# Encina Water Pollution Control Facility

## 6200 Avenida Encinas
## Carlsbad, CA 92011

## SDAPCD Facility ID
## APCD1984-SITE-03370

## February 2024

## Prepared by:


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# Title V Permit Application

# Encina Water Pollution Control Facility Title V Permit Application

Prepared for:

**Encina Wastewater Authority**
**6200 Avenida Encinas**
**Carlsbad, CA 92011**

**SDAPCD Facility ID**
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# Encina Water Pollution Control Facility Title V Permit Application

## 1.0 INTRODUCTION

This application is submitted to the San Diego County Air Pollution Control District (SDAPCD or District) by Encina Wastewater Authority (EWA) for an initial Title V air permit for the Encina Water Pollution Control Facility (EWPCF) located at 6200 Avenida Encinas in Carlsbad, CA (SDAPCD facility ID APCD1984-SITE-03370).

EWPCF is a secondary wastewater treatment facility permitted to treat up to 36 million gallons per day (MGD) (average dry weather flow). The treatment facility includes headworks and primary sedimentation basins, activated sludge aeration, secondary sedimentation, and ancillary equipment. The wastewater treatment equipment is supported by a biosolids processing and drying operation, four cogeneration engines, one emergency diesel engine, and one of the two flares.

EWA is submitting this application as a response to the lowering of the major source thresholds for nitrogen oxides ($NO_x$) and volatile organic compounds (VOCs) due to the redesignation of San Diego County to severe ozone nonattainment. Although actual emissions from the EWPCF do not exceed the major source thresholds, the facility-wide $NO_x$ and carbon monoxide (CO) potential to emit (PTE) exceeds these thresholds.

This application is submitted in accordance with the SDAPCD and United States Environmental Protection Agency (U.S. EPA) requirements for an initial Title V permit application, including the application forms provided in Appendix A. It contains the information required by the Code of Federal Regulations (CFR) Title 40, Section 70.5(c); SDAPCD Regulation XIV; and the appropriate District guidance for the Title V permit program.

Per SDAPCD guidance, an initial Title V application must be submitted within 12 months of becoming subject to Title V, which would mean no later than February 21, 2024.

### 1.1 Facility Information

The EWPCF is an essential public service treating up to 36 MGD (dry weather flow) of sewage wastewater from over 379,000 residents and businesses throughout a 125-square-mile service area. EWPCF is owned by six public agencies and governed by a Joint Powers Authority that includes the cities of Carlsbad, Vista, and Encinitas, as well as Buena Sanitation, Vallecitos Water, and Leucadia Wastewater Districts. The EWPCF houses complex processes and equipment that protect the local ocean environment, preserve public health, and provide valuable water resources for the region. It also has extensive systems for neighborhood odor control, electricity generation from treatment process gas (cogeneration), and biosolids processing that produces a high-quality fertilizer product.

The Standard Industrial Classification (SIC) for sewerage systems, such as EWPCF, is 4952.

The EWPCF is located in Carlsbad to the west of Interstate 5 (I-5) in a commercial area with residences located to the south and east. The topography of the area immediately surrounding the facility is generally flat. There are no K-12 schools within 1,000 feet of the facility. An aerial view showing the facility and surrounding properties is provided as Figure 1-1.

**Figure 1-1: Encina Water Pollution Control Facility and Surrounding Area**

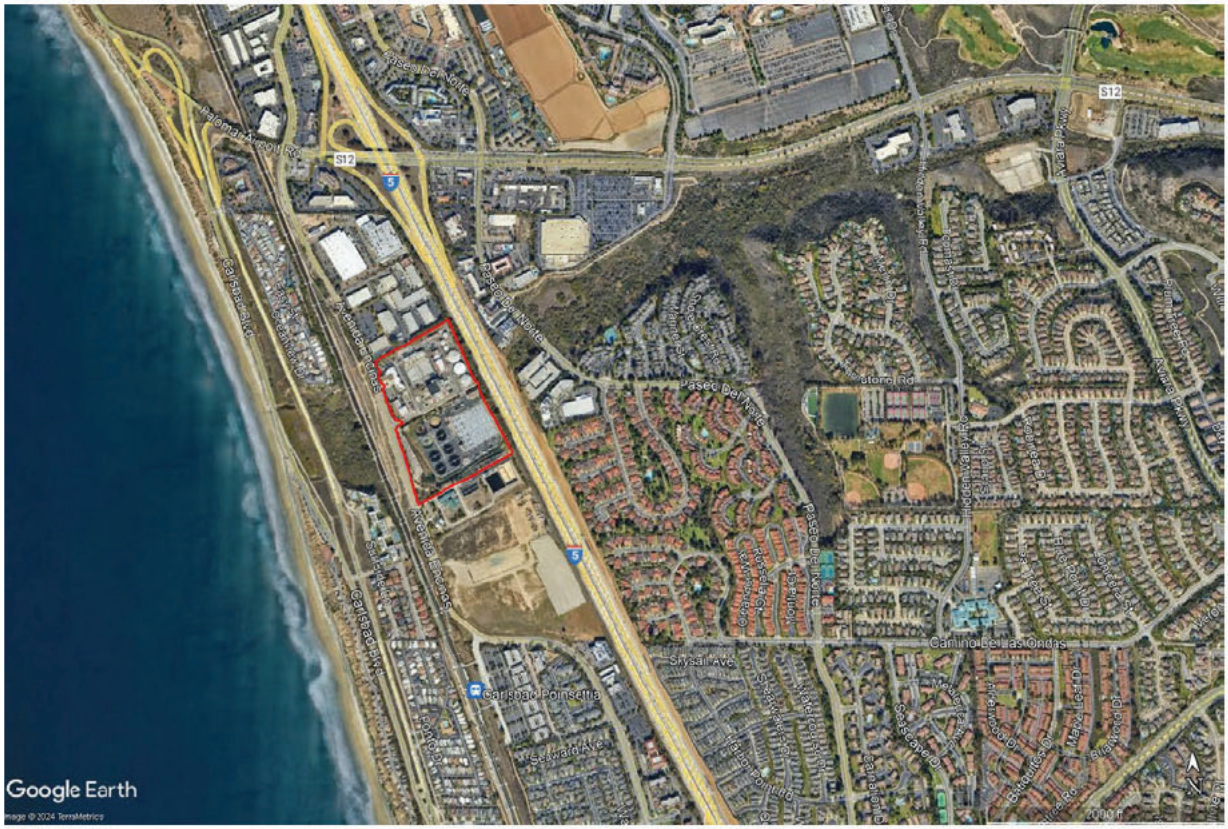



Table 1-1 provides the facility address and contact information.

**Table 1-1: Facility Contact Information**

| | |
|---|---|
| **Applicant's Name:** | Encina Wastewater Authority |
| **Applicant Contact Information:** | Alicia Appel<br>Director of Environmental Compliance<br>(760)268-8861<br>AAppel@Encinajpa.com |
| **SDAPCD Facility ID** | APCD1984-SITE-03370 |
| **Mailing Address:** | 6200 Avenida Encinas<br>Carlsbad, CA 92011 |
| **Facility Location:** | 6200 Avenida Encinas<br>Carlsbad, CA 92011 |
| **Responsible Official Contact Information:** | Scott McClelland<br>General Manager<br>(760) 438-3941<br>SMcClelland@Encinajpa.com |

## 1.2 Proposed Permit Actions

The following permit actions are covered under this application:

- Issuance of a new Title V Permit.

This application package contains the information necessary for the SDAPCD to process and approve this application, including facility information (Section 2.0), emissions (Section 3.0), and federal regulatory considerations (Section 4.0).

The list of the application forms provided in Appendix A is summarized in Table 1-2.

Appendix B contains the "Applicable Requirements Summary Checklist" form 1401-H1. The Compliance Matrix meeting the requirements of the "Compliance Certification Schedule" form 1401-K is provided in Appendix C. Appendix D contains the current permits to operate (PTO). Appendix E contains the facility emission calculations meeting the "Total Stationary Source Emissions" and "Detailed Emissions Report" requirements.

**Table 1-2: SDAPCD Forms Accompanying This Application**

| Purpose | Form Title | Location |
|---|---|---|
| Initial Title V Application | General Application | Appendix A |
| | Stationary Source Summary, Form 1401-A1 | Appendix A |
| | Stationary Source Summary, Form1401-A2 | Appendix A |
| | Insignificant Activities List, Form 1401-G | Appendix A |
| | Applicable Requirements Summary Checklist, Form 1401-H1 | Appendix B |
| | List of Permits by Equipment Category, From 1401-H2 | Appendix A |
| | Certification Statement; Form 1401-I | Appendix A |
| | Compliance Certification Schedule; Form 1401-K | Appendix C |
| | Schedule of Compliance; Form 1401-L | Appendix A |
| | Abatement Devices; Form 1401-M | Table 2-1 and Appendix A |
| | Alternative Operating Scenario; Form 1401-N | Appendix A |
| | Multiple Applicable Requirements Streamlining; Form 1401-O | Appendix A |
| | Permit Shield; Form 1401-Q | Appendix A |

## 1.3 Application Shield

In accordance with Rule 1410, Section (a), a facility shall not be subject to enforcement action for not possessing a permit if the facility fulfills the following three conditions:

1. The facility has filed a complete and timely application for an initial Major Facility Review Permit or for a 5-year renewal of an existing Major Facility Review Permit with the Air Pollution Control Officer (APCO);
2. The APCO has not acted on the application; and
3. The facility has honored all requests from the APCO for additional information identified as being needed to process the application by the date specified in writing of the request.

If the facility has not submitted a timely and complete application, the period of non-compliance shall be the period between the submittal deadline and the actual submittal.

The EWPCF became subject to Title V on February 21, 2023. Following the attainment status change in the SDAPCD, the major source thresholds were updated, and EWPCF's PTE is in excess of the new major source thresholds. A timely initial Title V application would be submitted within

12 months of becoming subject to Title V, thus, by February 21, 2024. This application establishes an application shield for EWPCF.

## 1.4 Application Fees

The fees associated with this Title V permit renewal application are determined on a time and material basis per SDAPCD Rule 40(f)(9), which requires: "The owner or operator of a stationary source subject to the requirements of Regulation XIV of these Rules and Regulations, shall pay the actual time and materials costs incurred by the District to review and act upon an application for initial permit, permit modification, administrative permit amendment, Section 502(b)(10) change, enhanced Authority to Construct and/or Title V operating permit renewal; to evaluate such source for compliance with Regulation XIV and the terms and conditions of a Title V operating permit, including but not limited to the costs incurred to document such evaluation, to prepare reports, and to take any actions necessary in cases of noncompliance; to reopen an existing Title V operating permit; and to cancel a Title V operating permit."

The SDAPCD was contacted to obtain a fee estimate, which is summarized in Table 1-3 and provided in Appendix F.

**Table 1-3: Summary of Application Fees**

| Permit Action | Fee |
|---|---|
| Title V Permit Processing Fee Estimate | $16,440.00 |
| Non-Refundable Base Application Fee | $113.00 |
| **Total** | **$16,553.00** |

## 1.5 Application Preparation

This permit application was prepared by Julie Mitchell and Grace Haselton of Yorke Engineering, LLC (Yorke). If there are technical questions regarding this application, please reference the contact information provided in Table 1-4.

**Table 1-4: Application Preparers**

| | | |
|---|---|---|
| **Name:** | Julie Mitchell | Grace Haselton |
| **Company:** | Yorke Engineering, LLC | Yorke Engineering, LLC |
| **Cellular:** | (619) 375-9142 | (949) 979-1372 |
| **E-mail:** | JMitchell@YorkeEngr.com | GHaselton@YorkeEngr.com |

# 2.0 FACILITY DESCRIPTION

## 2.1 Process Description

Wastewater is treated in a number of steps involving multiple basins and processes to clarify the water for in-plant use, recycled water use, or release to the ocean. Grit and larger wastes are separated and sent to a landfill; sludge from the wastewater process enters the digesters, where it is turned into digester gas to power the cogeneration engines or the dryer or sent to one of the flares; and the residual biosolids are dried and turned into pellets for use as fertilizer. Figure 2-1 presents the process flow diagram for wastewater treatment at the EWPCF.

Figure 2-2 shows the process flow diagram for electricity production from the four cogeneration engines, including the use of engine heat in the digesters. The four cogeneration engines are fueled by either digester gas or natural gas.

**Figure 2-1: Water Processing Process Flow Diagram**

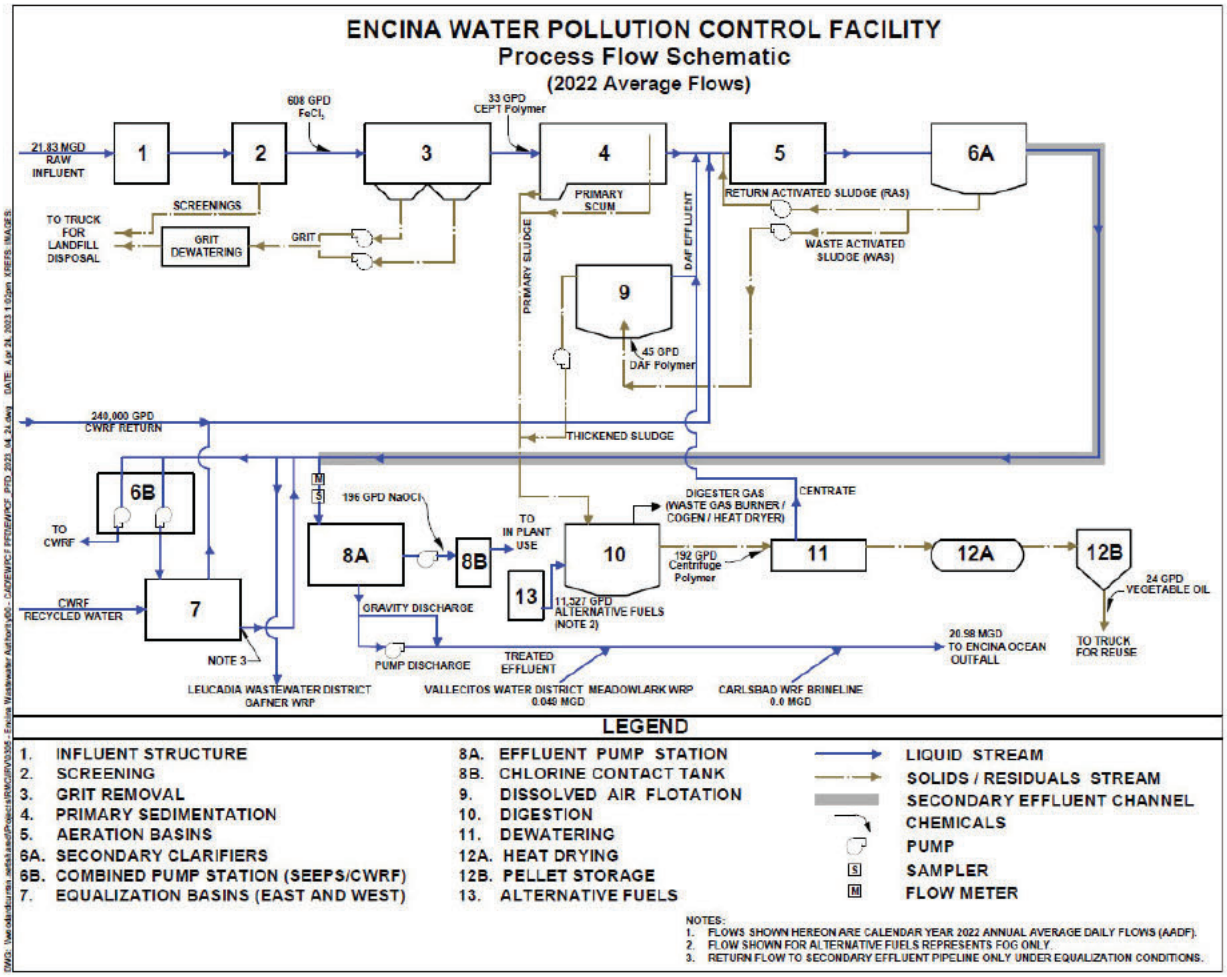
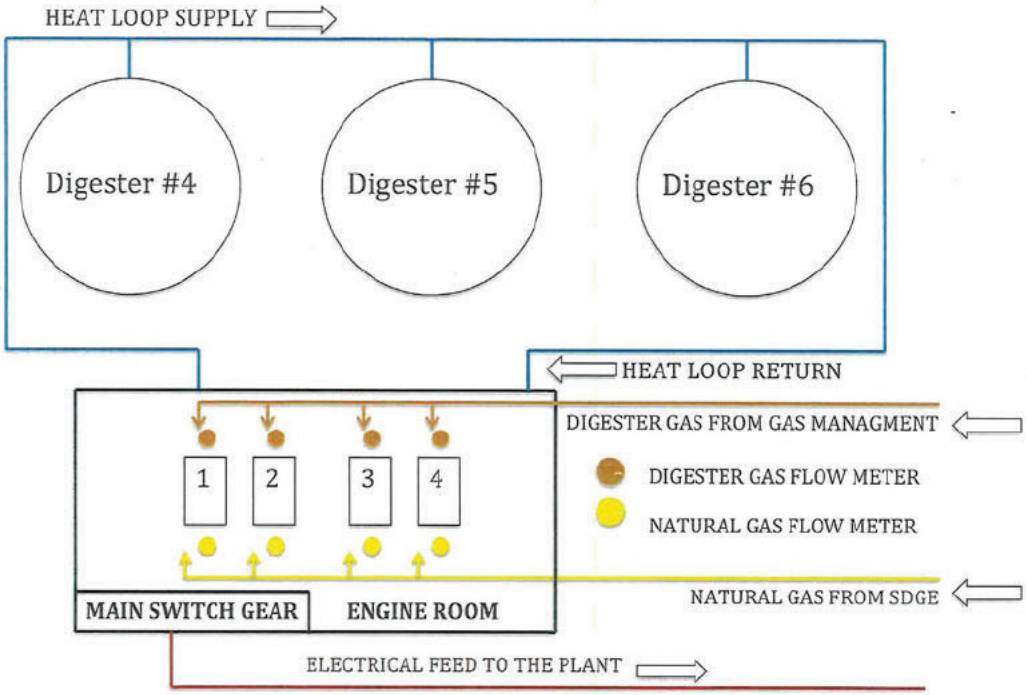


**Figure 2-2: Digesters and Cogeneration Process Flow Diagram**




## 2.2 Facility Equipment and Abatement Devices

Table 2-1 lists the permitted equipment included in this permit application and their associated abatement devices. The table below replaces District Form 1401-M, Abatement Devices. Detailed equipment descriptions can be found in the PTOs provided in Appendix D.

Figure 2-3 shows the locations of the permitted sources.

There are two emissions release locations and five control devices (CDs) associated with Permit APCD2011-PTO-001016. These include:

- The natural gas-fired, 1.3 million British thermal units (MMBtu) per hour regenerative thermal oxidizer (RTO) (CD1) controls VOC emissions from process gas from the biosolids drying process.
    - Dryer exhaust travels through the impingement tray condenser, where some of the exhaust is recycled back to the dryer and the remainder is sent to the Venturi scrubber (CD2). This system controls particulate matter emissions.
- Odor Reduction Facility (ORF) 2 for the biosolids system consists of a biological reduction tower and/or activated carbon adsorber system (CD3); these can be operated separately or together. ORF2 primarily controls odorous compounds, such as sulfur, but also controls VOC emissions. The following feeds into ORF2:
    - Odorous air from the dissolved air flotation (DAF) tanks, sludge dewatering activities, and fats, oils, and grease (FOG) tanks;

- A dual throat wet scrubber (CD4) that controls particulate matter from the biosolids material handling; and
- The pellet silo and offloading system emissions are controlled by a baghouse (CD5) to control the particulate matter emissions.

**Table 2-1: Permitted Equipment and Abatement Devices**

| Permit Number | Equipment | Equipment Description | Abatement Device |
|---|---|---|---|
| APCD2008-PTO-961446 | Wastewater Treatment Plant | A 36 MGD (average dry weather flow) secondary wastewater treatment facility consisting of headworks and primary sedimentation basins, primary clarifiers, activated sludge aeration, secondary sedimentation, ocean outfall and miscellaneous operations. | ORF1 consists of a biological reduction tower and activated carbon adsorption system servicing the headworks and screening system. |
| | | | ORF3 consists of an activated carbon adsorption system controlling the activated sludge system. |
| APCD2011-PTO-001016 | Biosolids Processing System | A biosolids processing operation (36.1 dry tons per day maximum capacity) consisting of: three 94,000 gallon [40' dia. X 10' side water depth (SWD)] DAF thickeners, a wet cake bin conveyor, two wet cake bins, a wet cake truck load out station, three anaerobic digesters [(2) 95' dia. X 42' SWD and (1) 105' dia. X 35' SWD], one 50' dia. X 22' SWD sludge storage tank, two centrifuges, one 15 MMBtu/hr digester gas/natural gas fired sludge dryer with associated processing equipment, two alternative receiving tanks (22,500 gallons capacity) and two support pumps, two Rock Trap Grinders, two pellet silos, conveyance and storage equipment. | Natural gas-fired 1.3 MMBtu/hr RTO (CD1). Receives dryer exhaust controlled by Impingement tray condenser and Venturi scrubber (CD2). |
| | | | ORF2 (CD3) consists of a biological reduction tower and/or activated carbon adsorber system. Receives odorous air from the DAF tanks, sludge dewatering activities, and FOG tanks. Material handling exhaust from dual throat wet scrubber (CD4). Pellet silo and offloading system baghouse (CD5). |
| APCD2010-PTO-000542 | Cogeneration Engine #1 | Caterpillar lean burn engine fueled with digester gas and natural gas, rated at 1,306 bhp when fueled with digester gas and 1,085 bhp when fueled with natural gas, driving a 750-kW generator. | N/A |

| Permit Number | Equipment | Equipment Description | Abatement Device |
|---|---|---|---|
| APCD2010-PTO-000543 | Cogeneration Engine #2 | Caterpillar lean burn engine fueled with digester gas and natural gas, rated at 1,306 bhp when fueled with digester gas and 1,085 bhp when fueled with natural gas, driving a 750-kW generator. | N/A |
| APCD2010-PTO-000544 | Cogeneration Engine #3 | Caterpillar lean burn engine fueled with digester gas and natural gas, rated at 1,306 bhp when fueled with digester gas and 1,085 bhp when fueled with natural gas, driving a 750-kW generator. | N/A |
| APCD2010-PTO-000545 | Cogeneration Engine #4 | Caterpillar lean burn engine fueled with digester gas and natural gas, rated at 1,306 bhp when fueled with digester gas and 1,085 bhp when fueled with natural gas, driving a 750-kW generator. | N/A |
| APCD2011-PTO-001004 | Flare[1] | One (1) Varec Biogas 244 Series Flare equipped with enclosed burner and autopilot ignition system. | N/A |
| APCD2008-PTO-982044 | Emergency Engine | Mitsubishi Heavy Industries turbocharged diesel engine rated at 1,528 bhp, driving a 975-kW generator. | N/A |

Note:

1. A second identical flare has been permitted but is not operational under application APCD2015-APP-03914.

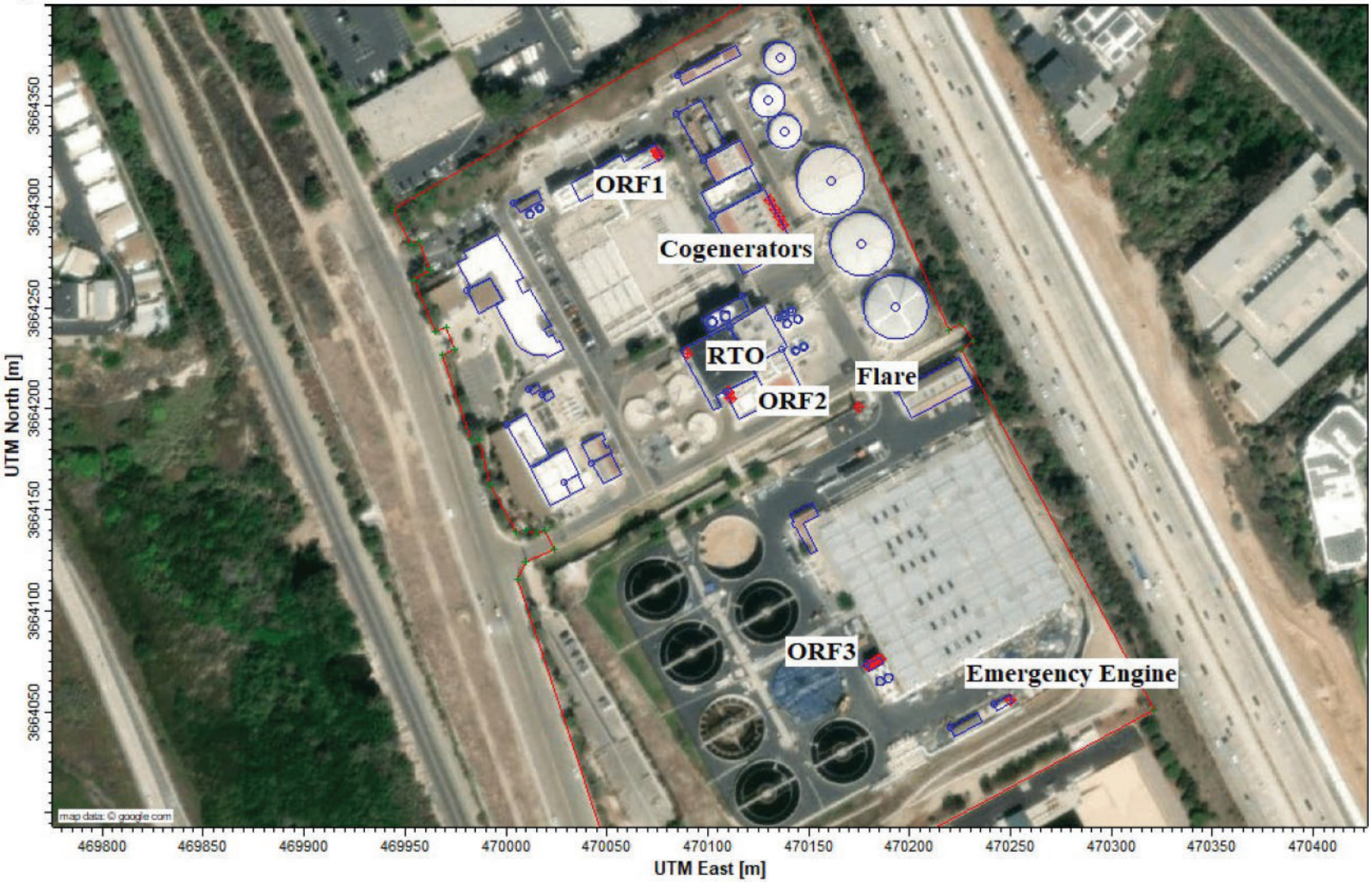
## 2.3 Operating Schedule

The maximum operating schedule for the EWPCF is 24 hours per day, 7 days per week, and 365 days per year.

