

**STATEMENT OF BASIS
Title V Permit Renewal**

Facility Name: Otay Mesa Energy Center, LLC
Title V App. Number: APCD2018-APP-005651
Title V Permit Number: APCD2010-TVP-00025
Facility ID: APCD1999-SITE-10882
Equipment Address: 606 De La Fuente Court, San Diego, CA 92154
Facility Contact: Dale Donmoyer
Contact Phone: (619) 210-1207
Permit Engineer: Camqui Nguyen
Date:

X

Nicholas Horres
Senior Engineer

Senior Engineer:

1.0 Type of Action and Summary of Changes

This application was submitted to renew Title V Permit APCD2010-TVP-00025.

2.0 History of Title V Applications and Modifications/Applications since previous Renewal:

The renewal application was received on 12/14/2018. This renewal application was submitted at least 12 months but not more than 18 months prior to permit expiration, in accordance with Rule 1410. Therefore, the renewal application is timely.

The following table summarizes all previous applications at this facility affecting the Title V permit.

Title V Application History Since Initial Title V Permit				
Application Number	Title V Permit Number	Application Description	Equipment	Outcome
APCD2010-APP-001247	APCD2010-TVP-00025	Initial Title V permit application	Combustion turbine	Approved
APCD2018-APP-005554	APCD2010-TVP-00025	Change contact name	Combustion turbines	Included in this action
APCD2022-APP-007511	APCD2010-TVP-00025	Condition Change (expected to be minor mod)	Combustion turbines	Pending

Since the previous renewal, the District has received applications from this facility as shown in the following table. These applications are submitted under the District's local permitting program and typically are associated with a corresponding Title V application to implement the same change to the Title V permit once the modified local permit is issued (see appendix A of the permit).

Application History for facility since most recent renewal				
Application Number	Affected Permit to Operate(s)	Description	Affected Emission Units	Outcome
ACPD2013-APP-002576	APCD2011-PTO-000947/ APCD2011-PTO-000948	Advanced Gas Path modification	Combustion turbines	Determined exempt as maintenance
APCD2022-APP-007510	APCD2011-PTO-000947/ APCD2011-PTO-000948	Condition Change	Combustion turbines	Pending

In addition to the above applications, the facility has also applied for and obtained emission reduction credits (ERCs) from transfer applications. These credits may be used at a future date in permitting actions in accordance with District rules.

ERC applications for facility since most recent renewal		
Application Number	Description	Outcome
APCD2020-ERC-00110	Transfer of ERCs	Approved

APCD2021-ERC-00111	Transfer of ERCs	Approved
APCD2021-ERC-00112	Transfer of ERCs	Approved

3.0 **Facility Description**

This facility operates equipment for electric power generation and associated services.

Permit Number	Equipment Description
APCD2011-PTO-000947	Power Station #1 consisting of: one Gas Turbine (171.7 MW nominal): General Electric, Model 7FA, SIN 298093, with DLN 2.6 low-NOx burners, natural gas fired, 1767.8 MMBtu/hr nominal heat input (HHV), with a heat recovery steam generator (HRSG) with a 388.1 MMBtu/hr duct burner, Nooter-Eriksen, vented to a selective catalytic reduction (SCR) system, equipped with a continuous emission monitoring system (CEMS); common to both power stations are a steam turbine generator (277 MW nominal), Siemens-Westinghouse, Model KN; two air-cooled condensers, GEA, 295'L x 123'W x 76'H; a wet surface air cooler, Niagara Blower Co., Model RWC 48240-2F16; equipped with GE OpFlex control system software.
APCD2011-PTO-000948	Power Station #2 consisting of: one Gas Turbine (171.7 MW nominal): General Electric, Model 7FA, SIN 298094, with DLN 2.6 low-NOx burners, natural gas fired, 1767.8 MMBtu/hr nominal heat input (HHV), with a heat recovery steam generator (HRSG) with a 388.1 MMBtu/hr duct burner, Nooter-Eriksen, vented to a selective catalytic reduction (SCR) system, equipped with a continuous emission monitoring system (CEMS); common to both power stations are a steam turbine generator (277 MW nominal), Siemens-Westinghouse, Model KN; two air-cooled condensers, GEA, 295'L x 123'W x 76'H; a wet surface air cooler, Niagara Blower Co., Model RWC 48240-2F16; equipped with GE OpFlex control system software.

4.0 **Title V Applicability & Acid Rain**

The Title V regulation applies to any stationary source that is a major stationary source as defined in Rule 1401(c)(26) or is subject to the acid rain provisions of Title IV of the federal Clean Air Act (CAA). Otay Mesa Energy Center is a major source for NOx. The facility is also subject to the acid rain program under Title IV of the federal Clean Air Act (CAA) which requires Title V permitting pursuant to 40 CFR § 70.3.

