification

SMAQMD Rule 207 Section 220 defines a Title V permit modification as an "Minor" Title V permit amendment if all of the following conditions are met:

- 220.1 Is not a significant Title V permit modification.
- 220.2 Is not an administrative Title V permit amendment.
- 220.3 Does not violate any applicable requirements which are federally enforceable.

Category: "Significant" Title V permit modification

SMAQMD Rule 207 Section 233 defines a Title V permit modification as a "Significant" Title V permit modification if any of the following conditions are met:

- 233.1 Involves any modification under Section 112(g) of Title I (42 U.S.C. Section 412(g) of the Federal Clean Air Act, or under EPA regulations promulgated pursuant to Title I of

- the Federal Clean Air Act, including 40 CFR Part 51, 52, 60, 61 and 63.
- 233.2 Involves relaxation or significant change to existing monitoring, reporting or recordkeeping requirements in the Title V permit.
- 233.3 Involves case-by-case determination of an emission limit or other standard.
- 233.4 Involves a stationary source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.
- 233.5 Attempts to set or change a Title V permit term or condition which allows a source to avoid an applicable federal requirement including:
- a. A federally enforceable emission cap pursuant to Title I of the Federal Clean Air Act, or
 - b. An alternative HAP emission limit pursuant to Section 112(i)(5) (Section 42 U.S.C. Section 7412(j)(5) of the Federal Clean Air Act.
- 233.6 Involves a modification to a major stationary source which results in an increase in the potential to emit greater than: 25 tons per year of nitrogen oxides, 25 tons per year of volatile organic compounds, 40 tons per year of sulfur dioxide, 100 tons per year of carbon monoxide, or 15 tons per year of PM10 when aggregated with all other increases in potential to emit over the period of five consecutive years before the application for modification, and including the calendar year of the most recent application.

ATTACHMENT C

Application for Title V Permit Modification

Statement of Basis
Title V Federal Operating Permit 2nd Significant Modification
Cosumnes Power Plant
Title V Permit No. TV2006-19-03

July 3, 2012
Attachment D Page 1

Statement of Basis
Title V Federal Operating Permit 2nd Significant Modification
Cosumnes Power Plant
Title V Permit No. TV2006-19-03

July 3, 2012
Attachment E Page 1