## 2.4 Insignificant Emissions Sources

The EWPCF has insignificant sources that do not require permitting in accordance with SDAPCD Rule 1411 and Regulation XIV, Appendix A. The insignificant activities are included in Appendix A – District Form 1401-G, Insignificant Activities List.

**Figure 2-3: Locations of Facility Boundary, Sources, and Major Structures**



# 3.0 EMISSIONS

## 3.1 Criteria Pollutants

A criteria pollutant emissions inventory is required as part of the Title V application to establish the applicability of Title V for the facility. This inventory includes emissions from all regulated pollutants, e.g., $NO_x$, CO, VOC, sulfur dioxide ($SO_2$), particulate matter with an aerodynamic diameter less than or equal to 10 microns ($PM_{10}$), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$).

The annual PTE for each source was estimated based on the annual throughput limits and emission factors from the permit conditions, recent engineering evaluations, and/or emission factors provided by the SDAPCD.

Table 3-1 presents the facility PTE summary, and Appendix E contains the detailed emission calculations. Based on the PTE for CO and $NO_x$, the facility is subject to Title V permit requirements.

**Table 3-1: Facility PTE Summary – Annual Emissions (ton/yr)**

| Permit Number | Emissions Source | CO | $NO_x$ | $SO_x$ | VOC | $PM_{10}/PM_{2.5}$ |
|---|---|---|---|---|---|---|
| APCD2010-PTO-000542 | Engine 1 Digester Gas | 20.36 | 3.93 | 0.07 | 2.72 | 0.97 |
| | Engine 1 Natural Gas | 3.12 | 0.71 | 0.002 | 0.42 | 0.04 |
| APCD2010-PTO-000543 | Engine 2 Digester Gas | 20.36 | 3.93 | 0.07 | 2.72 | 0.97 |
| | Engine 2 Natural Gas | 3.12 | 0.71 | 0.002 | 0.42 | 0.04 |
| APCD2010-PTO-000544 | Engine 3 Digester Gas | 20.36 | 3.93 | 0.07 | 2.72 | 0.97 |
| | Engine 3 Natural Gas | 3.12 | 0.71 | 0.002 | 0.42 | 0.04 |
| APCD2010-PTO-000545 | Engine 4 Digester Gas | 20.36 | 3.93 | 0.07 | 2.72 | 0.97 |
| | Engine 3 Natural Gas | 3.12 | 0.71 | 0.002 | 0.42 | 0.04 |
| APCD2011-PTO-001004 | Flare | 11.33 | 5.23 | 0.30 | 1.82 | 1.80 |
| APCD2008-PTO-982044 | Diesel Engine | 0.04 | 0.49 | 0.002 | 0.03 | 0.01 |
| APCD2008-PTO-961446 | ORF1 – Headworks | 0 | 0 | 0 | 1.05 | 0 |
| | ORF3 – Activated Sludge | 0 | 0 | 0 | 1.21 | 0 |
| APCD2011-PTO-001016 | ORF2 – Biosolids | 0 | 0 | 0 | 0.46 | 0.16 |
| | RTO-Dryer – Biosolids | 8.60 | 17.07 | 1.86 | 3.35 | 8.48 |
| **All Sources** | | **113.91** | **41.35** | **2.45** | **20.49** | **14.46** |
| **Title V Threshold** | | 100 | 25 | 100 | 25 | 100 |
| **Exceed Title V Threshold** | | **Yes** | **Yes** | No | No | No |

## 3.2 Hazardous Air Pollutants

A hazardous air pollutant (HAP) emissions inventory is required as part of the Title V application process in order to establish the applicability of Title V and federal National Emission Standards for Hazardous Air Pollutants (NESHAPs). HAPs are those pollutants listed in Section 112(b) of the Federal Clean Air Act (CAA). Major source HAP emission thresholds are 10 tons per year for any individual HAP and/or 25 tons per year of cumulative HAP emissions.

HAP emissions based on maximum throughput data are provided in Appendix E, showing that the EWPCF is not a major source for HAPs.

### 3.3 Greenhouse Gas Emissions

Under U.S. EPA rulemaking, regulated greenhouse gas (GHG) emissions are considered a single air pollutant defined as the aggregate group of the following six gases: carbon dioxide ($CO_2$), methane ($CH_4$), nitrous oxide ($N_2O$), sulfur hexafluoride ($SF_6$), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). GHG emissions are estimated individually, and the $CO_2$ equivalent ($CO_2e$) is aggregated based on relative Global Warming Potential (GWP) of each pollutant.

GHGs shall not be subject to Title V regulation unless, as of July 1, 2011, the GHG emissions are at a stationary source emitting or having the potential to emit 100,000 tpy $CO_2$ equivalent emissions.

The annual PTE for each fuel burning source was estimated based on the annual throughput limits and emission factors from 40 CFR Section 98, as presented in Table 3-3 and Appendix E. This includes the biogenic emissions from the combustion of the digester gas and fossil fuel emissions from natural gas and diesel combustion.

The facility reported 14,762 MT $CO_2e$ for reporting year 2022 in the California Air Resources Board's (CARB's) GHG Reporting Emissions Inventory. The facility's GHG emissions inventories are on file with CARB.

The facility's GHG PTE is less than 100,000 tons $CO_2e$ per year, and therefore does not trigger Title V based on GHG emissions.

**Table 3-2: Facility GHG PTE Summary – Annual GHG Emissions (MT/yr)**

| Permit Number | Emissions Source | $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ |
|---|---|---|---|---|---|
| APCD2010-PTO-000542 | Engines Digester Gas | 8,908 | 0.55 | 0.11 | 8,954 |
| APCD2010-PTO-000543 | | | | | |
| APCD2010-PTO-000544 | | | | | |
| APCD2010-PTO-000545 | | | | | |
| APCD2011-PTO-001016 | Dryer Digester Gas | 6,843 | 0.42 | 0.08 | 6,879 |
| APCD2011-PTO-001004 | Flare | 9,544 | 0.59 | 0.12 | 9,594 |
| APCD2011-PTO-001004 | WWTP | - | 0.95 | - | 24 |
| **Biogenic Emissions** | | 25,296 | 2.50 | 0.31 | 25,450 |
| APCD2010-PTO-000542 | Engines Natural Gas | 1,514 | 0.03 | 0.00 | 1,516 |
| APCD2010-PTO-000543 | | | | | |
| APCD2010-PTO-000544 | | | | | |
| APCD2010-PTO-000545 | | | | | |
| APCD2011-PTO-001016 | RTO-Dryer Natural Gas | 7,571 | 0.14 | 0.01 | 7,579 |
| APCD2008-PTO-982044 | Diesel Engine | 40 | 0.00 | 0.00 | 40 |
| **Fossil Fuel Emissions** | | 9,125 | 0.17 | 0.02 | 9,135 |
| **All Source Total Emissions** | | **34,421** | **2.68** | **0.32** | **34,585** |

# 4.0 APPLICABLE FEDERAL AND TITLE V REQUIREMENTS

## 4.1 SDAPCD Applicable Rules

SDAPCD rules and regulations that have been adopted into the State Implementation Plan (SIP) are federally enforceable applicable requirements. Form 1401-H1, Applicable Requirements Summary Checklist, in Appendix B has been completed to show which SDAPCD rules are applicable to the EWPCF.

## 4.2 New Source Performance Standards

The Title V application process requires facilities to assess the applicability of federal New Source Performance Standards (NSPS). The facility is subject to the following NSPS:

- 40 CFR Part 60, Subpart A – General Provisions. This subpart provides general provisions that are applicable to the affected sources at the EWPCF, including requirements for notification and recordkeeping, performance test, and compliance with standards and maintenance requirements. This subpart is adopted by the SDAPCD rules by reference.
- 40 CFR Part 60, Subpart IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This subpart specifies the performance standards for selected stationary compression ignition (CI) internal combustion engines (ICEs). Permit unit APCD2008-PTO-982044 is a 1,528-brake horsepower (bhp) emergency CI engine that was manufactured in 2004 and commenced construction after July 11, 2005, and thus is only subject to Section 60.4208 (per Section 60.4200). Compliance with the applicable requirements was determined during New Source Review (NSR) when the equipment was originally permitted.
- 40 CFR Part 60, Subpart JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. This subpart specifies the performance standards for stationary spark ignition (SI) ICEs. Permit units APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544, and APCD2010-PTO-000545 are 1,306-bhp lean-burn SI engines. Although construction commenced after June 12, 2006 (on July 5, 2006), these engines were manufactured before January 1, 2008, in March 2007. Therefore, the units are not subject to the requirements of Subpart JJJJ per Section 60.4230(4)(ii).

## 4.3 National Emission Standards for Hazardous Air Pollutants

Title V applications require facilities to assess the applicability of federal NESHAPs. The facility was evaluated for the following NESHAPs:

- 40 CFR Part 63, Subpart VVV: Standards of Performance for Publicly Owned Treatment Works (POTWs). The EWPCF is not subject to this subpart, as the facility is a Group 2 POTW and is not a major source of HAPs. A Group 2 POTW treats wastewater that is not subject to control by another NESHAP or does not treat waste from an industrial user that is subject to a NESHAP.
- 40 CFR Part 63, Subpart ZZZZ: Standards of Performance for Stationary Reciprocating Internal Combustion Engines. The stationary reciprocating ICEs (RICEs) at the EWPCF are permits APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544, APCD2010-PTO-000545, and APCD2008-PTO-982044. APCD2008-PTO-982044 is an emergency generator that meets the emergency definitions in accordance with

Section 63.6585(f), and therefore is not subject to this subpart. The four cogeneration RICEs are subject to this subpart per Section 63.6590 as "new" engines. Compliance with the applicable requirements was determined during NSR when the equipment was originally permitted.

### 4.4 Conformance to 40 CFR Part 70 Application Requirements

To be deemed complete, a Title V application must provide all information required pursuant to 40 CFR Section 70.5(c). Appendix F provides a cross-reference matrix between this application document and each element of Section 70.5(c).

### 4.5 Alternative Operating Scenario

Alternative operating scenarios (AOS) are a coordinated set of alternative operational parameters and permit conditions that are proposed by the operator and approved and implemented in accordance with Regulation XIV.

An alternative operating scenario consists of a set of provisions and conditions in a permit that allow a facility to switch back and forth between alternative modes of operation without submitting an application for a permit revision before each switch.

EWA is not requesting an alternative operating scenario.

### 4.6 Compliance Assurance Monitoring

The U.S. EPA developed 40 CFR Part 64 [Compliance Assurance Monitoring (CAM)] in order to provide reasonable assurance that facilities comply with emissions limitations by monitoring the operation and maintenance of their control devices. Operators of new large emissions units (post-control emissions greater than the major source threshold) need to include CAM Plans as part of their initial Title V permit application.

For facilities that are subject to this regulation, the CAM Plan needs to be submitted to the District along with the initial Title V application. 40 CFR Part 64 requires CAM for units that meet all of the following criteria:

- The unit is located at a major source for which a Title V permit is required;
- The unit is subject to an emissions limitation or standard;
- The unit uses a control device to achieve compliance with a federally enforceable limit or standard;
- The unit has potential pre-control or post-control emissions of at least 100% of the major source amount; and
- The unit is not otherwise exempt from CAM.

The only sources with control equipment are the Wastewater Treatment Plant (APCD2008-PTO-961446) and Biosolids Processing System (APCD2011-PTO-001016) as outlined in Table 2-1. Neither of these permits contains limits on the controlled emissions of VOC or PM, and neither is subject to any emission standards. Therefore, no sources at the EWPCF are subject to CAM requirements.

## 4.7 Permit Shield

A facility may include a proposal for a permit shield in its application for a Title V permit. The permit shield identifies statutory and/or regulatory provisions that do not apply to a source or group of sources. Once the shield is in place, enforcement actions and litigation may not be initiated against the source(s) covered by the shield as related to the identified regulatory and statutory provisions. The permit shield is an optional element of the Title V permit.

EWA is not requesting a permit shield with this initial Title V application.

## 4.8 Permit Streamlining

The permit may also include a second type of permit shield, commonly referred to as "permit streamlining." Where there are multiple overlapping requirements for control of the same pollutant together with multiple monitoring, recordkeeping, and reporting requirements, the facility may request that the permit subsume the monitoring, recordkeeping, and reporting requirements that are associated with the less stringent limits. According to the Manual of Procedures, Volume II, Part 3 (Major Facility Review Permit Requirements), the facility must demonstrate that the most stringent limits will ensure compliance with the less stringent requirements in these situations. If the facility cannot make this demonstration, the facility or the District may propose monitoring, etc., that assures compliance with all limits and subsume the monitoring prescribed in the standards.

EWA is not requesting permit streamlining with this initial Title V application.

## APPENDIX A – SDAPCD APPLICATION FORMS

| Purpose | Form Title | Location |
|---|---|---|
| Initial Title V Application | General Application | Appendix A |
| | Stationary Source Summary, Form 1401-A1 | Appendix A |
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| | Applicable Requirements Summary Checklist, Form 1401-H1 | Appendix B |
| | List of Permits by Equipment Category, From 1401-H2 | Appendix A |
| | Certification Statement; Form 1401-I | Appendix A |
| | Compliance Certification Schedule; Form 1401-K | Appendix C |
| | Schedule of Compliance; Form 1401-L | Appendix A |
| | Abatement Devices; Form 1401-M | Table 2-1 and Appendix A |
| | Alternative Operating Scenario; Form 1401-N | Appendix A |
| | Multiple Applicable Requirements Streamlining; Form 1401-O | Appendix A |
| | Permit Shield; Form 1401-Q | Appendix A |

# GENERAL PERMIT OR REGISTRATION APPLICATION INSTRUCTIONS

San Diego County
Air Pollution
Control District

## GENERAL

The owner or designated agent must complete and sign this form and file it with one copy of all attachments, required supplementary forms, drawings and the appropriate fee.

The appropriate fee (payable to "San Diego County APCD") must be submitted with this Permit/Registration Application. Application processing will not begin until the full required fee has been received. Excess fees will be refunded upon completion of the application process. If you do not know the appropriate fee or need to discuss the information required, please contact the District at (858) 586-2600 and ask for assistance in determining an application fee.

## REASON FOR SUBMITTAL OF APPLICATION

- New Installation - check if you are installing equipment that does not currently have a District Permit to Operate (PTO)
- Existing Unpermitted Equipment or Rule 11 Change - check if applying for existing equipment that is currently unpermitted or equipment that is now subject to District Rules due to Rule 11 changes
- Modification of Existing Permitted Equipment - check if you are making a change to equipment with a current District Permit to Operate. (List affected PTO Record ID(s) – Note: PTO Record ID Format: APCD2015-PTO-123456)
- Amendment to Existing Application - check f you are amending a previously submitted application form or current Authority to Construct. (List affected Application Record ID(s) Application Record ID Format: APCD2015-APP-123456)
- Change of Equipment Location - check if you are moving non-portable equipment with a current District Permit to Operate.(List affected PTO Record IDs)
- Change of Equipment Ownership - check if you wish to transfer ownership of a District Permit to Operate to a different owner. Provide proof of ownership with application. (List affected PTO Record ID(s))
- Change of Permit Conditions - check if you are proposing changes only to conditions for an existing permit to operate. (List affected PTO Record ID(s) on line 12)
- Change Permit to Operate Status to Inactive - Used to place a permit in inactive (non-operational) status. (List affected PO #(s))
- Banking Emissions - check if you are applying for emission reduction credits
- Registration of Portable Equipment - check this line if you are applying for registration of portable equipment
- Other - check for any action not covered
- List affected Application/PTO Record ID(s) - list any permits or open applications affected by the proposed modification/change

## TRADE SECRET INFORMATION AND PUBLIC AVAILABILITY OF APPLICATIONS

All information submitted with this application is considered a public record and is accessible online while under review unless otherwise designated as Trade Secret.

**If your application contains information you consider to be trade secret or otherwise confidential, you must indicate so on this form and attach a separate document justifying the request as required by District Rule 176.** Only this application form and the justification will be made available online if this status is requested; however, the District may make additional information available if it is publicly requested and determined not to qualify as trade secret as described in District Rules 176 and 177.

## APPLICANT INFORMATION

Please enter the requested addresses, including the address to be used to send the Authority to Construct, Permit to Operate, and invoices.

## EQUIPMENT/PROCESS INFORMATION

Check Stationary or Portable depending upon the type of equipment for which you are filing an application. Also check Yes if the equipment is portable and will operate more than 180 consecutive days at a single site. Otherwise, check No.
Please enter the location where the equipment is or will operate. If the application is for a portable operation please enter the address that will be used to store the portable unit.

## INDEMNIFICATION

In accordance with District Rule 40(d)(8)(vi), the applicant, to the extent the applicant is at fault in causing liability to the District, shall indemnify the District (including its agents, officers and employees) from any claim, action, liability, or proceeding to attack, set aside, void or annul the applicant's project or any of the proceedings, acts or determinations taken, done or made as a result of the District's processing and/or approval of the project. The applicant's obligation to indemnify shall include, but not be limited to, payment of all court costs and attorneys' fees, costs of any judgments or awards against the District, damages, and/or settlement costs, which arise out of the District's processing and/or approval of the applicant's project, except that an applicant shall only be responsible for indemnifying the District according to the proportion of fault caused by the applicant, as determined by a court. By signing and submitting this application, an applicant agrees to such indemnification.

| Internal Use Only | |
|---|---|
| APP ID: APCD | -APP/CER- |
| SITE ID: APCD | -SITE- |

# GENERAL PERMIT OR REGISTRATION APPLICATION FORM

San Diego County Air Pollution Control District

**Submittal of this application does not grant permission to construct or to operate equipment except as specified in Rule 24(c).**

**REASON FOR SUBMITTAL OF APPLICATION:**

- ☐ New Installation
- ☐ Amendment to Existing Authority to Construct or Application
- ☐ Change of Permit Conditions
- ☐ Registration of Portable Equipment
- ☐ Existing Unpermitted Equipment or Rule 11 Change
- ☐ Change of Equipment Location
- ☐ Change Permit to Operate Status to Inactive
- ☐ Modification of Existing Permitted Equipment
- ☐ Change of Equipment Ownership *(please provide proof of ownership)*
- ☐ Banking Emissions
- ■ Other (Specify) Initial Title V Application

List affected APP/PTO Record ID(s): Entire facility. See Table 2-1

**APPLICANT INFORMATION**

Name of Business (DBA) Encina Wastewater Authority

Does this organization own or operate any other APCD permitted equipment at this or any other adjacent locations? ■ Yes ☐ No

If yes, list assigned Site Record IDs listed on your Permits APCD1984-SITE-03370

Name of Legal Owner (if different from DBA)

| Equipment Owner | Authority to Construct Mailing Address |
|---|---|
| Name: Encina Wastewater Authority | Name: Encina Wastewater Authority |
| Mailing Address: 6200 Avenida Encinas | Mailing Address: 6200 Avenida Encinas |
| City: Carlsbad State: CA Zip: 92011 | City: Calsbad State: CA Zip: 92011 |
| Phone: (760) 438-3941 | Phone: (760) 438-3941 |
| E-Mail Address: SMcClelland@encinajpa.con | E-Mail Address: SMcClelland@encinajpa.con |

| Permit To Operate Mailing Address | Invoice Mailing Address |
|---|---|
| Name: Encina Wastewater Authority | Name: Encina Wastewater Authority |
| Mailing Address: 6200 Avenida Encinas | Mailing Address: 6200 Avenida Encinas |
| City: Carlsbad State: CA Zip: 92011 | City: Carlsbad State: CA Zip: 92011 |
| Phone: (760) 438-3941 | Phone: (760) 438-3941 |
| E-Mail Address: SMcClelland@encinajpa.con | E-Mail Address: SMcClelland@encinajpa.con |

**EQUIPMENT/PROCESS INFORMATION: Type of Equipment: ■ Stationary ☐ Portable, *if portable please enter below the equipment storage address.* If portable, will operation exceed 12 consecutive months at the same location ☐ Yes ☐ No**

Equipment Location Address 6200 Avenida Encinas City Carlsbad State: CA

Parcel No. Zip 92011 Phone (760) 438-3941 E-mail: SMcClelland@encinajpa.con

Site Contact Scott McClelland, General Manager Phone (760) 438-3941

General Description of Equipment/Process Wastewater Treatment equipment

Application Submitted by ☐ Owner ☐ Operator ☐ Contractor ■ Consultant Affiliation Yorke Engineering LLC

**EXPEDITED APPLICATION PROCESSING: ☐ I hereby request Expedited Application Processing and understand that:**
a) Expedited processing will incur additional fees and permits will not be issued until the additional fees are paid in full (see Rule 40(d)(8)(iv) for details) b) Expedited processing is contingent on the availability of qualified staff c) Once engineering review has begun this request cannot be cancelled d) Expedited processing does not guarantee action by any specific date nor does it guarantee permit approval.

