# STATEMENT OF BASIS
## Title V Permit Renewal

**Facility Name:** Orange Grove Energy

**Title V Application Number:** APCD2017-APP-005154

**Title V Permit Number:** APCD2013-TVP-00037

**Facility ID:** APCD2017-SITE-06289

**Equipment Address:** 35435 Pala del Norte Road, Pala, CA 92059
**Facility Contact:**
**Contact Phone:** (760) 615-2026

**Permit Engineer:** Melissa Adams
**Date:** February 9, 2021

**Senior Engineer:**

X

Nicholas Horres
Senior Engineer

## 1.0 Type of Action and Summary of Changes

The application requests issuance of a renewal Title V permit for Orange Grove Energy (Title V permit APCD2013-TVP-00037). The facility is subject to Title V permitting because it is subject to the Acid Rain program under Title IV of the federal Clean Air Act (CAA).

Since the initial Title V permit was issued, the following changes have occurred and will be incorporated into the Title V permit:

a. The permit for the fire pump engine (APCD2011-PTO-000891) currently requires reporting for NESHAP ZZZZ; however, the facility requested removal of the condition because reports are not required for emergency fire pump engines

   The District concurs with this request because the fire pump engine is a 2008 model year and located at an area source of HAP emissions, which means it complies with the requirements of NESHAP ZZZZ by complying with NSPS 40 CFR Part 60, Subchapter IIII. Conditions were revised based on this request.

b. The District revised Rule 69.4.1 in 2020, and, since there are additional requirements for the fire pump and black start engines, changes will be incorporated into the respective permits.

c. Rule references were reviewed and updated as appropriate.

d. The turbine permits were modified in 2016 through an ATC that made minor revisions to emission limits (lowered to slightly below major source thresholds instead of exactly on them) and clarified some test deadlines. This change was processed as a 502(b)(10) change at the time, but the changes were never integrated into either the District or Title V permit. These changes have now been made in the permit in Appendix A, along with some additional corrections to typos in conditions.

e. The applicant requested that the District remove the requirement to monitor LHV of fuel since rules only require HHV and LHV can be calculated from HHV. The district concurs with this request and has removed this requirement.

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

The renewal application was received on September 28, 2017. 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** | **Approved** |
| APCD2011-APP- 001693 | APCD2013-TVP-00037 | Approved 11/14/2013- Title V Initial | Turbines and engines | Yes |
| APCD2014-APP-003557 | APCD2013-TVP-00037 | Admin. Amend. Responsible Official | Turbines and engines | Yes |
| APCD2016-APP-004406 | APCD2011-PTO -000889 -000890 | Change to turbines that included a (502)(b)(10) change. | Turbines | Included in this action |
| APCD2017-APP-005154 | APCD2013-TVP-00037 | TV Renewal – Open | Turbines and engines | Included in this action |

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** |
| APCD2012-APP-002265 | APCD2011-PTO -000889 -000890 | Add catalyst, not a Title V modification, since the initial Title V permit was not yet issued | Turbines | Approved |
| APCD2016-APP-004406 | APCD2011-PTO -000889 -000890 | Repairs and maintenance to turbines and minor corrections to conditions, included a (502)(b)(10) change. | Turbines | Approved but not issued |
| APCD2021-APP-006575 | APCD2013-TVP-00037 | Application for temporary replacement | Turbines | Pending Review |

## 3.0 Facility Description

The facility consists of two stationary natural gas-fired combustion turbine generators, an emergency fire pump engine fired on diesel and an emergency natural gas-fired black start engine fired on natural gas. Electricity is generated for sale during peak demand periods from turbine generators. These units are equipped with water injection, selective catalytic reduction (SCR), ammonia injection control, oxidation catalyst, a data acquisition and handling system (DAHS), and a continuous emission monitoring system (CEMS).

| Permit Number | Equipment Description |
|---|---|
| APCD2011-PTO-000889 | One natural gas simple cycle combustion turbine generator: Make General Electric, Model LM6000 PC SPRINT, nominal output 49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS). |
| APCD2011-PTO-000890 | One natural gas simple cycle combustion turbine generator (Unit 2): Make General Electric, Model LM6000 PC SPRINT, nominal output 49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS). |
| APCD2011-PTO-000891 | Emergency fire pump engine: Cummins, Model CPF11E-F10, based on Cummins diesel engine Model QSM11, S/N 35229758, rated at 373 bhp, Model Year 2008, EPA Tier 2 certified of Engine Family Number 4CEXL0661AAD. |

| | |
|---|---|
| APCD2011-PTO-000892 | Emergency black start engine: Cummins engine, fueled with natural gas, Model GTA38G2, S/N X25328866, rated at 965 bhp, equipped with Miratech catalytic converter, Model RHS-4228-14-ECI, S/N RHS-1336 and Miratech air to fuel ratio controller Model MEC-R. |

## 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). Orange Grove Energy is not a major source. The facility is subject to Acid Rain provisions, as discussed below.

Per Title 40, Chapter 1, Subchapter C, Part 72, Acid Rain program definitions:

> A "utility unit" is a fossil fuel-fired combustion device that serves a generator in any State that produces electricity for sale.
>
> A "new unit" means a unit that commences commercial operation on or after November 15, 1990 according to Part 72 and District Rule 1401(c)(4)(i).
>
> An "affected unit" for Acid Rain means a unit that is subject to any Acid Rain emissions reduction requirement or Acid Rain emission limitations under 72.6 or part 74 chapter under Title IV of the federal Clean Air Act as amended in 1990.

The turbine equipment represents a utility unit since it burns natural gas fuel and produces electricity for sale. It is also a new unit, in that it commenced operation on or after November 15, 1990.

As new utility units under 40 CFR Part 72, and pursuant to Section 72.6 (a)(3)(i), "Applicability," the turbines are affected units and therefore subject to Title IV.

Rule 1401 of District Regulation XIV considers an emission source subject to the Acid Rain provisions of Title IV of the federal Clean Air Act as being subject to the Title V operating permit program. Rule 1401(b)(1). Therefore, the facility is subject to the Title V operating permit program.

## 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<br>Tons per Year: | | | | |
|---|---|---|---|---|
| Pollutant | Thresholds | Facility Actual Emissions | Facility Potential to Emit | Major Source |
| Highest Federal HAP | 10 | 0.077 (Formaldehyde) | - | No |
| Sum of Federal HAPs | 25 | 0.109 (Sum) | - | No |
| NOx | 100 | 1.812 | 17.09 | No |
| VOC | 100 | 0.128 | 4.60 | No |
| PM10 | 100 | 0.417 | 9.60 | No |
| Sox | 100 | 0.063 | 3.20 | No |
| CO | 100 | 1.257 | 22.69 | No |

The potential to emit was found by a survey of all applications submitted by the facility since its inception. The actual emissions were taken from the District's 2019 emission inventory.

## 6.0 40 CFR Part 64 CAM (Compliance Assurance Monitoring)

Pursuant to section 64.2(b)(i), the equipment is not subject to CAM since no individual piece of equipment is a major source.

In addition, the turbines already have CEMS (Continuous Emission Monitoring Systems) and are therefore not subject to CAM.

## 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 Facility-wide Applicable Requirements

| Regulation | Rule Citation | Title |
|---|---|---|
| SDCAPCD Reg. II | 10(a)<br>10(b) | Permits Required – (a) Authority to Construct<br>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 | 20.2 | New Source Review |
| SDCAPCD Reg. II | 20.3 | New Source Review |
| SDCAPCD Reg. II | 21 | Permit Conditions |
| SDCAPCD Reg. IV | 60 | Circumvention |
| SDCAPCD Reg. V | 98*** | Breakdown Conditions: Emergency Variance |
| SDCAPCD Reg. VI | 101 | Burning Control |

Facility-wide Prohibitory Requirements

| Regulation | Rule Citation | Title |
|---|---|---|
| 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 | 68 | Fuel Burning Equipment - NOx |
| SDCAPCD Reg. IV | 69.3 | Stationary Gas Turbine Engines - RACT |
| SDAPCD Reg. IV | 69.4.1* | Stationary Reciprocating Internal Combustion Engines-Best Available Retrofit Control Technology |
| SDCAPCD Reg. X | 40 CFR 60 Subpart A | NSPS General Provisions |
| SDCAPCD Reg. XI | 40 CFR 63 Subpart A | NESHAP General Provisions |
| 40 CFR Part 82 | Subpart A | Production and Consumption Controls |
| 40 CFR Part 82 | Subpart F | Recycling and Emissions Reduction |
| SDCAPCD Reg. XII | 1200** | Toxic Air Contaminants – New Source Review |
| California Code of Regulations (CCR) Title 17 | 93115.1** | Stationary Diesel Airborne Toxic Control Measure (ATCM) |

**This rule has been adopted by the District and will become federally enforceable once the rule has been noticed/approved by EPA.*
***Not federally enforceable*
****Breakdowns/variances are not recognized by EPA and cannot grant relief from federal enforcement of requirements*

Permit Specific Applicable Requirements:

| SDAPCD Permit No. | Title V Permit No. | Permit Description | Applicable Rules |
|---|---|---|---|
| APCD2011-PTO-000889 | APCD2013-TVP-00037 | One natural gas simple cycle combustion turbine generator: | SDAPCD Reg. IV, Rules 50, 51,52, 53, 62, 63, 69.3.1, |
| APCD2011-PTO-000890 | APCD2013-TVP-00037 | One natural gas simple cycle combustion turbine generator (Unit 2): | SDAPCD Reg. IV, Rules 50, 51,52, 53, 62, 69.3, 69.3.1, |

| | | | |
|---|---|---|---|
| APCD2011-PTO-000891 | APCD2013-TVP-00037 | Emergency diesel fire pump engine | SDCAPCD Reg. IV, Rules 50, 51, 52, 53, 59, 62, 69.4.1, CCR Title 17 Section 93115.1, 40 CFR Part 60 subpart IIII |
| APCD2011-PTO-000892 | APCD2013-TVP-00037 | Emergency black start engine: fuel is natural gas | SDCAPCD Reg. IV, Rules 50, 51, 52, 53, 59, 62, 69.4.1, 40 CFR 60 subpart JJJJ |

Emission Limitations

| **Combustion Turbines** | |
|---|---|
| Pollutant | Primary Limiting Regulations* |
| NOx | Rule 20.2 (NSR); 40 CFR 60 Subpart KKKK |
| SO2 | Rule 20.2; Rule 62; Rule 53; 40 CFR 60 Subpart KKKK |
| VOC | Rule 20.2 |
| CO | Rule 20.2 (AQIA only) |
| PM10 | Rule 20.2; Rule 53 (PM) |
| Toxic Pollutants | Rule 1200 |
| | |

*There are certain operating scenarios where a different rule may be the most stringent limitation. For example, the limit for NOx established through NSR does not apply at certain times such as startups, and during these times the prohibitory rule or NSPS emission limit is the most stringent. All these limits are listed as permit conditions.

| **Emergency Engines** | |
|---|---|
| Pollutant | Primary Limiting Regulations |
| | |
| NOx | Rule 69.4.1; 40 CFR 60 Subpart IIII (Fire pump engine) 40 CFR 60 Subpart JJJJ (black start engine) |
| SO2 | Rule 62; Rule 69.4.1 17 CCR 93115; 40 CFR 60 Subpart IIII (Fire pump engine) 40 CFR 60 Subpart JJJJ (black start engine) |
| VOC | 40 CFR 60 Subpart IIII (Fire pump engine) 40 CFR 60 Subpart JJJJ (black start engine) |
| CO | 40 CFR 60 Subpart IIII (Fire pump engine) 40 CFR 60 Subpart JJJJ (black start engine) |
| PM10 | Rule 20.2; Rule 53 (PM) 40 CFR 60 Subpart IIII (Fire pump engine) 40 CFR 60 Subpart JJJJ (black start engine) |
| Toxic Pollutants | Rule 1200 |
| Federal HAPs | 40 CFR 63 Subpart ZZZZ |

## 8.0 Updates to the Title V Permit Incorporated into this Action

The following changes are being made to the emission unit specific permits as indicated below. These changes are due to an update to District Rules and reanalysis of the applicability of NESHAP and NSPS requirements for the emergency engines at the request of the facility, and to implement previously approved application APCD2016-APP-004406 along with other minor corrections.

Update for District Rule 69.4.1

District Rule 69.4.1 Stationary Reciprocating Internal Combustion Engines-Best Available Retrofit Control Technology was modified in 2020, which added additional maintenance requirements for the emergency engines. Conditions implementing these requirements have been added to both engines.

Subpart ZZZZ 40 CFR 63 for Stationary RICE

Both engines are 2008 model year and located at an area source of HAP emissions, which means they comply with the requirements of NESHAP ZZZZ by complying with NSPS 40 CFR Part 60, Subchapter IIII (fire pump engine) or Subpart JJJJ (black start engine).

Subpart IIII 40 CFR 60 Adding IIII conditions to the fire pump engine

Conditions on this permit were updated to clarify which requirements result from subpart IIII, and to updated phrasing for clarity, which does not result in substantive changes to requirements.
.

Subpart JJJJ 40CFR 60.4244 No Emissions and testing for the black start engine

40 CFR 60 Subpart JJJJ would apply to the black start engine APCD2011-PTO-000892 because it is an emergency engine and because construction commenced after after January 1, 2009 in accordance with 60.4230(a) (ordered by the operator between April 8, 2009 and April 1, 2010). However, since it was manufactured in 2008 it is not subject to any requirements based on current EPA guidance for this rule (no emission standards exist for the engine in the rule).

Subpart JJJJ 40CFR 60.4244 No Emissions and testing for the black start engine

The turbine permits were updated based on District application APCD2016-APP-004406 and additional corrections requested by the permit holder. Changes included: Reduce emission limit by 0.5 tpy for each criteria pollutant to ensure emissions cannot equal major source thresholds; reduce HAP limits from 10 tpy to 9.9 tpy, and 25 tpy to 24.75 tpy for same reason; fixed typo in condition 35 and revised test report/protocol submittal for consistency with rules and policies.

## 9.0 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/comments as necessary.

## 10.0 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.

## 11.0 Attachments

The following are attached:

- Application Package
- Draft Permit
- Public Notice

September 28, 2017

Mr. Doug Erwin
San Diego Air Pollution Control
District 10124 Old Grove Rd
San Diego, CA

**Subject:** **Title V Operating Permit Renewal Application**
**Permit No. APCD2013-TVP-00037**

Dear Mr. Erwin:

In accordance with condition B.1 of the current permit (APCD2013-TVP-00037), enclosed is the Title V Permit renewal application for the Orange Grove Energy (OGE) facility (Site ID # APCD2007-SITE-06289) located at 35435 Pala del Norte Road in Pala, California. The current permit was issued by the San Diego County Air Pollution Control District (District) on November 14, 2013 and expires on November 13, 2018. This renewal application is being submitted at least 12 months but not more than 18 months prior to permit expiration, in accordance with Rule 1410 and the Renewal Requirements and Terms found in Section 1B of the Title V Permit.

OGE holds permits to operate APCD2011-PTO-000889, -000890, -000891, and -000892 which expire October 31, 2017. In 2016, OGE applied for and received Authority to Construct (ATC) APCD2016-APP-004406, which expired May 5, 2017, to perform repair and maintenance on equipment permitted in APCD2011-PTO-000889 and -000890. As a supplement to the application, OGE submitted Form 1410-C 502(b)(10) Change (Operational Flexibility) to the district on April 22, 2016. Upon expiration of the ATC, the District issued Startup Authorization for APCD2016-APP-004406 which will expire October 2, 2017 or upon final action from the District. Note that conditions 28, 29, 35, 41 and 46 in both APCD2011-PTO-000889 and -000890 were modified in the 2016 ATC and subsequent Startup Authorization and the Title V permit should be revised to reflect this.

In addition to the changes identified above, we are also requesting that condition 17 be removed from permit number APCD2011-PTO-000891 for the emergency fire pump. This condition requires semi-annual reporting and references 40 CFR 63 Subpart ZZZZ (commonly referred to as the RICE MACT) as the applicable requirement. According to 40 CFR 63.6650, Table 7 of this Subpart is used to determine which reports are needed based on engine type. Emergency engines (fire pumps) are not listed and, therefore, semi-annual reports would not be required. A markup of this permit with the requested change is included for your convenience.

The following are enclosed:

- Forms 1401-A1, 1401-A2, 1401-G, 1401-H1, 1401-H2 1401-I, 1401-K, and 1401-M.
- APCD2011-PTO-000889, -000890, -000891 (with markup), and -000892
- APCD2016-APP-004406
- Startup Authorization for APCD2016-APP-004406
- A check in the amount of $8,945 payable to the County of San Diego APCD for the $95 nonrefundable processing fee and $8,850 Title V permit action fee deposit.
- Note: Forms 1401-L, 1401-N, 1401-O, and 1401-Q are not applicable to OGE.

OGE believes the enclosed forms and supporting documentation include all the information necessary to process our application and renew the Title V permit. Should you have any questions or need additional information, please contact me at (760) 615-2026 or via e-mail at rgarcia@orangegroveenergy.com.

Sincerely,

Ramiro Garcia
Compliance Manager
Orange Grove Energy

Enclosures

cc: Joe Douglas, CEC
John Hutson, OGE

File: 300.1.1.1.4

**San Diego County Air Pollution Control District**
**10124 Old Grove Road San Diego CA 92131-1649**
**(858) 586-2600 FAX (858) 586-2601**

# TITLE V APPLICATION
## Stationary Source Summary (FORM 1401-A1)

| Company Name | District Use Only |
|---|---|
| Orange Grove Energy, L.P. | NEDS # _____ |
| | SITE ID # _____ |

## I. FACILITY IDENTIFICATION

1. Facility Name (if different than company name): _____
2. Four digit SIC Code: 4911
3. Parent Company (if different than Company Name): _____
4. Mailing Address: 35435 Pala del Norte Road
   City Pala State CA Zip 92059
5. Street Address or Source Location: 35435 Pala del Norte Road
   City Pala State CA Zip 92059
6. UTM Coordinates: 510346mE; 3691126mN
7. Source Located within 50 miles of a state line: ☒ Yes ☐ No (All sources **are** within 50 miles)
8. Source Located within 1000 feet of a school: ☐ Yes ☒ No
9. Type of Organization: ☐ Corporation ☐ Sole Ownership ☐ Government
   ☒ Partnership ☐ Utility Company
10. Legal Owner's Name: Orange Grove Energy, L.P.
11. Owner's Agent name (if any): _____
12. Responsible Official: Paul E. Peterson
13. Plant Site Manager/Contact: John Hutson Phone #: (760) 615-2011 FAX #: (760) 615-2077
14. Application Contact: Ramiro Garcia
15. Type of Facility: Electric Power Generation
16. General description of processes/products: Two natural gas fired combustion turbines each generating nominally 49.8 MW (99.6 MW total for the facility).
17. Is a Federal Risk Management Plan (RMP) pursuant to Section 112(r) required? ☐ Yes ☒ No
    (If application is submitted after RMP due date, attach verification that plan is registered with the appropriate agency.)

| II. TYPE OF PERMIT ACTION (check) | CURRENT PERMIT (permit number) | EXPIRATION (date) |
|---|---|---|
| ☐ **Initial Title V Application** | | |
| ☒ **Permit Renewal** | APCD2013-TVP-00037 | November 13, 2018 |
| ☐ **Significant Permit Modification** | | |
| ☐ **Minor Permit Modification** | | |
| ☐ **Administrative Amendment** | | |

## III. DESCRIPTION OF PERMIT ACTION

1. Does the permit action requested involve:
   ☐ Temporary Source ☒ Voluntary Emissions Caps
   ☒ Acid Rain Source ☐ Alternative Operating Scenarios ☒ Abatement Devices
   ☒ CEMs ☒ Permit Shield
   ☐ Outdated SIP Requirement Streamlining ☐ Multiple Applicable Requirement Streamlining
   ☐ Source Subject to MACT Requirements [Section 112]
   ☐ Source Subject to Enhanced Monitoring (40CFR64) [Compliance Assurance Monitoring]
2. Is source operating under a Compliance Schedule? ☐ Yes ☒ No ☐ Proposed
3. Is source operating under a Variance ☐ Yes ☒ No (If Yes, please attach variance information)
4. For permit modification, provide a general description of the proposed permit modification:
   Not Applicable

## IV. SUPPLEMENTAL ATTACHMENTS*: None

* Means all attachments to the complete application.

