

**STATEMENT OF BASIS**  
**Title V Permit Renewal**

**Facility Name:** El Cajon Energy LLC  
**Title V App. Number:** APCD2021-APP-007115  
**Title V Permit Number:** APCD2013-TVP-00036  
**Facility ID:** APCD2009-SITE-06554  
**Equipment Address:** 222 N. Johnson Ave, El Cajon, CA 92020  
**Facility Contact:** Stephen Cobbe  
**Contact Phone:** (916) 447-5171  
**Permit Engineer:** Allison Weller/Liliana Jaime  
**Date:** 05/15/2024

5/15/2024

**X** Nicholas Horres

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Nicholas Horres  
Senior Engineer  
Signed by: NHorres

**Senior Engineer:**

**1.0 Type of Action and Summary of Changes**

This application is for the renewal of the Title V operating permit (APCD2013-TVP-00036) including a minor modification to the permitted turbine. The minor modification included in this renewal modified the turbine's permit conditions to include provisions for the installation and operation of replacement turbines (of exact make and model) in the event that equipment is shutdown for repairs.

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

The renewal application was received on January 5, 2022. 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 APCD2013-TVP-00036.

<b>Title V Application History Since Initial Title V Permit</b>			
<b>Application Number</b>	<b>Application Description</b>	<b>Equipment</b>	<b>Outcome</b>
APCD2011-APP-001657	Initial Title V permit application	Combustion Turbine	Approved
APCD2017-APP-005202	Permit Renewal	Combustion Turbine	Approved
APCD2019-APP-005685	Minor Modification (associated with application APCD2015-APP-003978)	Combustion Turbine	Pending
APCD2022-APP-007115	Permit Renewal (this application)	Combustion Turbine	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).

<b>Application History for facility since most recent renewal</b>				
<b>Application Number</b>	<b>Affected Permit to Operate</b>	<b>Description</b>	<b>Equipment</b>	<b>Outcome</b>
APCD2015-APP-003978	APCD2011-PTO-000946	Modification – condition change	Combustion Turbine	Approved – Included in 2023 renewal
APCD2019-APP-005686	APCD2011-PTO-000946	Modification – to install perforation plates and flow strengtheners in turbine stack. No change in emissions or requirements.	SCR & AIG	Open – no CCN, not included on 2023 renewal

### 3.0 Facility Description

El Cajon Energy LLC is a peaker plant facility which generates power to support the grid during times of high electricity demand. Cal ISO determines when this equipment is needed.

<b>Permit Number</b>	<b>Equipment Description</b>
APCD2011-PTO-000946	Gas Turbine Engine Generator: General Electric, Model LM-6000PC Sprint, 49.95 MW capacity, 472.5 MMBtu/hr (HHV) heat input, natural gas-fired, simple-cycle, S/N 191-619 with an integrated water injection system; a Cormetech selective catalytic reduction ("SCR") system, including an automatic ammonia injection control system; an oxidation catalyst; a Continuous Emission Monitoring System ("CEMS") for NOx, CO and O2; and a data acquisition and handling system ("DAS"); two (2)

	Cambridge Engineering Industrial Process Heaters, Model S1600, rated at 1.375 MMBtu/hr each.
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#### 4.0 Compliance History

The following table summarizes all relevant compliance violations at this facility affecting the Title V permit emission units in recent years:

<b>Title V Application History Since Initial Title V Permit</b>			
<b>Notice of Violation Record</b>	<b>Affected Permit to Operate</b>	<b>Violation Description</b>	<b>Outcome</b>
APCD2018-NOV-000787	APCD2011-PTO-000946	Use of incorrect formula for calculating ammonia slip during source test	Formula was corrected and updated value showed no emission exceedance
APCD2019-NOV-000409	APCD2011-PTO-000946	Exceeded startup NOx emission limit due to failure of water injection system	Cause was investigated and no repeat failures occurred
APCD2021-NOV-000534	APCD2011-PTO-000946	Exceedance of NOx emission limit by minor amount during a single hour	Operator procedures revised to better respond to this type of event
APCD2023-NOV-000373	APCD2011-PTO-000946	Failure to conduct RATA within timeframe due to increase in dispatches during heat wave and inavailability of contractor to perform testing	RATA was performed and passed shortly after exceeding allowable number of operating hours with no test

All violations listed were one-time issues that were properly investigated and actions taken to prevent same issue in the future. Currently there are no unresolved violations, hearing board variances, or abatement orders.