☐ **This application contains trade secret or confidential information** *(see reverse for instructions)*

**I hereby certify that all information provided on this application is true and correct.**

[redacted] Date 1/30/2024

Print Name Scott McClelland Company Encina Wastewater Authority

Phone (760) 438-3941 E-mail Address SMcClelland@encinajpa.con

**Internal Use Only**

| | | | |
|---|---|---|---|
| Date | Staff Initials: | Amt Rec'd $ | Fee Schedule |
| RNP: | EMF: | NBF: TA: | |

*GEN_APP_Form_Rev Date: Aug. 2017*

**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 |
|---|---|
| Encina Wastewater Authority | NEDS # _____ <br> SITE ID # _____ |

## I. FACILITY IDENTIFICATION

1. Facility Name (if different than company name): _____
2. Four digit SIC Code: 4952
3. Parent Company (if different than Company Name): _____
4. Mailing Address: 6200 Avenida Encinas
   City Carlsbad State CA Zip 92011
5. Street Address or Source Location: 6200 Avenida Encinas
   City Carlsbad State CA Zip 92011
6. UTM Coordinates: _____
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: Encina Wastewater Authority
11. Owner's Agent name (if any): _____
12. Responsible Official: Scott McClelland, General Manager
13. Plant Site Manager/Contact: Scott McClelland, General Manager Phone #: (670)438-3941 FAX #: _____
14. Application Contact: Alicia Appel, Director of Environmental Compliance
15. Type of Facility: Wastewater Treatment Plant
16. General description of processes/products: wastewater treatment plant
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** | N/A | N/A |
| ☐ **Permit Renewal** | | |
| ☐ **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:
   _____

## IV. SUPPLEMENTAL ATTACHMENTS*: SDAPCD Forms - General Application, 1401-A1, 1401-A2, 1401-G,1401-H1, 1401-H2,1401-I, 1401-K, 1401-L, 1401-M, 1401-N, 1401-O, 1401-Q

* 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 |
|---|---|
| Encina Wastewater Authority | NEDS # _____<br>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~~ 25 | ☐ |
| $PM_{10}$ | 100 | ☐ |
| $SO_2$ | 100 | ☐ |
| NOx | ~~100~~ 25 | ☒ |
| 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 PTE calculations provided

Inventory Year Annual emission inventories are on file with SDAPCD

[redacted]

Signature of Responsible Official

Date 1/31/2024

Scott McClelland
Print Name of Responsible Official

(760) 438-3941
Telephone No. of Responsible Official

General Manager
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** |
|---|---|
| Encina Wastewater Authority | **NEDS #** _____ |
| Facility Address: 6200 Avenida Encinas Carlsbad,CA 92011 | **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
## LIST OF PERMITS BY EQUIPMENT CATEGORY (FORM 1401-H2)

| Company Name | District Use Only |
|---|---|
| Encina Wastewater Authority | NEDS # _____ |
| Facility Address: 6200 Avenida Encinas | SITE ID # _____ |
| Carlsbad, CA 92011 | |

## 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 |
|---|---|---|
| Cogeneration Engine #1 | APCD2010-PTO-000542 | O |
| Cogeneration Engine #2 | APCD2010-PTO-000543 | O |
| Cogeneration Engine #3 | APCD2010-PTO-000544 | O |
| Cogeneration Engine #4 | APCD2010-PTO-000545 | O |
| Wastewater Treatment Equipment | APCD2008-PTO-961446 | O |
| Biosolids Processing Operation | APCD2011-PTO-001016 | O |
| Flare(s) | APCD2011-PTO-001004 | O |
| Emergency Engine | APCD2008-PTO-982044 | 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 |
|---|---|
| Encina Wastewater Authority | NEDS #_____ |
| Facility Address: 6200 Avenida Encinas | SITE ID #_____ |
| Carlsbad, CA 92011 | |

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

| Applicable | Not Applicable | |
|---|---|---|
| ☒ | ☐ | *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.* |
| ☒ | ☐ | *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.* |
| ☐ | ☒ | *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.* |
| ☒ | ☐ | *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.* |
| ☒ | ☐ | *All fees required by Regulation III, Rule 40 have been paid.* |

[redacted]
Signature of Responsible Official

1/31/2024
Date

Scott McClelland
Print Name of Responsible Official

( ) (760)438-3941
Telepone No. of Responsible Official

General Manager
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**
**Schedule of Compliance (FORM 1401-L)**

| Company Name | District Use Only |
|---|---|
| Encina Wastewater Authority | NEDS # |
| Facility Address: 6200 Avenida Encinas, Carlsbad CA 92011 | SITE ID # |

# SOURCES NOT IN COMPLIANCE

In numerical order, list all emission units by permit number that do not comply with a federally enforceable requirement. Describe how the source will achieve compliance. Propose a schedule to correct the deficiencies, and include a schedule for progress reports. Reports must be submitted at least every six months. If the source is operating under a judicial consent decree or administrative order, the Schedule of Compliance must be at least as stringent. **If more space is required, use additional forms. Please type or print legibly.**

| Permit No. | Emission Unit Name | Applicable Requirements | Compliance Schedule Attachment |
|---|---|---|---|
| None | | | |
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Page 1 of 1

**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 |
|---|---|
| Encina Wastewater Authority | NEDS # |
| Facility Address: 6200 Avenida Encinas Carlsbad, CA 92011 | 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 |
|---|---|---|
| APCD2008-PTO-961446 | ORF1- biological reduction tower and activated carbon adsorption system | Servicing the headworks and screening system |
| APCD2008-PTO-961446 | ORF3- activated carbon adsorption system | Activated sludge system |
| APCD2011-PTO-001016 | Natural gas-fired 1.3 MMBtu/hr RTO (CD1) | Receives dryer exhaust after CD2 |
| APCD2011-PTO-001016 | Impingement tray condenser and venturi scrubber (CD2) | Receives dryer exhaust |
| APCD2011-PTO-001016 | ORF2 (CD3)- biological reduction tower and/or activated carbon absorber system | Receives air from DAF tanks, sludge dewatering activities, FOG tanks, CD4 & CD5 exhaust |
| APCD2011-PTO-001016 | Dual throat wet scrubber (CD4) | Biosolids material handling exhaust |
| APCD2011-PTO-001016 | Pellet silo and offloading baghouse (CD5) | Pellet silo and offloading system |
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| | | |
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| | See Table 2-1: Permitted Equipment and Abatement Devices for more details | |
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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
## Alternative Operating Scenario (FORM 1401-N)

| Company Name | District Use Only |
|---|---|
| Encina Wastewater Authority | NEDS # _____ |
| Facility Address: 6200 Avenida Encinas Carlsbad, CA 92011 | SITE ID # _____ |

## SCENARIO WITH EMISSION CHANGES

Give a title, a brief description, and an emission change. Attach calculations and detailed descriptions of each scenario to this form, using one form for each scenario. **Please type or print legibly**.

**Operating Scenario #** _____

| | |
|---|---|
| **TITLE** | |

| | |
|---|---|
| **DESCRIPTION** | |

| | |
|---|---|
| **EMISSION CHANGE** | |

**Attach all necessary calculations, <u>detailed</u> descriptions, and proposed terms and conditions to this form.**

No alternative operating scenario requested

**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**
**Multiple Applicable Requirements Streamlining (FORM 1401-O)**

| Company Name | District Use Only |
|---|---|
| Encina Wastewater Authority | NEDS # |
| Facility Address: 6200 Avenida Encinas, Carlsbad CA 92011 | SITE ID # |

# MULTIPLE APPLICABLE REQUIREMENTS STREAMLINING

**If more space is required, use additional forms. Please type or print legibly.**

| Application No(s) Permit No(s) | Multiple Applicable Requirements | Streamlined Requirements | Attachment Number |
|---|---|---|---|
| | None | | |
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Page 1 of 1

**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**
**Permit Shield (FORM 1401-Q)**

| Company Name | District Use Only |
|---|---|
| Encina Wastewater Authority | NEDS # |
| Facility Address: 6200 Avenida Encinas, Carlsbad CA 92011 | SITE ID # |

# REQUEST FOR PERMIT SHIELD

**If more space is required, use additional forms. Please type or print legibly.**

| Application No(s) Permit No(s) | Requirements to be Shielded | Basis | Attachment Number |
|---|---|---|---|
| | NOT REQUESTED | | |
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# APPENDIX B – APPLICABLE REQUIREMENTS MATRIX

**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**: Encina Wastewater Authority

**District Use Only**
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 | Cogeneration Engine #1 APCD2010-PTO-000542 | Cogeneration Engine #2 APCD2010-PTO-000543 | Cogeneration Engine #3 APCD2010-PTO-000544 | Cogeneration Engine #4 APCD2010-PTO-000545 | Flare APCD2011-PTO-001004 | Emergency IC Engine APCD2008-PTO-982004 | Wastewater Treatment Plant APCD2008-PTO-961446 | Biosolids APCD2011-Pto-001016 | Flare APCD2008-PTO-982044 | | | | | Future Effective Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Facility Applicable Requirement Description** | | | | | | | | | | | | | | | | | |
| 10(a) | Permits Required – (a) Authority to Contruct | | | X | | | | | | | | | X | | | | | |
| 10(b) | Permits Required – (b) Permit to Operate | | | X | X | X | X | X | X | X | X | X | | | | | | |
| 19 | Provision of Sampling & Testing Facilities | | | X | | | | | | | X | | | | | | | |
| 19.2 | Continuous Emission Monitoring Requirements | | | | | | | | | | | | | | | | | |
| 19.3 | Emission Information | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| NSR | New Source Review | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| PSD | Prevention of Significant Deterioration | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 21 | Permit Conditions | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 50 | Visible Emissions | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 51 | Nuisance | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 60 | Circumvention | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 67.0 | Architectural Coatings | (g) | | X | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | |
| | **Equipment Specific Applicable Requirement Description** | | | | | | | | | | | | | | | | | |
| 50 | Visible Emissions | | | | X | X | X | X | X | X | X | X | X | | | | | |
| 51 | Nuisance | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 52 | Particulate Matter | Method 5 | | | X | X | X | X | X | X | | X | X | | | | | |
| 53 | Specific Contaminants | Method 5 | | | | | | | X | | | | X | | | | | |
| 53.1 | Scavenger Plants | | | | | | | | | | | | | | | | | |
| 54 | Dust and Fumes | Method 5 | | | | | | | | | X | X | | | | | | |
| 58 | Incinerator Burning | | | | | | | | | | | | | | | | | |
| 59 | Control of Waste Disposal – Site Emissions | (e) | (e) & (f) | | | | | | | | | | | | | | | |
| 60 | Circumvention | | | | X | X | X | X | X | X | X | X | X | | | | | |
| 61.1 | Receiving & Storing VOCs at Bulk Plants & Terminals | (d) | (c)(7) | | | | | | | | | | | | | | | |
| 61.2 | Transfer of VOCs into Mobile 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 | | | | | | | | | | | | | | | | | |
| 62 | Sulfur Content of Fuels | | | | X | X | X | X | 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) | | | | | | | | | | | | | | | |
| 67.6 | Solvent Cleaning Operation | (f) | | | | | | | | | | | | | | | | |
| 67.6.1 | Cold Solvent Cleaning and Stripping Operations | (g) | (f) | | | | | | | | | | | | | | | |
| 67.7 | Cutback & Emulsified Asphalt | (f) | (e) | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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) | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | |
| 67.21 | Adhesive Material Application Operations | | | | | | | | | | | | | | | | | |
| 67.22 | Expandable Polystyrene Foam Products | | | | | | | | | | | | | | | | | |
| 67.24 | Bakery Ovens | (f) | (e) | | | | | | | | | | | | | | | |
| 68 | Fuel Burning Equipment - NOx | | | | X | X | X | X | X | X | | | X | | | | | |
| 69.2 | Boilers | (f) | (e) & (g) | | | | | | | | | | | | | | | |
| 69.3 | Stationary Gas Turbine Engines - RACT | (f) | (e) & (g) | | | | | | | | | | | | | | | |
| 69.3.1 | Stationary Gas Turbine Engines – BARCT (not in SIP) | (f) | (e) & (g) | | | | | | | | | | | | | | | |
| 69.4 | Stationary Internal Combustion Engines - RACT | (f) | (e) | | | | | | | | | | | | | | | |
| 69.4.1 | Stationary Internal Combustion Engines – BARCT (not in SIP) | (f) | (e) | | X | X | X | X | | X | | | | | | | | |
| 70 | Orchard Heaters | | | | | | | | | | | | | | | | | |
| 71 | Abrasive Blasting | | | | | | | | | | | | | | | | | |
| 20.1 | Applicability, Definitions, Emission Calculations, Emission Offsets and Banking, Exemptions, and Other Requirements (SIP Version 7/5/79) | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 20.1 | NSR - General Provisions (Version 11/4/98) (not in SIP) | | | X | X | X | X | X | X | X | X | X | X | | | | | |
| 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) | | | | | | | | | | | | | | | | | |
| 20.3 | Standards for Authority to Construct - Air Quality Analysis (SIP Version 7/5/79) | | | | | | | | | | | | X | | | | | |
| 20.3 | NSR – Major Stationary Source and PSD Stationary Source (Version 11/4/98) (not in SIP) | | | | X | X | X | X | X | X | X | X | X | | | | | |
| 20.4 | Standards for Authority to Construct - Major Sources (SIP Version 7/5/79) | | | | | | | | | | | | X | | | | | |
| 20.4 | NSR – Portable Emission Units (Version 11/4/98) (not in SIP) | | | | | | | | | | | | | | | | | |
| 20.5 | Power Plants (SIP Version 7/5/79) | | | | | | | | | | | | | | | | | |
| 20.6 | Standards for Permit to Operate Air Quality Analysis (SIP Version 7/5/79) | | | | X | X | X | X | X | X | X | X | X | | | | | |
| **Subpart** | **Regulation X - Standards of Performance for New Stationary Sources (NSPS)** | **Rule #** | **Rule #** | | | | | | | | | | | | | | | |
| A | General Provisions | | 260.7<br>260.13 | X | | | | | | | X | 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 | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | |
| L | Standards of Performance for Secondary Lead Smelters | 260.123 | | | | | | | | | | | | | | | | |
| M | Standards of Performance for Secondary Brass and Bronze Ingot Production Plants | 260.133 | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | |
| 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. | | | | | | | | | | | | | | | | | |
| 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. | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | | | | | | | | | | | | | | |
| IIII | Stationary Compression Ignition Internal Combustion Engines NSPS | | | | | | | | | X | | | | | | | | |
| JJJJ | Stationary Spark Ignition Internal Combustion Engines NSPS | | | | X | X | X | 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. | | | | | | | | | | | | | | | | | |
| E | Mercury Ore Processing; Manufacturing Processes Using Mercury Chloralkali Cells; and Sludge Incinerators. | | | | | | | | | | | | | | | | | |
| F | Ethylene Dichloride Mfg. Via Oxygen, HCl 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. | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | |
| YYYY | Stationary Combustion Turbines | | | | | | | | | | | | | | | | | |
| | **California Requirements Under 17 CCR Including Airborne Toxic Control Measures (ATCM)** | | | | | | | | | | | | | | | | | |
| §93102 | Hexavalent Chromium from Chrome Plating and Chromic Acid Anodizing Operations (equivalency under CAA given at 40 CFR 63.99) | | | | | | | | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| §93109 | Perchloroethylene from Dry Cleaning Operations (equivalency under CAA given at 40 CFR 63.99) | | | | | | | | | | | | | | | | | |
| §93115 | Stationary Compression Ignition Engines | | | | | | | | | X | | | | | | | | |
| §93116 | Diesel Particulate Matter from Portable Engines Rated ≥50 Horsepower | | | | | | | | | | | | | | | | | |
| §§95460 – 95476 and Appx I | Methane Emissions from Municipal Solid Waste Landfills | | | | | | | | | | | | | | | | | |
| | **40 CFR Part 64 - Compliance Assurance Monitoring** | | | | | | | | | | | | | | | | | |
| | **40 CFR Part 68 Chemical Accident Prevention** | | | | | | | | | | | | | | | | | |
| | **Title IV - Acid Rain (40 CFR 72 through 78)** | | | | | | | | | | | | | | | | | |
| | **Title VI-Ozone Depleting Compounds (40 CFR 82)** | | | | | | | | | | | | | | | | | |
| B | Servicing of Motor Vehicle Air Conditioners | B | | | | | | | | | | | | | | | | |
| F | Servicing of Other Air Conditioners | F | | | | | | | | | | | | | | | | |

# APPENDIX C – COMPLIANCE SCHEDULE MATRIX

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**Encina Wastewater Authority**
**Compliance Matrix**

**Facility-wide Conditions**

| Condition # | Condition | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|
| | Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District. | N/A - not specific | - | In Compliance | |
| | This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies. | N/A - relates to other agencies | - | In Compliance | - |
| | 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. | Annual | Annual Emission Inventory | In Compliance | Subject to Hot Spots review every 4 years. |

Notes:
These are the last 3 conditions on all of the permits.

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #1 (PTO-000542)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 1 | When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 9/27/2022 on Digester gas NOx avg- 39 ppmv@15% O2 |
| 2 | When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 9/27/2022 on Digester gas CO avg- 256 ppmv@15% O3 |
| 3 | When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 4 | When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 5 | The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):<br>a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2<br>b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2<br>Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted. | Rule 69.4.1 | Quarterly | Portable Analyzer and Source Tests | In compliance | New condition, compliance demonstrated through source test in October 2023 and quarterly sampling will start in Q1 2024 |
| 6 | Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. | NSR | Annually | Annual Fuel Usage Records | In Compliance | 2022 total gas consumption 4 engines = 248.72 million scf<br>2022 total natural gas consumption 4 engines = 16.1 million scf |
| 7 | Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR) | NSR | Daily | Daily Fuel Usage Records | In Compliance | |
| 8 | A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:<br>a. old meter's reading.<br>b. replacement meter's manufacturer name, model and serial number if available and current reading on replacement meter; and<br>c. copy of receipt of new meter or of installation work order.<br>A copy of the meter replacement notification shall be maintained on site and made available to the Air Pollution Control District upon request. | Rule 69.4.1 | As needed | Maintenance Records | In Compliance | |

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #1 (PTO-000542)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 9 | 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, and shall include, but is not limited to, the following:<br>1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);<br>2) Inspect and clean air filters, replacing as necessary;<br>3) Inspect all hoses and belts, replacing as necessary; and<br>4) Inspect spark plugs, if equipped, replacing as necessary.<br>Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. | Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart JJJJ | Annually | Maintenance Records | In Compliance | |
| 10 | The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:<br>i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.<br>ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.<br>iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a<br>source test is not performed.<br>iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into<br>compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).<br>v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued<br>by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request. | Rule 69.4.1 | Quarterly, except for quarter with source test | Quarterly Portable Analyzer, except for quarter with source test | In Compliance | compliance demonstrated through annual source testing and quarterly sampling |

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #1 (PTO-000542)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 11 | The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards. | Rule 69.4.1 | Quarterly | Portable Analyzer Records | In Compliance | |
| 12 | The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer. | | Daily/Annually | Fuel Usage Records, Inspection logs, Maintenance records | In Compliance | |
| 13 | All records shall be retained on site for at least three (3) years and made readily available to the District upon request. | | As needed | Maintain all records for 3 years | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 14 | This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year. | | Annually | Annual Source Test | In Compliance | Last source tested 9/27/2022 |
| 15 | The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year. | | Annually | Annual Source Test | In Compliance | Engine operated on mainly digester gas in 2021, thus source tested on digester gas. |

Notes:
Conditions 16, 17 and 18 are listed with the facility conditions

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #2 (PTO-000543)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 1 | When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 9/27/2022 on Digester gas NOx avg- 34 ppmv@15% O2 |
| 2 | When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 9/27/2022 on Digester gas CO avg- 252 ppmv@15% O3 |
| 3 | When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 4 | When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 5 | The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):<br>a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2<br>b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2<br>Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted. | Rule 69.4.1 | Quarterly | Portable Analyzer and Source Tests | In compliance | New condition, compliance demonstrated through source test in October 2023 and quarterly sampling will start in Q1 2024 |
| 6 | Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. | NSR | Annually | Annual Fuel Usage Records | In Compliance | 2022 total gas consumption 4 engines = 248.72 million scf<br>2022 total natural gas consumption 4 engines = 16.1 million scf |
| 7 | Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR) | NSR | Daily | Daily Fuel Usage Records | In Compliance | |
| 8 | A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:<br>a. old meter's reading.<br>b. replacement meter's manufacturer name, model and serial number if available and current reading on replacement meter; and<br>c. copy of receipt of new meter or of installation work order.<br>A copy of the meter replacement notification shall be maintained on site and made available to the Air Pollution Control District upon request. | Rule 69.4.1 | As needed | Maintenance Records | In Compliance | |

**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #2 (PTO-000543)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 9 | 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, and shall include, but is not limited to, the following:<br>1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);<br>2) Inspect and clean air filters, replacing as necessary;<br>3) Inspect all hoses and belts, replacing as necessary; and<br>4) Inspect spark plugs, if equipped, replacing as necessary.<br>Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. | Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart JJJJ | Annually | Maintenance Records | In Compliance | |
| 10 | The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:<br>i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.<br>ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.<br>iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a<br>source test is not performed.<br>iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into<br>compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).<br>v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued<br>by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request. | Rule 69.4.1 | Quarterly, except for quarter with source test | Quarterly Portable Analyzer, except for quarter with source test | In Compliance | compliance demonstrated through annual source testing and quarterly sampling |

**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #2 (PTO-000543)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 11 | The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards. | Rule 69.4.1 | Quarterly | Portable Analyzer Records | In Compliance | |
| 12 | The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer. | | Daily/Annually | Fuel Usage Records, Inspection logs, Maintenance records | In Compliance | |
| 13 | All records shall be retained on site for at least three (3) years and made readily available to the District upon request. | | As needed | Maintain all records for 3 years | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 14 | This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year. | | Annually | Annual Source Test | In Compliance | Last source tested 9/27/2022 |
| 15 | The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year. | | Annually | Annual Source Test | In Compliance | Engine operated on mainly digester gas in 2021, thus source tested on digester gas. |

Notes:
Conditions 16, 17 and 18 are listed with the facility conditions

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #3 (PTO-000544)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 1 | When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 10/5/2022 on Digester gas NOx avg- 38 ppmv@15% O2 |
| 2 | When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 10/5/2022 on Digester gas CO avg- 275 ppmv@15% O3 |
| 3 | When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 4 | When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 5 | The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):<br>a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2<br>b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2<br>Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted. | Rule 69.4.1 | Quarterly | Portable Analyzer and Source Tests | In compliance | New condition, compliance demonstrated through source test in October 2023 and quarterly sampling will start in Q1 2024 |
| 6 | Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. | NSR | Annually | Annual Fuel Usage Records | In Compliance | 2022 total gas consumption 4 engines = 248.72 million scf<br>2022 total natural gas consumption 4 engines = 16.1 million scf |
| 7 | Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR) | NSR | Daily | Daily Fuel Usage Records | In Compliance | |
| 8 | A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:<br>a. old meter's reading.<br>b. replacement meter's manufacturer name, model and serial number if available and current reading on replacement meter; and<br>c. copy of receipt of new meter or of installation work order.<br>A copy of the meter replacement notification shall be maintained on site and made available to the Air Pollution Control District upon request. | Rule 69.4.1 | As needed | Maintenance Records | In Compliance | |

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #3 (PTO-000544)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 9 | 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, and shall include, but is not limited to, the following:<br>1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);<br>2) Inspect and clean air filters, replacing as necessary;<br>3) Inspect all hoses and belts, replacing as necessary; and<br>4) Inspect spark plugs, if equipped, replacing as necessary.<br>Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. | Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart JJJJ | Annually | Maintenance Records | In Compliance | |
| 10 | The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:<br>i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.<br>ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.<br>iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a<br>source test is not performed.<br>iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into<br>compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).<br>v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued<br>by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request. | Rule 69.4.1 | Quarterly, except for quarter with source test | Quarterly Portable Analyzer, except for quarter with source test | In Compliance | compliance demonstrated through annual source testing and quarterly sampling |

**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #3 (PTO-000544)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 11 | The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards. | Rule 69.4.1 | Quarterly | Portable Analyzer Records | In Compliance | |
| 12 | The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer. | | Daily/Annually | Fuel Usage Records, Inspection logs, Maintenance records | In Compliance | |
| 13 | All records shall be retained on site for at least three (3) years and made readily available to the District upon request. | | As needed | Maintain all records for 3 years | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 14 | This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year. | | Annually | Annual Source Test | In Compliance | Last source tested 9/27/2022 |
| 15 | The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year. | | Annually | Annual Source Test | In Compliance | Engine operated on mainly digester gas in 2021, thus source tested on digester gas. |

Notes:
Conditions 16, 17 and 18 are listed with the facility conditions

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #4 (PTO-000545)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 1 | When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 10/5//2022 on Digester gas Nox avg- 37 ppmv@15% O2 |
| 2 | When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | last source tested 10/5/2022 on Digester gas CO avg- 276 ppmv@15% O3 |
| 3 | When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 4 | When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis. | | Annually | Portable analyzer and Source Test | In Compliance | Engine operated on mostly digester gas. Initial source test compliance demonstration in 2009 |
| 5 | The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):<br>a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2<br>b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2<br>Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted. | Rule 69.4.1 | Quarterly | Portable Analyzer and Source Tests | In compliance | New condition, compliance demonstrated through source test in October 2023 and quarterly sampling will start in Q1 2024 |
| 6 | Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. | NSR | Annually | Annual Fuel Usage Records | In Compliance | 2022 total gas consumption 4 engines = 248.72 million scf<br>2022 total natural gas consumption 4 engines = 16.1 million scf |
| 7 | Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR) | NSR | Daily | Daily Fuel Usage Records | In Compliance | |
| 8 | A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:<br>a. old meter's reading.<br>b. replacement meter's manufacturer name, model and serial number if available and current reading on replacement meter; and<br>c. copy of receipt of new meter or of installation work order.<br>A copy of the meter replacement notification shall be maintained on site and made available to the Air Pollution Control District upon request. | Rule 69.4.1 | As needed | Maintenance Records | In Compliance | |

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #4 (PTO-000545)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 9 | 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, and shall include, but is not limited to, the following:<br>1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);<br>2) Inspect and clean air filters, replacing as necessary;<br>3) Inspect all hoses and belts, replacing as necessary; and<br>4) Inspect spark plugs, if equipped, replacing as necessary.<br>Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. | Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart JJJJ | Annually | Maintenance Records | In Compliance | |
| 10 | The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:<br>i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.<br>ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.<br>iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a<br>source test is not performed.<br>iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into<br>compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).<br>v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued<br>by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request. | Rule 69.4.1 | Quarterly, except for quarter with source test | Quarterly Portable Analyzer, except for quarter with source test | In Compliance | compliance demonstrated through annual source testing and quarterly sampling |

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**Encina Wastewater Authority**
**Compliance Matrix**

**Cogeneration Engine #4 (PTO-000545)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 11 | The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards. | Rule 69.4.1 | Quarterly | Portable Analyzer Records | In Compliance | |
| 12 | The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer. | | Daily/Annually | Fuel Usage Records, Inspection logs, Maintenance records | In Compliance | |
| 13 | All records shall be retained on site for at least three (3) years and made readily available to the District upon request. | | As needed | Maintain all records for 3 years | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 14 | This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year. | | Annually | Annual Source Test | In Compliance | Last source tested 9/27/2022 |
| 15 | The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year. | | Annually | Annual Source Test | In Compliance | Engine operated on mainly digester gas in 2021, thus source tested on digester gas. |

Notes:
Conditions 16, 17 and 18 are listed with the facility conditions

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**Encina Wastewater Authority**
**Compliance Matrix**