San Diego County Air Pollution Control District
10124 Old Grove Road San Diego CA 92131-1649
(858) 586-2600 FAX (858) 586-2601

# TITLE V APPLICATION
## Stationary Source Summary (FORM 1401-A2)

| Company Name | District Use Only |
|---|---|
| Orange Grove Energy, L.P. | NEDS # _____ SITE ID # _____ |

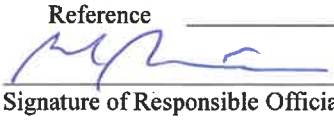
## I. MAJOR SOURCE APPLICABILITY

Check appropriate pollutant(s) for which you are a Major Source under Title V. Applicability is based on potential to emit. **If more space is necessary, use additional forms. Please type or print legibly.**

| POLLUTANT | MAJOR SOURCE THRESHOLD TOTAL EMISSIONS, TPY | (check if appropriate) |
|---|---|---|
| VOC | 100 | ☐ |
| $PM_{10}$ | 100 | ☐ |
| $SO_2$ | 100 | ☐ |
| NOx | 100 | ☐ |
| CO | 100 | ☐ |
| ODC | 100 | ☐ |
| LEAD COMPOUNDS | 10 | ☐ |
| HAZARDOUS AIR POLLUTANTS | | |
| SINGLE HAP | 10 | ☐ |
| | | ☐ |
| | | ☐ |
| COMBINATION HAP | 25 | ☐ |
| | | ☐ |
| | | ☐ |
| | | ☐ |

**Attach all necessary calculations to this form as applicable.** NOTE: Calculations are only needed if no Emission Inventory is on file with the District

Reference _____ Inventory Year _____



Signature of Responsible Official

9/25/2017
Date

Paul E. Peterson
Print Name of Responsible Official

(847) 908-2800
Telephone No. of Responsible Official

Vice President of Asset Management
Title of Responsible Official

## II. EMISSIONS CALCULATIONS ATTACHED (as needed)

☐ Yes ☒ No

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**DISTRICT USE ONLY**

**Date Application Received:** _____ **Application #** _____

**Application Filing Fee:** _____ **District Received Stamp:** _____

**Receipt #:** _____ **Fee Code:** _____

**San Diego County Air Pollution Control District**
**10124 Old Grove Rd., San Diego, CA 92131**
**(858) 586-2600 FAX (858) 586-2601**

**TITLE V APPLICATION**
**Insignificant Activity List (FORM 1401-G)**

| **Company Name** | **District Use Only** |
|---|---|
| Orange Grove Energy, L.P. | **NEDS #** _____ |
| Facility Address: 35435 Pala del Norte Road, Pala, CA 92059 | **SITE ID #** _____ |

# LIST OF EQUIPMENT – INSIGNIFICANT ACTIVITIES

Place a check mark in the appropriate box for equipment that is considered an insignificant activity based on throughput or equipment capacity.

## Exemptions based on Size (Capacity)

| | **(Condensed Language of Rule)** | **Appendix A Citation** |
|---|---|---|
| ☐ | Stationary & portable internal combustion engines with ≤ 50 bhp output rating | (d)(1)(iii) |
| ☐ | Stationary gas turbines with a power rating of < 0.3 megawatt (MW) or a maximum gross heat input rating of 1 million BTUs per hour | (d)(1)(iv) |
| ☐ | Water cooling towers & ponds with a capacity < 10,000 gal/min not used for evaporative cooling of process water or not used for evaporative cooling of water, contaminated water or industrial waste water from barometric jets or from barometric condensers. | (d)(2) |
| ☐ | Fuel-burning equipment with a maximum gross heat input rate of < 1 million Btu/hour when not part of a process, process line, line, equipment, article, machine or other contrivance for which a permit to operate is required by these Rules and Regulations | (d)(4)(i) |
| ☐ | Fuel burning equipment with a maximum gross heat input of < 20 million Btu/hour, and fired exclusively with natural gas and/or liquefied petroleum gas | (d)(4)(ii) |
| ☐ | Steam boilers, process heaters, and steam generators with a maximum gross heat input of < 5 million Btu/hour | (d)(4)(iii) |
| ☐ | Crucible-type or pot-type furnaces with a brimful capacity of < 450 $in^3$ of any molten metal | (d)(12) |
| ☐ | Crucible, pot or induction furnaces with a capacity of ≤ 2500 $in^3$, in which no sweating or distilling is conducted and from which only non-ferrous metals except yellow brass, are poured or non-ferrous metals are held in a molten state | (d)(13) |
| ☐ | Dry batch mixers with ≤ 0.5 cubic yards rated working capacity | (d)(27) |
| ☐ | Batch mixers (wet) with ≤ 1 cubic yard capacity where no organic solvents, diluents or thinners are used. | (d)(28) |
| ☐ | Roofing kettles (used to heat asphalt) with a capacity of ≤ 85 gallons | (d)(33) |
| ☐ | Abrasive blasting equipment with a manufacturer's-rated sand capacity of < 100 lbs or < 1 $ft^3$ | (d)(34) |
| ☐ | Paper shredders and paper disintegrators that have a capacity of 600 pounds per hour or less, and the associated conveying systems and baling equipment. | (d)(41) |
| ☐ | Ovens having an internal volume of ≤ 27 $ft^3$ in which organic solvents or materials containing organic solvents are charged | (d)(59) |
| ☐ | Cold solvent cleaning tanks, vapor degreasers, and paint stripping tanks with a liquid surface area of ≤ 1.0 $ft^2$ | (d)(61)(i) |
| ☐ | Cold solvent cleaning tanks, vapor degreasers, and paint stripping tanks which have a maximum capacity of ≤ 1 gallon | (d)(61)(ii) |

## Continued - Exemptions based on Size (Capacity)

| | (Condensed Language of Rule) | Appendix A Citation |
|---|---|---|
| ☐ | Stationary organic compound storage tanks with a capacity of ≤ 250 gallons | (e)(1) |
| ☐ | Liquid surface coating application operations using hand-held brushes for application of a primer coating from containers of ≤ eight (8) ounces in size, to fasteners to be installed on aerospace parts | (h)(5) |
| ☐ | Liquid surface coating application operations using air brushes with a coating capacity of ≤ 2 ounces for the application of a stencil coating | (h)(6) |
| ☐ | Metal inspection tanks that: a) do not utilize a suspension of magnetic or fluorescent dye particles in volatile organic solvent, and b) have a liquid surface area < 5 $ft^2$ and c) are not equipped with spray type flow or a means of solvent agitation | (o)(5) |
| ☐ | Bakery ovens used for baking yeast leavened products where the combined rated heat input capacity is < 2 million Btu/hr | (o)(37) |

## Exemptions based on Production Rates (Emission Limits)

| | | |
|---|---|---|
| ☐ | Printing or graphic arts presses located at a stationary source which emits a total of <15 lbs/day of VOC's subject to Rule 67.16, on each day of operation | (d)(7) |
| ☐ | Solder levelers, hydrosqueegees, wave solder machines, and drag solder machines which use < 10 lbs/day of any material containing VOCs | (d)(23) |
| ☐ | Fire extinguishing equipment, using halons with a charge of < 50 lbs. of a Class I or Class II ozone depleting compound. | (d)(31) |
| ☐ | Coffee roasting equipment with a manufacturer's rating of ≤ 15 lbs/hr | (d)(45) |
| ☐ | Equipment used to manufacture bio-agricultural products for exclusive use in field testing required to obtain FDA, EPA, USDA and /or Cal-EPA approval, provided the uncontrolled emissions of VOCs from all such operations < 5 ton/yr. | (d)(49)(iii) |
| ☐ | Oil quenching tanks which use < 20 gal/yr of make-up oil | (d)(56) |
| ☐ | Equipment that is used to conduct research and develop new or improved processes/products, and is operated by technically trained personnel under the supervision of a research director, and is not used in the manufacture of products for sale or exchange for commercial profit, and all emissions are < 15 lbs/day. | (d)(48) |
| ☐ | Powder coating operations, except metalizing gun operations, where surface preparation or cleaning solvent usage is < 0.5 gal/day | (d)(62) |
| ☐ | Equipment used to transfer fuel to & from amphibious ships for maintenance purposes, provided total annual transfers < 60,000 gal/yr. | (f)(2) |
| ☐ | Stationary storage tanks (excluding tanks subject to Rule 61.9) used exclusively for the storage of liquid organic solvents used as dissolvers, viscosity reducers, reactants, extractants, cleaning agents or thinners provided that emissions < 15 lbs/day. | (e)(3) |
| ☐ | Liquid surface coating or adhesive application operations (portable or stationary) where not more than 20 gallons per year of material containing organic compounds are applied | (h)(1) |
| ☐ | Liquid surface coating application operations exclusively using materials with a VOC content of < 20 g/L where < 30 gal/day of such materials are applied. | (h)(2) |
| ☐ | Foam manufacturing or application operations which emit < 5 lbs/day of VOCs | (i)(1) |
| ☐ | Reinforced plastic fabrication operations using resins such as epoxy and/or polyester which emit < 5 lbs/day of VOCs | (i)(2) |
| ☐ | Plastics manufacturing or fabrication operations which emit < 5 lbs/day of VOCs | (i)(3) |
| ☐ | Cold solvent degreasers used for educational purpose and which emit < 5 lbs/day of VOCs | (i)(4) |

| | | |
|---|---|---|
| ☐ | Golf grip application stations which exclusively use liquid materials with an initial boiling point of 450°F (232°C), or greater and which emit < 5 lbs/day of VOCs. | (i)(5) |
| ☐ | Batch-type waste-solvent recovery stills with batch capacity of ≤ 7.5 gallons for onsite recovery provided the still is equipped with a safety device & VOC emissions are < 5 lbs/day | (i)(6) |
| ☐ | Peptide and DNA synthesis operations which emit < 5 lbs/day of VOCs | (i)(7) |
| ☐ | Equipment used for washing or drying articles fabricated from metal, cloth, fabric or glass, provided that no organic solvent is employed in the process and that no oil or solid fuel is burned and none of the products being cleaned has residues of organic solvent and VOC emissions are <5 lbs/day | (i)(8) |
| ☐ | Hot wire cutting of expanded polystyrene foam which emit < 5 lbs/day of VOCs. | (i)(9) |
| ☐ | Any coating and/or ink manufacturing operations located at a stationary source, which emit < 15 lbs/day of VOCs. | (o)(9) |
| ☐ | Any operation producing materials for use in cosmetic or pharmaceutical products and/or manufacturing cosmetic or pharmaceutical products by chemical processes, which emit < 15 lbs/day of VOCs | (o)(12) |
| ☐ | Refrigeration units except those used as, or with, air pollution control equipment with a charge of < 50 lbs of a Class I or II ozone depleting compound. | (o)(18) |
| ☐ | Atmospheric organic gas sterilizer cabinets where ethylene oxide emissions are < 5 lbs/yr | (o)(28) |
| ☐ | Aerosol can puncturing/crushing operations which vents all emissions through a properly operated/maintained carbon canister, provided < 500 cans/day are processed. | (o)(29)(ii) |
| ☐ | Solvent wipe cleaning operations using a container applicator that minimizes emissions to the air where the uncontrolled emissions of VOCs < 5 ton/yr, or the total purchase of solvents < 1,500 gal/yr, or the total purchase of solvents containing a single HAP < 350 gal/yr. | (o)(32) |
| ☐ | Equipment approved for use by the EPA for recovering and/or recycling CFCs provided such equipment is charged with < 50 lbs. of a Class I or II ozone depleting compound. | (o)(33) |
| ☐ | Stationary IC engines rated at ≤ 200 bhp installed and operated before November 15, 2000, which operate < 200 hr/yr. | (o)(34)(ii) |

**San Diego County Air Pollution Control District**
**10124 OLD GROVE ROAD SAN DIEGO CA 92131-1649**
**(858) 586-2600 FAX (858) 586-2601**

# TITLE V APPLICATION
# Applicable Requirements Summary Checklist (FORM 1401-H1)

| **Company Name** | **District Use Only** |
|---|---|
| Orange Grove Energy, L.P. | **NEDS #** _____ **SITE ID #** _____ |

APPLICABLE REQUIREMENTS: Applicable requirements which apply to an entire facility are listed first. The applicant should check appropriate boxes on the form and attach emission unit specific permit number lists where necessary. Where streamlining is employed, note on this form. If information does not fit in the space allotted, attach documentation and reference it on this form. **Type or print legibly.**

| RULE | RULE DESCRIPTION | Test Method or Rule Section | Monitoring, Records, Reports, Rule Section | Facility | Gas Turbines | IC Engine - Fire Pump | IC Engine - Black Start | | | | | | | | | | | | Future Effective Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Facility Applicable Requirement Description** | | | | | | | | | | | | | | | | | | |
| 10(a) | Permits Required – (a) Authority to Contruct | | | X | X | X | X | | | | | | | | | | | | |
| 10(b) | Permits Required – (b) Permit to Operate | | | X | X | X | X | | | | | | | | | | | | |
| 19 | Provision of Sampling & Testing Facilities | | | X | | | | | | | | | | | | | | | |
| 19.2 | Continuous Emission Monitoring Requirements | | | | X | | | | | | | | | | | | | | |
| 19.3 | Emission Information | | | X | | | | | | | | | | | | | | | |
| NSR | New Source Review | | | X | | | | | | | | | | | | | | | |
| PSD | Prevention of Significant Deterioration | | | | | | | | | | | | | | | | | | |
| 21 | Permit Conditions | | | X | | | | | | | | | | | | | | | |
| 50 | Visible Emissions | | | X | | | | | | | | | | | | | | | |
| 51 | Nuisance | | | X | | | | | | | | | | | | | | | |
| 60 | Circumvention | | | X | | | | | | | | | | | | | | | |
| 67.0 | Architectural Coatings | (g) | | | | | | | | | | | | | | | | | |
| 67.17 | Storage of Materials Containing VOC | (e) | | X | | | | | | | | | | | | | | | |
| 71 | Abrasive Blasting | | | | | | | | | | | | | | | | | | |
| 98 | Breakdown Conditions: Emergency Variance | | | X | | | | | | | | | | | | | | | |
| 101 | Burning Control | | | | | | | | | | | | | | | | | | |
| 131 | Stationary Source Curtailment Plan | | | | | | | | | | | | | | | | | | |
| 132 | Traffic Abatement Plan | | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Equipment Specific Applicable Requirement Description** | | | | | | | | | | | | | | | | | |
| 50 | Visible Emissions | | | | X | X | X | | | | | | | | | | | |
| 51 | Nuisance | | | | X | X | X | | | | | | | | | | | |
| 52 | Particulate Matter | Method 5 | | | | | | | | | | | | | | | | |
| 53 | Specific Contaminants | Method 5 | | | X | | X | | | | | | | | | | | |
| 53.1 | Scavenger Plants | | | | | | | | | | | | | | | | | |
| 54 | Dust and Fumes | Method 5 | | | | | | | | | | | | | | | | |
| 58 | Incinerator Burning | | | | | | | | | | | | | | | | | |
| 59 | Control of Waste Disposal – Site Emissions | (e) | (e) & (f) | | | | | | | | | | | | | | | |
| 60 | Circumvention | | | | X | X | X | | | | | | | | | | | |
| 61.1 | Receiving & Storing VOCs at Bulk Plants & Terminals | (d) | (c)(7) | | | | | | | | | | | | | | | |
| 61.2 | Transfer of VOCs into Mobil Transport Tanks | (c)(10) | | | | | | | | | | | | | | | | |
| 61.3 | Transfer of VOCs into Stationary Storage Tanks | | (c)(2)(iii) | | | | | | | | | | | | | | | |
| 61.3.1 | Transfer Of Gasoline Into Stationary Underground Storage Tanks (not in the SIP) | (h) | (g) | | | | | | | | | | | | | | | |
| 61.4 | Transfer of VOCs into Vehicle Fuel Tanks | | | | | | | | | | | | | | | | | |
| 61.4.1 | Transfer Of Gasoline From Stationary Underground Storage Tanks Into Vehicle Fuel Tanks (not in the SIP) | (g) | (f) | | | | | | | | | | | | | | | |
| 61.5 | Visible Emissions Standards for Vapor Control Equip. | | VE | | | | | | | | | | | | | | | |
| 61.7 | Spillage & Leakage of VOCs | | | | | | | | | | | | | | | | | |
| 61.8 | Certification Requirements for Vapor Control Equip. | | | | | | | | | | | | | | | | | |
| 62 | Sulfur Content of Fuels | | | | X | X | X | | | | | | | | | | | |
| 64 | Reduction of Animal Matter | | | | | | | | | | | | | | | | | |
| 66 | Organic Solvents | (p) | (o) | | | | | | | | | | | | | | | |
| 66.1 | Misc. Surface Coating Operations & other Processes Emitting VOC (not in SIP) | (h) | (f) | | | | | | | | | | | | | | | |
| 67.1 | Alternative Emission Control Plans (AECP) | (c) | (d) | | | | | | | | | | | | | | | |
| 67.2 | Dry Cleaning - Petroleum Solvent | (f) | (e) | | | | | | | | | | | | | | | |
| 67.3 | Metal Parts Coating | (g) | (f) | | | | | | | | | | | | | | | |
| 67.4 | Can & Coil Coating | (g) | (f) | | | | | | | | | | | | | | | |
| 67.5 | Paper, Film and Fabric Coating | (f) | (e) | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67.6 | Solvent Cleaning Operation | (f) | | | | | | | | | | | | | | | | | |
| 67.6.1 | Cold Solvent Cleaning and Stripping Operations | (g) | (f) | | | | | | | | | | | | | | | | |
| 67.7 | Cutback & Emulsified Asphalt | (f) | (e) | | | | | | | | | | | | | | | | |
| 67.9 | Aerospace Coating Operations | (g) | (f) | | | | | | | | | | | | | | | | |
| 67.10 | Kelp Processing and Bio-Polymer Mfg. | (f) | (e) | | | | | | | | | | | | | | | | |
| 67.11 | Wood Products Coating Operations (not in SIP) | | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67.12 | Polyester Resin Operations | (g) | (f) | | | | | | | | | | | | | | | | |
| 67.15 | Pharmaceutical & Cosmetic Manufacturing | (e) | | | | | | | | | | | | | | | | | |
| 67.16 | Graphic Arts Operations | (g) | (f) | | | | | | | | | | | | | | | | |
| 67.17 | Open VOC Containers | (e) | | | | | | | | | | | | | | | | | |
| 67.18 | Marine Coating Operations | (g) | (f) | | | | | | | | | | | | | | | | |
| 67.19 | Coating and Printing Inks Mfg. Operations | (g) | (f) | | | | | | | | | | | | | | | | |
| 67.20 | Motor Vehicle & Mobile Equipment Refinishing Operations | | | | | | | | | | | | | | | | | | |
| 67.21 | Adhesive Material Application Operations | | | | | | | | | | | | | | | | | | |
| 67.22 | Expandable Polystyrene Foam Products Manufacturing Operations (not in SIP) | | | | | | | | | | | | | | | | | | |
| 67.24 | Bakery Ovens | (f) | (e) | | | | | | | | | | | | | | | | |
| 68 | Fuel Burning Equipment - NOx | | | | | | | | | | | | | | | | | | |
| 69.2 | Boilers | (f) | (e) & (g) | | | | | | | | | | | | | | | | |
| 69.3 | Stationary Gas Turbine Engines - RACT | (f) | (e) & (g) | | X | | | | | | | | | | | | | | |
| 69.3.1 | Stationary Gas Turbine Engines – BARCT (not in SIP) | (f) | (e) & (g) | | X | | | | | | | | | | | | | | |
| 69.4 | Stationary Internal Combustion Engines - RACT | (f) | (e) | | | X | X | | | | | | | | | | | | |
| 69.4.1 | Stationary Internal Combustion Engines – BARCT (not in SIP) | (f) | (e) | | | X | X | | | | | | | | | | | | |
| 70 | Orchard Heaters | | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 71 | Abrasive Blasting | | | | | | | | | | | | | | | | | |
| 20.1 | Applicability, Definitions, Emission Calculations, Emission Offsets and Banking, Exemptions, and Other Requirements (SIP Version 7/5/79) | | | | | | | | | | | | | | | | | |
| 20.1 | NSR - General Provisions (Version 11/4/98) (not in SIP) | | | | | | | | | | | | | | | | | |
| 20.2 | Standards for Authority to Construct Best Available Control Technology (SIP Version 7/5/79) | | | | X | | | | | | | | | | | | | |
| 20.2 | NSR – Non-major Stationary Sources (Version 11/4/98) (not in SIP) | | | | X | | | | | | | | | | | | | |
| 20.3 | Standards for Authority to Construct - Air Quality Analysis (SIP Version 7/5/79) | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20.3 | NSR – Major Stationary Source and PSD Stationary Source (Version 11/4/98) (not in SIP) | | | | | | | | | | | | | | | | | |
| 20.4 | Standards for Authority to Construct - Major Sources (SIP Version 7/5/79) | | | | | | | | | | | | | | | | | |
| 20.4 | NSR – Portable Emission Units (Version 11/4/98) (not in SIP) | | | | | | | | | | | | | | | | | |
| 20.5 | Power Plants (SIP Version 7/5/79) | | | X | | | | | | | | | | | | | | |
| 20.6 | Standards for Permit to Operate Air Quality Analysis (SIP Version 7/5/79) | | | X | | | | | | | | | | | | | | |
| **SUBPART** | **Regulation X - Standards of Performance for New Stationary Sources (NSPS)** | **Rule #** | **Rule #** | | | | | | | | | | | | | | | |
| A | General Provisions | | 260.7<br>260.13 | | X | | | | | | | | | | | | | |
| D | Standards of Performance for Fossil-Fuel Fired Steam Generators | 260.46 | 260.45 | | | | | | | | | | | | | | | |
| Da | Standards of Performance for Electric Utility Steam Generating Units Constructed After September 18, 1978 | | 260.47a<br>260.48a<br>260.49a | | | | | | | | | | | | | | | |
| Db | Standards of Performance for Industrial-Commercial-Institutional Steam Generating | 260.45b<br>260.46b | 260.47b<br>260.48b<br>260.49b | | | | | | | | | | | | | | | |
| E | Standards of Performance for Incinerators | 260.54 | 260.53 | | | | | | | | | | | | | | | |
| I | Standards of Performance for Asphalt Concrete Plants | 260.93 | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after June 11, 1973 and Prior to May 19, 1978 | | 260.113 | | | | | | | | | | | | | | | |
| Ka | Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after May 18, 1978 | 260.113a | 260.115a | | | | | | | | | | | | | | | |
| Kb | Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984 | 260.113b | 260.115b<br>260.116b | | | | | | | | | | | | | | | |
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| **Subpart** | | | | | | | | | | | | | | | | | | |
| L | Standards of Performance for Secondary Lead Smelters | 260.123 | | | | | | | | | | | | | | | | |
| M | Standards of Performance for Secondary Brass and Bronze Ingot Production Plants | 260.133 | | | | | | | | | | | | | | | | |
| O | Standards of Performance for Sewage Treatment Plants | 260.154 | 260.153 | | | | | | | | | | | | | | | |
| DD | Standards of Performance for Grain Elevators | 260.303 | | | | | | | | | | | | | | | | |
| EE | Standards of Performance for Surface Coating Metal Furniture | 260.313<br>260.316 | 260.314<br>260.315 | | | | | | | | | | | | | | | |
| GG | Standards of Performance for Stationary Gas Turbines | 260.335 | 260.334 | | | | | | | | | | | | | | | |
| QQ | Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing | 260.433<br>260.435 | 260.434 | | | | | | | | | | | | | | | |
| RR | Standards of Performance for the Pressure Sensitive Tape and Label Surface Coating Operations | 260.444<br>260.446 | 260.445<br>260.447 | | | | | | | | | | | | | | | |
| SS | Standard of Performance for the Industrial Surface Coating Large Appliances | 260.453<br>260.456 | 260.454<br>260.455 | | | | | | | | | | | | | | | |
| TT | Standards of Performance for Metal Coil Surface Coating | 260.463<br>260.466 | 260.464<br>260.465 | | | | | | | | | | | | | | | |
| BBB | Standards of Performance for the Rubber Tire Manufacturing Industry | 260.543<br>260.547 | 260.544<br>260.545<br>260.546 | | | | | | | | | | | | | | | |
| FFF | Standards of Performance for Flexible Vinyl and Urethane Coating and Printing | 260.583 | 260.584<br>260.585 | | | | | | | | | | | | | | | |
| JJJ | Standards of Performance for Petroleum Dry Cleaners | | | | | | | | | | | | | | | | | |