5.0 **Potential to Emit and Actual Emissions**

The following table shows the actual and potential emissions for the facility that are used to establish the major source status for Title V. For all pollutants, emissions are below major source thresholds.

Title V Major Source Determination				
Tons per Year:				
Pollutant	Thresholds	Facility Actual Emissions	Facility Potential to Emit	Major Source
Highest Federal HAP	10	0.08		No
Sum of Federal HAPs	25	0.23		No
NO _x	25*	43.1	100	Yes*
VOC	25*	3.4	47.5	Yes*
PM ₁₀	100	16.7	91.4	No
SO _x	100	0.4	12.6	No
CO	100	127.4	316	Yes

NO_x, CO, VOC and PM₁₀ emissions are based on permit emission limits, SO_x emission is based on sulfur content of 0.75 gr Sulfur per 100 scft natural gas.

*District rules currently define the major source threshold as 100 tpy for NO_x and VOC; however, due to redesignation as Severe ozone nonattainment, the District has submitted a revised rule to lower the thresholds to 25 tpy for these pollutants. The revised thresholds will become effective on EPA approval which is expected soon after the permit is finalized.

6.0 40 CFR Part 64 CAM (Compliance Assurance Monitoring)

Pursuant to New Source Review (NSR) the turbines are required to operate and maintain the CEMS to measure NO_x, CO, and NH₃, which is also required by District Rules 69.3.1, and 40 CFR 60 Subpart KKKK. Monitoring and testing are required in the existing District permits. For the related Title V permit, additional recordkeeping and reporting are required pursuant to District Rule 1421. Compliance Assurance Monitoring (CAM) under 40 CFR Part 64 was considered for this review. None of the emission units fulfill the criteria for applicability under Part 64. Additionally, the turbines are equipped with continuous emissions monitoring systems (CEMS), which also excludes them from being subject to CAM under § 64.2 (b)(vi).

7.0 Applicable Requirements

This section summarizes the major types of requirements for this facility. These types of requirements include facility-wide, and permit specific applicable requirements. Additionally, for each emission unit, the rule that results in the primary emission limitation is listed.

General Permit Program Applicable Requirements

Regulation	Rule Citation	Title
SDCAPCD Reg. II	10	Authority to Construct Required
SDCAPCD Reg. II	19	Provision of Sampling & Testing Facilities
SDCAPCD Reg. II	19.3	Emission Information
SDCAPCD Reg. II	20, 20.1 , 20.3	New Source Review (NSR)
SDCAPCD Reg. II	21	Permit Conditions
SDCAPCD Reg. II	24	Temporary Permit to Operate
SDCAPCD Reg. II	25	Appeals
SDCAPCD Reg. IV	60	Circumvention
SDCAPCD Reg. IV	71	Abrasive Blasting
SDCAPCD Reg. V	98	Breakdown Conditions: Emergency Variance
SDCAPCD Reg. VI	101	Burning Control
SDCAPCD Reg. VIII	131	Stationary Source Curtailment Plan
40 CFR Part 68	Part 68	Risk Management Plan (Ammonia Storage)
40 CFR Part 82	Subpart B	Servicing of Motor Vehicle Air Conditioners
40 CFR Part 82	Subpart F	Recycling and Emission Reducing
40 CFR Part 89	Part 89	VOC Standards for Consumer Products

Facility-wide/Other Prohibitory & Misc. Requirements

Regulation	Rule Citation	Title
SDCAPCD Reg. II	19.2	Continuous Emission Monitoring Systems
SDCAPCD Reg. IV	50	Visible Emissions
SDCAPCD Reg. IV	51	Nuisance
SDCAPCD Reg. IV	52	Particulate Matter
SDCAPCD Reg. IV	53	Specific Contaminants
SDCAPCD Reg. IV	62	Sulfur Content of Fuels
SDCAPCD Reg. IV	67.0.1	Architectural Coatings
SDCAPCD Reg. IV	67.17	Storage of Organic Materials Containing VOC
SDCAPCD Reg. IV	71	Abrasive Blasting
SDCAPCD Reg. XII	1200	Toxic Air Contaminants – New Source Review
SDCAPCD Reg. XII	1206*	Asbestos Removal, Renovation, and Demolition
40 CFR Part 60	Subpart A	NSPS General Provisions
40 CFR Part 63	Subpart A	NESHAP General Provisions
40 CFR Part 61	Subpart M*	NESHAP - Asbestos
40 CFR Part 73	Part 73	Sulfur Dioxide Allowance System
40 CFR Part 74	Part 74	Acid Rain

* The District issued its own Asbestos Rule 1206 intended to be as stringent as Subpart M. The facility is subject to the most stringent requirements of either rule, which at the time of this report is ensured by compliance with Rule 1206.