**36 Mgal/day Wastewater Treatment (PTO-961446)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 1 | At no time shall the subject equipment cause or contribute to a nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the applicant will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment, the applicant shall apply for and obtain an Authority to Construct for all such modifications. | Rule 51 | N/A | N/A | In Compliance | District maintains Rule 51 records |
| 2 | The Air Pollution Control equipment shall be maintained in good operating condition and shall be in full operation in accordance with the facility operations and maintenance (O&M) manual at all times when the process equipment is in operation except during periods of scheduled equipment maintenance not to exceed 240 hours per calendar year. The District must be notified of all air pollution control equipment maintenance outages exceeding 24 hours. Notification must be submitted in writing within 3 business days before or after of the initial maintenance outage. The O&M manual and logs of the date, duration (in minutes) and purpose of all air pollution control equipment outages for scheduled maintenance shall be maintained on-site for three years and made available to District personnel upon request. | | As Needed | O & M Manual // Maintenance Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 3 | The biological reduction tower and the activated carbon adsorption system of odor reduction facility 1 (ORF 1) shall be operated in series except during periods of equipment maintenance. | | As Needed | O & M Manual // Maintenance Records | In Compliance | |
| 4 | The activated carbon adsorption system of odor reduction facility 3 (ORF 3) shall be operated except during periods of equipment maintenance. Logs of date, duration and which odor control device was in operation shall be maintained on-site for three years and made available to the District upon request. | | As Needed | Operating Logs and Maintenance Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 5 | Where equipped, process covers or enclosures, with the exception of access hatches, shall be used at all times except during periods of equipment maintenance or while moving vehicles or equipment into or out of buildings or enclosures controlled by odor reduction equipment (ORF 1 and ORF 3). | | N/A | O & M Manual | In Compliance | |
| 6 | The biological reduction tower shall be equipped with a visual display indicating the instantaneous scrubber liquid recirculation flow rate. The biological reduction tower associated with ORF 1 shall have a liquid recirculation flow rate greater than 450 gallons per minute when the tower is in operation. The liquid recirculation flow rate values shall be recorded daily. Daily liquid recirculation flow rate records shall be maintained on-site for three years and made available to the District upon request. | | Daily | Daily Throughput Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 7 | Annual sulfur content testing shall be conducted on the activated carbon in each odor control system (ORF 1 and ORF 3) using ASTM-D1619 Method B, ASTM-D1619-83 Method B or Calgon method TM-30 (or any other equivalent method approved in writing and prior to testing by the District). The sampling shall be done at the fourth sampling port (counting in the direction of air flow) of each of the upper and lower carbon beds. Records of annual testing results shall be maintained on-site for three years and made available to the District upon request | | Annually | Sulfur Testing | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |

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**Encina Wastewater Authority**
**Compliance Matrix**

**36 Mgal/day Wastewater Treatment (PTO-961446)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 8 | Replacement of the activated carbon in each odor control system is required if: testing indicates the average of all samples equals or exceeds 4% total sulfur as determined by ASTM D16129-03 Method B, ASTM D1619-83 Method B, Calgon Method TM-30 (or any other equivalent method approved prior to testing in writing by the District). If any single reading is above 4% but the daily average is below 4%; the facility will either:<br>1) replace carbon within 180 days OR<br>2) If the replacement of the activated carbon will not be conducted with 180 days of this determination, the Permittee shall measure and record the hydrogen sulfide concentrations on the inlet and outlet the carbon adsorber at least once per day. The outlet hydrogen sulfide concentration shall not exceed 1 ppmv. Hydrogen sulfide concentration records shall be maintained on site for at least three years and made available to District personnel upon request. | | As Needed | Sulfur Testing per Condition 7<br>Maintenance Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 9 | If multiple samples are taken for averaging to determine compliance with the 4% total sulfur content for annual sulfur content testing the samples must be taken at the same time at the same sampling port for each carbon bed. | | As Needed | Sulfur Testing per Condition 7 | In Compliance | |
| 10 | Hydrogen Sulfide concentrations shall be measured with a properly calibrated Portable Hydrogen Sulfide Analyzer (such as an Industrial Scientific ATX-612 H2S, Jerome Meter Model 631-X, Acrulog H2S Parts Per Billions Monitor, or OdaLog Low Range H2S Logger (0.01 to 2.00 ppm)), an appropriate Drägertube #8101991) or any equivalent method approved in writing by the District. The above monitoring equipment shall be maintained and calibrated in accordance with manufacturer's specifications. The manufacturer's specifications shall be made available to District personnel upon request. | | As Needed | Sulfur Analyzer Manufacturers Specifications | In Compliance | |
| 11 | Spent carbon shall be stored in closed containers pending removal from site. | | As Needed | O & M Manual // Maintenance Records | In Compliance | |

Notes:
Conditions 12, 13, and 14 are listed with the facility conditions

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**Encina Wastewater Authority**
**Compliance Matrix**

**Biosolids (PTO-001016)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 1 | At no time shall the subject equipment cause or contribute to a nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the applicant will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment, the applicant shall apply for and obtain an Authority to Construct for all such modifications. | Rule 51 | N/A | N/A | In Compliance | District maintains Rule 51 records |
| 2 | The odor reduction facility (ORF) and its monitoring equipment shall be maintained in good operating condition and shall be in full operation in accordance with the facility's operations and maintenance (O&M) manual at all times when the process equipment is in use, except during periods of any planned maintenance affecting the ORF not to exceed 120 hours per calendar year. Full operation consists of: (1) biotower and carbon operating at the same time, (2) the biotower only in operation or (3) the carbon adsorber in operation. The District must be notified of all ORF maintenance shutdown exceeding 24 hours. Notification must be by phone [(858) 586-2650] within two days of a planned shutdown and, as soon as possible, but no later than two hours after an unexpected shutdown The O&M manual and logs of the date, duration (in minutes) and purpose of any maintenance affecting the ORF shall be maintained on-site for three years and made available to District personnel upon request. | Rule 51 | As needed | O & M Manual // Maintenance Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 3 | Where equipped, process covers or enclosures shall be used at all times except during periods of equipment maintenance or while moving vehicles or equipment into and out of buildings or enclosures that are equipped with odor control equipment. | Rule 51 | N/A | O & M Manual | In Compliance | |
| 4 | The biological reduction tower shall be equipped with a visual display indicating the instantaneous scrubber liquid flow rate. The flow rate shall be greater than 450 gallons per minute when the biological reduction tower is in operation. The flow rate values shall be recorded daily. Daily flow rate records shall be maintained on site for three years and made available to the District upon request. | Rule 51 | Daily | Daily Operation Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 5 | Sulfur content testing shall be conducted at least once every 365 days on the carbon in each activated carbon system using ASTM D1619 Method B, Calgon Method TM-30 (or any other equivalent method approved prior to testing in writing by the District). The sampling shall be done at the fourth sampling port (counting in the direction of air flow) of each carbon bed. Records of the dates of carbon sampling, sampling ports used and test results shall be maintained on site for at least three years and made readily available to District personnel upon request. | Rule 51 | Annually | Sulfur Testing | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 6 | Replacement of the activated carbon in each odor reduction system is required within 180 days after the sampling date of sulfur content testing indicates the carbon (in either bed) contains 4% total sulfur (by weight) or greater as determined by ASTM D1619 Method B, Calgon Method TM-30 or any other equivalent method approved in writing by the District. | Rule 51 | As Needed | Sulfur Testing per Condition 5 Maintenance Records | In Compliance | |

**Encina Wastewater Authority**
**Compliance Matrix**

**Biosolids (PTO-001016)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 7 | Records of the carbon manufacturer's hydrogen sulfide removal capacity, the carbon bed sample date, the carbon bed analyses laboratory results, the date(s) of the activated carbon replacement and the manufacturer specification indicating the type of carbon shall be maintained for each carbon bed. These records shall be maintained on site for three years and made readily available to the District personnel upon request. | Rule 51, Rule 21 | As needed | O & M Manual // Maintenance Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 8 | There shall be no visible emissions from the exhaust stack of the air pollution control systems | Rule 50 | As needed | None | In Compliance | |
| 9 | The Regenerative thermal oxidizer (RTO) temperature shall be at least 1500°F when the process equipment is in operation. The RTO temperature shall be recorded daily. | NSR | Daily | Daily Operation Records | In Compliance | |
| 10 | Sludge output shall not exceed 13,176.5 dry tons per year. Sludge output shall be recorded daily. | NSR | Daily | Daily Throughput Records | In Compliance | 2022 Total Dry Sludge- 6,186.75 tons |
| 11 | Control equipment parameters, including scrubber liquid flow rates, sludge storage silo baghouse differential pressure, dual throat wet scrubber differential pressure and regenerative thermal oxidizer (RTO) temperature shall be measured and recorded at least once per day. | NSR, Rule 51, Rule 54 | Daily | Daily Operation Records | In Compliance | |
| 12 | The sludge storage silo baghouse differential pressure shall not exceed 17.0" water column when the process equipment is in operation. | | Continuous | Monitored in control room | In Compliance | |
| 13 | The dual throat wet scrubber differential pressure shall operate between 5.0" and 16.0" water column when the equipment is in operation. | | Continuous | Monitored in control room | In Compliance | |
| 14 | All records required shall be maintained onsite for a minimum of 3 years and be readily available for District inspection. | Rule 21, Rule 51, Rule 54 | As needed | All permit recordkeeping | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |

Notes:
Conditions 15, 16, and 17 are listed with the facility conditions

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**Encina Wastewater Authority**
**Compliance Matrix**

**Flare (PTO-001004)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 1 | There shall be no visible emissions from the exhaust stack of the air pollution control systems. | Rule 50 | As needed | None | In Compliance | |
| 2 | At no time shall the subject equipment cause or contribute to a public nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the permittee will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment the permittee shall apply for and obtain an Authority to Construct for all such modifications prior to making any physical change. | Rule 51 | N/A | N/A | In Compliance | District maintains Rule 51 records |
| 3 | The permitee shall comply with Rule 53. | Rule 53 | Once | Initial source test | In Compliance | |
| 4 | Digester gas usage at the flare shall note exceed 300 million cubic feet per calendar year. Records of digester gas usage (in million cubic feet) shall be maintained onsite for three years and made available to the District personnel upon request. | Rule 51 | Daily | Daily Fuel Usage Records | In Compliance | 2022 Total Digester Gas - 56.43 million SCF |
| 5 | A functioning non-resettable totalizing flow meter which displays and measures standardized volumetric flow rate with an accuracy of +/- 5% shall be installed in the digester gas fuel line to the flare. The totalizing flow meter shall be calibrated in accordance with the manufacturer's specifications. Records of calibration including manufacturer's calibration specifications indicating the flow meter's accuracy and dates of calibration shall be maintained on-site for three years and made available to District personnel upon request. | Rule 51 | As needed | Manufacturers specifications and Maintenance Records | In Compliance | To meet Title V recordkeeping requirements, records shall be kept for at least 5 years. |
| 6 | The air pollution control system and its monitoring equipment shall be maintained in good operating condition and shall be in full operation in accordance with the facility's operations and maintenance (O&M) manual at all times when the process equipment is not in use. The O&M manual shall be maintained on-site and made available to District personnel upon request. | Rule 51 | As needed | O & M Manual | In Compliance | |
| 7 | A flame shall be present in the flare at all times when combustible gases are vented through the flare. | | As needed | N/A | In Compliance | |
| 8 | The flare shall be operated with a continuous pilot flame and the flare shall be equipped with a thermocouple capable of continuously detecting if the pilot flame is present. | | Continuous | N/A | In Compliance | |

Notes:
Conditions 9, 10, and 11 are listed with the facility conditions
There is a current ATC for a second flare identical to the first flare (APCD2021-APP-006734)
This ATC contains 5 additional conditions that limit the NOx and VOC emissions from both flares and requires source testing upon startup of the new flare.

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**Encina Wastewater Authority**
**Compliance Matrix**

**Emergency Engine (PTO-982044)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 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 | Rule 69.4.1, Rule 12, 17CCR93115 | As needed | Monthly Operation Records | In Compliance | |
| 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 and operating in accordance with 17 CCR 93115.6(c) | 17CCR93115 | None. | Operation Records | In Compliance | |
| 3 | Engine operation for maintenance and testing purposes shall not exceed 50 hours per calendar year. | 17CCR93115, Rule 1200, NSR | As needed | Monthly Operation Records | In Compliance | 2022 Total Operation Time- 15.1 hrs |
| 4 | This engine shall only use CARB diesel fuel. | Rule 12, Rule 69.4.1, 17 CCR 93115, 40 CFR 60 Subpart IIII | As needed | Fuel Records | In Compliance | |
| 5 | Visible emissions including crank case smoke shall comply with Air Pollution Control District Rule 50. | Rule 50 | Continuous | None | In Compliance | |
| 6 | The equipment described above shall not cause or contribute to a public nuisance. | Rule 51 | N/A | N/A | In Compliance | District maintains Rule 51 records |
| 7 | 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) | Continuous | O & M Manual | In Compliance | |
| 8 | 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) | As needed | Monthly Operation Records | In Compliance | |
| 9 | This engine shall not operate for non-emergency use during the following periods, as applicable:<br>(a) whenever there is any school sponsored activity, if engine is located on school grounds or<br>(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.<br>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 | N/A | N/A | In Compliance | Not within 500 ft of a school |
| 10 | Engine operation in response to notification of an impending rotating outage shall be subject to all the following restrictions:<br>(a) the utility distribution company has ordered rotating outages in the control area where the engine is located,<br>(b) the engine is operated no more than 30 minutes prior to the time when the utility distribution company officially forecasts a rotating outage in the cited control area, and<br>(c) the engine operation is terminated immediately after the utility distribution company advises that a rotating outage is no longer in effect.<br>This condition shall not apply to engines operating pursuant to the rolling blackout reduction program as defined in 17 CCR 93115 and operating in accordance with 17 CCR 93115.6(c) | 17 CCR 93115 | As Needed | Monthly Operation Records | In Compliance | |

**Encina Wastewater Authority**
**Compliance Matrix**

**Emergency Engine (PTO-982044)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 11 | 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:<br>(a) old meter's hour reading,<br>(b) replacement meter's manufacturer name, model and serial number if available and current hour reading on replacement meter, and<br>(c) copy of receipt of new meter or of installation work order.<br>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, 17 CCR 93115, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ | As Needed | Maintenance Records | In Compliance | |
| 12 | 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. Maintenance shall be conducted at least once each calendar year, and shall include, but is not limited to, the following:<br>1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);<br>2) Inspect and clean air filters, replacing as necessary; and<br>3) Inspect all hoses and belts, replacing as necessary.<br>Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be | Rule 12, Rule 69.4.1, 40 CFR 63 Subpart ZZZZ | Annually | Maintenance Records | In Compliance | |

Yorke ENGINEERING, LLC
www.YorkeEngr.com



**Encina Wastewater Authority**
**Compliance Matrix**

**Emergency Engine (PTO-982044)**

| Condition # | Condition | Reference | Frequency of Records Required | Compliance Demonstration (Recordkeeping) | Compliance Status | Observations/Comments |
|---|---|---|---|---|---|---|
| 13 | 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:<br>(a) documentation shall be maintained identifying the fuel as CARB diesel, and<br>(b) manual of recommended maintenance provided by the manufacturer, or maintenance procedures specified by the engine servicing company. | Rule 12, Rule 69.4.1, 17 CCR 93115, 40 CFR 63 Subpart ZZZZ | As needed | Fuel Records // O & M Manual | In Compliance | |
| 14 | The owner or operator of this engine shall maintain a monthly operating log containing, at a minimum, the following:<br>(a) dates and elapsed times of every instance of engine operation based on actual readings of the engine hour meter; whether the operation was for maintenance and testing purposes or emergency use; and the nature of the emergency;<br>(b) if located within 500 feet of a school, the time of day of every instance of engine operation for testing and maintenance, unless the engine emits no more than 0.01 g/bhp-hr of diesel particulate matter or meets the requirements specified in 17CCR, Section 93115.13(f);<br>(c) for a total external power outage, documentation from the serving utility of an outage in the area where the engine is located; for an internal power outage, a description of what caused the failure and receipts and/or work orders for the necessary repairs; for a partial external power outage, including a low-voltage or electrical transient incident in which the external power voltage is low enough to trigger the operation of an emergency standby engine, a description of the incident;<br>(d) total cumulative hours of operation per calendar year;<br>(e) records of annual engine maintenance shall include the date the maintenance was performed and the nature of the maintenance; and<br>(f) 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, 17 CCR 93115, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ) | Monthly | Monthly Fuel Usage Records, Operation Records, and Maintenance Records | In Compliance | |
| 15 | All records required by this permit shall be kept for a minimum of 60 months from their date of creation unless otherwise indicated by the conditions of this permit. These records shall be maintained onsite for a minimum of 36 months from their date of creation and made available to the District upon request. The remaining 24 months of records may be retained off site. Records kept off site shall be made available to the District within 5 working days of request. | Rule 12, Rule 69.4.1, 40 CFR 63 Subpart ZZZZ | As needed | All permit recordkeeping | In Compliance | |

Notes:
Conditions 16, 17, and 18 are listed with the facility conditions

# APPENDIX D – PERMITS TO OPERATE

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2017-APP-004927

**Permit Record:** APCD2008-PTO-961446

*APCD2008-PTO-961446*

Encina Wastewater Authority
General Manager
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Douglas Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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:**
Encina Wastewater Authority General Manager 6200 Avenida Encinas, Carlsbad, CA 92011

**Equipment Description:**
A 36 million gallon per day (average dry weather flow) secondary wastewater treatment facility consisting of; headworks and primary sedimentation basins controlled by ORF1; mechanical bar screens; aerated grit chambers, primary clarifiers, and activated sludge aeration controlled by ORF3; secondary sedimentation; ocean outfall and miscellaneous operations (utility systems, pumps, motors, blowers chemical feed systems, etc.). ORF1 consists of a biological reduction tower and activated carbon adsorption system. ORF3 consists of an activated carbon adsorption system (one duty and one standby).
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 [56A] Sewage Treatment Facility

BEC: APCD2016-CON-001151

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

1. At no time shall the subject equipment cause or contribute to a nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the applicant will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment, the applicant shall apply for and obtain an Authority to Construct for all such modifications.
2. The Air Pollution Control equipment shall be maintained in good operating condition and shall be in full operation in accordance with the facility operations and maintenance (O&M) manual at all times when the process equipment is in operation except during periods of scheduled equipment maintenance not to exceed 240 hours per calendar year. The District must be notified of all air pollution control equipment maintenance outages exceeding 24 hours. Notification must be submitted in writing within 3 business days before or after of the initial maintenance outage. The O&M manual and logs of the date, duration (in minutes) and purpose of all air pollution control equipment outages for scheduled maintenance shall be maintained on-site for three years and made available to District personnel upon request.
3. The biological reduction tower and the activated carbon adsorption system of odor reduction facility 1 (ORF 1) shall be operated in series except during periods of equipment maintenance.
4. The activated carbon adsorption system of odor reduction facility 3 (ORF 3) shall be operated except during periods of equipment maintenance. Logs of date, duration and which odor control device was in operation shall be maintained on-site for three years and made available to the District upon request.

5. Where equipped, process covers or enclosures, with the exception of access hatches, shall be used at all times except during periods of equipment maintenance or while moving vehicles or equipment into or out of buildings or enclosures controlled by odor reduction equipment (ORF 1 and ORF 3).
6. The biological reduction tower shall be equipped with a visual display indicating the instantaneous scrubber liquid recirculation flow rate. The biological reduction tower associated with ORF 1 shall have a liquid recirculation flow rate greater than 450 gallons per minute when the tower is in operation. The liquid recirculation flow rate values shall be recorded daily. Daily liquid recirculation flow rate records shall be maintained on-site for three years and made available to the District upon request.
7. Annual sulfur content testing shall be conducted on the activated carbon in each odor control system (ORF 1 and ORF 3) using ASTM-D1619 Method B, ASTM-D1619-83 Method B or Calgon method TM-30 (or any other equivalent method approved in writing and prior to testing by the District). The sampling shall be done at the fourth sampling port (counting in the direction of air flow) of each of the upper and lower carbon beds. Records of annual testing results shall be maintained on-site for three years and made available to the District upon request.
8. Replacement of the activated carbon in each odor control system is required if: testing indicates the average of all samples equals or exceeds 4% total sulfur as determined by ASTM D16129-03 Method B, ASTM D1619-83 Method B, Calgon Method TM-30 (or any other equivalent method approved prior to testing in writing by the District). If any single reading is above 4% but the daily average is below 4%; the facility will either:
1) replace carbon within 180 days OR
2) If the replacement of the activated carbon will not be conducted with 180 days of this determination, the Permittee shall measure and record the hydrogen sulfide concentrations on the inlet and outlet the carbon adsorber at least once per day. The outlet hydrogen sulfide concentration shall not exceed 1 ppmv. Hydrogen sulfide concentration records shall be maintained on site for at least three years and made available to District personnel upon request.
9. If multiple samples are taken for averaging to determine compliance with the 4% total sulfur content for annual sulfur content testing the samples must be taken at the same time at the same sampling port for each carbon bed.
10. Hydrogen Sulfide concentrations shall be measured with a properly calibrated Portable Hydrogen Sulfide Analyzer (such as an Industrial Scientific ATX-612 H2S, Jerome Meter Model 631-X, Acrulog H2S Parts Per Billions Monitor, or OdaLog Low Range H2S Logger (0.01 to 2.00 ppm)), an appropriate Drägertube #8101991) or any equivalent method approved in writing by the District. The above monitoring equipment shall be maintained and calibrated in accordance with manufacturer's specifications. The manufacturer's specifications shall be made available to District personnel upon request.
11. Spent carbon shall be stored in closed containers pending removal from site.
12. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
13. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
14. 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.)

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2016-APP-004472

**Permit Record:** APCD2011-PTO-001016

*APCD2011-PTO-001016*

Encina Wastewater Authority
L
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Doug Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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:**
Encina Wastewater Authority 6200 Avenida Encinas, Carlsbad, CA 92011

**Equipment Description:**
A biosolids processing operation (36.1 dry tons per day maximum capacity) consisting of: three 94,000 gallon (40' dia. X 10' side water depth (SWD)) dissolved air flotation (DAF) thickeners, a wet cake bin conveyor, two wet cake bins, a wet cake truck load out station , three anaerobic digesters [(2) 95' dia. X 42' SWD and (1) 105' dia. X 35' SWD], one 50' dia. X 22' SWD sludge storage tank, two centrifuges, one 15 MMBTU/hr digester gas/natural gas fired sludge dryer with associated processing equipment, two (2) alternative receiving tanks (22,500 gallons capacity) and two (2) support pumps (400 gallons per minute maximum), two (2) Rock Trap Grinders, vented to the air pollution control equipment via two (2) Odor System Blowers (minimum capacity of 50 cfm), two pellet silos, conveyance and storage equipment. Air pollution control equipment consists of: 1) a biological reduction tower and activated carbon adsorber system controlling emissions from the DAF thickeners, the wet cake bin conveyor, two wet cake bins, the wet cake truck load out station, the silo baghouse, and two pellet silos 2) an impingement tray scrubber/condenser and one Venturi scrubber controlling emissions from the sludge dryer train, 3) one natural gas fired 1.3 MMBTU/hr regenerative thermal oxidizer (RTO) controlling emissions from both the Venturi scrubber exhaust and and 4) dual throat wet scrubber serving the sludge dryer train discharged to the air pollution control device under normal operation and RTO when the air pollution control device is being serviced. 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 [56A] Sewage Treatment Facility

BEC: APCD2015-CON-001052

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

1. At no time shall the subject equipment cause or contribute to a public nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the permittee will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment the permittee shall apply for and obtain an Authority to Construct for all such modifications prior to making any physical change. [Rule 51]
2. The odor reduction facility (ORF) and its monitoring equipment shall be maintained in good operating condition and shall be in full operation in accordance with the facility's operations and maintenance (O&M) manual at all times when the process equipment is in use, except during periods of any planned maintenance affecting the ORF not to exceed 120 hours per calendar year. Full operation consists of: (1) biotower and carbon operating at the same time, (2) the biotower only in operation or (3) the carbon adsorber in operation. The District must be notified of all ORF maintenance shutdown exceeding 24 hours. Notification must be by phone [(858) 586-2650] within two days of a planned shutdown and, as soon as possible, but no later than two hours after an unexpected shutdown The O&M manual and logs of the date, duration (in minutes) and purpose of any maintenance affecting the ORF shall be maintained on-site for three years and made available to District personnel upon request. [Rule 51]

3. Where equipped, process covers or enclosures shall be used at all times except during periods of equipment maintenance or while moving vehicles or equipment into and out of buildings or enclosures that are equipped with odor control equipment. [Rule 51]
4. The biological reduction tower shall be equipped with a visual display indicating the instantaneous scrubber liquid flow rate. The flow rate shall be greater than 450 gallons per minute when the biological reduction tower is in operation. The flow rate values shall be recorded daily. Daily flow rate records shall be maintained on site for three years and made available to the District upon request. [Rule 51]
5. Sulfur content testing shall be conducted at least once every 365 days on the carbon in each activated carbon system using ASTM D1619 Method B, Calgon Method TM-30 (or any other equivalent method approved prior to testing in writing by the District). The sampling shall be done at the fourth sampling port (counting in the direction of air flow) of each carbon bed. Records of the dates of carbon sampling, sampling ports used and test results shall be maintained on site for at least three years and made readily available to District personnel upon request. [Rule 51]
6. Replacement of the activated carbon in each odor reduction system is required within 180 days after the sampling date of sulfur content testing indicates the carbon (in either bed) contains 4% total sulfur (by weight) or greater as determined by ASTM D1619 Method B, Calgon Method TM-30 or any other equivalent method approved in writing by the District. [Rule 51]
7. Records of the carbon manufacturer's hydrogen sulfide removal capacity, the carbon bed sample date, the carbon bed analyses laboratory results, the date(s) of the activated carbon replacement and the manufacturer specification indicating the type of carbon shall be maintained for each carbon bed. These records shall be maintained on site for three years and made readily available to the District personnel upon request. [Rules 51 and 21]
8. There shall be no visible emissions from the exhaust stack of the air pollution control systems. [Rule 50]
9. The Regenerative thermal oxidizer (RTO) temperature shall be at least 1500°F when the process equipment is in operation. The RTO temperature shall be recorded daily. [NSR]
10. Sludge output shall not exceed 13,176.5 dry tons per year. Sludge output shall be recorded daily. [NSR]
11. Control equipment parameters, including scrubber liquid flow rates, sludge storage silo baghouse differential pressure, dual throat wet scrubber differential pressure and regenerative thermal oxidizer (RTO) temperature shall be measured and recorded at least once per day. [NSR; Rules 51 and 54]
12. The sludge storage silo baghouse differential pressure shall not exceed 17.0" water column when the process equipment is in operation.
13. The dual throat wet scrubber differential pressure shall operate between 5.0” and 16.0” water column when the equipment is in operation.
14. All records required shall be maintained onsite for a minimum of 3 years and be readily available for District inspection. [Rule 21, 51 and 54]
15. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
16. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
17. 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.)