| SUBPART | New Source Performance Standards (40 CFR 60) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cb, F | Portland Cement Plants | | | | | | | | | | | | | | | | | | |
| Dc | Small Industrial -Commercial -Institutional Steam Generators >10 MM Btu but <100 MM Btu. | | | | | | | | | | | | | | | | | | |
| Ea | Municipal Waste Combustors | | | | | | | | | | | | | | | | | | |
| G | Nitric Acid Plants | | | | | | | | | | | | | | | | | | |
| H & Cb | Sulfuric Acid Plants | | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subpart** | | | | | | | | | | | | | | | | | | |
| N | Oxygen Process Furnaces | | | | | | | | | | | | | | | | | |
| Na | Oxygen Process Steelmaking Facilities | | | | | | | | | | | | | | | | | |
| P | Primary Copper Smelters | | | | | | | | | | | | | | | | | |
| Q | Primary Zinc Smelters | | | | | | | | | | | | | | | | | |
| R | Primary Lead Smelters | | | | | | | | | | | | | | | | | |
| S | Primary Aluminum Reduction Plants | | | | | | | | | | | | | | | | | |
| T & U | Phosphate Fertilizer Industry | | | | | | | | | | | | | | | | | |
| V,W,X | Phosphate Fertilizer Industry | | | | | | | | | | | | | | | | | |
| Y | Coal Preparation Plants | | | | | | | | | | | | | | | | | |
| Z | Ferroalloy Production Facilities | | | | | | | | | | | | | | | | | |
| AA, AAa | Steel Plants | | | | | | | | | | | | | | | | | |
| BB | Kraft Pulp Mills | | | | | | | | | | | | | | | | | |
| CC | Glass Manufacturing Plants | | | | | | | | | | | | | | | | | |
| HH | Lime Manufacturing Plants | | | | | | | | | | | | | | | | | |
| KK | Lead-Acid Battery Manufacturing Plants | | | | | | | | | | | | | | | | | |
| LL | Metallic Mineral Processing Plants | | | | | | | | | | | | | | | | | |
| MM | Automobile and Light-Duty Truck Surface Coating Operations | | | | | | | | | | | | | | | | | |
| NN | Phosphate Rock Plants | | | | | | | | | | | | | | | | | |
| PP | Ammonium Sulfate Manufacture | | | | | | | | | | | | | | | | | |
| UU | Asphalt Processing and Asphalt Roofing Manufacture | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VV | Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. | | | | | | | | | | | | | | | | | |
| WW | Beverage Can Surface Coating Industry | | | | | | | | | | | | | | | | | |
| XX | Bulk Gasoline Terminals | | | | | | | | | | | | | | | | | |
| AAA | New Residential Wood Heaters | | | | | | | | | | | | | | | | | |
| DDD | VOC Emissions from the Polymer Mfg. Ind. | | | | | | | | | | | | | | | | | |
| GGG | Equipment Leaks of VOC in Petroleum Refineries. | | | | | | | | | | | | | | | | | |

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| **Subpart** | | | | | | | | | | | | | | | | | | |
| HHH | Synthetic Fiber Production Facilities | | | | | | | | | | | | | | | | | |
| KKK, LLL | Onshore Natural Gas Processing: VOC Equipment Leaks and $SO_2$ Emissions. | | | | | | | | | | | | | | | | | |
| HHH | Synthetic Fiber Production Facilities | | | | | | | | | | | | | | | | | |
| KKK, LLL | Onshore Natural Gas Processing: VOC Equipment Leaks and $SO_2$ Emissions. | | | | | | | | | | | | | | | | | |
| NNN | VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations. | | | | | | | | | | | | | | | | | |
| OOO | Standard of Performance for Nonmetallic Mineral Processing Plants | | | | | | | | | | | | | | | | | |
| PPP | Wool Fiberglass Insulation Mfg. Plants | | | | | | | | | | | | | | | | | |
| QQQ | VOC Emissions from Petroleum Refinery Wastewater Systems. | | | | | | | | | | | | | | | | | |
| RRR | VOC Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes. | | | | | | | | | | | | | | | | | |
| SSS | Magnetic Tape Coating Facilities | | | | | | | | | | | | | | | | | |
| TTT | Industrial Surface Coating Surface, Surface Coating of Plastic Parts for Business Machines. | | | | | | | | | | | | | | | | | |
| UUU | Calciners and Dryers in Mineral Industries. | | | | | | | | | | | | | | | | | |
| VVV | Polymeric Coating of Supporting Substances Facilities. | | | | | | | | | | | | | | | | | |
| WWW | Standards of Performance for Municipal Solid Waste Facilities | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IIII | Stationary Compression Ignition Internal Combustion Engines NSPS | | | | | | | | | | | | | | | | | |
| JJJJ | Stationary Spark Ignition Internal Combustion Engines NSPS | | | | | | X | | | | | | | | | | | |
| **SUBPART** | **REGULATION XI - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS)** | | | | | | | | | | | | | | | | | |
| A | General Provisions | | | | | | | | | | | | | | | | | |
| C, D | Beryllium Extraction Plants; Ceramic Plants, Foundries, Incinerators, Propellant Plants, and Machine Shops that Process Beryllium Containing Material; and Rocket Motor Firing Test Sites. | | | | | | | | | | | | | | | | | |

| **RULE** | **RULE DESCRIPTION** | Test Method or Rule Section | Monitoring, Records, Reports, Rule Section | Facility | Gas Turbines | IC Engine - Fire Pump | IC Engine - Black Start | | | | | | | | | | | Future Effective Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subpart** | | | | | | | | | | | | | | | | | | |
| E | Mercury Ore Processing; Manufacturing Processes Using Mercury Chloralkali Cells; and Sludge Incinerators. | | | | | | | | | | | | | | | | | |
| F | Ethylene Dichloride Mfg. Via Oxygen, HCI and Ethylene; Vinyl Chloride Mfg.; and Polyvinyl Chloride Mfg. | | | | | | | | | | | | | | | | | |
| M | Asbestos Mills; Roadway Surfacing with Asbestos Tailings; Manufacture of Products Containing Asbestos; Demolition; Renovation; and Spraying and Disposal of Asbestos Waste. | | | | | | | | | | | | | | | | | |
| **SUBPART** | **NESHAPS (40 CFR 61)** | | | | | | | | | | | | | | | | | |
| B,Q,R, T,W, | Underground Uranium Mines; Dept. of Energy Facilities; Phosphorus Fertilizer Plants; & Facilities Processing or Disposing of Uranium Ore & Tailings. | | | | | | | | | | | | | | | | | |
| H,I,K | Dept. of Energy; Nuclear Regulatory Commission Licensed Facilities; Other Federal Facilities; and Elemental Phosphorus Plants. (Radionuclide) | | | | | | | | | | | | | | | | | |
| J,L,Y, BB,FF | Fugitive Process, Storage, and Transfer Equipment Leaks; Coke By-Product Recovery Plants; Benzene Storage Vessels; Benzene Transfer Operations; and Benzene Waste Operations. | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N,O,P | Glass Manufacturer; Primary Copper Smelter; Arsenic Trioxide and Metallic Arsenic Production Facilities. | | | | | | | | | | | | | | | | | |
| V | Pumps, Compressors, Pressure Relief Devices, Connections, Valves, Lines, Flanges, Product Accumulator Vessels, etc. in VHAP Service. | | | | | | | | | | | | | | | | | |
| **SUBPART** | **MACT Standards (40 CFR 63)** | | | | | | | | | | | | | | | | | |
| F,G, H,I | Amendment: Reopening, Averaging Issue | | | | | | | | | | | | | | | | | |
| L | Coke Ovens | | | | | | | | | | | | | | | | | |
| O | Ethylene Oxide Sterilizers | | | | | | | | | | | | | | | | | |
| Q | Industrial Process Cooling Towers | | | | | | | | | | | | | | | | | |
| R | Gasoline Distribution Facilities | | | | | | | | | | | | | | | | | |
| **RULE** | **RULE DESCRIPTION** | Test Method or Rule Section | Monitoring, Records, Reports, Rule Section | Facility | Gas Engines | IC Engine - Fire Pump | IC Engine - Black Start | | | | | | | | | | | Future Effective Date |
| **Subpart** | | | | | | | | | | | | | | | | | | |
| T | Halogenated Solvent Cleaning Degreasing | | | | | | | | | | | | | | | | | |
| X | Secondary Lead Smelters | | | | | | | | | | | | | | | | | |
| Y | Marine Tank Loading/Unloading | | | | | | | | | | | | | | | | | |
| CC | Petroleum Refineries | | | | | | | | | | | | | | | | | |
| DD | Off-Site Waste and Recovery Operations | | | | | | | | | | | | | | | | | |
| EE | Magnetic Tape | | | | | | | | | | | | | | | | | |
| GG | Aerospace (Coatings) | | | | | | | | | | | | | | | | | |
| II | Shipbuilding for Ship Repair (Surface Coating) | | | | | | | | | | | | | | | | | |
| JJ | Wood Furniture Industry (Coatings) | | | | | | | | | | | | | | | | | |
| KK | Printing and Publishing | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AAAA | Municipal Solid Waste Landfills | | | | | | | | | | | | | | | | | |
| DDDDD | Industrial, Commercial and Institutional Boilers and Process Heaters | | | | | | | | | | | | | | | | | |
| MMMM | Surface Coating of Miscellaneous Metal Parts and Products | | | | | | | | | | | | | | | | | |
| PPPP | Surface Coating of Plastic Parts | | | | | | | | | | | | | | | | | |
| ZZZZ | Reciprocating Internal Combustion Engines | | | | | X | X | | | | | | | | | | | |
| YYYY | Stationary Combustion Turbines | | | | | | | | | | | | | | | | | |

**California Requirements Under 17 CCR Including Airborne Toxic Control Measures (ATCM)**

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| §93102 | Hexavalent Chromium from Chrome Plating and Chromic Acid Anodizing Operations (equivalency under CAA given at 40 CFR 63.99) | | | | | | | | | | | | | | | | | |
| §93109 | Perchloroethylene from Dry Cleaning Operations (equivalency under CAA given at 40 CFR 63.99) | | | | | | | | | | | | | | | | | |
| §93115 | Stationary Compression Ignition Engines | | | | | X | X | | | | | | | | | | | |
| §93116 | Diesel Particulate Matter from Portable Engines Rated ≥50 Horsepower | | | | | | | | | | | | | | | | | |
| §§95460 – 95476 and Appx I | Methane Emissions from Municipal Solid Waste Landfills | | | | | | | | | | | | | | | | | |

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| | **40 CFR Part 64 - Compliance Assurance Monitoring** | | | | | | | | | | | | | | | | | |
| | **40 CFR Part 68 Chemical Accident Prevention** | | | | | | | | | | | | | | | | | |
| | **Title IV - Acid Rain (40 CFR 72 through 78)** | | | | X | | | | | | | | | | | | | |

**Title VI-Ozone Depleting Compounds (40 CFR 82)**

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B | Servicing of Motor Vehicle Air Conditioners | B | | | | | | | | | | | | | | | | |
| F | Servicing of Other Air Conditioners | F | | | | | | | | | | | | | | | | |

**San Diego County Air Pollution Control District**
**10124 Old Grove Road San Diego CA 92131-1649**
**(858) 586-2600 FAX (858) 586-2601**

## TITLE V APPLICATION
## LIST OF PERMITS BY EQUIPMENT CATEGORY (FORM 1401-H2)

| Company Name | District Use Only |
|---|---|
| Orange Grove Energy, L.P.<br>Facility Address: 35435 Pala del Norte Road<br>Pala, CA 92059 | NEDS # _____<br>SITE ID # _____ |

## PERMITTED EMISSION UNITS BY EQUIPMENT CATEGORY

In the emission unit (equipment) category order entered on Form 1401-H1, Applicable Requirements Summary Checklist, list emission units by permit number for the specific emission unit (equipment) category. Under the column labeled status place an "O" if operational, "N" if non-operational, or "S" if the equipment is new and currently operating under a startup authorization. **If more space is required, use additional forms. Please type or print legibly.**

| Emission Unit Category | Application/ Permit No. | Status of Emission Unit |
|---|---|---|
| Gas Turbines | APCD2011-PTO-000889 | O |
| Gas Turbines | APCD2011-PTO-000890 | O |
| IC Engines | APCD2011-PTO-000891 | O |
| IC Engines | APCD2011-PTO-000892 | O |
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**San Diego County Air Pollution Control District**
**10124 Old Grove Road San Diego CA 92131-1649**
**(858) 586-2600 FAX (858) 586-2601**

# TITLE V APPLICATION
## Certification Statement (FORM 1401-I)

| Company Name | District Use Only |
|---|---|
| Orange Grove Energy, L.P.<br>Facility Address: 35435 Pala del Norte Road<br>Pala, CA 92059 | NEDS #_____<br>SITE ID #_____ |

***Under penalty of perjury, identify the following: (Read each statement carefully and check each box for confirmation.)***

| Applicable | Not Applicable | |
|---|---|---|
| X | | *Based on information and belief formed after reasonable inquiry, the source(s) identified in this application will continue to comply with the applicable requirement with which the source is in compliance. The applicable requirement(s) with which the source(s) is/are not in compliance is/are identified in Form 1401-L, Schedule of Compliance.* |
| | X | *Based on information and belief formed after reasonable inquiry, the source(s) identified in this application will comply with the future-effective applicable requirement(s) on a timely basis.* |
| | X | *Based on information and belief formed after reasonable inquiry, the source(s) identified in the Schedule of Compliance application form that is/are not in compliance with the applicable requirement(s), will comply in accordance with the attached compliance plan schedule.* |
| X | | *Based on information and belief formed after reasonable inquiry, information on application forms, referenced documents, all accompanying reports, and other required certifications are true, accurate, and complete.* |
| X | | *All fees required by Regulation III, Rule 40 have been paid.* |

_____ _____
Signature of Responsible Official Date

Paul E. Peterson (847) 908-2800
Print Name of Responsible Official Telepone No. of Responsible Official

Vice President of Asset Management
Title of Responsible Official

**San Diego County Air Pollution Control District**
**10124 Old Grove Road San Diego CA 92131-1649**
**(858) 586-2600 FAX (858) 586-2601**

# TITLE V APPLICATION
## Compliance Certification Schedule (FORM 1401-K)

| Company Name | District Use Only |
|---|---|
| Orange Grove Energy, L.P. | NEDS # _____ |
| Facility Address: 35435 Pala del Norte Road, Pala, CA 92059 | SITE ID # _____ |

In numerical order, list all sources that have federally enforceable requirements for compliance certification on a more frequent basis than once per year. **If more space is required, use additional forms. Please type or print legibly.**

| Permit No. | Emission Unit Name | Applicable Requirements | Frequency |
|---|---|---|---|
| APCD2011-PTO-000889 | Gas Turbine Engine Generator #1 | The permittee shall comply with the applicable requirements | Quarterly |
| | | in 40 CFR Parts 60, 72, 73, and 75. | |
| APCD2011-PTO-000890 | Gas Turbine Engine Generator #2 | The permittee shall comply with the applicable requirements | Quarterly |
| | | in 40 CFR Parts 60, 72, 73, and 75. | |
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**San Diego County Air Pollution Control District**
**10124 Old Grove Road San Diego CA 92131-1649**
**(858) 586-2600 FAX (858) 586-2601**

**TITLE V APPLICATION**
**Abatement Devices (FORM 1401-M)**

| Company Name | District Use Only |
|---|---|
| Orange Grove Energy, L.P. | NEDS # |
| Facility Address: 35435 Pala del Norte Road, Pala, CA 92059 | SITE ID # |

# LIST OF ABATEMENT DEVICES

In numerical order, list all abatement devices, the abatement device, name or description, and the emission unit or operation abated. **If more space is required, use additional forms. Please type or print legibly.**

| Permit No(s) | Abatement Device Name or Description | Emission Unit(s) or Operation(s) Abated |
|---|---|---|
| APCD2011-PTO-000889 | Oxidation catalyst for reduction of CO and VOC | Gas Turbine Engine Generator #1 |
| APCD2011-PTO-000889 | Selective Catalytic Reduction for reduction of NOx | Gas Turbine Engine Generator #1 |
| APCD2011-PTO-000890 | Oxidation catalyst for reduction of CO and VOC | Gas Turbine Engine Generator #2 |
| APCD2011-PTO-000890 | Selective Catalytic Reduction for reduction of NOx | Gas Turbine Engine Generator #2 |
| APCD2011-PTO-000892 | Three-way catalyst for reduction of CO, VOC and NOx | Emergency Natural Gas Engine (Black Start for plant) |
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COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT
10124 OLD GROVE ROAD, SAN DIEGO, CA 92131
PHONE (858) 586-2600 FAX (858) 586-2601
www.sdapcd.org

**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD2012-APP-002265

**PERMIT RECORD ID**
APCD2011-PTO-000889

J-Power USA Development Co, Ltd
Chris R. Bluse
1900 E Golf Rd #1030
Schaumburg IL 60173

EQUIPMENT ADDRESS
Orange Grove Energy LP

35435 Pala Del Norte Rd
Pala CA 92059

# PERMIT TO OPERATE

**EXPIRES: October 31, 2017**

This permit is not valid until required fees have been paid.