#### 5.0 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).

El Cajon Energy LLC's potential to emit is well below all major source thresholds, but it is subject to the acid rain provisions under Title IV of the Federal CAA as given at 40 Code of Federal Regulation (CFR) § 72.6(a) and District Rule 1412. Under the acid rain program, the facility is subject to Title V permitting pursuant to District Rule 1401 and 40 CFR § 70.3(a)(4).

The modification included in this renewal qualifies as a minor modification of the Title V permit because it allows for the alteration of the physical characteristics of the equipment (replacement with identical turbine) and therefore required an Authority to Construct but did not trigger any requirements that must be satisfied through a significant modification. The modification did not result in violations of applicable requirements, relaxation of requirements, affecting a MACT standard, nor avoiding of federal NSR rules.

#### 6.0 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	0.17	4.19E-02	No
Sum of Federal HAPs	25	0.20	8.02E-02	No
NOx	25	0.76	7.4	No
VOC	25	0.01	2.5	No
PM10	100	0.58	4.2	No
SOx	100	0.02	1.2	No
CO	100	0.24	14.1	No

- Actual emissions are from the District’s latest approved emissions inventory (CEI 2021).
- HAP potential emissions are based on standard EPA emission factors for natural gas fired stationary gas turbines and assumed 90% control efficiency from oxidation catalyst
- Criteria pollutant potential emissions are based on permit condition limits for PTE

**7.0 40 CFR Part 64 CAM (Compliance Assurance Monitoring)**

Pursuant to New Source Review (NSR) the turbine is required to operate and maintain the CEMS to measure NOx and CO, 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 permit. For the related Title V permit, additional recordkeeping and reporting are required pursuant to District Rule 1421. The emission unit has an uncontrolled PTE for NOx in excess of the major source thresholds. For this reason, Compliance Assurance Monitoring (CAM) under 40 CFR Part 64 was considered for this review.

§ 64.2 (b)(vi) specifies that the requirements of Part 64 shall not apply to emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in § 64.1. Both the District and Federal operating permit require the turbine to be equipped with Continuous Emissions Monitoring Systems (CEMS), which meets the definition for a continuous compliance determination method, as it is used to determine compliance with an emission limitation or standard on a continuous basis and provides the data in units of the standard or is correlated directly with the compliance limit. Therefore, the emission unit is exempt from the requirements of 40 CFR 64, pursuant to § 64.2 (b)(vi).

**8.0 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

<b>Regulation</b>	<b>Rule Citation</b>	<b>Title</b>
SDCAPCD Reg. II	10(a) 10(b)	Permits Required – (a) Authority to Construct Permits Required – (b) Permit to Operate
SDCAPCD Reg. II	19	Provision of Sampling & Testing Facilities
SDCAPCD Reg. II	19.3	Emission Information
SDCAPCD Reg. II	20	Standards for Granting Permits
SDCAPCD Reg. II	20.1, 20.2	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. 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

## Facility-wide Prohibitory Requirements

<b>Regulation</b>	<b>Rule Citation</b>	<b>Title</b>
SDAPCD Reg. II	19.2	Continuous Emission Monitoring Requirements
SDCAPCD Reg. IV	50	Visible Emissions
SDCAPCD Reg. IV	51	Nuisance
SDCAPCD Reg. IV	53	Specific Contaminants
SDCAPCD Reg. IV	62	Sulfur Content of Fuels
SDCAPCD Reg. XII	1200	Toxic Air Contaminants – New Source Review
SDCAPCD Reg. XII	1206*	Asbestos Removal, Renovation, and Demolition
SDCAPCD Reg. X	Subpart A	NSPS - General Provisions
SDCAPCD Reg. XI	Subpart A	NESHAPS - General Provisions
SDCAPCD Reg. XI	Subpart M*	NESHAPS – Asbestos
40 CFR Part 72	Part 72	Acid Rain
40 CFR Part 73	Part 73	Sulfur Dioxide Allowance System

\*Breakdowns/variances are not recognized by EPA and cannot grant relief from federal enforcement of requirements

\* 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:

<b>SDAPCD Permit No.</b>	<b>Title V Permit No.</b>	<b>Permit Description</b>	<b>Applicable Rules</b>
APCD2011-PTO-000946	APCD2013-TVP-00036	Gas Turbine Engine Generator: General Electric, Model LM-6000PC Sprint, 49.95 MW capacity, 472.5 MMBtu/hr (HHV) heat input, natural gas-fired, simple-cycle, S/N 191-619 with an integrated water injection system; a Cormetech selective catalytic reduction ("SCR") system, including an automatic ammonia injection control system; an oxidation catalyst; a Continuous Emission Monitoring System ("CEMS") for NOx, CO and O2; and a data acquisition and handling system ("DAS"); two (2) Cambridge Engineering Industrial Process Heaters, Model S1600, rated at 1.375 MMBtu/hr each.	19 20.3 21 62 69.3* 69.3.1* 98 1200 1421 40 CFR-Part 60 Subpart K K K K 40 CFR Part 75

\*Rule 69.3 has been repealed by the District and replaced with an amended version of Rule 69.4.1 which incorporates the same requirements. However, EPA has not approved Rule 69.3.1 into the SIP due to concerns with startup and shutdown exemptions, so both rules are currently applicable to this turbine.

Emission Limitations

<b>Combustion Turbines</b>	
<b>Pollutant</b>	<b>Primary Limiting Regulations</b>
NOx	Rule 20.3
SO2	Rule 53 Rule 62
VOC	Rule 20.3
CO	Rule 20.3
PM10	Rule 20.3
Toxic Pollutants	Rule 1200

The permit emission limits for NOx, SOx, CO, VOC, and PM10 for the combustion turbine reflects BACT requirements that the combustion turbine must meet to comply with Rule 20.3 of New Source Review. Rule 69.3.1 was revised on 12/9/2021. However, none of the requirements applicable to this permit renewal were changed.

**9.0 Updates to the Title V Permit Incorporated into this Action**

This Title V permit renewal shall also include a minor modification to the permitted emission unit for the allowance of identical replacement equipment to be installed and operated through permitting conditions (below):

Condition #1: In the event that the gas turbine engine with S/N 191-619 is removed from service for required repair, the permit holder may install an identical gas turbine engine (General Electric, Model LM-6000, 46.5 MW capacity) as a temporary replacement. The temporary turbine may be operated for a time period not to exceed 120 calendar days for each time the gas turbine engine with S/N 191-619 is repaired. This time period shall begin on the day that construction has been completed on the installation of the temporary gas turbine engine. Prior to operating the temporary gas turbine engine, the applicant shall notify the District, in writing, that this construction has been completed. The time period shall end on the day that construction has been completed on the re-installation of the gas turbine engine with S/N 191-619 after it has been repaired. Prior to operating the gas turbine engine with S/N 191-619, the applicant shall notify the District, in writing, that this construction has been completed.

Condition #2: The temporary gas turbine engine shall be not be operated unless the air pollution control equipment, CEMS, and data acquisition and recording system specified in the equipment description are in full operation at all times. All conditions specified in this Permit to Operate shall apply to the temporary gas turbine engine.

Through the conditions outlined above, the modification did not increase the permitted unit's potential to emit nor shall it have the potential to increase the unit's emissions. Therefore, the modification can be considered a minor modification because it did not result in violations of applicable requirements, relaxation of applicable requirements, affect a MACT standard, or avoid federal NSR rules (this facility is not a major source).

In addition to this minor modification, there are updates to the Applicable Requirements and updates to the Rule Adoption dates and Rule SIP approval dates to this permit renewal.

These changes have been included in appendix A of the Title V permit.

## **10.0 Multiple Applicable Requirement Streamlining**

The applicant does not request any multiple applicable requirements 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 subpart KKKK and District Rule 62 have been streamlined into a single condition.

Streamlining is not done for NO<sub>x</sub> emission limits, since there are NO<sub>x</sub> emission limits for Rule 20.3 and Rule 69.3.1 that do not apply during startups and shutdowns, and there is NO<sub>x</sub> emission limit from NSPS Subpart KKKK that applies at all times, including startups and shutdowns.

## **11.0 Permit Shield**

The applicant does not request any permit shields.

## **12.0 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 the EPA, public comments, or El Cajon Energy LLC upon review.

## **13.0 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.

## **14.0 Attachments**

The following are attached:

- Application Package
- Draft Permit
- Public Notice