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2017-APP-004926

**Permit Record:** APCD2010-PTO-000542

*APCD2010-PTO-000542*

Encina Wastewater Authority
General Manager
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Douglas Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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:**
Encina Wastewater Authority General Manager 6200 Avenida Encinas, Carlsbad, CA 92011

**Equipment Description:**
Cogeneration engine #1: Caterpillar lean burn engine, model G3516, S/N 4EK05160, fueled with digester gas and supplemented with natural gas, rated at 1306 bhp when fueled with digester gas and 1085 bhp when fueled with natural gas, driving a 750 KW.
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 [34B] Cogeneration Engine

1 [92F] NOx and CO Source Test

BEC: APCD2010-CON-000177

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

1. When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
2. When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis.
3. When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
4. When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis.
5. The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):

   a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2
   b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2

   Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted.

   [Rule 69.4.1(d)(1)(ii)(A) – lean-burn]

6. Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

7. Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

8. A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:
a. old meter's reading.
b. replacement meter's manufacturer name, model and serial number if available and current 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 on site and made available to the Air Pollution Control District upon request. (Rule 69.4.1)

9. 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. Maintenance shall be conducted at least once each calendar year, and shall include, but is not limited to, the following:
1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);
2) Inspect and clean air filters, replacing as necessary;
3) Inspect all hoses and belts, replacing as necessary; and
4) Inspect spark plugs, if equipped, replacing as necessary.
Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of
the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
(Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 JJJJ).

10. The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:

    i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.

    ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.

    iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a source test is not performed.

    iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).

    v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request.

    [Rule 69.4.1(e)(5)]

11. The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards.
    [Rule 69.4.1(g)(8)]
12. The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer.
13. All records shall be retained on site for at least three (3) years and made readily available to the District upon request.
14. This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year.
15. The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year.
16. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.

17. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
18. 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.)

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2017-APP-004926

**Permit Record:** APCD2010-PTO-000543

*APCD2010-PTO-000543*

Encina Wastewater Authority
General Manager
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Douglas Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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:**
Encina Wastewater Authority General Manager 6200 Avenida Encinas, Carlsbad, CA 92011

**Equipment Description:**
Cogeneration engine #2: Caterpillar lean burn engine, Model G3516, S/N 4EK05161, fueled with digester gas and supplemented with natural gas, rated at 1306 bhp when fueled with digester gas and 1085 bhp when fueled with natural gas, driving a 750 KW generator.
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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 [34B] Cogeneration Engine

1 [92F] NOx and CO Source Test

BEC: APCD2010-CON-000177

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

1. When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
2. When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis.
3. When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
4. When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis.
5. The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):

   a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2
   b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2

   Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted.

   [Rule 69.4.1(d)(1)(ii)(A) – lean-burn]

6. Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

7. Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

8. A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:
a. old meter's reading.
b. replacement meter's manufacturer name, model and serial number if available and current 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 on site and made available to the Air Pollution Control District upon request. (Rule 69.4.1)

9. 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. Maintenance shall be conducted at least once each calendar year, and shall include, but is not limited to, the following:
1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);
2) Inspect and clean air filters, replacing as necessary;
3) Inspect all hoses and belts, replacing as necessary; and
4) Inspect spark plugs, if equipped, replacing as necessary.
Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of
the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
(Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 JJJJ).

10. The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:

    i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.

    ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.

    iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a source test is not performed.

    iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).

    v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request.

    [Rule 69.4.1(e)(5)]

11. The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards.
    [Rule 69.4.1(g)(8)]
12. The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer.
13. All records shall be retained on site for at least three (3) years and made readily available to the District upon request.
14. This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year.
15. The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year.
16. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2017-APP-004926

**Permit Record:** APCD2010-PTO-000543

*APCD2010-PTO-000543*

17. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
18. 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.)

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2017-APP-004926

**Permit Record:** APCD2010-PTO-000544

*APCD2010-PTO-000544*

Encina Wastewater Authority
General Manager
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Douglas Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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:**
Encina Wastewater Authority General Manager 6200 Avenida Encinas, Carlsbad, CA 92011

**Equipment Description:**
Cogeneration engine #3: Caterpillar lean burn engine, Model G3516, S/N 4EK05168, fueled with digester gas and supplemented with natural gas, rated at 1306 bhp when fueled with digester gas and 1085 bhp when fueled with natural gas, driving a 750 KW generator. 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 [34B] Cogeneration Engine

1 [92F] NOx and CO Source Test

BEC: APCD2010-CON-000177

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

1. When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
2. When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis.
3. When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
4. When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis.
5. The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):

   a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2
   b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2

   Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted.

   [Rule 69.4.1(d)(1)(ii)(A) – lean-burn]

6. Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

7. Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

8. A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:
a. old meter's reading.
b. replacement meter's manufacturer name, model and serial number if available and current 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 on site and made available to the Air Pollution Control District upon request. (Rule 69.4.1)

9. 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. Maintenance shall be conducted at least once each calendar year, and shall include, but is not limited to, the following:
1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);
2) Inspect and clean air filters, replacing as necessary;
3) Inspect all hoses and belts, replacing as necessary; and
4) Inspect spark plugs, if equipped, replacing as necessary.
Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of
the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
(Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 JJJJ).

10. The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:

    i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.

    ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.

    iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a source test is not performed.

    iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).

    v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request.

    [Rule 69.4.1(e)(5)]

11. The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards.
    [Rule 69.4.1(g)(8)]
12. The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer.
13. All records shall be retained on site for at least three (3) years and made readily available to the District upon request.
14. This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year.
15. The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year.
16. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.

17. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
18. 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.)

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2017-APP-004926

**Permit Record:** APCD2010-PTO-000545

*APCD2010-PTO-000545*

Encina Wastewater Authority
General Manager
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Douglas Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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**Equipment Owner:**
Encina Wastewater Authority General Manager 6200 Avenida Encinas, Carlsbad, CA 92011

**Equipment Description:**
Cogeneration engine #4: Caterpillar lean burn engine, Model G3516, S/N 4EK05175, fueled with digester gas and supplemented with natural gas, rated at 1306 bhp when fueled with digester gas and 1085 bhp when fueled with natural gas, driving a 750 KW generator. 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 [34B] Cogeneration Engine

1 [92F] NOx and CO Source Test

BEC: APCD2010-CON-000177

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

1. When fueled with digester gas, the emissions of oxides of nitrogen (NOx) shall not exceed 47 parts per million by volume (ppmv), calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
2. When fueled with digester gas, the emissions of carbon monoxide (CO), shall not exceed 400 ppmv, calculated at 15 percent oxygen on a dry basis.
3. When fueled with natural gas, the emissions of oxides of nitrogen (NOx) shall not exceed 54 ppmv, calculated as nitrogen dioxide at 15 percent oxygen on a dry basis.
4. When fueled with natural gas, the emissions of carbon monoxide (CO), shall not exceed 390 ppmv, calculated at 15 percent oxygen on a dry basis.
5. The engine must comply with the following emission limits of Rule 69.4.1 subsection (d)(1)(ii)(A):

   a. NOx (Oxides of Nitrogen): 65 ppmvd corrected to 15% O2
   b. CO (Carbon Monoxide): 2,000 ppmvd corrected to 15% O2

   Compliance may also be shown by a source test or using a handheld portable analyzer in accordance with Rule 69.4.1(e)(5) and 69.4.1(g)(8) in quarters in which a source test is not conducted.

   [Rule 69.4.1(d)(1)(ii)(A) – lean-burn]

6. Total digester gas and natural gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 280 million standard cubic feet per year. Total natural gas consumption for all four engines shall not exceed 28 million standard cubic feet per year. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

7. Total digester gas consumption for the four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545 shall not exceed 1 million standard cubic foot per day. Total natural gas consumption for all four engines shall not exceed 0.55 million standard cubic feet per day. Records demonstrating compliance with these limits shall be maintained on site and made available for inspection upon request. (NSR)

8. A non-resettable engine hour meter and/or non-resettable totalizing fuel 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 in 10 calendar days. The written notifications shall include the following information:
a. old meter's reading.
b. replacement meter's manufacturer name, model and serial number if available and current 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 on site and made available to the Air Pollution Control District upon request. (Rule 69.4.1)

9. 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. Maintenance shall be conducted at least once each calendar year, and shall include, but is not limited to, the following:
1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);
2) Inspect and clean air filters, replacing as necessary;
3) Inspect all hoses and belts, replacing as necessary; and
4) Inspect spark plugs, if equipped, replacing as necessary.
Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of
the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
(Rule 69.4.1, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 JJJJ).

10. The owner or operator shall have a trained operator use a portable analyzer to take NOx and CO emission readings to verify compliance with the applicable emissions standards of Rule 69.4.1 Subsection (d)(1) during any calendar quarter in which a source test is not performed. All readings shall comply with the following:

    i. All readings shall be taken with the engine operating either at the highest achievable continuous brake horsepower rating, or under the typical duty cycle or operational mode of the engine.

    ii. Emission readings shall be averaged over a consecutive 15-minute period by either taking a cumulative 15 consecutive minute sample reading or by taking at least five readings evenly spaced out over the 15 consecutive minute period.

    iii. At least 6 calendar weeks shall separate the date of the last emission reading taken or source test conducted in the previous calendar quarter and the first emission reading taken in the subsequent calendar quarter in which a source test is not performed.

    iv. If this engine is found to exceed the applicable NOx (oxides of nitrogen) and/or CO (carbon monoxide) emission standards of Rule 69.4.1(d)(1) with a portable analyzer, the owner or operator shall bring the engine into compliance within 20 calendar days of the initial out-of-compliance reading. If the engine is not brought into compliance of Rule 69.4.1(d)(1) within 20 calendar days, the exceedance shall be considered a violation of 69.4.1(d)(1).

    v. A trained operator is a person who has completed an appropriate South Coast Air Quality Management District (SCAQMD) approved training program in the operation of portable analyzers and has received a certification issued by SCAQMD. A copy of the certification shall be maintained on site and made available to the District upon request.

    [Rule 69.4.1(e)(5)]

11. The owner or operator using a portable analyzer shall record and maintain all emission readings, the dates and times of when the readings were recorded, maintain records of all calibrations, including relative accuracy during calibration, and maintenance of any portable analyzer use, maintain a manual of recommended calibration, maintenance and operation as provided by the manufacturer, and provide written notification to the Air Pollution Control Officer within 2 business days of a reading that exceeds the emission standards.
    [Rule 69.4.1(g)(8)]
12. The owner or operator of the engine shall maintain records containing, at a minimum, the following: total daily and annual fuel consumptions of all four engines of Permit Nos. APCD2010-PTO-000542, APCD2010-PTO-000543, APCD2010-PTO-000544 and APCD2010-PTO-000545; records of periodic inspection and maintenance for the engines and control equipment, including dates inspection and maintenance were performed and copies of manuals of recommended maintenance procedures provided by the manufacturer.
13. All records shall be retained on site for at least three (3) years and made readily available to the District upon request.
14. This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards contained in this permit. For the purposes of this permit, a permit year is the 12-month period ending on the last day of the permit expiration month. It is the responsibility of the permittee to schedule the source test with the District. The source test shall be performed or witnessed by the District. Each annual source test shall be separated by at least 90 days from any annual source test performed in a different permit year.
15. The engine shall be source tested annually to demonstrate compliance with the emission standards contained in this permit. Source testing shall be performed using the fuel with higher annual fuel consumption (in standard cubic feet) during the previous calendar year.
16. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.

17. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
18. 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.)

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD2015-APP-03914

**Permit Record:** APCD2011-PTO-001004

*APCD2011-PTO-001004*

Encina Wastewater Authority
General Manager
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Douglas Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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:**
Encina Wastewater Authority General Manager 6200 Avenida Encinas, Carlsbad, CA 92011

**Equipment Description:**
One (1) Varec Biogas 244 Series Flare equipped with enclosed burner and autopilot ignition system.
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 [91A] Miscellaneous

BEC: APCD2010-CON-000123

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

1. There shall be no visible emissions from the exhaust stack of the air pollution control systems. (Rule 50)
2. At no time shall the subject equipment cause or contribute to a public nuisance as specified in District Rule 51. If compliance with Rule 51 cannot be demonstrated to the satisfaction of the District, the permittee will take whatever corrective action necessary to meet applicable requirements. If corrective action requires any physical change or modification to the subject equipment the permittee shall apply for and obtain an Authority to Construct for all such modifications prior to making any physical change.
3. The permitee shall comply with Rule 53.
4. Digester gas usage at the flare shall note exceed 300 million cubic feet per calendar year. Records of digester gas usage (in million cubic feet) shall be maintained onsite for three years and made available to the District personnel upon request.
5. A functioning non-resettable totalizing flow meter which displays and measures standardized volumetric flow rate with an accuracy of +/- 5% shall be installed in the digester gas fuel line to the flare. The totalizing flow meter shall be calibrated in accordance with the manufacturer's specifications. Records of calibration including manufacturer's calibration specifications indicating the flow meter's accuracy and dates of calibration shall be maintained on-site for three years and made available to District personnel upon request. (Rule 51)
6. The air pollution control system and its monitoring equipment shall be maintained in good operating condition and shall be in full operation in accordance with the facility's operations and maintenance (O&M) manual at all times when the process equipment is not in use. The O&M manual shall be maintained on-site and made available to District personnel upon request. (Rule 51)
7. A flame shall be present in the flare at all times when combustible gases are vented through the flare.
8. The flare shall be operated with a continuous pilot flame and the flare shall be equipped with a thermocouple capable of continuously detecting if the pilot flame is present.

9. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
10. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
11. 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.)

San Diego County Air Pollution Control District

# San Diego County Air Pollution Control District
**10124 Old Grove Road, San Diego, CA 92131**
**Phone (858) 586-2600 Fax (858) 586-2601**
**www.sdapcd.org**

**Sectors:** 2, E
**Site Record:** APCD1984-SITE-03370
**Application Record:** APCD Condition Update

**Permit Record:** APCD2008-PTO-982044

*APCD2008-PTO-982044*

Encina Wastewater Authority
General Manager
6200 Avenida Encinas
Carlsbad, CA 92011

**Equipment Address:**

Encina Wastewater Authority
Douglas Campbell
6200 Avenida Encinas
Carlsbad, CA 92011

# PERMIT TO OPERATE

**EXPIRES: October 31, 2024**

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:**

**Equipment Description:**
EMERGENCY STANDBY ENGINE: MITSUBISHI HEAVY INDUSTRIES ENGINE, MODEL 37.1A60 S/N 30788, RATED AT 1528 BHP, MODEL YEAR 2004, EPA CERTIFIED OF ENGINE FAMILY NUMBER 4MVXL37.1 ABC, TURBOCHARGED, DRIVING A 975 KW GENERATOR. (982044-CCN-10/05)
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: APCD2020-CON-001736

**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 and operating in accordance with 17 CCR 93115.6(c). (17 CCR 93115)
3. Engine operation for maintenance and testing purposes shall not exceed 50 hours per calendar year. (17 CCR 93115, Rule 1200, NSR)
4. This engine shall only use CARB diesel fuel. (Rule 12, Rule 69.4.1, 17 CCR 93115, 40 CFR 60 Subpart IIII)
5. Visible emissions including crank case smoke shall comply with Air Pollution Control District Rule 50. (Rule 50)
6. The equipment described above shall not cause or contribute to a public nuisance. (Rule 51)
7. 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)).
8. 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))

9. 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)

10. Engine operation in response to notification of an impending rotating outage shall be subject to all the following restrictions:
(a) the utility distribution company has ordered rotating outages in the control area where the engine is located,
(b) the engine is operated no more than 30 minutes prior to the time when the utility distribution company officially forecasts a rotating outage in the cited control area, and
(c) the engine operation is terminated immediately after the utility distribution company advises that a rotating outage is no longer in effect.
This condition shall not apply to engines operating pursuant to the rolling blackout reduction program as defined in 17 CCR 93115 and operating in accordance with 17 CCR 93115.6(c). (17 CCR 93115)

11. 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, 17 CCR 93115, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ)

12. 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. Maintenance shall be conducted at least once each calendar year, and shall include, but is not limited to, the following:
1) Change oil and filter, or test in accordance with the requirements of 40 CFR §63.6625(i) or (j);
2) Inspect and clean air filters, replacing as necessary; and
3) Inspect all hoses and belts, replacing as necessary.
Documentation of oil and filter changes or copies of the oil test analysis shall be kept on site and made available upon request. If testing in accordance with 40 CFR §63.6625(i) or (j), the oil analysis program must analyze the Total Base Number, viscosity and percent water content (for compression ignition engines) and the Total Acid Number, viscosity and percent water content (for spark ignited engines). If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
(Rule 12, Rule 69.4.1, 40 CFR 63 Subpart ZZZZ)

13. 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, and
(b) manual of recommended maintenance provided by the manufacturer, or maintenance procedures specified by the engine servicing company.
(Rule 12, Rule 69.4.1, 17 CCR 93115, 40 CFR 63 Subpart ZZZZ)

14. The owner or operator of this engine shall maintain a monthly operating log containing, at a minimum, the following:
(a) dates and elapsed times of every instance of engine operation based on actual readings of the engine hour meter; whether the operation was for maintenance and testing purposes or emergency use; and the nature of the emergency;
(b) if located within 500 feet of a school, the time of day of every instance of engine operation for testing and maintenance, unless the engine emits no more than 0.01 g/bhp-hr of diesel particulate matter or meets the requirements specified in 17CCR, Section 93115.13(f);
(c) for a total external power outage, documentation from the serving utility of an outage in the area where the engine is located; for an internal power outage, a description of what caused the failure and receipts and/or work orders for the necessary repairs; for a partial external power outage, including a low-voltage or electrical transient incident in which the external power voltage is low enough to trigger the operation of an emergency standby engine, a description of the incident;
(d) total cumulative hours of operation per calendar year;
(e) records of annual engine maintenance shall include the date the maintenance was performed and the nature of the maintenance; and
(f) 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, 17 CCR 93115, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ)
15. All records required by this permit shall be kept for a minimum of 60 months from their date of creation unless otherwise indicated by the conditions of this permit. These records shall be maintained onsite for a minimum of 36 months from their date of creation and made available to the District upon request. The remaining 24 months of records may be retained off site. Records kept off site shall be made available to the District within 5 working days of request. (Rule 12, Rule 69.4.1, 40 CFR 63 Subpart ZZZZ)
16. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
17. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
18. 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.)

# APPENDIX E – POTENTIAL TO EMIT CALCULATIONS

Yorke ENGINEERING, LLC
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# Encina Wastewater Authority PTE
## Total Facility Criteria Pollutant Emissions

### Annual Emissions (ton/yr)

| Pollutant | CAS | Engines Digester Gas | Engines Natural Gas | Flare | Diesel Engine | ORF1 - Headworks (961446) | ORF3 - Activated Sludge (961446) | ORF2 - Biosolids (001016) | RTO-Dryer - Biosolids (001016) | All Sources | Title V Threshold | Exceed Title V Threshold |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Monoxide (CO) | 42101 | 81.45 | 12.49 | 11.33 | 0.04 | 0.00 | 0.00 | 0.00 | 8.60 | 113.91 | 100 | Yes |
| Nitrogen Oxides (NOx) | 42603 | 15.72 | 2.84 | 5.23 | 0.49 | 0.00 | 0.00 | 0.00 | 17.07 | 41.35 | 25 | Yes |
| Sulfur Oxides (SOx) | 42401 | 0.28 | 0.01 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 2.45 | 100 | No |
| Volatile Organic Compounds (VOC) | 43104 | 10.89 | 1.69 | 1.82 | 0.03 | 1.05 | 1.21 | 0.46 | 3.35 | 20.49 | 25 | No |
| Particulate Matter (PM10) | 85101 | 3.86 | 0.14 | 1.80 | 0.01 | 0.00 | 0.00 | 0.16 | 8.48 | 14.46 | 100 | No |
| Particulate Matter (PM2.5) | 88101 | 3.86 | 0.14 | 1.80 | 0.01 | 0.00 | 0.00 | 0.16 | 8.48 | 14.46 | 100 | No |
| Assumes PM10 = PM2.5 | | | | | | | | | | | | |

### Annual Emissions (lb/yr)

| Pollutant | CAS | Engines Digester Gas | Engines Natural Gas | Flare | Diesel Engine | ORF1 - Headworks (961446) | ORF3 - Activated Sludge (961446) | ORF2 - Biosolids (001016) | RTO-Dryer - Biosolids (001016) | All Sources |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Monoxide (CO) | 42101 | 162,902.42 | 24,983.27 | 22,659.00 | 87.93 | 0.00 | 0.00 | 0.00 | 17,191.20 | 227,823.83 |
| Nitrogen Oxides (NOx) | 42603 | 31,434.76 | 5,680.98 | 10,458.00 | 979.77 | 0.00 | 0.00 | 0.00 | 34,148.00 | 82,701.51 |
| Sulfur Oxides (SOx) | 42401 | 560.00 | 16.80 | 600.00 | 0.83 | 0.00 | 0.00 | 0.00 | 3,719.40 | 4,897.03 |
| Volatile Organic Compounds (VOC) | 43104 | 21,772.80 | 3,370.08 | 3,630.00 | 62.80 | 2,102.40 | 2,417.76 | 922.36 | 6,709.28 | 40,987.47 |
| Particulate Matter (PM10) | 85101 | 7,728.00 | 285.32 | 3,600.00 | 18.85 | 0.00 | 0.00 | 327.30 | 16,963.40 | 28,922.88 |
| | | | | | | | | | | |

### Daily Emissions (lb/day)

| Pollutant | CAS | Engines Digester Gas | Engines Natural Gas | Flare | Diesel Engine | ORF1 - Headworks (961446) | ORF3 - Activated Sludge (961446) | ORF2 - Biosolids (001016) | RTO-Dryer - Biosolids (001016) | All Sources |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Monoxide (CO) | 42101 | 581.79 | 490.74 | 118.67 | 42.21 | 0.00 | 0.00 | 0.00 | 47.10 | 1,280.51 |
| Nitrogen Oxides (NOx) | 42603 | 112.27 | 111.59 | 54.77 | 470.29 | 0.00 | 0.00 | 0.00 | 93.55 | 842.47 |
| Sulfur Oxides (SOx) | 42401 | 2.00 | 0.33 | 3.14 | 0.40 | 0.00 | 0.00 | 0.00 | 10.19 | 16.06 |
| Volatile Organic Compounds (VOC) | 43104 | 77.76 | 66.20 | 19.01 | 30.14 | 5.76 | 6.62 | 2.53 | 18.38 | 226.41 |
| Particulate Matter (PM10) | 85101 | 27.60 | 5.60 | 18.85 | 9.05 | 0.00 | 0.00 | 0.90 | 46.47 | 108.48 |

### Hourly Emissions (lb/hr)

| Pollutant | CAS | Engines Digester Gas | Engines Natural Gas | Flare | Diesel Engine | ORF1 - Headworks (961446) | ORF3 - Activated Sludge (961446) | ORF2 - Biosolids (001016) | RTO-Dryer - Biosolids (001016) | All Sources |
|---|---|---|---|---|---|---|---|---|---|---|
| Carbon Monoxide (CO) | 42101 | 35.43 | 25.13 | 4.94 | 1.76 | 0.00 | 0.00 | 0.00 | 1.96 | 69.23 |
| Nitrogen Oxides (NOx) | 42603 | 6.84 | 5.71 | 2.28 | 19.60 | 0.00 | 0.00 | 0.00 | 3.90 | 38.33 |
| Sulfur Oxides (SOx) | 42401 | 0.12 | 0.02 | 0.13 | 0.02 | 0.00 | 0.00 | 0.00 | 0.42 | 0.71 |
| Volatile Organic Compounds (VOC) | 43104 | 4.74 | 3.39 | 0.79 | 1.26 | 0.24 | 0.28 | 0.11 | 0.77 | 11.56 |
| Particulate Matter (PM10) | 85101 | 1.68 | 0.29 | 0.79 | 0.38 | 0.00 | 0.00 | 0.04 | 1.94 | 5.10 |

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# Encina Wastewater Authority PTE
## Greenhouse Gas Emissions

### Annual Emissions (MT/yr)

| Pollutant | Biogenic Emissions | | | | | Fossil Fuel Emissions | | | | All Sources |
|---|---|---|---|---|---|---|---|---|---|---|
| | Engines Digester Gas | Dryer Digester Gas (001016) | Flare | WWTP | *Total Biogenic Emissions* | Engines Natural Gas | RTO-Dryer Natural Gas (001016) | Diesel Engine | *Total Fossil Fuel Emissions* | |
| Carbon Dioxide (CO2) | 8,908 | 6,843 | 9,544 | | ***25,296*** | 1,514 | 7,571 | 40 | ***9,125*** | **34,421** |
| Methane (CH4) | 0.55 | 0.42 | 0.59 | 0.95 | ***2.50*** | 0.03 | 0.14 | 0.00 | ***0.17*** | **2.68** |
| Nitrous Oxide (N2O) | 0.11 | 0.08 | 0.12 | | ***0.31*** | 0.00 | 0.01 | 0.00 | ***0.02*** | **0.32** |
| Carbon Dioxide Equivalent (CO2e) | 8,954 | 6,879 | 9,594 | 24 | ***25,450*** | 1,516 | 7,579 | 40 | ***9,135*** | **34,585** |