The above is hereby granted a Permit To Operate the article, machine, equipment or contrivance described below. This permit is not transferable to a new owner nor is it valid for operation of the equipment at another location except as specified. This Permit To Operate or copy must be posted on or within 25 feet of the equipment, or readily available on the operating premises.

## EQUIPMENT OWNER

Orange Grove Energy Chris R Bluse 1900 E Golf Rd #1030, Schaumburg, IL 60173

## EQUIPMENT DESCRIPTION

One natural gas simple cycle combustion turbine generator: Make General Electric, Model LM6000 PC SPRINT, nominal output 49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS). (APCD2008-APP-985708/CCN/Sept 2011)

Every person who owns or operates this equipment is required to comply with the conditions listed below and all applicable requirements and District rules, including but not limited to Rules 10, 20, 40, 50, 51.

Fee Schedules: 1 [92J] CEMS Evaluation (T&M)
1 [92A] Particulate Matter Source Test
1 [92R] VOC Lab Analysis (T&M)
1 [20F] Non- Aircraft Turbine Engine
1 [92F] NOx and CO Source Test
1 [92I] Ammonia Source Test

BEC: APCD2011-CON-000320

**FAILURE TO OPERATE IN COMPLIANCE IS A MISDEMEANOR SUBJECT TO CIVIL AND CRIMINAL PENALTIES**

1. This equipment shall be properly maintained and kept in good operating condition at all times. [Rule 21]
2. The permittee shall operate the project in accordance with all data and specifications submitted with the application. [Rule 10]
3. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District. [Rule 19]
4. The permittee shall obtain any required District permits for all ancillary combustion equipment including emergency engines, prior to on-site delivery of the equipment. [Rule 10]

5. The exhaust stacks for the combustion turbines shall be at least 80 feet in height above site base elevation. [NSR]
6. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. (Rule 62 and/or 40 CFR 60 Subpart KKKK)
7. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO2 allowances. (40 CFR Part 73)
8. The total combined operating hours for the combustion turbines of Permit No. APCD2011-PTO-000889 and APCD2011-PTO-000890 shall not exceed 6,400 hours per calendar year. [NSR]
9. The permittee shall comply with the applicable requirements in 40 CFR Parts 60, 72, 73, and 75. (Rules 1412 and 1421)
10. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein. [Rule 69.3.1; Rule 21]
11. For the purposes of this Permit to Operate, startup conditions shall be defined as the period of time that begins when fuel flows to the turbine and shall continue for no longer than 30 consecutive minutes. Shutdown conditions shall be defined as the 15 minute period preceeding the moment at which fuel flow ceases. The Data Acquisition and Recording System (DAS), as required by 40 CFR75, shall record these events. This condition may be modified by the District based on field performance of the equipment. [NSR]
12. For each emission limit expressed as pounds per hour or parts per million based on a clock-hour averaging period, compliance shall be based on continuous emission data collected at least once every 15 minutes. [40 CFR Part 75; Rule 21]
13. During startup conditions, the emissions from each turbine shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the startup period.
    Pollutant - Limit, lbs/event
    Oxides of Nitrogen (NOx), calculated as NO2 - 13.25
    Carbon Monoxide (CO) - 12.05
    Volatile Organic Compounds (VOC) - 1.95
    [NSR]
14. Emissions of nitrogen oxides from each unit exhaust stack shall not exceed 25 parts per million by volume, dry basis (ppmvd) at 15 percent O2 or 150 ng/J of useful output (1.2 lb/MWh) (4 hour average pursuant to 40 CFR § 60.4380(b)). This limit applies at all times including periods of startup and shutdown. [40 CFR 60 Subpart KKKK, Appendix Table 1]
15. Excess emissions shall be as defined in 40 CFR Subpart KKKK § 60.4380. An excess emission is any unit operating period, including periods of startup and shutdown, in which the 4-hour or 30-day rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60 Subpart KKKK, Appendix Table 1.
16. For each affected unit required to continuously monitor parameters or emissions the permittee must submit to the District reports of excess emissions and monitor downtime, in accordance with § 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. Reports submitted pursuant to this requirement shall be postmarked no later than the 30th day following the end of the 6-month reporting period. 6-month reporting periods comprise January 1 through June 30, and July 1 through December 31. [40 CFR Subpart KKKK § 60.4375(a)]
17. During shutdown conditions, the emissions from each turbine shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the shutdown period
    Pollutant - Limit, lbs/event
    Oxides of Nitrogen (NOx), calculated as NO2 - 2.68
    Carbon Monoxide (CO) - 4.43
    Volatile Organic Compounds (VOC) - 0.73
    [NSR]

18. The emissions concentration of oxides of nitrogen (NOx) from the unit exhaust stack, calculated as nitrogen dioxide (NO2), shall not exceed 2.5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a clock hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]

19. The emissions concentration of carbon monoxide (CO) from the unit exhaust stack shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]

20. The volatile organic compounds (VOC) emission concentration from the unit exhaust stack, calculated as methane, measured in the exhaust stack, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. At the time of the initial compliance test, a District-approved CO/VOC surrogate relationship shall be established. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on annual source testing. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]

21. The emissions from each unit exhaust stack shall not exceed the following emission limits, except during startup and shutdown conditions, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a clock-hour averaging period.
Pollutant - Limit, lbs/hour
Oxides of Nitrogen (NOx), calculated as NO2 - 4.3
Carbon Monoxide (CO) - 6.1
Volatile Organic Compounds (VOC) - 1.3
[NSR]

22. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a calendar day averaging period.
Pollutant - Limit, lbs/day
Oxides of Nitrogen (NOx), calculated as NO2 - 141.2
Carbon Monoxide (CO) - 182.2
Volatile Organic Compounds (VOC) - 36.5
[NSR]

23. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a rolling 12 calendar month averaging period, updating once each calendar month. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.
Pollutant - Limit, tons/year
Oxides of Nitrogen (NOx), calculated as NO2 - 8.6
Carbon Monoxide (CO) - 11.3
Volatile Organic Compounds (VOC) - 2.3
[NSR]

24. Emissions of particulate matter 10 microns or less (PM10) from the unit exhaust stack shall not exceed 3.0 lbs per hour. Compliance with this limit shall be demonstrated based upon initial source testing calculated as the average of three subtests. The total PM and condensable PM measured using EPA Method 5 and 202 will be assumed to be PM10. [NSR; Rule 21]

25. The discharge of total particulate matter from the unit exhaust stack of the combustion turbine shall not exceed 0.10 grains per dry standard cubic foot standardized to 12% CO2. The District may require periodic testing to verify compliance with this standard. [Rule 53]

26. Ammonia emissions from each turbine shall not exceed 5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen, averaged over a clock-hour period. This limit shall not apply during startup and shutdown conditions. Compliance with this limit shall be demonstrated through source testing calculated as the average of three subtests and utilizing one of the following procedures:
a. Calculate ammonia emissions using the following equation:
NH3 = ((a-(b * c/1,000,000)) * (1,000,000/b)) * d
Where: a = ammonia injection rate (lbs/hour) / (17.0 lbs/lb-mole),
b = exhaust flow rate at 15% oxygen / (29 lbs/lb-mole)
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst,
d = ratio of measured ammonia slip to calculate ammonia slip as derived during compliance testing.
b. Calculate ammonia emissions using the following equation:
NH3 = (((a / b) * 1,000,000) - 1.2c) * d
Where: a = ammonia injection rate (lbs/hour) / (0.04478 lbs NH3 / cft NH3),
b = exhaust flow rate at 15% oxygen (scft/hour),
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst,
d = ratio of measured ammonia slip to calculated ammonia slip as derived during compliance testing.
[Rule 1200]

27. Visible emissions, including emissions from the lube oil vents and the exhaust stack of the unit shall not exceed 20% opacity, excluding water vapor, for more than three (3) minutes in any period of 60 consecutive minutes. (Rule 50)

28. Total aggregate emissions from all stationary emission units at this stationary source, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d) (1), shall not exceed the following limits in each rolling 12-calendar month period. The total aggregate emissions shall include emissions during all times that the equipment is operating, including but not limited to, emissions during periods of commissioning, startup, shutdown and tuning. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.
i. Oxides of Nitrogen (NOx): 50 tons/year
ii. Carbon Monoxide (CO): 100 tons/year
iii. Volatile Organic Compounds (VOC): 50 tons/year
iv. Oxides of Sulfur (SOx): 100 tons/year
v. Particulate Matter (PM10): 100 tons/year
[NSR]

29. The emissions of any single federal Hazardous Air Pollutant (HAP) shall not equal or exceed 10 tons, and the aggregate emissions of all federal HAPs shall not equal or exceed 25 tons in any rolling 12-calendar month period. Compliance with these single and aggregate HAP limits shall be based on a methodology approved by the District for the purpose of calculating HAP emissions for this permit. If emissions exceed these limits, the permittee shall apply to amend this permit to reflect applicable federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR Part 63. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter. [40 CFR Part 63]

30. Before operating an SCR system, continuous monitors shall be installed on each SCR system to monitor or calculate, and record the ammonia injection rate (lbs/hour) and the SCR catalyst temperature (°F). The monitors shall be installed, calibrated and maintained in accordance with a District approved protocol. This protocol, which shall include the calculation methodology, shall be submitted to the District for written approval at least 60 days prior to initial startup of the gas turbines with the SCR system. The monitors shall be in full operation at all times when the turbine is in operation. [NSR]

31. Except during startup and shutdown conditions, the water injection system, the SCR system and oxidation catalyst control system, including the ammonia injection system serving the turbine, shall be in full operation at all times when the turbine is in operation. [NSR]

32. Except during periods when the ammonia injection system is being tuned or one or more ammonia injection systems is in manual control (for compliance with applicable permits), the automatic ammonia injection system serving the SCR shall be in operation in accordance with manufacturer's specifications at all times when ammonia is being injected into the SCR. Manufacturer specifications shall be maintained on site and made available to District personnel upon request. [NSR]

33. In the event of a breakdown in an automatic ammonia injection control system, the unit shall be shut down or a trained operator shall operate the ammonia injection control system manually and the breakdown shall be reported to the District Compliance Division pursuant to Rule 98(B)(1) and 98(E). (Rule 98)

34. The concentration of ammonia solution used in the ammonia injection system shall be less than 20% ammonia by weight. Records of ammonia deliveries and ammonia solution concentration shall be maintained on site and made available to District personnel upon request. [Rule 1200]

35. The permittee shall submit a source test protocol to the District for approval. The source test protocol shall comply with the following requirements:
a. Measurements of NOX, CO, and O2 emissions shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) methods 7E, 10, and 3A, respectively, and district Source Test, method 100, or alternative methods approved by the District;
b. Measurement of VOC emissions shall be conducted in accordance with EPA Methods 25A and/or 18, or alternative methods approved by the District;
c. Measurements of PM-10 emissions shall be conducted in accordance with EPA Methods 5 and 201A or 202, or alternative methods approved by the district;
d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District ST-1B or an alternative method approved by the District;
e. Source testing shall be performed at the normal load level, as specified in 40 CFR part 75 Appendix A Section 6.52.1.d, provided it is not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the district that the unit cannot operate under these conditions . If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous level power level.
f. Measurements of opacity shall be conducted in accordance with EPA Method 9 or an alternative method approved by the District.
g. Measurement of fuel flow shall be conducted in accordance with an approved test protocol.
[Rule 69.3.1; Rule 21]

36. Each turbine shall be equipped with continuous monitors to measure or calculate, and record, the following operational characteristics of each unit:
i. Hours of operation (hours),
ii. Natural gas flow rate (scfh),
iii. Heat input rate (MMBtu /hr),
iv. Exhaust gas temperature (°F),
v. Power output (gross MW).
vi. Water (for NOx control) injection rate (gal/hour) if equipped with water injection.
vii. SCR inlet temperature (°F)
viii. Ammonia injection rate (gal/hour)
[NSR; Rule 21]

37. A CEMS Protocol is a document approved in writing by the APCD M&TS division that describes the Quality Assurance and Quality Control procedures for monitoring, calculating and recording stack emissions from the unit. [Rule 69.3.1; Rule 21]

38. The permittee shall submit a turbine operation monitoring protocol, which shall include relevant calculation methodologies to the District for written approval. The monitors shall be installed, calibrated, and maintained in accordance with the protocol. The monitors should be in full operation at all times when the turbine is in operation. Calibration records for the continuous monitors shall be maintained on site and made available to the district upon request. The permittee shall make the site available for inspection of the turbine operation monitors and monitor maintenance records by representatives of the District, CARB, and the California Energy Commissions. [Rule 69.3.1; Rule 21]

39. The exhaust stacks for each turbine shall be equipped with source test ports and platforms to allow for the measurement and collection of stack gas samples consistent with all approved test protocols. The ports and platforms shall be constructed in accordance with District Method 3A, Figure 2, and approved by the District. [Rule 19]
40. If source testing will be performed by an independent contractor and witnessed by the District, a source test protocol shall be submitted to the District for written approval at least 30 days prior to source testing. [Rule 69.3.1]
41. Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval. [Rule 69.3.1]
42. This unit shall be source tested to demonstrate compliance with the NOx, CO, VOC, and Ammonia emission standards of this permit, using District approved methods. The source test and the NOx and CO RATA tests shall be conducted in accordance with the RATA frequency requirements of 40 CFR 75 Appendix B, Sections 2.3.1 and 2.3.3. (NSR, Rule 1200)
43. The permittee shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. [40 CFR Part 75; Rule 21]
44. At least 60 days prior to the operation of the CEMs, the permittee shall submit a CEMs operating protocol to the District for written approval. The permittee shall make the site available for inspection of the CEMs and CEMs maintenance records by representatives of the District, CARB, and the California Energy Commission. [Rule 69.3.1]
45. A monitoring plan in conformance with 40 CFR 75.53 shall be submitted to U.S EPA Region 9 and the District at least 45 days prior to the Relative Accuracy Test Audit test, as required in 40 CFR 75.62. [40 CFR Part 75]
46. A Relative Accuracy Test Audit (RATA) and other required certification tests shall be performed and completed on the CEMs in accordance with 40 CFR Part 75 Appendix A Specifications and Test Procedures. At least 60 days prior to the test date, the permittee shall submit a test protocol to the District for written approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present. Within 30 days of completion of this test, a written test report shall be submitted to the District for approval. [40 CFR Part 75]
47. The Oxides of Nitrogen (NOx) and Oxygen (O2) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of:
    a. Sections 75.10 and 75.12 of Title 40 Code of Federal Regulations Part 75 (40 CFR 75);
    b. The performance specifications of Appendix A of 40 CFR 75;
    c. The quality assurance procedures of Appendix B of 40 CFR 75;
    d. The CEMs protocol approved by the District.

    The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit.
    [Rule 69.3.1]

48. Continuous emission monitoring system (CEMS) shall be installed and properly maintained and calibrated to measure, calculate and record the following, in accordance with the District approved CEMS protocol:
a. Percent oxygen (O2) in the exhaust gas (%);
b. Average concentration of oxides of nitrogen (NOx) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;
c. Average concentration of carbon monoxide (CO) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;
d. Average concentration of volatile organic compound (VOC) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen, based on the CO/VOC surrogate relationship;
e. Clock hour mass emissions of oxides of nitrogen (NOx), in lbs/hour;
f. Clock hour mass emissions of carbon monoxide (CO), in lbs/hour;
g. Clock hour mass emissions of volatile organic compound (VOC) in lbs/hour, based on the CO/VOC surrogate relationship;
h. Calendar day mass emissions of oxides of nitrogen (NOx) in lbs/day;
i. Calendar day mass emissions of carbon monoxide (CO) in lbs/day;
j. Calendar day mass emissions of volatile organic compounds (VOC) in lbs/day;
k. Rolling 12-calendar month mass emissions of oxides of nitrogen (NOx), in tons;
l. Rolling 12-calendar month mass emissions of carbon monoxide (CO), in tons.
m. Rolling 12 calendar month mass emissions of volatile organic compound (VOC), in tons;
n. Natural gas flow rate to turbine in hscf/hr.
o. Average concentration of ammonia slip emission for each clock- hour period, in parts per million by volume (ppmv) corrected to 15% oxygen, calculated in accordance with Condition 24.
[Rule 69.3.1]

49. The CEMS shall be in operation in accordance with the district approved CEMs monitoring protocol at all times when the turbine is in operation. A copy of the District approved CEMS monitoring protocol shall be maintained on site and made available to District personnel upon request. [Rule 69.3.1]

50. When the CEMS is not recording data and the turbine is operating, hourly NOx emissions for the annual emission calculations shall be determined in accordance with 40 CFR 75 Subpart C. Additionally, hourly CO emissions for annual emission calculations shall be determined using CO emission factors to be determined from source test emission factors, recorded CEMS data, and fuel consumption data, in terms of pounds per hour of CO for the gas turbine. Emission calculations used to determine hourly emission rates shall be reviewed and approved by the District, in writing, before the hourly emission rates are incorporated into the CEMS emission data. [NSR]

51. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurence. (CA Health and Safety Code)

52. The CEMS shall be maintained and operated, and reports submitted, in accordance with applicable federal requirements including Appendices B and F of 40 CFR Part 60, Appendices A and B of 40 CFR Part 75, 40 CFR Parts 75.10 and 75.12, and a CEMS Protocol approved by the District. [Rule 69.3.1]

53. An operating log or data acquisition and handling system (DAHS) records shall be maintained either on site or at a district-approved alternate location to record actual times and durations of all startups and shut-downs, quantity of fuel used (hscf) in each clock hour, calendar month and 12 calendar month period, hours of daily operation and total cumulative hours of operation during each calendar year. [NSR]

54. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS. [NSR]

55. Fuel flowmeters with an accuracy of +/- 2% shall be maintained to measure the volumetric flow rate corrected for temperature and pressure. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR part 75, Appendix D, and Section 2.1.6. [Rule 69.3.1]

56. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. [Rule 1421]

57. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.

58. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT
10124 OLD GROVE ROAD, SAN DIEGO, CA 92131
PHONE (858) 586-2600 FAX (858) 586-2601
www.sdapcd.org

**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD2012-APP-002265

**PERMIT RECORD ID**
APCD2011-PTO-000890

J-Power USA Development Co, Ltd
Chris R. Bluse
1900 E Golf Rd #1030
Schaumburg IL 60173

EQUIPMENT ADDRESS
Orange Grove Energy LP

35435 Pala Del Norte Rd
Pala CA 92059

# PERMIT TO OPERATE

**EXPIRES: October 31, 2017**

This permit is not valid until required fees have been paid.

The above is hereby granted a Permit To Operate the article, machine, equipment or contrivance described below. This permit is not transferable to a new owner nor is it valid for operation of the equipment at another location except as specified. This Permit To Operate or copy must be posted on or within 25 feet of the equipment, or readily available on the operating premises.

## EQUIPMENT OWNER

Orange Grove Energy Chris R Bluse 1900 E Golf Rd #1030, Schaumburg, IL 60173

## EQUIPMENT DESCRIPTION

One natural gas simple cycle combustion turbine generator (Unit 2): Make General Electric, Model LM6000 PC SPRINT, nominal output 49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS). (APCD2008-APP-985711/CCN/Sept 2011)

Every person who owns or operates this equipment is required to comply with the conditions listed below and all applicable requirements and District rules, including but not limited to Rules 10, 20, 40, 50, 51.

Fee Schedules: 1 [92A] Particulate Matter Source Test
1 [92J] CEMS Evaluation (T&M)
1 [92I] Ammonia Source Test
1 [92F] NOx and CO Source Test
1 [92R] VOC Lab Analysis (T&M)
1 [20F] Non- Aircraft Turbine Engine

BEC: APCD2011-CON-000320

**FAILURE TO OPERATE IN COMPLIANCE IS A MISDEMEANOR SUBJECT TO CIVIL AND CRIMINAL PENALTIES**

1. This equipment shall be properly maintained and kept in good operating condition at all times. (NSR)
2. The permittee shall operate the project in accordance with all data and specifications submitted with the application. (Rule 10)
3. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District. [Rule 19]
4. The permittee shall obtain any necessary District permits for all ancillary combustion equipment including emergency engines, prior to on-site delivery of the equipment. (Rule 10)

5. The exhaust stacks for the combustion turbines shall be at least 80 feet in height above site base elevation. (NSR)
6. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. (Rule 62 and/or 40 CFR 60 Subpart KKKK)
7. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO2 allowances. (40 CFR Part 73)
8. The total combined operating hours for the combustion turbines of Permit No. APCD2011-PTO-000889 and APCD2011-PTO-000890 shall not exceed 6,400 hours per calendar year. (NSR)
9. The permittee shall comply with the applicable requirements in 40 CFR Parts 60, 72, 73, and 75. (Rules 1412 and 1421)
10. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein. (Rule 69.3.1; Rule 21)
11. For the purposes of this Permit to Operate, startup conditions shall be defined as the period of time that begins when fuel flows to the turbine and shall continue for no longer than 30 consecutive minutes. Shutdown conditions shall be defined as the 15 minute period preceeding the moment at which fuel flow ceases. The Data Acquisition and Recording System (DAS), as required by 40 CFR75, shall record these events. This condition may be modified by the District based on field performance of the equipment. (NSR)
12. For each emission limit expressed as pounds per hour or parts per million based on a clock-hour averaging period, compliance shall be based on continuous emission data collected at least once every 15 minutes. (40 CFR Part 75; Rule 21)
13. During startup conditions, the emissions from each unit exhaust stack shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the startup period.
    Pollutant Limit, lbs/event
    Oxides of Nitrogen (NOx), calculated as NO2 13.25
    Carbon Monoxide (CO) 12.05
    Volatile Organic Compounds (VOC) 1.95
    (NSR)
14. Emissions of nitrogen oxides from each unit exhaust stack shall not exceed 25 parts per million by volume, dry basis (ppmvd) at 15 percent O2 or 150 ng/J of useful output (1.2 lb/MWh) (4 hour average pursuant to 40 CFR § 60.4380(b)). This limit applies at all times including periods of startup and shutdown. [40 CFR 60 Subpart KKKK, Appendix Table 1]
15. Excess emissions shall be as defined in 40 CFR Subpart KKKK § 60.4380. An excess emission is any unit operating period, including periods of startup and shutdown, in which the 4-hour or 30-day rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60 Subpart KKKK, Appendix Table 1.
16. For each affected unit required to continuously monitor parameters or emissions the permittee must submit to the District reports of excess emissions and monitor downtime, in accordance with § 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. Reports submitted pursuant to this requirement shall be postmarked no later than the 30th day following the end of the 6-month reporting period. 6-month reporting periods comprise January 1 through June 30, and July 1 through December 31. [40 CFR Subpart KKKK § 60.4375(a)]
17. During shutdown conditions, the emissions from each unit exhaust stack shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the shutdown period
    Pollutant Limit, lbs/event
    Oxides of Nitrogen (NOx), calculated as NO2 2.68
    Carbon Monoxide (CO) 4.43
    Volatile Organic Compounds (VOC) 0.73
    (NSR)

18. The emissions concentration of oxides of nitrogen (NOx) from the unit exhaust stack, calculated as nitrogen dioxide (NO2), shall not exceed 2.5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a clock hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. (NSR)

19. The emissions concentration of carbon monoxide (CO) from the unit exhaust stack shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. (NSR)

20. The volatile organic compounds (VOC) emission concentration from the unit exhaust stack, calculated as methane, measured in the exhaust stack, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. At the time of the initial compliance test, a District-approved CO/VOC surrogate relationship shall be established. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on annual source testing. This limit shall not apply during startup and shutdown conditions as defined herein. (NSR)

21. The emissions from each unit exhaust stack shall not exceed the following emission limits, except during startup and shutdown conditions, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a clock-hour averaging period.

| Pollutant | Limit, lbs/hour |
|---|---|
| Oxides of Nitrogen (NOx), calculated as NO2 | 4.3 |
| Carbon Monoxide (CO) | 6.1 |
| Volatile Organic Compounds (VOC) | 1.3 |

(NSR)

22. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a calendar day averaging period.

| Pollutant | Limit, lbs/day |
|---|---|
| Oxides of Nitrogen (NOx), calculated as NO2 | 141.2 |
| Carbon Monoxide (CO) | 182.2 |
| Volatile Organic Compounds (VOC) | 36.5 |

(NSR)

23. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a rolling 12 calendar month averaging period, updating once each calendar month. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.

| Pollutant | Limit, tons/year |
|---|---|
| Oxides of Nitrogen (NOx), calculated as NO2 | 8.6 |
| Carbon Monoxide (CO) | 11.3 |
| Volatile Organic Compounds (VOC) | 2.3 |

(NSR)

24. Emissions of particulate matter 10 microns or less (PM10) from the unit exhaust stack shall not exceed 3.0 lbs per hour. Compliance with this limit shall be demonstrated based upon initial source testing calculated as the average of three subtests. The total PM and condensable PM measured using EPA Method 5 and 202 will be assumed to be PM10. (NSR; Rule 21)

25. The discharge of total particulate matter from the unit exhaust stack of the combustion turbine shall not exceed 0.10 grains per dry standard cubic foot standardized to 12% CO2. The District may require periodic testing to verify compliance with this standard. (Rule 53)

26. Ammonia emissions from each unit exhaust stack shall not exceed 5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen, averaged over a clock-hour period. This limit shall not apply during startup and shutdown conditions. Compliance with this limit shall be demonstrated through source testing calculated as the average of three subtests and utilizing one of the following procedures:
a. Calculate ammonia emissions using the following equation:
NH3 = ((a-(b * c/1,000,000)) * (1,000,000/b)) * d
Where: a = ammonia injection rate (lbs/hour) / (17.0 lbs/lb-mole),
b = exhaust flow rate at 15% oxygen / (29 lbs/lb-mole)
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst,
d = ratio of measured ammonia slip to calculate ammonia slip as derived during compliance testing.
b. Calculate ammonia emissions using the following equation:
NH3 = (((a / b) * 1,000,000) - 1.2c) * d
Where: a = ammonia injection rate (lbs/hour) / (0.04478 lbs NH3 / cft NH3),
b = exhaust flow rate at 15% oxygen (scft/hour),
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst,
d = ratio of measured ammonia slip to calculated ammonia slip as derived during compliance testing. (Rule 1200)

27. Visible emissions, including emissions from the lube oil vents and the exhaust stack of the unit shall not exceed 20% opacity, excluding water vapor, for more than three (3) minutes in any period of 60 consecutive minutes. (Rule 50)

28. Total aggregate emissions from all stationary emission units at this stationary source, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d) (1), shall not exceed the following limits in each rolling 12-calendar month period. The total aggregate emissions shall include emissions during all times that the equipment is operating, including but not limited to, emissions during periods of commissioning, startup, shutdown and tuning. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.
i. Oxides of Nitrogen (NOx): 50 tons/year
ii. Carbon Monoxide (CO): 100 tons/year
iii. Volatile Organic Compounds (VOC): 50 tons/year
iv. Oxides of Sulfur (SOx): 100 tons/year
v. Particulate Matter (PM10) 100 tons/year
(NSR)

29. The emissions of any single federal Hazardous Air Pollutant (HAP) shall not equal or exceed 10 tons, and the aggregate emissions of all federal HAPs shall not equal or exceed 25 tons in any rolling 12-calendar month period. Compliance with these single and aggregate HAP limits shall be based on a methodology approved by the District for the purpose of calculating HAP emissions for this permit. If emissions exceed these limits, the permittee shall apply to amend this permit to reflect applicable federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR Part 63. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter. (40 CFR Part 63)

30. Before operating an SCR system, continuous monitors shall be installed on each SCR system to monitor or calculate, and record the ammonia injection rate (lbs/hour) and the SCR catalyst temperature (°F). The monitors shall be installed, calibrated and maintained in accordance with a District approved protocol. This protocol, which shall include the calculation methodology, shall be submitted to the District for written approval at least 60 days prior to initial startup of the gas turbines with the SCR system. The monitors shall be in full operation at all times when the turbine is in operation. (NSR)

31. Except during startup and shutdown conditions, the water injection system, the SCR system and oxidation catalyst control system, including the ammonia injection system serving the turbine, shall be in full operation at all times when the turbine is in operation. (NSR)

32. Except during periods when the ammonia injection system is being tuned or one or more ammonia injection systems is in manual control (for compliance with applicable permits), the automatic ammonia injection system serving the SCR shall be in operation in accordance with manufacturer's specifications at all times when ammonia is being injected into the SCR. Manufacturer specifications shall be maintained on site and made available to District personnel upon request. (NSR)

33. In the event of a breakdown in an automatic ammonia injection control system, the unit shall be shut down or a trained operator shall operate the ammonia injection control system manually and the breakdown shall be reported to the District Compliance Division pursuant to Rule 98(B)(1) and 98(E). (Rule 98)

34. The concentration of ammonia solution used in the ammonia injection system shall be less than 20% ammonia by weight. Records of ammonia deliveries and ammonia solution concentration shall be maintained on site and made available to District personnel upon request. (Rule 1200)

35. The permittee shall submit a source test protocol to the District for approval. The source test protocol shall comply with the following requirements:
a. Measurements of NOX, CO, and O2 emissions shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) methods 7E, 10, and 3A, respectively, and district Source Test, method 100, or alternative methods approved by the District;
b. Measurement of VOC emissions shall be conducted in accordance with EPA Methods 25A and/or 18, or alternative methods approved by the District;
c. Measurements of PM-10 emissions shall be conducted in accordance with EPA Methods 5 and 201A or 202, or alternative methods approved by the district;
d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District ST-1B or an alternative method approved by the District;
e. Source testing shall be performed at the normal load level, as specified in 40 CFR part 75 Appendix A Section 6.52.1.d, provided it is not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the district that the unit cannot operate under these conditions . If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous level power level.
f. Measurements of opacity shall be conducted in accordance with EPA Method 9 or an alternative method approved by the District.
g. Measurement of fuel flow shall be conducted in accordance with an approved test protocol.
(Rule 69.3.1; Rule 21)

36. Each turbine shall be equipped with continuous monitors to measure or calculate, and record, the following operational characteristics of each unit:
i. Hours of operation (hours),
ii. Natural gas flow rate (scfh),
iii. Heat input rate (MMBtu /hr),
iv. Exhaust gas temperature (°F),
v. Power output (gross MW).
vi. Water (for NOx control) injection rate (gal/hour) if equipped with water injection.
vii. SCR inlet temperature (°F)
viii. Ammonia injection rate (gal/hour)
(NSR; Rule 21)

37. A CEMS Protocol is a document approved in writing by the APCD M&TS Division that describes the quality assurance and quality control procedures for monitoring, calculating and recording stack emissions from the unit. (Rule 69.3.1; Rule 21)

38. The permittee shall submit a turbine operation monitoring protocol, which shall include relevant calculation methodologies to the District for written approval. The monitors shall be installed, calibrated, and maintained in accordance with the protocol. The monitors should be in full operation at all times when the turbine is in operation. Calibration records for the continuous monitors shall be maintained on site and made available to the District upon request. The permittee shall make the site available for inspection of the turbine operation monitors and monitor maintenance records by representatives of the District, CARB, and the California Energy Commissions. (Rule 69.3.1; NSR; Rule 21)

39. The exhaust stacks for each turbine shall be equipped with source test ports and platforms to allow for the measurement and collection of stack gas samples consistent with all approved test protocols. The ports and platforms shall be constructed in accordance with District Method 3A, Figure 2, and approved by the District. (Rule 19)
40. If source testing will be performed by an independent contractor and witnessed by the District, a source test protocol shall be submitted to the District for written approval at least 30 days prior to source testing. (Rule 69.3.1)
41. Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval. (Rule 69.3.1)
42. This unit shall be source tested to demonstrate compliance with the NOx, CO, VOC, and Ammonia emission standards of this permit, using District approved methods. The source test and the NOx and CO RATA tests shall be conducted in accordance with the RATA frequency requirements of 40 CFR 75 Appendix B, Sections 2.3.1 and 2.3.3. (NSR, Rule 1200)
43. The permittee shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. (40 CFR Part 75; Rule 21)
44. At least 60 days prior to the operation of the CEMs, the permittee shall submit a CEMs operating protocol to the District for written approval. The permittee shall make the site available for inspection of the CEMs and CEMs maintenance records by representatives of the District, CARB, and the California Energy Commission. (Rule 69.3.1)
45. A monitoring plan in conformance with 40 CFR 75.53 shall be submitted to U.S EPA Region 9 and the District at least 45 days prior to the Relative Accuracy Test Audit test, as required in 40 CFR 75.62. (40 CFR Part 75)
46. A Relative Accuracy Test Audit (RATA) and other required certification tests shall be performed and completed on the CEMs in accordance with 40 CFR Part 75 Appendix A Specifications and Test Procedures. At least 60 days prior to the test date, the permittee shall submit a test protocol to the District for written approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present. Within 30 days of completion of this test, a written test report shall be submitted to the District for approval. (40 CFR Part 75)
47. The Oxides of Nitrogen (NOx) and Oxygen (O2) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of:

    a. -Sections 75.10 and 75.12 of Title 40 Code of Federal Regulations Part 75 (40 CFR 75).

    b. -The performance specifications of Appendix A of 40 CFR 75.

    c. -The quality assurance procedures of Appendix B of 40 CFR 75.

    d. -The CEMs protocol approved by the District.

    The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit. (Rule 69.3.1)

48. Continuous emission monitoring system (CEMS) shall be installed and properly maintained and calibrated to measure, calculate and record the following, in accordance with the District approved CEMS protocol:

    a. Percent oxygen (O2) in the exhaust gas (%);

    b. Average concentration of oxides of nitrogen (NOx) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;

    c. Average concentration of carbon monoxide (CO) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;

    d. Average concentration of volatile organic compound (VOC) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen, based on the CO/VOC surrogate relationship;

    e. Clock hour mass emissions of oxides of nitrogen (NOx), in lbs/hour;

    f. Clock hour mass emissions of carbon monoxide (CO), in lbs/hour;

    g. Clock hour mass emissions of volatile organic compound (VOC) in lbs/hour, based on the CO/VOC surrogate relationship;

    h. Calendar day mass emissions of oxides of nitrogen (NOx) in lbs/day;

    i. Calendar day mass emissions of carbon monoxide (CO) in lbs/day;

    j. Calendar day mass emissions of volatile organic compounds (VOC) in lbs/day;

    k. Rolling 12-calendar month mass emissions of oxides of nitrogen (NOx), in tons;

    l. Rolling 12-calendar month mass emissions of carbon monoxide (CO), in tons.

    m. Rolling 12 calendar month mass emissions of volatile organic compound (VOC), in tons;

    n. Natural gas flow rate to turbine in hscf/hr.

    o. Average concentration of ammonia slip emission for each clock- hour period, in parts per million by volume (ppmv) corrected to 15% oxygen, calculated in accordance with Condition 24.
    (Rule 69.3.1)

49. The CEMS shall be in operation in accordance with the District approved CEMs monitoring protocol at all times when the turbine is in operation. A copy of the District approved CEMS monitoring protocol shall be maintained on site and made available to District personnel upon request. (Rule 69.3.1)

50. When the CEMS is not recording data and the turbine is operating, hourly NOx emissions for the annual emission calculations shall be determined in accordance with 40 CFR 75 Subpart C. Additionally, hourly CO emissions for annual emission calculations shall be determined using CO emission factors to be determined from source test emission factors, recorded CEMS data, and fuel consumption data, in terms of pounds per hour of CO for the gas turbine. Emission calculations used to determine hourly emission rates shall be reviewed and approved by the District, in writing, before the hourly emission rates are incorporated into the CEMS emission data. (NSR)

51. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurence. (CA Health and Safety Code)

52. The CEMS shall be maintained and operated, and reports submitted, in accordance with applicable federal requirements including Appendices B and F of 40 CFR Part 60, Appendices A and B of 40 CFR Part 75, 40 CFR Parts 75.10 and 75.12, and a CEMS Protocol approved by the District. [Rule 69.3.1]

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53. An operating log or data acquisition and handling system (DAHS) records shall be maintained either on site or at a District approved alternate location to record actual times and durations of all startups and shut-downs, quantity of fuel used (hscf) in each clock hour, calendar month and 12 calendar month period, hours of daily operation and total cumulative hours of operation during each calendar year. (NSR)
54. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS. (NSR)
55. Fuel flowmeters with an accuracy of +/- 2% shall be maintained to measure the volumetric flow rate corrected for temperature and pressure. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR part 75, Appendix D, and Section 2.1.6. (Rule 69.3.1)
56. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. (Rule 1421)
57. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
58. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

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**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD2007-APP-985709

**PERMIT RECORD ID**
APCD2011-PTO-000891

J-Power USA Development Co, Ltd
Chris R. Bluse
1900 E Golf Rd #1030
Schaumburg IL 60173

EQUIPMENT ADDRESS
Orange Grove Energy LP

35435 Pala Del Norte Rd
Pala CA 92059

# PERMIT TO OPERATE

**EXPIRES: October 31, 2017**

This permit is not valid until required fees have been paid.

The above is hereby granted a Permit To Operate the article, machine, equipment or contrivance described below. This permit is not transferable to a new owner nor is it valid for operation of the equipment at another location except as specified. This Permit To Operate or copy must be posted on or within 25 feet of the equipment, or readily available on the operating premises.