Permit Specific Applicable Requirements:

SDAPCD Permit No.	Title V Permit No.	Permit Description	Applicable Rules
APCD2011-PTO-000947	APCD2010-TVP-00025	Power Station #1 consisting of: one Gas Turbine (171.7 MW nominal): General Electric, Model 7FA, SIN 298093, with DLN 2.6 low-NOx burners, natural gas fired, 1767.8 MMBtu/hr nominal heat input (HHV), with a heat recovery steam generator (HRSG) with a 388.1 MMBtu/hr duct burner, Nooter-Eriksen, vented to a selective catalytic reduction (SCR) system, equipped with a continuous emission monitoring system (CEMS); common to both power stations are a steam turbine generator (277 MW nominal), Siemens-Westinghouse, Model KN; two air-cooled condensers, GEA, 295'L x 123'W x 76'H; a wet surface air cooler, Niagara Blower Co., Model RWC 48240-2F16; equipped with GE OpFlex control system software.	50 51 53 68 69.3.1 20.3 1200 40 CFR-Part 60_Subpart K K K K
APCD2011-PTO-000948	APCD2010-TVP-00025	Power Station #2 consisting of: one Gas Turbine (171.7 MW nominal): General Electric, Model 7FA, SIN 298094, with DLN 2.6 low-NOx burners, natural gas fired, 1767.8 MMBtu/hr nominal heat input (HHV), with a heat recovery steam generator (HRSG) with a 388.1 MMBtu/hr duct burner, Nooter-Eriksen, vented to a selective catalytic reduction (SCR) system, equipped with a continuous emission monitoring system (CEMS); common to both power stations are a steam turbine generator (277 MW nominal), Siemens-Westinghouse, Model KN; two air-cooled condensers, GEA, 295'L x 123'W x 76'H; a wet surface air cooler, Niagara Blower Co., Model RWC 48240-2F16; equipped with GE OpFlex control system software.	50 51 53 68 69.3.1 20.3 1200 40 CFR-Part 60_Subpart K K K K

Emission Limitations

Combustion Turbines	
Pollutant	Primary Limiting Regulations
NOx	20.3
SO2	53, 62
VOC	20.3
CO	20.3
PM10	20.3
Toxic Pollutants	1200

The permit emission limits for NOx, CO, VOC, PM10 for the combustion turbines reflect BACT requirements that the combustion turbines must meet to comply with Rule 20.3 of New Source Review.

8.0 Updates to the Title V Permit Incorporated into this Action

Aside from administrative changes to contact information, there are not any updates to the Title V Permit to be incorporated into this action.

9.0 Multiple Applicable Requirement Streamlining

The applicant does not request any multiple applicable requirement streamlining for this renewal application.

Permit conditions do incorporate some streamlining to improve readability and reduce confusion between similar requirements. Fuel sulfur limits and recordkeeping requirements of NSPS GG and District Rule 62 have been streamlined into a single condition for each gas turbine. Additionally, monitoring and recordkeeping conditions for District rules 69.3.1 and Rule 20.3 have been streamlined together and utilize the same test methods and CEMS monitoring as required by Part 75 to determine compliance with requirements such as the NOx BACT limit.

10. Permit Shield

In accordance with District Rule 1410(p) and 40 CFR Part 70.6(f), a permit can include a provision precluding the permittee from enforcement action for certain requirements that either do not apply or that are superseded by another requirement to which the permittee is subject, as stated in the permit. A permit shield, if granted, is limited as given by the aforementioned regulations.

The applicant does not request any permit shield for this permit renewal application.

11. Permit Process-Public Notification and Notice to EPA and Affected States

Before issuing the final permit, The District will provide the opportunity for review by EPA and affected states and a public notice period. Notice will be provided to the EPA electronically through the EPS and will be sent electronically to affected states and tribes. The public notice and associated documents will be provided on our website and the public notice will be published in a newspaper. The District will incorporate any suggested changes made by EPA.

12. Recommendations

The facility is expected to comply with all applicable requirements including those cited in the current District permit as well as those under District Rule 1401 and 40 CFR Part 70. Therefore, the recommendation of this report is for the subject renewal Title V permit to be issued following public notice, EPA review, and response to any comments.

13. Attachments

The following are attached:

- Application Package
- Draft Permit
- Public Notice