### Annual Fuel Usage

| Pollutant | Cogen Engines | Flare | Diesel Engine | ORF1 - Headworks (961446) | ORF3 - Activated Sludge (961446) | ORF2-RTO-Dryer - Biosolids (001016) |
|---|---|---|---|---|---|---|
| Digester Gas (million ft3/yr) | 280 | 300 | - | - | - | 215.1 |
| Natural Gas (million ft3/yr) | 28 | - | - | - | - | 140.0 |
| Diesel (gal/year) | - | - | 3903 | - | - | - |

### Emission Factors

| Pollutant | Digester Gas | | Natural Gas | | Diesel | | GWP |
|---|---|---|---|---|---|---|---|
| | kg/MMBtu | kg/mmscf | kg/MMBtu | kg/mmscf | kg/MMBtu | kg/gal | |
| Carbon Dioxide (CO2) | 52.07 | 31814.77 | 53.02 | 54080.40 | 73.96 | 10.21 | 1 |
| Methane (CH4) | 0.0032 | 1.96 | 0.0010 | 1.02 | 0.003 | 0.000 | 25 |
| Nitrous Oxide (N2O) | 0.00063 | 0.38 | 0.00010 | 0.10 | 0.0006 | 0.000 | 298 |

### General Information

| Parameter | Value | Comment |
|---|---|---|
| Digester Gas Fuel HHV (Btu/scf) | 611 | Digester Gas Analysis 10/14/19 |
| Natural Gas Fuel HHV (Btu/scf) | 1020 | Default |
| Diesel Fuel HHV (MMBtu/gal) | 0.138 | Default |

Digester gas and natural gas emission factors per 2022 Cal e-GRT report.
Diesel emission factors from EPA CFR40 Part 98 subpart C Table C-1

### uel Usage - ryer

| Fuel | Annual (million $ft^3$/yr) | Daily (million $ft^3$/day) | Hourly (million $ft^3$/hr) | ourly (scfm) | Rating MMBtu/hr) | HV ( /scf) |
|---|---|---|---|---|---|---|
| Digester Gas Fuel Usage | 215.1 | 0.59 | 0.0245 | 409 | 15 | 11 |

Hourly fuel usage is calculated from the rating at full load

| | |
|---|---|
| Operation (hours/day) | 24 |
| Operation (day/year) | 365 |

Yorke ENGINEERING, LLC
www.YorkeEngr.com



## Encina Wastewater Authority PTE
## Total Facility TAC Emissions

| Pollutant | CAS | Federal HAP? | Other Sources | | Engines Digester Gas | | Engines Natural Gas | | All Sources | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) |
| DPM | 9901 | N | 1.89E+01 | 0 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.885E+01 | 0.000E+00 |
| 1,1,1-TCA | 71556 | Y | 7.81E+01 | 8.92E-03 | 2.80E-02 | 6.09E-06 | 0.00E+00 | 0.00E+00 | 7.813E+01 | 8.925E-03 |
| 1,3-Butadiene | 106990 | Y | 0.00E+00 | 1.69E-02 | 0.00E+00 | 0.00E+00 | 7.56E+00 | 7.61E-03 | 7.560E+00 | 2.454E-02 |
| 1,4-Dioxane | 123911 | Y | 4.44E+02 | 5.07E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.441E+02 | 5.070E-02 |
| Acetaldehyde | 75070 | Y | 0.00E+00 | 6.11E-02 | 1.96E-01 | 4.26E-05 | 2.39E+02 | 2.40E-01 | 2.390E+02 | 3.014E-01 |
| Acetone | 67641 | N | 2.10E-01 | 4.58E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.100E-01 | 4.583E-05 |
| Acrolein | 107028 | Y | 0.00E+00 | 2.65E-03 | 0.00E+00 | 0.00E+00 | 2.80E+00 | 2.82E-03 | 2.800E+00 | 5.463E-03 |
| Ammonia | 7664417 | N | 3.16E+03 | 3.61E-01 | 1.34E+00 | 2.92E-04 | 0.00E+00 | 0.00E+00 | 3.165E+03 | 3.615E-01 |
| Arsenic | 7440382 | Y | 3.91E-01 | 1.79E-04 | 8.26E-02 | 1.80E-05 | 0.00E+00 | 0.00E+00 | 4.733E-01 | 1.967E-04 |
| Benzene | 71432 | Y | 4.02E+01 | 2.00E-02 | 4.99E+01 | 1.09E-02 | 1.26E+01 | 1.27E-02 | 1.027E+02 | 4.350E-02 |
| Cadmium | 7440439 | Y | 1.73E-01 | 1.37E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.734E-01 | 1.369E-04 |
| Chlorobenzene | 108907 | Y | 1.07E-01 | 3.40E-05 | 5.60E-02 | 1.22E-05 | 0.00E+00 | 0.00E+00 | 1.627E-01 | 4.621E-05 |
| Chloroform | 67663 | N | 3.66E+02 | 4.17E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 3.657E+02 | 4.175E-02 |
| Chromium | 7440473 | Y | 0.00E+00 | 3.90E-05 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 3.903E-05 |
| Copper | 7440508 | N | 1.39E+01 | 1.91E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.394E+01 | 1.911E-03 |
| Cr(VI) | 18540299 | Y | 2.39E-03 | 8.08E-06 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.391E-03 | 8.079E-06 |
| CS2 | 75150 | Y | 1.66E+02 | 1.89E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.658E+02 | 1.893E-02 |
| DiClBenzenes | 25321226 | N | 7.08E-01 | 1.37E-04 | 5.04E-01 | 1.10E-04 | 0.00E+00 | 0.00E+00 | 1.212E+00 | 2.466E-04 |
| EDC | 107062 | Y | 7.81E+02 | 8.92E-02 | 3.92E-01 | 8.52E-05 | 0.00E+00 | 0.00E+00 | 7.810E+02 | 8.924E-02 |
| Ethyl Benzene | 100414 | Y | 5.34E-01 | 9.43E-04 | 2.80E-01 | 6.09E-05 | 1.12E+00 | 1.13E-03 | 1.934E+00 | 2.131E-03 |
| Formaldehyde | 50000 | Y | 1.19E+02 | 1.55E-01 | 1.31E+04 | 2.84E+00 | 1.51E+03 | 1.52E+00 | 1.471E+04 | 4.517E+00 |
| H2S | 7783064 | N | 1.08E+03 | 1.24E-01 | 6.02E+00 | 1.31E-03 | 0.00E+00 | 0.00E+00 | 1.089E+03 | 1.256E-01 |
| HCl | 7647010 | Y | 3.44E+02 | 7.40E-02 | 1.81E+02 | 3.93E-02 | 0.00E+00 | 0.00E+00 | 5.252E+02 | 1.133E-01 |
| Hexane | 110543 | Y | 2.57E+02 | 3.18E-02 | 1.81E+01 | 3.95E-03 | 3.16E+01 | 3.18E-02 | 3.072E+02 | 6.757E-02 |
| Lead | 7439921 | Y | 4.49E-01 | 6.99E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 4.494E-01 | 6.992E-04 |
| Manganese | 7439965 | Y | 0.00E+00 | 2.42E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 2.420E-04 |
| Me t-ButylEther | 1634044 | Y | 1.29E-03 | 1.47E-07 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.288E-03 | 1.470E-07 |
| MEK | 78933 | N | 5.34E-02 | 9.22E-06 | 2.80E-02 | 6.09E-06 | 0.00E+00 | 0.00E+00 | 8.139E-02 | 1.531E-05 |
| Mercury | 7439976 | Y | 2.62E-02 | 1.59E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.619E-02 | 1.591E-04 |
| Methanol | 67561 | Y | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 7.14E+01 | 7.18E-02 | 7.140E+01 | 7.183E-02 |

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## Encina Wastewater Authority PTE
## Total Facility TAC Emissions

| Pollutant | CAS | Federal HAP? | Other Sources | | Engines Digester Gas | | Engines Natural Gas | | All Sources | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) | ANNUAL EMISSIONS (lbs/yr) | MAX HOURLY EMISSIONS (lbs/hr) |
| Methylene Chlor | 75092 | Y | 4.54E+02 | 5.19E-02 | 2.80E-02 | 6.09E-06 | 5.60E-01 | 5.63E-04 | 4.551E+02 | 5.246E-02 |
| Naphthalene | 91203 | Y | 8.54E-02 | 1.55E-03 | 0.00E+00 | 0.00E+00 | 2.24E+00 | 2.25E-03 | 2.325E+00 | 3.801E-03 |
| Nickel | 7440020 | Y | 5.44E-01 | 3.67E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.440E-01 | 3.665E-04 |
| PAHs-w/o | 1151 | Y | 0.00E+00 | 2.83E-03 | 0.00E+00 | 0.00E+00 | 8.40E-01 | 8.45E-04 | 8.400E-01 | 3.671E-03 |
| p-DiClBenzene | 106467 | Y | 1.05E+02 | 1.20E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.048E+02 | 1.196E-02 |
| Perc | 127184 | Y | 2.01E+02 | 2.29E-02 | 1.40E-01 | 3.04E-05 | 0.00E+00 | 0.00E+00 | 2.009E+02 | 2.297E-02 |
| Phenol | 108952 | Y | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 5.60E-01 | 5.63E-04 | 5.600E-01 | 5.633E-04 |
| Propylene | 115071 | N | 0.00E+00 | 3.65E-02 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 3.645E-02 |
| Selenium | 7782492 | Y | 8.85E-04 | 1.72E-04 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 8.848E-04 | 1.718E-04 |
| Styrene | 100425 | Y | 1.10E-03 | 1.25E-07 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 1.095E-03 | 1.250E-07 |
| TCE | 79016 | Y | 4.71E+02 | 5.37E-02 | 8.40E-02 | 1.83E-05 | 0.00E+00 | 0.00E+00 | 4.707E+02 | 5.375E-02 |
| Toluene | 108883 | Y | 7.46E+01 | 1.70E-02 | 1.81E+01 | 3.95E-03 | 1.18E+01 | 1.18E-02 | 1.045E+02 | 3.281E-02 |
| Xylenes | 1330207 | Y | 1.65E+01 | 5.34E-03 | 1.26E+00 | 2.74E-04 | 5.32E+00 | 5.35E-03 | 2.310E+01 | 1.096E-02 |
| Zinc | 7440666 | N | 2.39E+01 | 4.48E-03 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 2.391E+01 | 4.479E-03 |
| Fluorocarb(Cl) | 1104 | N | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 0.000E+00 |
| Chlorine | 7782505 | Y | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 0.000E+00 |
| Sodium Hydroxide | 1310732 | N | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 0.000E+00 |
| Aluminum | 7429905 | N | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 0.000E+00 |
| Beryllium | 7440417 | Y | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.000E+00 | 0.000E+00 |
| | | | | | | | | **Total TACs (lb)** | **23,478** | |
| | | | | | | | | **Total HAPs (ton/yr)** | **9.40** | |
| | | | | | | | | **Max HAP (ton/yr)** | **7.35** | |

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## Encina Wastewater Authority PTE
## Cogeneration Engines

### Fuel Usage & Engine Specs

| Device | Digester Gas | | | | | | Natural Gas | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Annual (million $ft^3$/yr) | Daily (million $ft^3$/day) | Hourly (million $ft^3$/hr) | Hourly (scfm) | Rating (hp) | Rating (MMBtu/hr) | Annual (million $ft^3$/yr) | Daily (million $ft^3$/day) | Hourly (million $ft^3$/hr) | Hourly (scfm) | Rating (hp) | Rating (MMBtu/hr) |
| 542 | 70 | 0.25 | 0.0152 | 253.72 | 1306 | 9.30 | 7 | 0.1375 | 0.0070 | 117.36 | 1085 | 7.18 |
| 543 | 70 | 0.25 | 0.0152 | 253.72 | 1306 | 9.30 | 7 | 0.1375 | 0.0070 | 117.36 | 1085 | 7.18 |
| 544 | 70 | 0.25 | 0.0152 | 253.72 | 1306 | 9.30 | 7 | 0.1375 | 0.0070 | 117.36 | 1085 | 7.18 |
| 545 | 70 | 0.25 | 0.0152 | 253.72 | 1306 | 9.30 | 7 | 0.1375 | 0.0070 | 117.36 | 1085 | 7.18 |
| **Total** | **280** | **1** | **0.0609** | **1,015** | | | **28** | **0.55** | **0.0282** | **469** | | |

Daily and annual fuel usage based on permit conditions. Hourly fuel usage based on rating.

### Criteria Pollutant Emissions
### Digester Gas

| Pollutant | CAS | Concentration (ppmv) @ 15% O2 | EF (lb/$mmft^3$) | Device 542 Emissions | | | Device 543 Emissions | | | Device 544 Emissions | | | Device 545 Emissions | | | Total Emissions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | lb/yr | lb/day | lb/hr | lb/yr | lb/day | lb/hr | lb/yr | lb/yr | lb/hr | lb/yr | lb/day | lb/hr | lb/yr | lb/day | lb/hr |
| Carbon Monoxide (CO) | 42101 | 400 | 581.79 | 40,725.61 | 145.45 | 8.86 | 40,725.61 | 145.45 | 8.86 | 40,725.61 | 145.45 | 8.86 | 40,725.61 | 145.45 | 8.86 | 162,902.42 | 581.79 | 35.43 |
| Nitrogen Oxides (NOx) | 42603 | 47 | 112.27 | 7,858.69 | 28.07 | 1.71 | 7,858.69 | 28.07 | 1.71 | 7,858.69 | 28.07 | 1.71 | 7,858.69 | 28.07 | 1.71 | 31,434.76 | 112.27 | 6.84 |
| Sulfur Oxides (SOx) | 42401 | - | 2.00 | 140.00 | 0.50 | 0.03 | 140.00 | 0.50 | 0.03 | 140.00 | 0.50 | 0.03 | 140.00 | 0.50 | 0.03 | 560.00 | 2.00 | 0.12 |
| Total Organic Gases (TOG) | 43101 | - | 162 | 11,340.00 | 40.50 | 2.47 | 11,340.00 | 40.50 | 2.47 | 11,340.00 | 40.50 | 2.47 | 11,340.00 | 40.50 | 2.47 | 45,360.00 | 162.00 | 9.86 |
| Volatile Organic Compounds (VOC) | 43104 | - | 77.76 | 5,443.20 | 19.44 | 1.18 | 5,443.20 | 19.44 | 1.18 | 5,443.20 | 19.44 | 1.18 | 5,443.20 | 19.44 | 1.18 | 21,772.80 | 77.76 | 4.74 |
| Total Particulates (TSP) | 11101 | - | 27.6 | 1,932.00 | 6.90 | 0.42 | 1,932.00 | 6.90 | 0.42 | 1,932.00 | 6.90 | 0.42 | 1,932.00 | 6.90 | 0.42 | 7,728.00 | 27.60 | 1.68 |
| Particulate Matter (PM10) | 85101 | - | 27.6 | 1,932.00 | 6.90 | 0.42 | 1,932.00 | 6.90 | 0.42 | 1,932.00 | 6.90 | 0.42 | 1,932.00 | 6.90 | 0.42 | 7,728.00 | 27.60 | 1.68 |

Notes:
NOx and CO emissions based on permit limits
Emissions from Digester Gas based on the default SDAPCD emission factors E09 - Engine, Digester Gas Fired

### General Information

| Parameter | Value | Comment |
|---|---|---|
| $\%O_2$ Emission Guarantee Basis | 15 | |
| Fd - F-factor Digester Gas (dscf/mmBtu) | 9244 | Digester Gas Analysis 10/14/19 |
| Fd - F-factor Natural Gas (dscf/mmBtu) | 8710 | Default |
| MW $NO_X$ | 46 | Default |
| MW CO | 28.01 | Default |
| Molar Gas Volume at 68F (scf/lb-mole) | 385.3 | Default |
| Digester Gas Fuel HHV (Btu/scf) | 611 | Digester Gas Analysis 10/14/19 |
| Natural Gas Fuel HHV (Btu/scf) | 1020 | Default |
| Digester Gas Fuel Consumption Rate (Btu/bhp-hr) | 7122 | from Emissions Calcs March 2006 |
| Natural Gas Fuel Consumption Rate (Btu/bhp-hr) | 6620 | from Emissions Calcs March 2006 |

### Criteria Pollutant Emissions
### Natural Gas

| Pollutant | CAS | Concentration (ppmv) @ 15% | EF (lb/$mmft^3$) | Device 542 Emissions | | | Device 543 Emissions | | | Device 544 Emissions | | | Device 545 Emissions | | | Total Emissions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | lb/yr | lb/day | lb/hr | lb/yr | lb/day | lb/hr | lb/yr | lb/day | lb/hr | lb/yr | lb/day | lb/hr | lb/yr | lb/day | lb/hr |
| Carbon Monoxide (CO) | 42101 | 390 | 892.26 | 6,245.82 | 122.69 | 6.28 | 6,245.82 | 122.69 | 6.28 | 6,245.82 | 122.69 | 6.28 | 6,245.82 | 122.69 | 6.28 | 24,983.27 | 490.74 | 25.13 |
| Nitrogen Oxides (NOx) | 42603 | 54 | 202.89 | 1,420.24 | 27.90 | 1.43 | 1,420.24 | 27.90 | 1.43 | 1,420.24 | 27.90 | 1.43 | 1,420.24 | 27.90 | 1.43 | 5,680.98 | 111.59 | 5.71 |
| Sulfur Oxides (SOx) | 42401 | - | 0.6 | 4.20 | 0.08 | 0.00 | 4.20 | 0.08 | 0.00 | 4.20 | 0.08 | 0.00 | 4.20 | 0.08 | 0.00 | 16.80 | 0.33 | 0.02 |
| Total Organic Gases (TOG) | 43101 | - | 1499.4 | 10,495.80 | 206.17 | 10.56 | 10,495.80 | 206.17 | 10.56 | 10,495.80 | 206.17 | 10.56 | 10,495.80 | 206.17 | 10.56 | 41,983.20 | 824.67 | 42.23 |
| Volatile Organic Compounds (VOC) | 43104 | - | 120.36 | 842.52 | 16.55 | 0.85 | 842.52 | 16.55 | 0.85 | 842.52 | 16.55 | 0.85 | 842.52 | 16.55 | 0.85 | 3,370.08 | 66.20 | 3.39 |
| Total Particulates (TSP) | 11101 | - | 10.19 | 71.33 | 1.40 | 0.07 | 71.33 | 1.40 | 0.07 | 71.33 | 1.40 | 0.07 | 71.33 | 1.40 | 0.07 | 285.32 | 5.60 | 0.29 |
| Particulate Matter (PM10) | 85101 | - | 10.19 | 71.33 | 1.40 | 0.07 | 71.33 | 1.40 | 0.07 | 71.33 | 1.40 | 0.07 | 71.33 | 1.40 | 0.07 | 285.32 | 5.60 | 0.29 |

Notes:
NOx and CO emissions based on permit limits
Emissions from Natural Gas based on the default SDAPCD emission factors E15 - Engine, Natural Gas Fired, 4 Cycle Lean Burn, Uncontrolled

### Criteria Pollutant Emissions
### Total Cogen Engine Emissions

| Pollutant | CAS | Device 542 Emissions | | | Device 543 Emissions | | | Device 544 Emissions | | | Device 545 Emissions | | | Total Emissions | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total Annual Emissions Both Fuels (lb/yr) | Total Daily Emissions Both Fuels (lb/day) | Max Hourly Emissions Either Fuel (lb/hr) | Total Annual Emissions Both Fuels (lb/yr) | Total Daily Emissions Both Fuels (lb/day) | Max Hourly Emissions Either Fuel (lb/hr) | Total Annual Emissions Both Fuels (lb/yr) | Total Daily Emissions Both Fuels (lb/day) | Max Hourly Emissions Either Fuel (lb/hr) | Total Annual Emissions Both Fuels (lb/yr) | Total Daily Emissions Both Fuels (lb/day) | Max Hourly Emissions Either Fuel (lb/hr) | Total Annual Emissions Both Fuels (lb/yr) | Total Daily Emissions Both Fuels (lb/day) | Max Hourly Emissions Either Fuel (lb/hr) |
| Carbon Monoxide (CO) | 42101 | 4.697E+04 | 2.681E+02 | 8.857E+00 | 4.697E+04 | 2.681E+02 | 8.857E+00 | 4.697E+04 | 2.681E+02 | 8.857E+00 | 4.697E+04 | 2.681E+02 | 8.857E+00 | 1.879E+05 | 1.073E+03 | 3.543E+01 |
| Nitrogen Oxides (NOx) | 42603 | 9.279E+03 | 5.596E+01 | 1.709E+00 | 9.279E+03 | 5.596E+01 | 1.709E+00 | 9.279E+03 | 5.596E+01 | 1.709E+00 | 9.279E+03 | 5.596E+01 | 1.709E+00 | 3.712E+04 | 2.239E+02 | 6.836E+00 |
| Sulfur Oxides (SOx) | 42401 | 1.442E+02 | 5.825E-01 | 3.045E-02 | 1.442E+02 | 5.825E-01 | 3.045E-02 | 1.442E+02 | 5.825E-01 | 3.045E-02 | 1.442E+02 | 5.825E-01 | 3.045E-02 | 5.768E+02 | 2.330E+00 | 1.218E-01 |
| Total Organic Gases (TOG) | 43101 | 2.184E+04 | 2.467E+02 | 1.056E+01 | 2.184E+04 | 2.467E+02 | 1.056E+01 | 2.184E+04 | 2.467E+02 | 1.056E+01 | 2.184E+04 | 2.467E+02 | 1.056E+01 | 8.734E+04 | 9.867E+02 | 4.223E+01 |
| Volatile Organic Compounds (VOC) | 43104 | 6.286E+03 | 3.599E+01 | 1.184E+00 | 6.286E+03 | 3.599E+01 | 1.184E+00 | 6.286E+03 | 3.599E+01 | 1.184E+00 | 6.286E+03 | 3.599E+01 | 1.184E+00 | 2.514E+04 | 1.440E+02 | 4.735E+00 |
| Total Particulates (TSP) | 11101 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 8.013E+03 | 3.320E+01 | 1.681E+00 |
| Particulate Matter (PM10) | 85101 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 2.003E+03 | 8.301E+00 | 4.202E-01 | 8.013E+03 | 3.320E+01 | 1.681E+00 |

Notes:

Maximum hourly emissions are from engines operating on either digester gas or natural gas