**EQUIPMENT OWNER**

Orange Grove Energy Chris R Bluse 1900 E Golf Rd #1030, Schaumburg, IL 60173

**EQUIPMENT DESCRIPTION**

Emergency fire pump engine: Cummins, Model CPF11E-F10, based on Cummins diesel engine Model QSM11, S/N 35229758, rated at 373 bhp, Model Year 2008, EPA Tier 2 certified of Engine Family Number 4CEXL0661AAD.
(APCD2007-APP-985709/CCN/Sept 2011)

Every person who owns or operates this equipment is required to comply with the conditions listed below and all applicable requirements and District rules, including but not limited to Rules 10, 20, 40, 50, 51.

Fee Schedules: 1 [34H] California Certified Emergency Standby Engine

BEC: APCD2011-CON-000323

**FAILURE TO OPERATE IN COMPLIANCE IS A MISDEMEANOR SUBJECT TO CIVIL AND CRIMINAL PENALTIES**

1. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
2. This engine shall only use CARB diesel fuel. (Rule 69.4.1, 17 CCR 93115)
3. The engine shall be operated exclusively during emergencies or for testing and maintenance. Engine operation for maintenance and testing purposes shall not exceed 0.5 hour per day and 50 hours per calendar year. (NSR; 17 CCR 93115; 40 CFR 60 Subpart ZZZZ)
4. The engine and any associated air pollution control equipment and monitoring equipment shall be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions (40CFR Subpart ZZZZ §63.6605(b)).
5. The owner or operator shall minimize engine operating time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.(40CFR Subpart ZZZZ §63.6625(h))
6. Visible emissions including crank case smoke shall comply with Air Pollution Control District Rule 50. (Rule 50)

7. The equipment described above shall not cause or contribute to a public nuisance. (Rule 51)

8. This engine shall not operate for non-emergency use during the following periods, as applicable:
(a) Whenever there is any school sponsored activity, if engine is located on school grounds or
(b) Between 7:30am and 3:30pm on days when school is in session, if the engine is located within 500 feet of, but not on, school grounds.
This condition shall not apply to an engine located at or near any school grounds that also serve as the students' place of residence. (17 CCR 93115)

9. A non-resettable engine hour meter shall be installed on this engine, maintained in good working order, and used for recording engine operation hours. If a meter is replaced, the Air Pollution Control District's Compliance Division shall be notified in writing within 10 calendar days. The written notification shall include the following information:
(a) Old meter's hour reading
(b) Replacement meter's manufacturer name, model and serial number if available and current hour reading on replacement meter
(c) Copy of receipt of new meter or of installation work order. A copy of the meter replacement notification shall be maintained onsite and made available to the Air Pollution Control District upon request.
(Rule 69.4.1, 17 CCR 93115)

10. The owner or operator of this engine shall conduct periodic maintenance of the engine and add-on control equipment, if any, as recommended by the engine and control equipment manufacturers or as specified by the engine servicing company's maintenance procedures. The periodic maintenance shall be conducted at least once each calendar year. (Rule 69.4.1)

11. The owner or operator shall change engine oil and filter every 500 hours of operation or annually, whichever comes first; or test the oil in accordance with 40 CFR § 63.6625(i).
(40 CFR 63 Subpart ZZZZ § 63.6603(a) and Table 2d(4)(b))

12. The owner or operator shall inspect the air cleaner of a compression ignition engine or inspect spark plugs of a spark ignition engine, every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63 Subpart ZZZZ § 63.6603(a) and Table 2d(4)(b))

13. The owner or operator shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63 Subpart ZZZZ)

14. The owner or operator of the engine shall maintain the following records on site for at least the same period of time as the engine to which the records apply is located at the site:
(a) Documentation shall be maintained identifying the fuel as CARB diesel.
(b) Manual of recommended maintenance provided by the manufacturer, or maintenance procedures specified by the engine servicing company; and
(c) Records of annual engine maintenance including date the maintenance was performed.
These records shall be made available to the Air Pollution Control District upon request.
(Rule 69.4.1)(17 CCR 93115)

15. The owner or operator of this engine shall maintain a monthly operating log containing, at a minimum, the following:
(a) Dates and times of engine operation; whether the operation was for maintenance and testing purposes or emergency use; and the nature of the emergency, if known;
(b) Hours of operation for all uses other than those specified above and identification of the nature of that use. (Rule 69.4.1, 17 CCR 93115)

16. The permittee shall maintain all records required by this permit including any calibration, maintenance, and other supporting information and copies of all reports required by this permit for at least five years from their date of creation. Such records shall be maintained onsite for a minimum of three years. [Rule 1421; Rule 69.4.1; 17 CCR 93115; 40 CFR 63 Subpart ZZZZ]

AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO

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**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD2007-APP-985709

**PERMIT RECORD ID**
APCD2011-PTO-000891
"APCD2011-PTO-000891"

17. The owner or operator shall submit a semiannual compliance report to the District by the end of the month following each reporting period. Reporting periods are January 1 through June 30 and July 1 through December 31. The semiannual compliance report shall contain:
a. Company name and address,
b. Statement by a responsible official (with name, title, and signature) certifying the accuracy of the report content,
c. Date of report and dates of reporting period,
d. The number, duration, and a brief description for each type of deviation which occurred during the reporting period and a description of actions taken to minimize emission and corrective actions taken,
e. If there are no deviations from requirements, a statement that there were no deviations
f. If there are deviations during the reporting period, you must include the following information:
1. Date and time that each malfunction started and stopped,
2. A summary of total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during the reporting period
(40CFR 63 Subpart ZZZZ §63.6650(b)(1))
18. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
19. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

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**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD Condition Update

**PERMIT RECORD ID**
APCD2011-PTO-000892

J-Power USA Development Co, Ltd
Chris R. Bluse
1900 E Golf Rd #1030
Schaumburg IL 60173

EQUIPMENT ADDRESS
Orange Grove Energy LP

35435 Pala Del Norte Rd
Pala CA 92059

# PERMIT TO OPERATE

**EXPIRES: October 31, 2017**

This permit is not valid until required fees have been paid.

The above is hereby granted a Permit To Operate the article, machine, equipment or contrivance described below. This permit is not transferable to a new owner nor is it valid for operation of the equipment at another location except as specified. This Permit To Operate or copy must be posted on or within 25 feet of the equipment, or readily available on the operating premises.

## EQUIPMENT OWNER

Orange Grove Energy Chris R Bluse 1900 E Golf Rd #1030, Schaumburg, IL 60173

## EQUIPMENT DESCRIPTION

Emergency black start engine: Cummins engine, fueled with natural gas, Model GTA38G2, S/N X25328866, rated at 965 bhp, equipped with Miratech catalytic converter, Model RHS-4228-14-ECI, S/N RHS-1336 and Miratech air to fuel ratio controller Model MEC-R.
(APCD2007-APP-985710/CCN/Sept 2011)

Every person who owns or operates this equipment is required to comply with the conditions listed below and all applicable requirements and District rules, including but not limited to Rules 10, 20, 40, 50, 51.

Fee Schedules: 1 [34C] Emergency Standby Engine

BEC: APCD2016-CON-001167

**FAILURE TO OPERATE IN COMPLIANCE IS A MISDEMEANOR SUBJECT TO CIVIL AND CRIMINAL PENALTIES**

1. The engine shall be operated exclusively during emergencies as defined in Rule 69.4.1 or Rule 12 or 17CCR93115 as applicable, or for maintenance and testing.
2. This engine shall not be used as a part of a non-emergency Demand Response Program (DRP). This condition shall not apply to engines operating pursuant to the rolling blackout reduction program as defined in 17 CCR 93115.4(a)(65). (Rule 12, or Rule 69.4.1)
3. This internal combustion engine shall not exceed 52 hours of operation per calendar year for non-emergency purposes (testing and maintenance).
4. This internal combustion engine shall not exceed 0.5 hour of operation per day for non-emergency purposes (testing and maintenance).
5. Gaseous fuel engines shall use only gaseous fuel which contains no more than 10 grains of sulfur compounds, calculated as hydrogen sulfide, per 100 cubic feet of dry gaseous fuel at standard conditions. Gaseous fuels include natural gas, propane, liquefied petroleum gas (LPG), butane. Gasoline engines shall use only California reformulated gasoline. (Rule 62)
6. Visible emissions including crank case smoke shall comply with Air Pollution Control District Rule 50. (Rule 50)

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**Sectors:** 1, A
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**Application Record ID:** APCD Condition Update

**PERMIT RECORD ID**
APCD2011-PTO-000892
"APCD2011-PTO-000892"

7. The equipment described above shall not cause or contribute to a public nuisance. (Rule 51)

8. A non-resettable engine hour meter shall be installed on this engine, maintained in good working order, and used for recording engine operation hours. If a meter is replaced, the Air Pollution Control District's Compliance Division shall be notified in writing within 10 calendar days. The written notification shall include the following information:
(a) old meter's hour reading,
(b) replacement meter's manufacturer name, model and serial number if available and current hour reading on replacement meter, and
(c) copy of receipt of new meter or of installation work order.
A copy of the meter replacement notification shall be maintained onsite and made available to the Air Pollution Control District upon request.
(Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ)

9. The owner or operator of this engine shall, at their discretion, either:
a) operate and maintain a certified engine and any control device according to the manufacturer's emission-related written instructions, or
b) operate and maintain the engine in a manner consistent with good air pollution control practice for minimizing emissions.
The periodic maintenance shall be conducted at least once each calendar year.
(40 CFR 60 Subpart JJJJ, or Rule 12, or Rule 69.4.1)

10. The owner or operator of the engine shall maintain the manual of recommended maintenance provided by the manufacturer, or other maintenance procedure as approved in writing by the Air Pollution Control Officer on site for at least the same period of time as the engine is located at the site.
This manual shall be made available to the Air Pollution Control District upon request.
(Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ)

11. The owner or operator of this engine shall maintain a monthly operating log containing, at a minimum, the following:
(a) dates and times of engine operation; whether the operation was for maintenance and testing purposes or emergency use; and the nature of the emergency, if known;
(b) records of periodic engine maintenance shall include the date and a description of the maintenance that was performed; and
(c) hours of operation for all uses other than those specified above and identification of the nature of that use.
(Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ)

12. All records required by this permit shall be maintained on site and readily available for District inspection for a minimum of 36 months from their date of creation unless otherwise indicated by the conditions of this permit. (Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ)

13. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.

14. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.

15. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

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**Sectors: 1, A**
**Site Record ID:** APCD2007-SITE-06289

**Application Record ID**
APCD2016-APP-004406

Orange Grove Energy LP
Ramiro Garcia
35435 East Pala del Norte Road
Pala, CA 92059

**EQUIPMENT ADDRESS**
Orange Grove Energy LP
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35435 East Pala del Norte Road
Pala, CA 92059

# AUTHORITY TO CONSTRUCT

**EXPIRES: May 5, 2017**

After examination of your Application for an Air Pollution Control District (**hereinafter referred to as** "the District") Authority to Construct and Permit to Operate for equipment located at the above location, the District has decided on the following actions:

Authority to Construct is granted pursuant to Rule 20 of the Air Pollution Control District Rules and Regulations for equipment to consist of:

Repair and maintenance of the following permitted equipment as described in Application No. APCD2016-APP-004406.

Equipment Description - Permit to Operate No. APCD2011-PTO-000889: One natural gas simple cycle combustion turbine generator: Make General Electric, Model LM6000 PC SPRINT, nominal output49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS). (APCD2008-APP-985708/CCN/Sept 2011)

Equipment Description - Permit to Operate No. APCD2011-PTO-000890: One natural gas simple cycle combustion turbine generator: Make General Electric, Model LM6000 PC SPRINT, nominal output49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS). (APCD2008-APP-985708/CCN/Sept 2011)

This Authority to Construct is issued with the following conditions:

1. This equipment shall be properly maintained and kept in good operating condition at all times. [Rule 21]

2. The permittee shall operate the project in accordance with all data and specifications submitted with the application. [Rule 10]

3. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District. [Rule 19]

4. The permittee shall obtain any required District permits for all ancillary combustion equipment including emergency engines, prior to on-site delivery of the equipment. [Rule 10]

5. The exhaust stacks for the combustion turbines shall be at least 80 feet in height above site base elevation. [NSR]

6. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. (Rule 62 and/or 40 CFR 60 Subpart KKKK)

7. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO2 allowances. (40 CFR Part 73)

8. The total combined operating hours for the combustion turbines of Permit No. APCD2011-PTO-000889 and APCD2011-PTO-000890 shall not exceed 6,400 hours per calendar year. [NSR]

9. The permittee shall comply with the applicable requirements in 40 CFR Parts 60, 72, 73, and 75. (Rules 1412 and 1421)

10. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein. [Rule 69.3.1; Rule 21]

11. For the purposes of this Permit to Operate, startup conditions shall be defined as the period of time that begins when fuel flows to the turbine and shall continue for no longer than 30 consecutive minutes. Shutdown conditions shall be defined as the 15 minute period preceding the moment at which fuel flow ceases. The Data Acquisition and Recording System (DAS), as required by 40 CFR75, shall record these events. This condition may be modified by the District based on field performance of the equipment. [NSR]

12. For each emission limit expressed as pounds per hour or parts per million based on a clock-hour averaging period, compliance shall be based on continuous emission data collected at least once every 15 minutes. [40 CFR Part 75; Rule 21]

13. During startup conditions, the emissions from each turbine shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the startup period.
    Pollutant - Limit, lbs/event
    Oxides of Nitrogen (NOx), calculated as NO2 - 13.25
    Carbon Monoxide (CO) - 12.05
    Volatile Organic Compounds (VOC) - 1.95
    [NSR]

14. Emissions of nitrogen oxides from each unit exhaust stack shall not exceed 25 parts per million by volume, dry basis (ppmvd) at 15 percent O2 or 150 ng/J of useful output (1.2 lb/MWh) (4 hour average pursuant to 40 CFR § 60.4380(b)). This limit applies at all times including periods of startup and shutdown. [40 CFR 60 Subpart KKKK, Appendix Table 1]

15. Excess emissions shall be as defined in 40 CFR Subpart KKKK § 60.4380. An excess emission is any unit operating period, including periods of startup and shutdown, in which the 4-hour or 30-day rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60 Subpart KKKK, Appendix Table 1. [40 CFR 60 Subpart KKKK]

16. For each affected unit required to continuously monitor parameters or emissions the permittee must submit to the District reports of excess emissions and monitor downtime, in accordance with § 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and

malfunction. Reports submitted pursuant to this requirement shall be postmarked no later than the 30th day following the end of the 6-month reporting period. 6-month reporting periods comprise January 1 through June 30, and July 1 through December 31. [40 CFR Subpart KKKK § 60.4375(a)]

17. During shutdown conditions, the emissions from each turbine shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the shutdown period
Pollutant - Limit, lbs/event
Oxides of Nitrogen (NOx), calculated as NO2 - 2.68
Carbon Monoxide (CO) - 4.43
Volatile Organic Compounds (VOC) - 0.73
[NSR]

18. The emissions concentration of oxides of nitrogen (NOx) from the unit exhaust stack, calculated as nitrogen dioxide (NO2), shall not exceed 2.5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]]

19. The emissions concentration of carbon monoxide (CO) from the unit exhaust stack shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]

20. The volatile organic compounds (VOC) emission concentration from the unit exhaust stack, calculated as methane, measured in the exhaust stack, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. At the time of the initial compliance test, a District-approved CO/VOC surrogate relationship shall be established. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on annual source testing. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]

21. The emissions from each unit exhaust stack shall not exceed the following emission limits, except during startup and shutdown conditions, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a clock-hour averaging period.
Pollutant - Limit, lbs/hour
Oxides of Nitrogen (NOx), calculated as NO2 - 4.3
Carbon Monoxide (CO) - 6.1
Volatile Organic Compounds (VOC) - 1.3
[NSR]

22. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a calendar day averaging period.
Pollutant - Limit, lbs/day
Oxides of Nitrogen (NOx), calculated as NO2 - 141.2
Carbon Monoxide (CO) - 182.2
Volatile Organic Compounds (VOC) - 36.5
[NSR]

23. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined

by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a rolling 12-calendar-month averaging period, updating once each calendar month. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.
Pollutant - Limit, tons/year
Oxides of Nitrogen (NOx), calculated as NO2 - 8.6
Carbon Monoxide (CO) - 11.3
Volatile Organic Compounds (VOC) - 2.3
[NSR]

24. Emissions of particulate matter 10 microns or less (PM10) from the unit exhaust stack shall not exceed 3.0 lbs per hour. Compliance with this limit shall be demonstrated based upon initial source testing calculated as the average of three subtests. The total PM and condensable PM measured using EPA Method 5 and 202 will be assumed to be PM10. [NSR; Rule 21]

25. The discharge of total particulate matter from the unit exhaust stack of the combustion turbine shall not exceed 0.10 grains per dry standard cubic foot standardized to 12% CO2. The District may require periodic testing to verify compliance with this standard. [Rule 53]

26. Ammonia Hourly Monitoring Condition. Ammonia emissions from each turbine shall not exceed 5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen, averaged over each clock-hour period. This limit shall not apply during startup and shutdown conditions. Compliance with this limit shall be demonstrated through source testing calculated as the average of three subtests and utilizing one of the following procedures:
a. Calculate ammonia emissions using the following equation: NH3 = ((a-(b * c/1,000,000)) * (1,000,000/b)) * d
Where: a = ammonia injection rate (lbs/hour) / (17.0 lbs/lb-mole),
b = exhaust flow rate at 15% oxygen / (29 lbs/lb-mole),
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst, and
d = ratio of measured ammonia slip to calculate ammonia slip as derived during compliance testing.
b. Calculate ammonia emissions using the following equation: NH3 = (((a / b) * 1,000,000) - 1.2c) * d
Where: a = ammonia injection rate (lbs/hour) / (0.04478 lbs NH3 / cft NH3),
b = exhaust flow rate at 15% oxygen (scf/hour),
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst, and
d = ratio of measured ammonia slip to calculated ammonia slip as derived during compliance testing.
[Rule 1200]

27. Visible emissions, including emissions from the lube oil vents and the exhaust stack of the unit shall not exceed 20% opacity, excluding water vapor, for more than three (3) minutes in any period of 60 consecutive minutes. (Rule 50)

28. Total aggregate emissions from all stationary emission units at this stationary source, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d) (1), shall not exceed the following limits in each rolling 12-calendar month period. The total aggregate emissions shall include emissions during all times that the equipment is operating, including but not limited to, emissions during periods of commissioning, startup, shutdown and tuning. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.
i. Oxides of Nitrogen (NOx): 49.5 tons/year
ii. Carbon Monoxide (CO): 99 tons/year
iii. Volatile Organic Compounds (VOC): 49.5 tons/year
iv. Oxides of Sulfur (SOx): 99 tons/year
v. Particulate Matter (PM10): 99 tons/year [NSR]

29. The emissions of any single federal Hazardous Air Pollutant (HAP) shall not exceed 9.9 tons, and the aggregate emissions of all federal HAPs shall not equal or exceed 24.75 tons in any rolling 12-calendar month period. Compliance with these single and aggregate HAP limits shall be based on a methodology approved by the District for the purpose of calculating HAP emissions for this permit. If emissions exceed these limits, the permittee shall apply to amend this permit to reflect applicable federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR Part 63. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter. [40 CFR Part 63]

30. Before operating an SCR system, continuous monitors shall be installed on each SCR system to monitor or calculate, and record the ammonia injection rate (lbs/hour) and the SCR catalyst temperature (°F). The monitors shall be installed, calibrated and maintained in accordance with a District approved protocol. This protocol, which shall include the calculation methodology, shall be submitted to the District for written approval at least 60 days prior to initial startup of the gas turbines with the SCR system. The monitors shall be in full operation at all times when the turbine is in operation. [NSR]

31. Except during startup and shutdown conditions, the water injection system, the SCR system and oxidation catalyst control system, including the ammonia injection system serving the turbine, shall be in full operation at all times when the turbine is in operation. [NSR]

32. Except during periods when the ammonia injection system is being tuned or one or more ammonia injection systems is in manual control (for compliance with applicable permits), the automatic ammonia injection system serving the SCR shall be in operation in accordance with manufacturer's specifications at all times when ammonia is being injected into the SCR. Manufacturer specifications shall be maintained on site and made available to District personnel upon request. [NSR]

33. In the event of a breakdown in an automatic ammonia injection control system, the unit shall be shut down or a trained operator shall operate the ammonia injection control system manually and the breakdown shall be reported to the District Compliance Division pursuant to Rule 98(B)(1) and 98(E). (Rule 98)

34. The concentration of ammonia solution used in the ammonia injection system shall be less than 20% ammonia by weight. Records of ammonia deliveries and ammonia solution concentration shall be maintained on site and made available to District personnel upon request. [Rule 1200]

35. The permittee shall submit a source test protocol to the District for approval for any source test to determine compliance with the emission standards of this permit or any Relative Accuracy Test Audit (RATA) and other required certification tests for the CEMs. The source test protocol shall comply with the following requirements and any other applicable requirements of this permit:
a. Measurements of NOX, CO, and O2 emissions shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) methods 7E, 10, and 3A, respectively, and District Source Test, method 100, or alternative methods approved by the District and EPA;
b. Measurement of VOC emissions shall be conducted in accordance with EPA Methods 25A and/or 18, or alternative methods approved by the District and EPA;
c. Measurements of PM-10 emissions shall be conducted in accordance with EPA Methods 5 and 201A or 202, or alternative methods approved by the District and EPA;
d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District ST-1B or an alternative method approved by the District;
e. Source testing shall be performed at the normal load level, as specified in 40 CFR part 75 Appendix A Section 6.52.1.d, provided it is not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the district that the unit cannot operate under these conditions . If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous level power level.
f. Measurements of opacity shall be conducted in accordance with EPA Method 9 or an alternative

method approved by the District and EPA.
g. Measurement of fuel flow shall be conducted in accordance with an approved test protocol. [Rule 69.3.1; Rule 21]

36. Each turbine shall be equipped with continuous monitors to measure or calculate, and record, the following operational characteristics of each unit:
i. Hours of operation (hours),
ii. Natural gas flow rate (scfh),
iii. Heat input rate (MMBtu /hr),
iv. Exhaust gas temperature (°F),
v. Power output (gross MW).
vi. Water (for NOx control) injection rate (gal/hour) if equipped with water injection.
vii. SCR inlet temperature (°F)
viii. Ammonia injection rate (gal/hour)
[NSR; Rule 21]

37. A CEMS Protocol is a document approved in writing by the APCD M&TS division that describes the Quality Assurance and Quality Control procedures for monitoring, calculating and recording stack emissions from the unit. [Rule 69.3.1; Rule 21]

38. The permittee shall submit a turbine operation monitoring protocol, which shall include relevant calculation methodologies to the District for written approval. The monitors shall be installed, calibrated, and maintained in accordance with the protocol. The monitors should be in full operation at all times when the turbine is in operation. Calibration records for the continuous monitors shall be maintained on site and made available to the District upon request. The permittee shall make the site available for inspection of the turbine operation monitors and monitor maintenance records by representatives of the District, CARB, and the California Energy Commission. [Rule 69.3.1; Rule 21]

39. The exhaust stacks for each turbine shall be equipped with source test ports and platforms to allow for the measurement and collection of stack gas samples consistent with all approved test protocols. The ports and platforms shall be constructed in accordance with District Method 3A, Figure 2, and approved by the District. [Rule 19]

40. If source testing will be performed by an independent contractor and witnessed by the District, a source test protocol shall be submitted to the District for written approval at least 30 days prior to source testing. [Rule 69.3.1]

41. Within 30 days after completion of a renewal source test or RATA performed by an independent contractor, a final, written test report shall be submitted to the District for review and approval. [Rule 69.3.1]

42. This unit shall be source tested to demonstrate compliance with the NOx, CO, VOC, and ammonia emission standards of this permit, using District approved methods. The source test and the NOx and CO RATA tests shall be conducted in accordance with the RATA frequency requirements of 40 CFR 75 Appendix B, Sections 2.3.1 and 2.3.3. (NSR, Rule 1200)

43. The permittee shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. [40 CFR Part 75; Rule 21]

44. At least 60 days prior to the operation of the CEMs, the permittee shall submit a CEMs operating protocol to the District for written approval. The permittee shall make the site available for inspection of the CEMs and CEMs maintenance records by representatives of the District, CARB, and the California Energy Commission. [Rule 69.3.1]

45. A monitoring plan in conformance with 40 CFR 75.53 shall be submitted to U.S EPA Region 9 and the District at least 45 days prior to the Relative Accuracy Test Audit test, as required in 40 CFR 75.62. [40

CFR Part 75]

46. A Relative Accuracy Test Audit (RATA) and other required certification tests shall be performed and completed on the CEMs in accordance with 40 CFR Part 75 Appendix A and B and 40 CFR §60.4405 and on the CO CEMS in accordance with applicable provisions of 40 CFR Part 60 Appendix B and F. At least 30 days prior to the test date, the permittee shall submit a test protocol to the District for written approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present. Within 30 days of completion of this test, a written test report shall be submitted to the District for approval[Rule 21, Rule 20.2 (d)(1), 40 CFR Part 60 Subpart KKKK, 40 CFR Part 75, Rules 69.3, and 69.3.1]

47. The Oxides of Nitrogen (NOx) and Oxygen (O2) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of:
    a. Sections 75.10 and 75.12 of Title 40 Code of Federal Regulations Part 75 (40 CFR 75);
    b. The performance specifications of Appendix A of 40 CFR 75;
    c. The quality assurance procedures of Appendix B of 40 CFR 75;
    d. The CEMs protocol approved by the District.
    The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit.
    [Rule 69.3.1]

48. Continuous emission monitoring system (CEMS) shall be installed and properly maintained and calibrated to measure, calculate and record the following, in accordance with the District approved CEMS protocol:
    a. Percent oxygen (O2) in the exhaust gas (%);
    b. Average concentration of oxides of nitrogen (NOx) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;
    c. Average concentration of carbon monoxide (CO) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;
    d. Average concentration of volatile organic compound (VOC) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen, based on the CO/VOC surrogate relationship;
    e. Clock hour mass emissions of oxides of nitrogen (NOx), in lbs/hour;
    f. Clock hour mass emissions of carbon monoxide (CO), in lbs/hour;
    g. Clock hour mass emissions of volatile organic compound (VOC) in lbs/hour, based on the CO/VOC surrogate relationship;
    h. Calendar day mass emissions of oxides of nitrogen (NOx) in lbs/day;
    i. Calendar day mass emissions of carbon monoxide (CO) in lbs/day;
    j. Calendar day mass emissions of volatile organic compounds (VOC) in lbs/day;
    k. Rolling 12-calendar month mass emissions of oxides of nitrogen (NOx), in tons;
    l. Rolling 12-calendar month mass emissions of carbon monoxide (CO), in tons.
    m. Rolling 12 calendar month mass emissions of volatile organic compound (VOC), in tons;
    n. Natural gas flow rate to turbine in hscf/hr.
    o. Average concentration of ammonia slip emission for each clock- hour period, in parts per million by volume (ppmv) corrected to 15% oxygen, calculated in accordance with Condition 24.
    [Rule 69.3.1]

49. The CEMS shall be in operation in accordance with the District approved CEMs monitoring protocol at all times when the turbine is in operation. A copy of the District approved CEMS monitoring protocol shall be maintained on site and made available to District personnel upon request. [Rule 69.3.1]

50. When the CEMS is not recording data and the turbine is operating, hourly NOx emissions for the annual emission calculations shall be determined in accordance with 40 CFR 75 Subpart C. Additionally, hourly CO emissions for annual emission calculations shall be determined using CO emission factors to be determined from source test emission factors, recorded CEMS data, and fuel consumption data, in terms of pounds per hour of CO for the gas turbine. Emission calculations used to determine hourly emission rates shall be reviewed and approved by the District, in writing, before the hourly emission rates are

incorporated into the CEMS emission data. [NSR]

51. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence. (CA Health and Safety Code)

52. The CEMS shall be maintained and operated, and reports submitted, in accordance with applicable federal requirements including Appendices B and F of 40 CFR Part 60, Appendices A and B of 40 CFR Part 75, 40 CFR Parts 75.10 and 75.12, and a CEMS Protocol approved by the District. [Rule 69.3.1]

53. An operating log or data acquisition and handling system (DAHS) records shall be maintained either on site or at a District-approved alternate location to record actual times and durations of all startups and shut-downs, quantity of fuel used (hscf) in each clock hour, calendar month and 12-calendar-month period, hours of daily operation and total cumulative hours of operation during each calendar year. [NSR]

54. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS. [NSR]

55. Fuel flowmeters with an accuracy of +/- 2% shall be maintained to measure the volumetric flow rate corrected for temperature and pressure. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR part 75, Appendix D, and Section 2.1.6. [Rule 69.3.1]

56. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. [Rule 1421]

57. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.

58. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

59. Notwithstanding any other condition of this permit, for each turbine, not later than 60 calendar days after completion of the repair and maintenance of the emission control system as described in Application No. APCD2016-APP-004406, a source test and Relative Accuracy Test Audit (RATA) and applicable certification tests shall be conducted on the CEMS of each turbine to demonstrate compliance with the NOx, CO, VOC, and ammonia emission standards of this permit and applicable relative accuracy requirements and certifications for the NOx and CO CEMS using District approved methods. The source test shall be conducted in accordance with a protocol complying with all the applicable requirements for source test protocols as specified in this permit. [Rules 20.2(d)(1) and 21]

60. Unless a later date is approved in writing by the District, not later than 30 calendar days prior to the start of the repair and maintenance project the applicant shall submit to the District the final selection of the catalyst manufacturers and design parameters and details of the selective catalytic reduction (SCR) and oxidation catalyst emission control systems for the combustion turbines. Unless the District approves an alternative, the submittal shall include at a minimum the type of catalyst; active catalyst material; catalyst volume per turbine; and control efficiency of the SCR for NOx and the control efficiency of the oxidation catalyst for VOCs and CO at temperatures between 100 °F and 1000 °F at a space velocity corresponding to 100% load. Such information may be submitted to the District as trade secret and confidential pursuant to District Rules 175 and 176. [Rule 14]

This Authority to Construct does not authorize operation of the above-specified equipment until written notification has been provided to the District indicating that construction (or modification) has been completed in accordance with this Authority to Construct. Upon submission of this notification, temporary Permit to Operate shall take effect and will remain in effect, unless withdrawn or modified by the District, until the equipment is inspected by the District and a revised temporary permit (Startup Authorization) is issued or a Permit to Operate is granted or denied.

This Authority to Construct shall be posted on or within 25 feet of the above described equipment or maintained readily available at all times on the operating premises.

Upon completion of construction (or modification) in accordance with this Authority to Construct, and prior to commencing operation, the applicant must complete and mail, deliver or email to APCDPermits@sdcounty.ca.gov the enclosed Construction Completion Notice to the District. After mailing, delivering or emailing the notice, the applicant may commence operation of the equipment. Operation must be in compliance with all the conditions of this Authority to Construct and applicable District Rules.

This Authority to Construct does not relieve the holder from obtaining permits or authorizations, which may be required by other governmental agencies. This Authority to Construct is not authority to exceed any applicable emission standard established by this District or any other governmental agency. This authorization is subject to cancellation if any emission standard or condition is violated.

Within 30 days after receipt of this Authority to Construct, the applicant may petition the Hearing Board for a hearing on any conditions imposed herein in accordance with Rule 25.

This Authority to Construct will expire on 05/05/2017 unless an extension is granted in writing.

This is not a Permit to Operate. Please be advised that installation or operation of this process or equipment without written authorization may be a misdemeanor subject to fines and penalties.

If you have any questions regarding this action, please contact me at (858) 586-2750 or via email at Steve.Moore@sdcounty.ca.gov.

Steve Moore
Senior Engineer

COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT
10124 OLD GROVE ROAD, SAN DIEGO, CA 92131
PHONE (858) 586-2600 FAX (858) 586-2601
www.sdapcd.org

**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD2016-APP-004406

**Startup Authorization Expires:**
October 2, 2017

Orange Grove Energy LP
Ramiro Garcia
35435 East Pala del Norte Road
Pala CA 92059

EQUIPMENT ADDRESS
Orange Grove Energy LP
Ramiro Garcia
35435 East Pala del Norte Road
Pala CA 92059

# STARTUP AUTHORIZATION

After examination of your Application APCD2016-APP-004406 for an Air Pollution Control District (hereinafter referred to as "the District") Authority to Construct and Permit to Operate for equipment located at 35435 East Pala del Norte Road Pala CA 92059 in San Diego County, the District has decided on the following actions:

This Startup Authorization is granted pursuant to Rule 21 of the Air Pollution Control District Rules and Regulations for equipment to consist of:

Repair and maintenance of the following permitted equipment as described in Application No. APCD2016-APP-004406.

Equipment Description - Permit to Operate No. APCD2011-PTO-000889: One natural gas simple cycle combustion turbine generator: Make General Electric, Model LM6000 PC SPRINT, nominal output49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS).
(APCD2008-APP-985708/CCN/Sept 2011)

Equipment Description - Permit to Operate No. APCD2011-PTO-000890: One natural gas simple cycle combustion turbine generator: Make General Electric, Model LM6000 PC SPRINT, nominal output49.8 MW, with water injection, a selective catalytic reduction (SCR) unit with ammonia injection control system, an oxidation catalyst, data acquisition system (DAHS) and continuous emission monitoring system (CEMS).
(APCD2008-APP-985708/CCN/Sept 2011)

This Startup Authorization is issued with the following conditions:

1. This equipment shall be properly maintained and kept in good operating condition at all times. [Rule 21]
2. The permittee shall operate the project in accordance with all data and specifications submitted with the application. [Rule 10]
3. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District. [Rule 19]
4. The permittee shall obtain any required District permits for all ancillary combustion equipment including emergency engines, prior to on-site delivery of the equipment. [Rule 10]
5. The exhaust stacks for the combustion turbines shall be at least 80 feet in height above site base elevation. [NSR]
6. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. (Rule 62 and/or 40 CFR 60 Subpart KKKK)
7. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO2 allowances. (40 CFR Part 73)
8. The total combined operating hours for the combustion turbines of Permit No. APCD2011-PTO-000889 and

APCD2011-PTO-000890 shall not exceed 6,400 hours per calendar year. [NSR]

9. The permittee shall comply with the applicable requirements in 40 CFR Parts 60, 72, 73, and 75. (Rules 1412 and 1421)
10. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein. [Rule 69.3.1; Rule 21]
11. For the purposes of this Permit to Operate, startup conditions shall be defined as the period of time that begins when fuel flows to the turbine and shall continue for no longer than 30 consecutive minutes. Shutdown conditions shall be defined as the 15 minute period preceding the moment at which fuel flow ceases. The Data Acquisition and Recording System (DAS), as required by 40 CFR75, shall record these events. This condition may be modified by the District based on field performance of the equipment. [NSR]
12. For each emission limit expressed as pounds per hour or parts per million based on a clock-hour averaging period, compliance shall be based on continuous emission data collected at least once every 15 minutes. [40 CFR Part 75; Rule 21]
13. During startup conditions, the emissions from each turbine shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the startup period.
    Pollutant - Limit, lbs/event
    Oxides of Nitrogen (NOx), calculated as NO2 - 13.25
    Carbon Monoxide (CO) - 12.05
    Volatile Organic Compounds (VOC) - 1.95
    [NSR]
14. Emissions of nitrogen oxides from each unit exhaust stack shall not exceed 25 parts per million by volume, dry basis (ppmvd) at 15 percent O2 or 150 ng/J of useful output (1.2 lb/MWh) (4 hour average pursuant to 40 CFR § 60.4380(b)). This limit applies at all times including periods of startup and shutdown. [40 CFR 60 Subpart KKKK, Appendix Table 1]
15. Excess emissions shall be as defined in 40 CFR Subpart KKKK § 60.4380. An excess emission is any unit operating period, including periods of startup and shutdown, in which the 4-hour or 30-day rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60 Subpart KKKK, Appendix Table 1. [40 CFR 60 Subpart KKKK]
16. For each affected unit required to continuously monitor parameters or emissions the permittee must submit to the District reports of excess emissions and monitor downtime, in accordance with § 60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. Reports submitted pursuant to this requirement shall be postmarked no later than the 30th day following the end of the 6-month reporting period. 6-month reporting periods comprise January 1 through June 30, and July 1 through December 31. [40 CFR Subpart KKKK § 60.4375(a)]
17. During shutdown conditions, the emissions from each turbine shall not exceed the following emission limits as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing. Compliance with each limit shall be based on the shutdown period
    Pollutant - Limit, lbs/event
    Oxides of Nitrogen (NOx), calculated as NO2 - 2.68
    Carbon Monoxide (CO) - 4.43
    Volatile Organic Compounds (VOC) - 0.73
    [NSR]
18. The emissions concentration of oxides of nitrogen (NOx) from the unit exhaust stack, calculated as nitrogen dioxide (NO2), shall not exceed 2.5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]]

19. The emissions concentration of carbon monoxide (CO) from the unit exhaust stack shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]
20. The volatile organic compounds (VOC) emission concentration from the unit exhaust stack, calculated as methane, measured in the exhaust stack, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each clock-hour period. Compliance with this limit shall be demonstrated continuously based on the CEMs data and based on source testing calculated as the average of three subtests. At the time of the initial compliance test, a District-approved CO/VOC surrogate relationship shall be established. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on annual source testing. This limit shall not apply during startup and shutdown conditions as defined herein. [NSR]
21. The emissions from each unit exhaust stack shall not exceed the following emission limits, except during startup and shutdown conditions, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a clock-hour averaging period.
    Pollutant - Limit, lbs/hour
    Oxides of Nitrogen (NOx), calculated as NO2 - 4.3
    Carbon Monoxide (CO) - 6.1
    Volatile Organic Compounds (VOC) - 1.3
    [NSR]
22. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a calendar day averaging period.
    Pollutant - Limit, lbs/day
    Oxides of Nitrogen (NOx), calculated as NO2 - 141.2
    Carbon Monoxide (CO) - 182.2
    Volatile Organic Compounds (VOC) - 36.5
    [NSR]
23. The emissions from each unit exhaust stack shall not exceed the following emission limits, as determined by the continuous emission monitoring system (CEMs) and/or District-approved emission testing, calculated as the average of three subtests. Compliance with each limit shall be based on a rolling 12-calendar-month averaging period, updating once each calendar month. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.
    Pollutant - Limit, tons/year
    Oxides of Nitrogen (NOx), calculated as NO2 - 8.6
    Carbon Monoxide (CO) - 11.3
    Volatile Organic Compounds (VOC) - 2.3
    [NSR]
24. Emissions of particulate matter 10 microns or less (PM10) from the unit exhaust stack shall not exceed 3.0 lbs per hour. Compliance with this limit shall be demonstrated based upon initial source testing calculated as the average of three subtests. The total PM and condensable PM measured using EPA Method 5 and 202 will be assumed to be PM10. [NSR; Rule 21]
25. The discharge of total particulate matter from the unit exhaust stack of the combustion turbine shall not exceed 0.10 grains per dry standard cubic foot standardized to 12% CO2. The District may require periodic testing to verify compliance with this standard. [Rule 53]
26. Ammonia Hourly Monitoring Condition. Ammonia emissions from each turbine shall not exceed 5 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen, averaged over each clock-hour period. This limit shall not apply during startup and shutdown conditions. Compliance with this limit shall be demonstrated through source testing calculated as the average of three subtests and utilizing one of the following procedures:
    a. Calculate ammonia emissions using the following equation: NH3 = ((a-(b * c/1,000,000)) * (1,000,000/b)) * d