### TAC Emissions
### Digester Gas

| Pollutant | CAS | Device 542 Emissions | | | Device 543 Emissions | | | Device 544 Emissions | | | Device 545 Emissions | | | Total Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | EF (lb/mmft$^3$) | lb/yr | lb/hr | EF (lb/mmft$^3$) | lb/yr | lb/hr | EF (lb/mmft$^3$) | lb/yr | lb/hr | EF (lb/mmft$^3$) | lb/yr | lb/hr | lb/yr | lb/hr |
| Acetaldehyde | 75070 | 7.000E-04 | 4.900E-02 | 1.066E-05 | 7.000E-04 | 4.900E-02 | 1.066E-05 | 7.000E-04 | 4.900E-02 | 1.066E-05 | 7.000E-04 | 4.900E-02 | 1.066E-05 | 1.960E-01 | 4.262E-05 |
| NH3 | 7664417 | 4.800E-03 | 3.360E-01 | 7.307E-05 | 4.800E-03 | 3.360E-01 | 7.307E-05 | 4.800E-03 | 3.360E-01 | 7.307E-05 | 4.800E-03 | 3.360E-01 | 7.307E-05 | 1.344E+00 | 2.923E-04 |
| Benzene | 71432 | 1.782E-01 | 1.247E+01 | 2.713E-03 | 1.782E-01 | 1.247E+01 | 2.713E-03 | 1.782E-01 | 1.247E+01 | 2.713E-03 | 1.782E-01 | 1.247E+01 | 2.713E-03 | 4.990E+01 | 1.085E-02 |
| Chlorobenzn | 108907 | 2.000E-04 | 1.400E-02 | 3.045E-06 | 2.000E-04 | 1.400E-02 | 3.045E-06 | 2.000E-04 | 1.400E-02 | 3.045E-06 | 2.000E-04 | 1.400E-02 | 3.045E-06 | 5.600E-02 | 1.218E-05 |
| DiClBenzenes | 25321226 | 1.800E-03 | 1.260E-01 | 2.740E-05 | 1.800E-03 | 1.260E-01 | 2.740E-05 | 1.800E-03 | 1.260E-01 | 2.740E-05 | 1.800E-03 | 1.260E-01 | 2.740E-05 | 5.040E-01 | 1.096E-04 |
| Ethyl Benzene | 100414 | 1.000E-03 | 7.000E-02 | 1.522E-05 | 1.000E-03 | 7.000E-02 | 1.522E-05 | 1.000E-03 | 7.000E-02 | 1.522E-05 | 1.000E-03 | 7.000E-02 | 1.522E-05 | 2.800E-01 | 6.089E-05 |
| EDC | 107062 | 1.400E-03 | 9.800E-02 | 2.131E-05 | 1.400E-03 | 9.800E-02 | 2.131E-05 | 1.400E-03 | 9.800E-02 | 2.131E-05 | 1.400E-03 | 9.800E-02 | 2.131E-05 | 3.920E-01 | 8.525E-05 |
| Formaldehyde | 50000 | 4.672E+01 | 3.270E+03 | 7.112E-01 | 4.672E+01 | 3.270E+03 | 7.112E-01 | 4.672E+01 | 3.270E+03 | 7.112E-01 | 4.672E+01 | 3.270E+03 | 7.112E-01 | 1.308E+04 | 2.845E+00 |
| Hexane | 110543 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 1.814E+01 | 3.946E-03 |
| HCl | 7647010 | 6.455E-01 | 4.519E+01 | 9.827E-03 | 6.455E-01 | 4.519E+01 | 9.827E-03 | 6.455E-01 | 4.519E+01 | 9.827E-03 | 6.455E-01 | 4.519E+01 | 9.827E-03 | 1.807E+02 | 3.931E-02 |
| H2S | 7783064 | 2.150E-02 | 1.505E+00 | 3.273E-04 | 2.150E-02 | 1.505E+00 | 3.273E-04 | 2.150E-02 | 1.505E+00 | 3.273E-04 | 2.150E-02 | 1.505E+00 | 3.273E-04 | 6.020E+00 | 1.309E-03 |
| Methylene Chlor | 75092 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 2.800E-02 | 6.089E-06 |
| MEK | 78933 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 2.800E-02 | 6.089E-06 |
| Perc | 127184 | 5.000E-04 | 3.500E-02 | 7.612E-06 | 5.000E-04 | 3.500E-02 | 7.612E-06 | 5.000E-04 | 3.500E-02 | 7.612E-06 | 5.000E-04 | 3.500E-02 | 7.612E-06 | 1.400E-01 | 3.045E-05 |
| Toluene | 108883 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 6.480E-02 | 4.536E+00 | 9.865E-04 | 1.814E+01 | 3.946E-03 |
| 1,1,1-TCA | 71556 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 1.000E-04 | 7.000E-03 | 1.522E-06 | 2.800E-02 | 6.089E-06 |
| TCE | 79016 | 3.000E-04 | 2.100E-02 | 4.567E-06 | 3.000E-04 | 2.100E-02 | 4.567E-06 | 3.000E-04 | 2.100E-02 | 4.567E-06 | 3.000E-04 | 2.100E-02 | 4.567E-06 | 8.400E-02 | 1.827E-05 |
| Xylenes | 1330207 | 4.500E-03 | 3.150E-01 | 6.850E-05 | 4.500E-03 | 3.150E-01 | 6.850E-05 | 4.500E-03 | 3.150E-01 | 6.850E-05 | 4.500E-03 | 3.150E-01 | 6.850E-05 | 1.260E+00 | 2.740E-04 |
| Arsenic | 7440382 | 2.950E-04 | 2.065E-02 | 4.491E-06 | 2.950E-04 | 2.065E-02 | 4.491E-06 | 2.950E-04 | 2.065E-02 | 4.491E-06 | 2.950E-04 | 2.065E-02 | 4.491E-06 | 8.260E-02 | 1.796E-05 |

Notes:

Emissions from Digester Gas based on the default SDAPCD emission factors E09 - Engine, Digester Gas Fired

Arsenic was included but using the Encina specific emission factor from SDAPCD (https://www.sdapcd.org/content/dam/sdc/apcd/PDF/EmissionsInventoryRequestFormsInstructions/APCD-landfill1-revised-Nov-2nd-2021.pdf)

Formaldehyde emission factors based on onsite source test results, per SDAPCD inventory 3-1-22

| TAC Emissions<br>Natural Gas | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pollutant | CAS | EF (lb/mmft$^3$) | Device 542 Emissions | | Device 543 Emissions | | Device 544 Emissions | | Device 545 Emissions | | Total Emissions | |
| | | | lb/yr | lb/hr | lb/yr | lb/hr | lb/yr | lb/hr | lb/yr | lb/hr | lb/yr | lb/hr |
| 1,3-Butadiene | 106990 | 2.70E-01 | 1.890E+00 | 1.901E-03 | 1.890E+00 | 1.901E-03 | 1.890E+00 | 1.901E-03 | 1.890E+00 | 1.901E-03 | 7.560E+00 | 7.605E-03 |
| Acetaldehyde | 75070 | 8.53E+00 | 5.971E+01 | 6.007E-02 | 5.971E+01 | 6.007E-02 | 5.971E+01 | 6.007E-02 | 5.971E+01 | 6.007E-02 | 2.388E+02 | 2.403E-01 |
| Acrolein | 107028 | 1.00E-01 | 7.000E-01 | 7.042E-04 | 7.000E-01 | 7.042E-04 | 7.000E-01 | 7.042E-04 | 7.000E-01 | 7.042E-04 | 2.800E+00 | 2.817E-03 |
| Benzene | 71432 | 4.50E-01 | 3.150E+00 | 3.169E-03 | 3.150E+00 | 3.169E-03 | 3.150E+00 | 3.169E-03 | 3.150E+00 | 3.169E-03 | 1.260E+01 | 1.268E-02 |
| Ethyl Benzene | 100414 | 4.00E-02 | 2.800E-01 | 2.817E-04 | 2.800E-01 | 2.817E-04 | 2.800E-01 | 2.817E-04 | 2.800E-01 | 2.817E-04 | 1.120E+00 | 1.127E-03 |
| Formaldehyde | 50000 | 5.39E+01 | 3.770E+02 | 3.793E-01 | 3.770E+02 | 3.793E-01 | 3.770E+02 | 3.793E-01 | 3.770E+02 | 3.793E-01 | 1.508E+03 | 1.517E+00 |
| Hexane | 110543 | 1.13E+00 | 7.910E+00 | 7.957E-03 | 7.910E+00 | 7.957E-03 | 7.910E+00 | 7.957E-03 | 7.910E+00 | 7.957E-03 | 3.164E+01 | 3.183E-02 |
| Methanol | 67561 | 2.55E+00 | 1.785E+01 | 1.796E-02 | 1.785E+01 | 1.796E-02 | 1.785E+01 | 1.796E-02 | 1.785E+01 | 1.796E-02 | 7.140E+01 | 7.183E-02 |
| Methylene Chlor | 75092 | 2.00E-02 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 5.600E-01 | 5.633E-04 |
| Naphthalene | 91203 | 8.00E-02 | 5.600E-01 | 5.633E-04 | 5.600E-01 | 5.633E-04 | 5.600E-01 | 5.633E-04 | 5.600E-01 | 5.633E-04 | 2.240E+00 | 2.253E-03 |
| PAHs-w/o | 1151 | 3.00E-02 | 2.100E-01 | 2.113E-04 | 2.100E-01 | 2.113E-04 | 2.100E-01 | 2.113E-04 | 2.100E-01 | 2.113E-04 | 8.400E-01 | 8.450E-04 |
| Phenol | 108952 | 2.00E-02 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 5.600E-01 | 5.633E-04 |
| Toluene | 108883 | 4.20E-01 | 2.940E+00 | 2.958E-03 | 2.940E+00 | 2.958E-03 | 2.940E+00 | 2.958E-03 | 2.940E+00 | 2.958E-03 | 1.176E+01 | 1.183E-02 |
| Xylenes | 1330207 | 1.90E-01 | 1.330E+00 | 1.338E-03 | 1.330E+00 | 1.338E-03 | 1.330E+00 | 1.338E-03 | 1.330E+00 | 1.338E-03 | 5.320E+00 | 5.352E-03 |

Notes:

Emissions from Natural Gas based on the default SDAPCD emission factors E15 - Engine, Natural Gas Fired, 4 Cycle Lean Burn, Uncontrolled

| TAC Emissions<br>Total Cogen Engine Emissions for Modeling | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pollutant | CAS | | Device 542 Emissions | | Device 543 Emissions | | Device 544 Emissions | | Device 545 Emissions | | Total Emissions | |
| | | | Total Annual Emissions both Fuels (lb/yr) | Max Hourly Emissions from Either Fuel (lb/hr) | Total Annual Emissions both Fuels (lb/yr) | Max Hourly Emissions from Either Fuel (lb/hr) | Total Annual Emissions both Fuels (lb/yr) | Max Hourly Emissions from Either Fuel (lb/hr) | Total Annual Emissions both Fuels (lb/yr) | Max Hourly Emissions from Either Fuel (lb/hr) | Total Annual Emissions both Fuels (lb/yr) | Max Hourly Emissions from Either Fuel (lb/hr) |
| 1,3-Butadiene | 106990 | | 1.890E+00 | 1.901E-03 | 1.890E+00 | 1.901E-03 | 1.890E+00 | 1.901E-03 | 1.890E+00 | 1.901E-03 | 7.560E+00 | 7.605E-03 |
| Acetaldehyde | 75070 | | 5.976E+01 | 6.007E-02 | 5.976E+01 | 6.007E-02 | 5.976E+01 | 6.007E-02 | 5.976E+01 | 6.007E-02 | 2.390E+02 | 2.403E-01 |
| Acrolein | 107028 | | 7.000E-01 | 7.042E-04 | 7.000E-01 | 7.042E-04 | 7.000E-01 | 7.042E-04 | 7.000E-01 | 7.042E-04 | 2.800E+00 | 2.817E-03 |
| Benzene | 71432 | | 1.562E+01 | 3.169E-03 | 1.562E+01 | 3.169E-03 | 1.562E+01 | 3.169E-03 | 1.562E+01 | 3.169E-03 | 6.250E+01 | 1.268E-02 |
| Ethyl Benzene | 100414 | | 3.500E-01 | 2.817E-04 | 3.500E-01 | 2.817E-04 | 3.500E-01 | 2.817E-04 | 3.500E-01 | 2.817E-04 | 1.400E+00 | 1.127E-03 |
| Formaldehyde | 50000 | | 3.647E+03 | 7.112E-01 | 3.647E+03 | 7.112E-01 | 3.647E+03 | 7.112E-01 | 3.647E+03 | 7.112E-01 | 1.459E+04 | 2.845E+00 |
| Hexane | 110543 | | 1.245E+01 | 7.957E-03 | 1.245E+01 | 7.957E-03 | 1.245E+01 | 7.957E-03 | 1.245E+01 | 7.957E-03 | 4.978E+01 | 3.183E-02 |
| Methanol | 67561 | | 1.785E+01 | 1.796E-02 | 1.785E+01 | 1.796E-02 | 1.785E+01 | 1.796E-02 | 1.785E+01 | 1.796E-02 | 7.140E+01 | 7.183E-02 |
| Methylene Chlor | 75092 | | 1.470E-01 | 1.408E-04 | 1.470E-01 | 1.408E-04 | 1.470E-01 | 1.408E-04 | 1.470E-01 | 1.408E-04 | 5.880E-01 | 5.633E-04 |
| Naphthalene | 91203 | | 5.600E-01 | 5.633E-04 | 5.600E-01 | 5.633E-04 | 5.600E-01 | 5.633E-04 | 5.600E-01 | 5.633E-04 | 2.240E+00 | 2.253E-03 |
| PAHs-w/o | 1151 | | 2.100E-01 | 2.113E-04 | 2.100E-01 | 2.113E-04 | 2.100E-01 | 2.113E-04 | 2.100E-01 | 2.113E-04 | 8.400E-01 | 8.450E-04 |
| Phenol | 108952 | | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 1.400E-01 | 1.408E-04 | 5.600E-01 | 5.633E-04 |
| Toluene | 108883 | | 7.476E+00 | 2.958E-03 | 7.476E+00 | 2.958E-03 | 7.476E+00 | 2.958E-03 | 7.476E+00 | 2.958E-03 | 2.990E+01 | 1.183E-02 |
| Xylenes | 1330207 | | 1.645E+00 | 1.338E-03 | 1.645E+00 | 1.338E-03 | 1.645E+00 | 1.338E-03 | 1.645E+00 | 1.338E-03 | 6.580E+00 | 5.352E-03 |
| NH3 | 7664417 | | 3.360E-01 | 7.307E-05 | 3.360E-01 | 7.307E-05 | 3.360E-01 | 7.307E-05 | 3.360E-01 | 7.307E-05 | 1.344E+00 | 2.923E-04 |
| Chlorobenzn | 108907 | | 1.400E-02 | 3.045E-06 | 1.400E-02 | 3.045E-06 | 1.400E-02 | 3.045E-06 | 1.400E-02 | 3.045E-06 | 5.600E-02 | 1.218E-05 |
| DiClBenzenes | 25321226 | | 1.260E-01 | 2.740E-05 | 1.260E-01 | 2.740E-05 | 1.260E-01 | 2.740E-05 | 1.260E-01 | 2.740E-05 | 5.040E-01 | 1.096E-04 |
| EDC | 107062 | | 9.800E-02 | 2.131E-05 | 9.800E-02 | 2.131E-05 | 9.800E-02 | 2.131E-05 | 9.800E-02 | 2.131E-05 | 3.920E-01 | 8.525E-05 |
| HCl | 7647010 | | 4.519E+01 | 9.827E-03 | 4.519E+01 | 9.827E-03 | 4.519E+01 | 9.827E-03 | 4.519E+01 | 9.827E-03 | 1.807E+02 | 3.931E-02 |
| H2S | 7783064 | | 1.505E+00 | 3.273E-04 | 1.505E+00 | 3.273E-04 | 1.505E+00 | 3.273E-04 | 1.505E+00 | 3.273E-04 | 6.020E+00 | 1.309E-03 |
| MEK | 78933 | | 7.000E-03 | 1.522E-06 | 7.000E-03 | 1.522E-06 | 7.000E-03 | 1.522E-06 | 7.000E-03 | 1.522E-06 | 2.800E-02 | 6.089E-06 |
| Perc | 127184 | | 3.500E-02 | 7.612E-06 | 3.500E-02 | 7.612E-06 | 3.500E-02 | 7.612E-06 | 3.500E-02 | 7.612E-06 | 1.400E-01 | 3.045E-05 |
| 1,1,1-TCA | 71556 | | 7.000E-03 | 1.522E-06 | 7.000E-03 | 1.522E-06 | 7.000E-03 | 1.522E-06 | 7.000E-03 | 1.522E-06 | 2.800E-02 | 6.089E-06 |
| TCE | 79016 | | 2.100E-02 | 4.567E-06 | 2.100E-02 | 4.567E-06 | 2.100E-02 | 4.567E-06 | 2.100E-02 | 4.567E-06 | 8.400E-02 | 1.827E-05 |
| Arsenic | 7440382 | | 2.065E-02 | 4.491E-06 | 2.065E-02 | 4.491E-06 | 2.065E-02 | 4.491E-06 | 2.065E-02 | 4.491E-06 | 8.260E-02 | 1.796E-05 |

Notes:

Maximum Hourly emissions modeled are from the max emissions from the engines operating on either digester gas or natural gas

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# Encina Wastewater Authority PTE
## Flares - Permit ID 1004

| Fuel Usage | | | | | | |
|---|---|---|---|---|---|---|
| Device | Digester Gas Fuel Usage | | | | Rating (MMBtu/hr) | HHV (BTU/scf) |
| | Annual (million $ft^3$/yr) | Daily (million $ft^3$/day) | Hourly (million $ft^3$/hr) | Hourly (scfm) | | |
| Flare(s) | 300 | 1.571 | 0.0655 | 1091 | 40 | 611 |

Operation (hours/day) 24

Annual fuel usage based on permit conditions. Hourly and daily fuel usage based on rating.

There are 2 flares permitted, both rated 20 MMBtu/hr, one is not yet installed. Emissions are based on both flares.

| Criteria Pollutant Emissions | | | | | |
|---|---|---|---|---|---|
| Pollutant | CAS | EF (lb/mm$ft^3$) | Emissions | | |
| | | | lb/yr | lb/day | lb/hr |
| Carbon Monoxide (CO) | 42101 | 75.53 | 22,659.00 | 118.67 | 4.94 |
| Nitrogen Oxides (NOx) | 42603 | 34.86 | 10,458.00 | 54.77 | 2.28 |
| Sulfur Oxides (SOx) | 42401 | 2.00 | 600.00 | 3.14 | 0.13 |
| Total Organic Gases (TOG) | 43101 | 25.21 | 7,563.00 | 39.61 | 1.65 |
| Volatile Organic Compounds (VOC) | 43104 | 12.10 | 3,630.00 | 19.01 | 0.79 |
| Total Particulates (TSP) | 11101 | 12.00 | 3,600.00 | 18.85 | 0.79 |
| Particulate Matter (PM10) | 85101 | 12.00 | 3,600.00 | 18.85 | 0.79 |

Notes:

Emissions from Digester Gas based on the default SDAPCD emission factors F02 - Flares, Digester Gas Fired, Enclosed

CO & NOx from 2021 inventory. Matches average from source testing from 2011 & 2013

| TAC Emissions | | | | |
|---|---|---|---|---|
| Digester Gas | | | | |
| Pollutant | CAS | EF (lb/mm$ft^3$) | Flare Emissions | |
| | | | lb/yr | lb/hr |
| Acetone | 67641 | 7.000E-04 | 2.100E-01 | 4.583E-05 |
| Ammonia | 7664417 | 4.800E-03 | 1.440E+00 | 3.142E-04 |
| Arsenic | 7440382 | 2.950E-04 | 8.850E-02 | 1.931E-05 |
| Benzene | 71432 | 2.770E-02 | 8.310E+00 | 1.813E-03 |
| Chlorobenzn | 108907 | 2.000E-04 | 6.000E-02 | 1.309E-05 |
| DiClBenzenes | 25321226 | 1.800E-03 | 5.400E-01 | 1.178E-04 |
| Ethyl Benzene | 100414 | 1.000E-03 | 3.000E-01 | 6.547E-05 |
| EDC | 107062 | 1.400E-03 | 4.200E-01 | 9.165E-05 |
| Formaldehyde | 50000 | 2.042E-01 | 6.126E+01 | 1.337E-02 |
| Hexane | 110543 | 1.010E-02 | 3.030E+00 | 6.612E-04 |
| HCl | 7647010 | 6.455E-01 | 1.937E+02 | 4.226E-02 |
| H2S | 7783064 | 2.150E-02 | 6.450E+00 | 1.408E-03 |
| Methylene Chlor | 75092 | 1.000E-04 | 3.000E-02 | 6.547E-06 |
| MEK | 78933 | 1.000E-04 | 3.000E-02 | 6.547E-06 |
| Perc | 127184 | 5.000E-04 | 1.500E-01 | 3.273E-05 |
| Toluene | 108883 | 1.010E-02 | 3.030E+00 | 6.612E-04 |
| 1,1,1-TCA | 71556 | 1.000E-04 | 3.000E-02 | 6.547E-06 |
| TCE | 79016 | 3.000E-04 | 9.000E-02 | 1.964E-05 |
| Xylenes | 1330207 | 4.500E-03 | 1.350E+00 | 2.946E-04 |

Notes:

Emissions from Digester Gas based on the default SDAPCD emission factors F02 - Flares, Digester Gas Fired, Enclosed

Arsenic was included but using the Encina specific emission factor from SDAPCD (https://www.sdapcd.org/content/dam/sdc/apcd/PDF/EmissionsInventoryRequestFormsInstructions/APCD-landfill1-revised-Nov-2nd-2021.pdf)

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# Encina Wastewater Authority PTE
## Diesel ICE- Permit ID 982044

### Fuel Usage

| Device | Max Rating (bhp) | Annual Diesel Fuel Usage (gal/yr) | Max Daily Diesel Fuel Usage (gal/day) | Max Hourly Diesel Fuel Usage (gal/hr) | Operations (hr/yr) |
|---|---|---|---|---|---|
| Diesel ICE | 1,528 | 3903.0 | 1873.4 | 78.06 | 50.00 |

Hourly fuel usage is calculated from the horsepower at full load

Operation (hours/day) 24

### Criteria Pollutant Emissions

| Pollutant | CAS | Emission Factor (g/bhp) | Emission Factor (lb/1000 gal) | Emissions | | |
|---|---|---|---|---|---|---|
| | | | | lb/yr | lb/day | lb/hr |
| Carbon Monoxide (CO) | 42101 | 0.52 | 22.530 | 87.93 | 42.21 | 1.76 |
| Nitrogen Oxides (NOx) | 42603 | 5.82 | 251.030 | 979.77 | 470.29 | 19.60 |
| Sulfur Oxides (SOx) | 42401 | - | 0.213 | 0.83 | 0.40 | 0.02 |
| Total Organic Gases (TOG) | 43101 | 0.29 | 12.333 | 48.14 | 23.11 | 0.96 |
| Volatile Organic Compounds (VOC) | 43104 | 0.37 | 16.090 | 62.80 | 30.14 | 1.26 |
| Total Particulates (TSP) | 11101 | 0.11 | 4.830 | 18.85 | 9.05 | 0.38 |
| Particulate Matter (PM10) | 85101 | 0.11 | 4.830 | 18.85 | 9.05 | 0.38 |

EFs based on SDAPCD inventory - EMISSION FACTORS USED ARE NOX 7.8, CO 0.7, VOC 0.5, PM 0.15 G/KW-HR PER ARB E.O. U-R-035-0121.

### TAC Emissions

| Pollutant | CAS | EF (lb/1000 gal) | Diesel ICE Emissions | |
|---|---|---|---|---|
| | | | lb/yr | lb/hr |
| DieselExhPM | 9901 | 4.83E+00 | 1.89E+01 | - |
| 1,3-Butadiene | 106990 | 2.17E-01 | - | 1.69E-02 |
| Acetaldehyde | 75070 | 7.83E-01 | - | 6.11E-02 |
| Acrolein | 107028 | 3.39E-02 | - | 2.65E-03 |
| Arsenic | 7440382 | 1.60E-03 | - | 1.25E-04 |
| Benzene | 71432 | 1.86E-01 | - | 1.45E-02 |
| Cadmium | 7440439 | 1.50E-03 | - | 1.17E-04 |
| Chlorobenzn | 108907 | 2.00E-04 | - | 1.56E-05 |
| Cr(VI) | 18540299 | 1.00E-04 | - | 7.81E-06 |
| Chromium | 7440473 | 5.00E-04 | - | 3.90E-05 |
| Ethyl Benzene | 100414 | 1.09E-02 | - | 8.51E-04 |
| Formaldehyde | 50000 | 1.73E+00 | - | 1.35E-01 |
| Hexane | 110543 | 2.69E-02 | - | 2.10E-03 |
| Hydrogen Chloride | 7647010 | 1.86E-01 | - | 1.45E-02 |
| Lead | 7439921 | 8.30E-03 | - | 6.48E-04 |
| Manganese | 7439965 | 3.10E-03 | - | 2.42E-04 |
| Mercury | 7439976 | 2.00E-03 | - | 1.56E-04 |
| Naphthalene | 91203 | 1.97E-02 | - | 1.54E-03 |
| Nickel | 7440020 | 3.90E-03 | - | 3.04E-04 |
| PAHs-w/o | 1151 | 3.62E-02 | - | 2.83E-03 |
| Propylene | 115071 | 4.67E-01 | - | 3.65E-02 |
| Selenium | 7782492 | 2.20E-03 | - | 1.72E-04 |
| Toluene | 108883 | 1.05E-01 | - | 8.20E-03 |
| Xylenes | 1330207 | 4.24E-02 | - | 3.31E-03 |
| Zinc | 7440666 | 2.24E-02 | - | 1.75E-03 |
| Copper | 7440508 | 4.10E-03 | - | 3.20E-04 |

Notes:
Annual emissions reported as DPM, hourly emissions reported as speciated toxics

| | | |
|---|---|---|
| Heat Rate, BTU/BHP-hr | 7,000.0 | *SDAPCD* |
| Fuel HHV, BTU/gal | 137,030 | *SDAPCD (19,300 BTU/lb x 7.1 lb/gal)* |
| BSFC, gal/BHP-hr | 0.05108 | *calculated* |
| Ratio, ROG/TOG | 0.88400 | *SDAPCD Annual Calculations* |
| Conversion factor g to lb | 0.002204586 | |

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# Encina Wastewater Authority PTE
## ORF1 Headworks - Permit ID 961446

| Usage | | | | | |
|---|---|---|---|---|---|
| Device | Usage | | | | |
| | million gal/yr | million gal/day | million gal/hr | day/yr | hr/day |
| ORF Headworks | 13,140 | 36.00 | 1.50 | 365 | 24 |

Permit limits to average of 36 million gallon per day

| Emissions | | | | | |
|---|---|---|---|---|---|
| Pollutant | CAS | EF (lb/million gal) | ORF Headworks Emissions | | |
| | | | lb/yr | lb/day | lb/hr |
| Criteria Pollutants | | | | | |
| Total Organic Gases (TOG) | 43101 | 0.188 | 2,470.32 | 6.77 | 2.82E-01 |
| Volatile Organic Compounds (VC | 43104 | 0.16 | 2,102.40 | 5.76 | 2.40E-01 |
| Toxic Air Contaminants | | | | | |
| Pollutant | CAS | EF (lb/million gal) | lb/yr | lb/hr | |
| NH3 | 7664417 | 4.86E-03 | 63.9 | 7.29E-03 | |
| Benzene | 71432 | 9.16E-04 | 12.0 | 1.37E-03 | |
| CS2 | 75150 | 6.31E-03 | 82.9 | 9.47E-03 | |
| Chloroform | 67663 | 7.73E-03 | 101.6 | 1.16E-02 | |
| p-DiClBenzene | 106467 | 3.97E-03 | 52.2 | 5.96E-03 | |
| 1,4-Dioxane | 123911 | 1.69E-02 | 222.1 | 2.54E-02 | |
| EDC | 107062 | 2.96E-02 | 388.9 | 4.44E-02 | |
| H2S | 7783064 | 4.85E-03 | 63.7 | 7.28E-03 | |
| Methylene Chlor | 75092 | 1.72E-02 | 226.0 | 2.58E-02 | |
| Perc | 127184 | 7.63E-03 | 100.3 | 1.14E-02 | |
| Toluene | 108883 | 2.04E-03 | 26.8 | 3.06E-03 | |
| 1,1,1-TCA | 71556 | 2.97E-03 | 39.0 | 4.46E-03 | |
| TCE | 79016 | 1.79E-02 | 235.2 | 2.69E-02 | |
| Xylenes | 1330207 | 4.40E-04 | 5.8 | 6.60E-04 | |
| Methane | 74828 | 7.38E-02 | 969.7 | 1.11E-01 | |