Where: a = ammonia injection rate (lbs/hour) / (17.0 lbs/lb-mole),
b = exhaust flow rate at 15% oxygen / (29 lbs/lb-mole),
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst, and
d = ratio of measured ammonia slip to calculate ammonia slip as derived during compliance testing.
b. Calculate ammonia emissions using the following equation: NH3 = (((a / b) * 1,000,000) - 1.2c) * d
Where: a = ammonia injection rate (lbs/hour) / (0.04478 lbs NH3 / cft NH3),
b = exhaust flow rate at 15% oxygen (scf/hour),
c = change in measured NOx concentration (ppmvd @ 15% Oxygen) across the catalyst, and
d = ratio of measured ammonia slip to calculated ammonia slip as derived during compliance testing.
[Rule 1200]

27. Visible emissions, including emissions from the lube oil vents and the exhaust stack of the unit shall not exceed 20% opacity, excluding water vapor, for more than three (3) minutes in any period of 60 consecutive minutes. (Rule 50)
28. Total aggregate emissions from all stationary emission units at this stationary source, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d) (1), shall not exceed the following limits in each rolling 12-calendar month period. The total aggregate emissions shall include emissions during all times that the equipment is operating, including but not limited to, emissions during periods of commissioning, startup, shutdown and tuning. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter.
i. Oxides of Nitrogen (NOx): 49.5 tons/year
ii. Carbon Monoxide (CO): 99 tons/year
iii. Volatile Organic Compounds (VOC): 49.5 tons/year
iv. Oxides of Sulfur (SOx): 99 tons/year
v. Particulate Matter (PM10): 99 tons/year [NSR]
29. The emissions of any single federal Hazardous Air Pollutant (HAP) shall not exceed 9.9 tons, and the aggregate emissions of all federal HAPs shall not equal or exceed 24.75 tons in any rolling 12-calendar month period. Compliance with these single and aggregate HAP limits shall be based on a methodology approved by the District for the purpose of calculating HAP emissions for this permit. If emissions exceed these limits, the permittee shall apply to amend this permit to reflect applicable federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR Part 63. Records demonstrating compliance with these limits shall be available for inspection 30 days after the end of each calendar quarter. [40 CFR Part 63]
30. Before operating an SCR system, continuous monitors shall be installed on each SCR system to monitor or calculate, and record the ammonia injection rate (lbs/hour) and the SCR catalyst temperature (°F). The monitors shall be installed, calibrated and maintained in accordance with a District approved protocol. This protocol, which shall include the calculation methodology, shall be submitted to the District for written approval at least 60 days prior to initial startup of the gas turbines with the SCR system. The monitors shall be in full operation at all times when the turbine is in operation. [NSR]
31. Except during startup and shutdown conditions, the water injection system, the SCR system and oxidation catalyst control system, including the ammonia injection system serving the turbine, shall be in full operation at all times when the turbine is in operation. [NSR]
32. Except during periods when the ammonia injection system is being tuned or one or more ammonia injection systems is in manual control (for compliance with applicable permits), the automatic ammonia injection system serving the SCR shall be in operation in accordance with manufacturer's specifications at all times when ammonia is being injected into the SCR. Manufacturer specifications shall be maintained on site and made available to District personnel upon request. [NSR]
33. In the event of a breakdown in an automatic ammonia injection control system, the unit shall be shut down or a trained operator shall operate the ammonia injection control system manually and the breakdown shall be reported to the District Compliance Division pursuant to Rule 98(B)(1) and 98(E). (Rule 98)
34. The concentration of ammonia solution used in the ammonia injection system shall be less than 20% ammonia by

weight. Records of ammonia deliveries and ammonia solution concentration shall be maintained on site and made available to District personnel upon request. [Rule 1200]

35. The permittee shall submit a source test protocol to the District for approval for any source test to determine compliance with the emission standards of this permit or any Relative Accuracy Test Audit (RATA) and other required certification tests for the CEMs. The source test protocol shall comply with the following requirements and any other applicable requirements of this permit:
a. Measurements of NOX, CO, and O2 emissions shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) methods 7E, 10, and 3A, respectively, and District Source Test, method 100, or alternative methods approved by the District and EPA;
b. Measurement of VOC emissions shall be conducted in accordance with EPA Methods 25A and/or 18, or alternative methods approved by the District and EPA;
c. Measurements of PM-10 emissions shall be conducted in accordance with EPA Methods 5 and 201A or 202, or alternative methods approved by the District and EPA;
d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District ST-1B or an alternative method approved by the District;
e. Source testing shall be performed at the normal load level, as specified in 40 CFR part 75 Appendix A Section 6.52.1.d, provided it is not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the district that the unit cannot operate under these conditions . If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous level power level.
f. Measurements of opacity shall be conducted in accordance with EPA Method 9 or an alternative method approved by the District and EPA.
g. Measurement of fuel flow shall be conducted in accordance with an approved test protocol. [Rule 69.3.1; Rule 21]

36. Each turbine shall be equipped with continuous monitors to measure or calculate, and record, the following operational characteristics of each unit:
i. Hours of operation (hours),
ii. Natural gas flow rate (scfh),
iii. Heat input rate (MMBtu /hr),
iv. Exhaust gas temperature (ºF),
v. Power output (gross MW).
vi. Water (for NOx control) injection rate (gal/hour) if equipped with water injection.
vii. SCR inlet temperature (°F)
viii. Ammonia injection rate (gal/hour)
[NSR; Rule 21]

37. A CEMS Protocol is a document approved in writing by the APCD M&TS division that describes the Quality Assurance and Quality Control procedures for monitoring, calculating and recording stack emissions from the unit. [Rule 69.3.1; Rule 21]

38. The permittee shall submit a turbine operation monitoring protocol, which shall include relevant calculation methodologies to the District for written approval. The monitors shall be installed, calibrated, and maintained in accordance with the protocol. The monitors should be in full operation at all times when the turbine is in operation. Calibration records for the continuous monitors shall be maintained on site and made available to the District upon request. The permittee shall make the site available for inspection of the turbine operation monitors and monitor maintenance records by representatives of the District, CARB, and the California Energy Commission. [Rule 69.3.1; Rule 21]

39. The exhaust stacks for each turbine shall be equipped with source test ports and platforms to allow for the measurement and collection of stack gas samples consistent with all approved test protocols. The ports and platforms shall be constructed in accordance with District Method 3A, Figure 2, and approved by the District. [Rule 19]

40. If source testing will be performed by an independent contractor and witnessed by the District, a source test protocol shall be submitted to the District for written approval at least 30 days prior to source testing. [Rule 69.3.1]

41. Within 30 days after completion of a renewal source test or RATA performed by an independent contractor, a final,

written test report shall be submitted to the District for review and approval. [Rule 69.3.1]

42. This unit shall be source tested to demonstrate compliance with the NOx, CO, VOC, and ammonia emission standards of this permit, using District approved methods. The source test and the NOx and CO RATA tests shall be conducted in accordance with the RATA frequency requirements of 40 CFR 75 Appendix B, Sections 2.3.1 and 2.3.3. (NSR, Rule 1200)
43. The permittee shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. [40 CFR Part 75; Rule 21]
44. At least 60 days prior to the operation of the CEMs, the permittee shall submit a CEMs operating protocol to the District for written approval. The permittee shall make the site available for inspection of the CEMs and CEMs maintenance records by representatives of the District, CARB, and the California Energy Commission. [Rule 69.3.1]
45. A monitoring plan in conformance with 40 CFR 75.53 shall be submitted to U.S EPA Region 9 and the District at least 45 days prior to the Relative Accuracy Test Audit test, as required in 40 CFR 75.62. [40 CFR Part 75]
46. A Relative Accuracy Test Audit (RATA) and other required certification tests shall be performed and completed on the CEMs in accordance with 40 CFR Part 75 Appendix A and B and 40 CFR §60.4405 and on the CO CEMS in accordance with applicable provisions of 40 CFR Part 60 Appendix B and F. At least 30 days prior to the test date, the permittee shall submit a test protocol to the District for written approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present. Within 30 days of completion of this test, a written test report shall be submitted to the District for approval[Rule 21, Rule 20.2 (d)(1), 40 CFR Part 60 Subpart KKKK, 40 CFR Part 75, Rules 69.3, and 69.3.1]
47. The Oxides of Nitrogen (NOx) and Oxygen (O2) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of:
    a. Sections 75.10 and 75.12 of Title 40 Code of Federal Regulations Part 75 (40 CFR 75);
    b. The performance specifications of Appendix A of 40 CFR 75;
    c. The quality assurance procedures of Appendix B of 40 CFR 75;
    d. The CEMs protocol approved by the District.
    The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit.
    [Rule 69.3.1]
48. Continuous emission monitoring system (CEMS) shall be installed and properly maintained and calibrated to measure, calculate and record the following, in accordance with the District approved CEMS protocol:
    a. Percent oxygen (O2) in the exhaust gas (%);
    b. Average concentration of oxides of nitrogen (NOx) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;
    c. Average concentration of carbon monoxide (CO) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen;
    d. Average concentration of volatile organic compound (VOC) for each clock-hour period, in parts per million (ppmv) corrected to 15% oxygen, based on the CO/VOC surrogate relationship;
    e. Clock hour mass emissions of oxides of nitrogen (NOx), in lbs/hour;
    f. Clock hour mass emissions of carbon monoxide (CO), in lbs/hour;
    g. Clock hour mass emissions of volatile organic compound (VOC) in lbs/hour, based on the CO/VOC surrogate relationship;
    h. Calendar day mass emissions of oxides of nitrogen (NOx) in lbs/day;
    i. Calendar day mass emissions of carbon monoxide (CO) in lbs/day;
    j. Calendar day mass emissions of volatile organic compounds (VOC) in lbs/day;
    k. Rolling 12-calendar month mass emissions of oxides of nitrogen (NOx), in tons;
    l. Rolling 12-calendar month mass emissions of carbon monoxide (CO), in tons.
    m. Rolling 12 calendar month mass emissions of volatile organic compound (VOC), in tons;
    n. Natural gas flow rate to turbine in hscf/hr.
    o. Average concentration of ammonia slip emission for each clock- hour period, in parts per million by volume

(ppmv) corrected to 15% oxygen, calculated in accordance with Condition 24. [Rule 69.3.1]

49. The CEMS shall be in operation in accordance with the District approved CEMs monitoring protocol at all times when the turbine is in operation. A copy of the District approved CEMS monitoring protocol shall be maintained on site and made available to District personnel upon request. [Rule 69.3.1]
50. When the CEMS is not recording data and the turbine is operating, hourly NOx emissions for the annual emission calculations shall be determined in accordance with 40 CFR 75 Subpart C. Additionally, hourly CO emissions for annual emission calculations shall be determined using CO emission factors to be determined from source test emission factors, recorded CEMS data, and fuel consumption data, in terms of pounds per hour of CO for the gas turbine. Emission calculations used to determine hourly emission rates shall be reviewed and approved by the District, in writing, before the hourly emission rates are incorporated into the CEMS emission data. [NSR]
51. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence. (CA Health and Safety Code)
52. The CEMS shall be maintained and operated, and reports submitted, in accordance with applicable federal requirements including Appendices B and F of 40 CFR Part 60, Appendices A and B of 40 CFR Part 75, 40 CFR Parts 75.10 and 75.12, and a CEMS Protocol approved by the District. [Rule 69.3.1]
53. An operating log or data acquisition and handling system (DAHS) records shall be maintained either on site or at a District-approved alternate location to record actual times and durations of all startups and shut-downs, quantity of fuel used (hscf) in each clock hour, calendar month and 12-calendar-month period, hours of daily operation and total cumulative hours of operation during each calendar year. [NSR]
54. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS. [NSR]
55. Fuel flowmeters with an accuracy of +/- 2% shall be maintained to measure the volumetric flow rate corrected for temperature and pressure. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR part 75, Appendix D, and Section 2.1.6. [Rule 69.3.1]
56. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. [Rule 1421]
57. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
58. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)
59. Notwithstanding any other condition of this permit, for each turbine, not later than 120 calendar days after completion of the repair and maintenance of the emission control system as described in Application No. APCD2016-APP-004406, a source test and Relative Accuracy Test Audit (RATA) and applicable certification tests shall be conducted on the CEMS of each turbine to demonstrate compliance with the NOx, CO, VOC, and ammonia emission standards of this permit and applicable relative accuracy requirements and certifications for the NOx and CO CEMS using District approved methods. The source test shall be conducted in accordance with a protocol complying with all the applicable requirements for source test protocols as specified in this permit. [Rules 20.2(d)(1) and 21]

AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO

# COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT
10124 OLD GROVE ROAD, SAN DIEGO, CA 92131
PHONE (858) 586-2600 FAX (858) 586-2601
www.sdapcd.org

**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD2016-APP-004406

**Startup Authorization Expires:**
October 2, 2017

This authorization is for temporary operation of the above-specified equipment. This temporary Permit to Operate will remain in effect, unless withdrawn or modified by the District or a Permit to Operate is granted or denied.

This Startup Authorization shall be posted on or within 25 feet of the described equipment or maintained readily available at all times on the operating premises.

This Startup Authorization does not relieve the holder from obtaining permits or authorizations, which may be required by other governmental agencies.This Startup Authorization is not an authorization to exceed any applicable emission standard established by this District or any other governmental agency. This authorization is subject to cancellation if any emission standard or condition is violated.

Within 30 days after receipt of this Startup Authorization, the applicant may petition the Hearing Board for a hearing on any conditions imposed herein in accordance with Rule 25.

This Startup Authorization will expire on October 2, 2017, unless an extension is granted in writing.

If you have any questions regarding this action, please contact me at (858) 586-2750 or via email at steve.moore@sdcounty.ca.gov.

Steve Moore

Steve Moore

Senior Engineer

CC: Compliance Division

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**Sectors:** 1, A
**Site Record ID:** APCD2007-SITE-06289
**Application Record ID:** APCD2007-APP-985709

**PERMIT RECORD ID**
APCD2011-PTO-000891

J-Power USA Development Co, Ltd
Chris R. Bluse
1900 E Golf Rd #1030
Schaumburg IL 60173

EQUIPMENT ADDRESS
Orange Grove Energy LP

35435 Pala Del Norte Rd
Pala CA 92059

# PERMIT TO OPERATE

**EXPIRES: October 31, 2017**

This permit is not valid until required fees have been paid.

The above is hereby granted a Permit To Operate the article, machine, equipment or contrivance described below. This permit is not transferable to a new owner nor is it valid for operation of the equipment at another location except as specified. This Permit To Operate or copy must be posted on or within 25 feet of the equipment, or readily available on the operating premises.

**EQUIPMENT OWNER**

Orange Grove Energy Chris R Bluse 1900 E Golf Rd #1030, Schaumburg, IL 60173

**EQUIPMENT DESCRIPTION**

Emergency fire pump engine: Cummins, Model CPF11E-F10, based on Cummins diesel engine Model QSM11, S/N 35229758, rated at 373 bhp, Model Year 2008, EPA Tier 2 certified of Engine Family Number 4CEXL0661AAD. (APCD2007-APP-985709/CCN/Sept 2011)

Every person who owns or operates this equipment is required to comply with the conditions listed below and all applicable requirements and District rules, including but not limited to Rules 10, 20, 40, 50, 51.

Fee Schedules: 1 [34H] California Certified Emergency Standby Engine

BEC: APCD2011-CON-000323

**FAILURE TO OPERATE IN COMPLIANCE IS A MISDEMEANOR SUBJECT TO CIVIL AND CRIMINAL PENALTIES**

1. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
2. This engine shall only use CARB diesel fuel. (Rule 69.4.1, 17 CCR 93115)
3. The engine shall be operated exclusively during emergencies or for testing and maintenance. Engine operation for maintenance and testing purposes shall not exceed 0.5 hour per day and 50 hours per calendar year. (NSR; 17 CCR 93115; 40 CFR 60 Subpart ZZZZ)
4. The engine and any associated air pollution control equipment and monitoring equipment shall be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions (40CFR Subpart ZZZZ §63.6605(b)).
5. The owner or operator shall minimize engine operating time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.(40CFR Subpart ZZZZ §63.6625(h))
6. Visible emissions including crank case smoke shall comply with Air Pollution Control District Rule 50. (Rule 50)

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7. The equipment described above shall not cause or contribute to a public nuisance. (Rule 51)

8. This engine shall not operate for non-emergency use during the following periods, as applicable:
(a) Whenever there is any school sponsored activity, if engine is located on school grounds or
(b) Between 7:30am and 3:30pm on days when school is in session, if the engine is located within 500 feet of, but not on, school grounds.
This condition shall not apply to an engine located at or near any school grounds that also serve as the students' place of residence. (17 CCR 93115)

9. A non-resettable engine hour meter shall be installed on this engine, maintained in good working order, and used for recording engine operation hours. If a meter is replaced, the Air Pollution Control District's Compliance Division shall be notified in writing within 10 calendar days. The written notification shall include the following information:
(a) Old meter's hour reading
(b) Replacement meter's manufacturer name, model and serial number if available and current hour reading on replacement meter
(c) Copy of receipt of new meter or of installation work order. A copy of the meter replacement notification shall be maintained onsite and made available to the Air Pollution Control District upon request.
(Rule 69.4.1, 17 CCR 93115)

10. The owner or operator of this engine shall conduct periodic maintenance of the engine and add-on control equipment, if any, as recommended by the engine and control equipment manufacturers or as specified by the engine servicing company's maintenance procedures. The periodic maintenance shall be conducted at least once each calendar year. (Rule 69.4.1)

11. The owner or operator shall change engine oil and filter every 500 hours of operation or annually, whichever comes first; or test the oil in accordance with 40 CFR § 63.6625(i).
(40 CFR 63 Subpart ZZZZ § 63.6603(a) and Table 2d(4)(b))

12. The owner or operator shall inspect the air cleaner of a compression ignition engine or inspect spark plugs of a spark ignition engine, every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63 Subpart ZZZZ § 63.6603(a) and Table 2d(4)(b))

13. The owner or operator shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. (40 CFR 63 Subpart ZZZZ)

14. The owner or operator of the engine shall maintain the following records on site for at least the same period of time as the engine to which the records apply is located at the site:
(a) Documentation shall be maintained identifying the fuel as CARB diesel.
(b) Manual of recommended maintenance provided by the manufacturer, or maintenance procedures specified by the engine servicing company; and
(c) Records of annual engine maintenance including date the maintenance was performed.
These records shall be made available to the Air Pollution Control District upon request.
(Rule 69.4.1)(17 CCR 93115)

15. The owner or operator of this engine shall maintain a monthly operating log containing, at a minimum, the following:
(a) Dates and times of engine operation; whether the operation was for maintenance and testing purposes or emergency use; and the nature of the emergency, if known;
(b) Hours of operation for all uses other than those specified above and identification of the nature of that use. (Rule 69.4.1, 17 CCR 93115)

16. The permittee shall maintain all records required by this permit including any calibration, maintenance, and other supporting information and copies of all reports required by this permit for at least five years from their date of creation. Such records shall be maintained onsite for a minimum of three years. [Rule 1421; Rule 69.4.1; 17 CCR 93115; 40 CFR 63 Subpart ZZZZ]

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**PERMIT RECORD ID**
APCD2011-PTO-000891

17. ~~The owner or operator shall submit a semiannual compliance report to the District by the end of the month following each reporting period. Reporting periods are January 1 through June 30 and July 1 through December 31. The semiannual compliance report shall contain:~~
~~a. Company name and address,~~
~~b. Statement by a responsible official (with name, title, and signature) certifying the accuracy of the report content,~~
~~c. Date of report and dates of reporting period,~~
~~d. The number, duration, and a brief description for each type of deviation which occurred during the reporting period and a description of actions taken to minimize emission and corrective actions taken,~~
~~e. If there are no deviations from requirements, a statement that there were no deviations~~
~~f. If there are deviations during the reporting period, you must include the following information:~~
~~1. Date and time that each malfunction started and stopped,~~
~~2. A summary of total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during the reporting period~~
~~(40CFR 63 Subpart ZZZZ §63.6650(b)(1))~~
18. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
19. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)