Notes:
Emissions based on the default SDAPCD emission factors P15-W01 - WASTEWATER PROCESSING, ENCINA WWTP, HEADWORKS WITH CONTROLS (from site specific source test data in 1993)

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# Encina Wastewater Authority PTE
## ORF3 Activated Sludge - Permit ID 961446

| Usage | | | | | |
|---|---|---|---|---|---|
| Device | Usage | | | | |
| | mil gal/yr | million gal/day | mil gal/hr | day/yr | hr/day |
| ORF Headworks | 13,140 | 36.00 | 1.50 | 365 | 24 |

Permit limits to average of 36 million gallon per day

| Emissions | | | | | |
|---|---|---|---|---|---|
| Pollutant | CAS | EF (lb/million gal) | ORF Activated Sludge Emissions | | |
| | | | lb/yr | lb/day | lb/hr |
| Criteria Pollutants | | | | | |
| Total Organic Gases (TOG) | 43101 | 0.212 | 2,785.68 | 7.63 | 3.18E-01 |
| Volatile Organic Compounds (VOC) | 43104 | 0.184 | 2,417.76 | 6.62 | 2.76E-01 |
| Toxic Air Contaminants | | | | | |
| Pollutant | CAS | EF (lb/million gal) | lb/yr | lb/hr | |
| NH3 | 7664417 | 4.86E-03 | 63.9 | 7.29E-03 | |
| Benzene | 71432 | 9.16E-04 | 12.0 | 1.37E-03 | |
| CS2 | 75150 | 6.31E-03 | 82.9 | 9.47E-03 | |
| Chlorine | 7782505 | 0.00E+00 | 0.0 | 0.00E+00 | |
| Chloroform | 67663 | 2.01E-02 | 264.1 | 3.02E-02 | |
| p-DiClBenzene | 106467 | 3.97E-03 | 52.2 | 5.96E-03 | |
| 1,4-Dioxane | 123911 | 1.69E-02 | 222.1 | 2.54E-02 | |
| EDC | 107062 | 2.96E-02 | 388.9 | 4.44E-02 | |
| H2S | 7783064 | 9.75E-03 | 128.1 | 1.46E-02 | |
| Methylene Chlor | 75092 | 1.72E-02 | 226.0 | 2.58E-02 | |
| Perc | 127184 | 7.63E-03 | 100.3 | 1.14E-02 | |
| Sodium Hydroxide | 1310732 | 0.00E+00 | 0.0 | 0.00E+00 | |
| Toluene | 108883 | 2.04E-03 | 26.8 | 3.06E-03 | |
| 1,1,1-TCA | 71556 | 2.97E-03 | 39.0 | 4.46E-03 | |
| TCE | 79016 | 1.79E-02 | 235.2 | 2.69E-02 | |
| Xylenes | 1330207 | 4.40E-04 | 5.8 | 6.60E-04 | |
| Methane | 74828 | 8.56E-02 | 1124.8 | 1.28E-01 | |

Notes:

Emissions based on the default SDAPCD emission factors P15-W02 - WASTEWATER PROCESSING, ENCINA WWTP, ACTIVATED SLUDGE AERATION WITH CONTROLS (from site specific source test data in 1993)

Chlorine & Sodium Hydroxide emissions equal zero since the caustic scrubber has been removed from the process

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# Encina Wastewater Authority PTE
## Natural Gas Dryer/RTO Emissions - Permit ID 001016

| Fuel Usage - Dryer/RTO | | | | | | |
|---|---|---|---|---|---|---|
| Fuel | Annual (million $ft^3$/yr) | Daily (million $ft^3$/day) | Hourly (million $ft^3$/hr) | Hourly (scfm) | Rating (MMBtu/hr) | HHV (BTU/scf) |
| Natural Gas Fuel Usage | 140.0 | 0.38 | 0.0160 | 266 | 16.3 | 1020 |

Hourly fuel usage is calculated from the rating at full load

| | |
|---|---|
| Operation (hours/day) | 24 |
| Operation (day/year) | 365 |

| Emissions | | | | | |
|---|---|---|---|---|---|
| Natural Gas | | | | | |
| Pollutant | CAS | EF (lb/mmft$^3$) | RTO Natural Gas Emissions | | |
| | | | lb/yr | lb/day | lb/hr |
| Criteria Pollutants | | | | | |
| Carbon Monoxide (CO) | 42101 | 84 | 11,760.00 | 32.22 | 1.34 |
| Nitrogen Oxides (NOx) | 42603 | 100 | 14,000.00 | 38.35 | 1.60 |
| Sulfur Oxides (SOx) | 42401 | 0.6 | 84.00 | 0.23 | 0.01 |
| Total Organic Gases (TOG) | 43101 | 11 | 1,540.00 | 4.22 | 0.18 |
| Volatile Organic Compounds (VC | 43104 | 5.5 | 770.00 | 2.11 | 0.09 |
| Total Particulates (TSP) | 11101 | 7.6 | 1,064.00 | 2.91 | 0.12 |
| Particulate Matter (PM10) | 85101 | 7.6 | 1,064.00 | 2.91 | 0.12 |
| Toxic Air Contaminants | | | | | |
| **Pollutant** | **CAS** | **EF (lb/mmft$^3$)** | **lb/yr** | **lb/hr** | |
| Benzene | 71432 | 2.10E-03 | 2.940E-01 | 3.356E-05 | |
| DiClBenzenes | 25321226 | 1.20E-03 | 1.680E-01 | 1.918E-05 | |
| Formaldehyde | 50000 | 7.50E-02 | 1.050E+01 | 1.199E-03 | |
| Hexane | 110543 | 1.80E+00 | 2.520E+02 | 2.876E-02 | |
| Naphthalene | 91203 | 6.10E-04 | 8.540E-02 | 9.748E-06 | |
| Toluene | 108883 | 3.40E-03 | 4.760E-01 | 5.433E-05 | |

Notes:

Emissions from Natural Gas combustion of the dryer and RTO combined based on the default SDAPCD emission factors B16 - Boiler, Natural Gas Fired, 0.3 - 100 Mmbtu/Hr, uncontrolled

Permit APCD2011-PTO-001016

Digester Gas emissions are captured in the Biosolids-RTO emissions

Emissions based on full operation on natural gas. Does not account for reduction in usage due to usage of digester gas. (i.e. Can't burn both fuels at same time at full capacity).

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## Encina Wastewater Authority PTE
## Digester Gas Dryer & RTO Emissions - Permit ID 001016

| Usage | | | | |
|---|---|---|---|---|
| Device | Usage | | | |
| | ton/yr | ton/day | ton/hr | hr/day |
| Biosolids Processing | 13,176.5 | 36.1 | 1.50 | 24 |

Daily and annual usage based on permit conditions in dry ton basis.

| Emissions based on Biosolids Processing including Digester Gas Combustion | | | | | | |
|---|---|---|---|---|---|---|
| Pollutant | CAS | EF (lb/ton sludge produced) | Biosolids Processing Emissions | | | EF Basis |
| | | | lb/yr | lb/day | lb/hr | |
| Criteria Pollutants | | | | | | |
| Carbon Monoxide (CO) | 42101 | 0.41 | 5,431.20 | 14.88 | 0.62 | 2021 inventory. Source test Mar 2009 measured 0.62 lb/hr (48.3 ppm @3%O2). Test 10/20/09 measured 43.8 ppm @3%O2 |
| Nitrogen Oxides (NOx) | 42603 | 1.53 | 20,148.00 | 55.20 | 2.30 | 2021 inventory. Source test Mar 2009 measured 2.3 lb/hr (109 ppm @3%O2). Test 10/20/09 measured 65.1 ppm @3%O2 |
| Sulfur Oxides (SOx) | 42401 | 0.28 | 3,635.40 | 9.96 | 0.42 | 2021 inventory - matches 2005 & 2009 applications |
| Total Organic Gases (TOG) | 43101 | 0.45 | 5,939.28 | 16.27 | 0.68 | Same as VOC |
| Volatile Organic Compounds (VOC) | 43104 | 0.45 | 5,939.28 | 16.27 | 0.68 | 2021 inventory. Like Kind Replacement app listed 0.68 lb/hr [Source test Mar 2009 measured 0.17 lb/hr (12.4 ppm @3%O2)] |
| Total Particulates (TSP) | 11101 | 1.21 | 15,899.40 | 43.56 | 1.81 | 2021 inventory - matches 2005 & 2009 applications |
| Particulate Matter (PM10) | 85101 | 1.21 | 15,899.40 | 43.56 | 1.81 | 2021 inventory - matches 2005 & 2009 applications |

| Toxic Air Contaminants | | | | |
|---|---|---|---|---|
| Pollutant | CAS | EF (lb/ton sludge produced) | lb/yr | lb/hr |
| Ammonia | 7664417 | 1.46E-01 | 1.93E+03 | 2.20E-01 |
| Arsenic (inorganic) | 7440382 | 2.29E-05 | 3.02E-01 | 3.45E-05 |
| Benzene | 71432 | 4.91E-04 | 6.47E+00 | 7.39E-04 |
| Cadmium | 7440439 | 1.32E-05 | 1.73E-01 | 1.98E-05 |
| Carbon Disulfide | 75150 | 5.08E-07 | 6.69E-03 | 7.64E-07 |
| Chlorobenzene | 108907 | 3.54E-06 | 4.67E-02 | 5.33E-06 |
| Chromium, Hexavalent | 18540299 | 1.81E-07 | 2.39E-03 | 2.73E-07 |
| Copper | 7440508 | 1.06E-03 | 1.39E+01 | 1.59E-03 |
| p-Dichlorobenzene {1,4-Dichlorobenzene | 106467 | 3.19E-05 | 4.20E-01 | 4.80E-05 |
| Ethyl Benzene | 100414 | 1.78E-05 | 2.34E-01 | 2.67E-05 |
| Ethylene Dichloride | 107062 | 2.48E-05 | 3.27E-01 | 3.73E-05 |
| Formaldehyde | 50000 | 3.62E-03 | 4.77E+01 | 5.45E-03 |
| Hexane | 110543 | 1.79E-04 | 2.36E+00 | 2.69E-04 |
| Hydrogen Chloride | 7647010 | 1.14E-02 | 1.51E+02 | 1.72E-02 |
| Hydrogen Sulfide | 7783064 | 6.65E-02 | 8.76E+02 | 1.00E-01 |
| Lead (inorganic) | 7439921 | 3.41E-05 | 4.49E-01 | 5.13E-05 |
| Mercury (inorganic) | 7439976 | 1.99E-06 | 2.62E-02 | 2.99E-06 |
| Methyl Tert Butyl Ether | 1634044 | 9.77E-08 | 1.29E-03 | 1.47E-07 |
| Methylene Chloride | 75092 | 1.78E-06 | 2.34E-02 | 2.67E-06 |
| Methyl Ethyl Ketone | 78933 | 1.78E-06 | 2.34E-02 | 2.67E-06 |
| Nickel (except nickel oxide) | 7440020 | 4.13E-05 | 5.44E-01 | 6.21E-05 |
| Perchloroethylene | 127184 | 8.84E-06 | 1.17E-01 | 1.33E-05 |
| Selenium | 7782492 | 6.71E-08 | 8.85E-04 | 1.01E-07 |
| Styrene | 100425 | 8.31E-08 | 1.10E-03 | 1.25E-07 |
| Toluene | 108883 | 1.79E-04 | 2.36E+00 | 2.69E-04 |
| Trichloroethylene | 79016 | 5.32E-06 | 7.01E-02 | 8.00E-06 |
| 1,1,1-Trichloroethane | 71556 | 1.78E-06 | 2.34E-02 | 2.67E-06 |
| Xylenes (mixed) | 1330207 | 7.98E-05 | 1.05E+00 | 1.20E-04 |
| Zinc | 7440666 | 1.81E-03 | 2.39E+01 | 2.73E-03 |

Notes:
Per SDAPCD, the EFs are based on a combination of source testing (March 2009), previous applications, and digester gas boiler EF, using the maximum EF. The source test report not available.
Engineering evalutation APCD2005-APP-983830 May 31, 2005

Criteria pollutant emission factors provided by the applicant, developed from testing of similar equipment, and guaranteed by the manufacturer were used. Toxic metal speciation of digester sludge was obtained from averaging EWA's digester sludge samples. The speciation was applied to the PM-10 emission factor to calculate emissions. The estimates provided by the applicant were

Engineering evalutation APCD2009-APP-000770 April 23, 2010 - listed criteria pollutant and TAC emissions which match APP-983830, and are the basis for the EFs above
EFs from 2021 inventory
Emissions are based on full operation on digester gas. Does not account for reduction in usage due to usage of natural gas.
(i.e. Can't burn both fuels at same time at full capacity).
Emissions from the combination of digester gas combustion in the RTO (CD1) and the Venturi scrubber controlling the particulate from biosolids processing (CD2)
Permit APCD2011-PTO-001016

Yorke ENGINEERING, LLC
www.YorkeEngr.com



# Encina Wastewater Authority PTE
## ORF2 Biosolids Processing- Permit ID 001016

| Usage | | | |
|---|---|---|---|
| Device | Usage | | |
| | ton/yr | ton/day | ton/hr |
| Biosolids Processing | 13,176.5 | 36.10 | 1.50 |

Daily and annual usage based on permit conditions in dry ton basis.

| Emissions | | | | | |
|---|---|---|---|---|---|
| Pollutant | CAS | EF (lb/ton sludge produced) | Biosolids Processing Emissions | | |
| | | | lb/yr | lb/day | lb/hr |
| Criteria Pollutants | | | | | |
| Total Organic Gases (TOG) | 43101 | 0.69 | 9,092 | 24.91 | 1.04 |
| Volatile Organic Compounds (VC | 43104 | 0.07 | 922 | 2.53 | 0.11 |
| Total Particulates (TSP) | 11101 | 0.027 | 355.77 | 0.97 | 0.041 |
| Particulate Matter (PM10) | 85101 | 0.025 | 327.30 | 0.90 | 0.037 |

| Toxic Air Contaminants | | | | |
|---|---|---|---|---|
| Pollutant | CAS | EF (lb/ton sludge produced) | Biosolids Processing Emissions | |
| | | | lb/yr | lb/hr |
| NH3 | 7664417 | 8.40E-02 | 1,106.8 | 1.26E-01 |
| Benzene | 71432 | 8.12E-05 | 1.07 | 1.22E-04 |
| EDC | 107062 | 1.49E-04 | 1.96 | 2.24E-04 |
| H2S | 7783064 | 6.86E-04 | 9.04 | 1.03E-03 |
| Methylene Chloride | 75092 | 1.84E-04 | 2.42 | 2.77E-04 |
| Toluene | 108883 | 1.15E-03 | 15.15 | 1.73E-03 |
| Xylenes | 1330207 | 1.94E-04 | 2.56 | 2.92E-04 |
| Sodium Hydroxide | 1310732 | 0.00E+00 | 0.00 | 0.00E+00 |

Notes:
ORF2 - (CD3) consists of Biological reduction tower and/or activated carbon adsorber system
- receives material handling exhaust from dual throat wet scrubber (CD4)
- Pellet silo and offloading system baghouse (CD5)

VOC & TAC Emissions based on the default SDAPCD emission factors P17-S02 - GENERAL SLUDGE PROCESSING - AFTER CONTROLS (based on Encina Emission testing of 2 water scrubbers in 1991 & 1993)

Sodium Hydroxide emissions excluded as this chemical is no longer used in any of the scrubbers onsite.
PM EFs based on pariculate matter handling O23-S01, pneumatically controlled silo loadout
Permit APCD2011-PTO-001016

# APPENDIX F – FEE ESTIMATE

**SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT**

# APPLICATION FEE ESTIMATE

| | | | |
|---|---|---|---|
| Applicant Site ID/EIF ID: | *APCD1984-SITE-03370* | Reason for Submittal: | Title V - Initial Permit |
| Equipment Type: | Initial Title V permit | | |
| Applicant DBA: | *Encina Wastewater Authority* | Existing Site? | Yes |
| Affected Permit Number: | *NA* | Estimate Date: | 12/14/2023 |
| Equipment Description: **(See footnote 8)** | *Wastewater Treatment Facility* | | |

| ACTIVITY | FEE CLASSIFICATION | QUANTITY | UNIT COST | SUBTOTAL | TRUST (APCD USE) |
|---|---|---|---|---|---|
| **Initial Evaluation Fee** | | | | | |
| Base Engineering Evaluation | T&M Engineering Services | 60.0 | $274.00 | $16,440.00 | TIV |
| | Fixed Fee | | | | EFX |
| **Additional Evaluation and Processing Fees (Rule 40(d)(5))** | | | | | |
| New Source Review | T&M Engineering Services | | | | NSR |
| | T&M Monitoring Services | | | | AQI |
| Toxics New Source Review (Health Risk Assessment) | HRA Base Estimate (Engineering & Monitoring Services) | | | | TNS |
| NESHAPS/ATCM/NSPS | T&M Engineering Services | | | | HAP |
| CEQA | T&M Engineering Services | | | | CEQ |
| Source Testing | Fixed Fee/T&M Monitoring Services | | | | STF |
| **Miscellaneous Fees** | | | | | |
| Processing Fee (Rule 40(d)(1)(ii)) | | 1.0 | $113 | $113.00 | EFX |
| Annual Operating Fee (Rule 40(e)(2)(ii)) | | | | $0.00 | REN |
| Emissions Fee (Rule 40(e)(2)(iv)) | | | | $0.00 | EMF |
| Split Payment Fee | | | | | |

ESTIMATE TOTAL: $16,553.00

*NOTES:*

*(1) This document must be submitted with your application forms and is subject to review by District staff for accuracy.*

*(2) The fees contained in this estimate are are based on APCD Rule 40. Final fee may be more or less than this estimate (see Rule 40(d)(1)(iii)).*

*(3) Emissions determined to be greater than 5 tons per year will be charged a emission fee on a ton per year basis. (see Rule 40 (e)(2)(iv)(A))*

*(4) Fees paid by credit card will be assessed a 2.19% processing fee (see Rule 40(c)(5))*

*(5) Federal government payments made through DFAS: Please reference the above liste Site ID Record number in your DFAS submittal.*

*(6) This estimate is valid only for applications received by the District by June 30, 2024*

## APPENDIX G – PART 70 CROSS-REFERENCE MATRIX

**Table G-1: Part 70 Cross-Reference Matrix**

| Citation 40 CFR 70.5 | Requirement | Location in Application |
|---|---|---|
| (c)(1) | Identifying information, including company name and address (or plant name and address if different from the company name), owner's name and agent, and telephone number and names of plant site manager/contact. | Section 1.2 and Appendix A |
| (c)(2) | A description of the source's processes and products [by Standard Industrial Classification (SIC) Code], including those associated with any proposed AOS identified by the source. | Sections 1.1 and 2.1 |
| (c)(3) | The following emission-related information: | – |
| (c)(3)(i) | All emissions of pollutants for which the source is major, and all emissions of regulated air pollutants. A permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit, except where such units are exempted under this paragraph (c) of this section. The permitting authority shall require additional information related to the emissions of air pollutants sufficient to verify which requirements are applicable to the source, and other information necessary to collect any permit fees owed under the fee schedule approved pursuant to §70.9(b) of this part. | Section 3.0 and Appendix E |
| (c)(3)(ii) | Identification and description of all points of emissions described in paragraph (c)(3)(i) of this section in sufficient detail to establish the basis for fees and applicability of requirements of the Act. | Section 2.2 and Appendix E |
| (c)(3)(iii) | Emissions rate in tons per year (tpy) and in such terms as are necessary to establish compliance consistent with the applicable standard reference test method. For emissions units subject to an annual emissions cap, tpy can be reported as part of the aggregate emissions associated with the cap, except where more specific information is needed, including where necessary to determine and/or assure compliance with an applicable requirement. | Section 3.0 and Appendix E |
| (c)(3)(iv) | The following information to the extent it is needed to determine or regulate emissions: fuels, fuel use, raw materials, production rates, and operating schedules. | Section 2.0 and Appendix E |
| (c)(3)(v) | Identification and description of air pollution control equipment and compliance monitoring devices or activities. | Section 2.2 and Appendix C |
| (c)(3)(vi) | Limitations on source operation affecting emissions or any work practice standards, where applicable, for all regulated pollutants at the Part 70 source. | Appendices C |
| (c)(3)(vii) | Other information required by any applicable requirement (including information related to stack height limitations developed pursuant to Section 123 of the Act). | Section 4.0 |

| Citation 40 CFR 70.5 | Requirement | Location in Application |
|---|---|---|
| (c)(3)(viii) | Calculations on which the information in paragraphs (c)(3)(i) through (vii) of this section is based. | Appendix E |
| (c)(4) | The following air pollution control requirements: | -- |
| (c)(4)(i) | Citation and description of all applicable requirements. | Section 4.0 |
| (c)(4)(ii) | Description of or reference to any applicable test method for determining compliance with each applicable requirement. | Appendix B & C |
| (c)(5) | Other specific information that may be necessary to implement and enforce other applicable requirements of the Act or of this part or to determine the applicability of such requirements. | Section 4.0, Appendix B & C |
| (c)(6) | An explanation of any proposed exemptions from otherwise applicable requirements. | Form 1401-H1, Appendix B |
| (c)(7) | Additional information as determined to be necessary by the permitting authority to define proposed AOSs identified by the source pursuant to §70.6(a)(9) of this part or to define permit terms and conditions implementing any AOS under §70.6(a)(9) or implementing §70.4(b)(12) or §70.6(a)(10) of this part. The permit application shall include documentation demonstrating that the source has obtained all authorization(s) required under the applicable requirements relevant to any proposed AOSs, or a certification that the source has submitted all relevant materials to the appropriate permitting authority for obtaining such authorization(s). | Section 4.5 |
| (c)(8) | A compliance plan for all Part 70 sources that contains all the following: | -- |
| (c)(8)(i) | A description of the compliance status of the source with respect to all applicable requirements. | Section 4.0 |
| (c)(8)(ii) | A description as follows: | -- |
| (c)(8)(ii)(A) | For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements. | Form 1401-I, Appendix A |
| (c)(8)(ii)(B) | For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. | Form 1401-I, Appendix A |
| (c)(8)(ii)(C) | For requirements for which the source is not in compliance at the time of permit issuance, a narrative description of how the source will achieve compliance with such requirements. | Not Applicable |
| (c)(8)(ii)(D) | For applicable requirements associated with a proposed AOS, a statement that the source will meet such requirements upon implementation of the AOS. If a proposed AOS would implicate an applicable requirement that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. | Not Applicable |

| Citation 40 CFR 70.5 | Requirement | Location in Application |
|---|---|---|
| (c)(8)(iii) | A compliance schedule as follows: | -- |
| (c)(8)(iii)(A) | For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements. | Form 1401-I, Appendix A |
| (c)(8)(iii)(B) | For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. A statement that the source will meet in a timely manner applicable requirements that become effective during the permit term shall satisfy this provision, unless a more detailed schedule is expressly required by the applicable requirement. | Form 1401-I, Appendix A |
| (c)(8)(iii)(C) | A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. | Not Applicable |
| (c)(8)(iii)(D) | For applicable requirements associated with a proposed AOS, a statement that the source will meet such requirements upon implementation of the AOS. If a proposed AOS would implicate an applicable requirement that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. A statement that the source will meet in a timely manner the applicable requirements that become effective during the permit term will satisfy this provision, unless a more detailed schedule is expressly required by the applicable requirement. | Not Applicable |
| (c)(8)(iv) | A schedule for submission of certified progress reports no less frequently than every 6 months for sources required to have a schedule of compliance to remedy a violation. | Not Applicable |
| (c)(8)(v) | The compliance plan content requirements specified in this paragraph shall apply and be included in the acid rain portion of a compliance plan for an affected source, except as specifically superseded by regulations promulgated under Title IV of the Act with regard to the schedule and method(s) the source will use to achieve compliance with the acid rain emissions limitations. | Appendix C |

| Citation 40 CFR 70.5 | Requirement | Location in Application |
|---|---|---|
| (c)(9) | Requirements for compliance certification, including the following: | -- |
| (c)(9)(i) | A certification of compliance with all applicable requirements by a responsible official consistent with paragraph (d) of this section and Section 114(a)(3) of the Act. | Form 1401-I, Appendix A |
| (c)(9)(ii) | A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods. | Appendix C |
| (c)(9)(iii) | A schedule for submission of compliance certifications during the permit term, to be submitted no less frequently than annually, or more frequently if specified by the underlying applicable requirement or by the permitting authority. | Appendix C |
| (c)(9)(iv) | A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act. | Form 1401-I, Appendix A |
| (c)(10) | The use of nationally standardized forms for acid rain portions of permit applications and compliance plans, as required by regulations promulgated under Title IV of the Act. | Not Applicable |