

---

## **San Diego County Air Pollution Control District**

10124 Old Grove Rd  
San Diego, CA 92131-1649  
(858) 586-2600

---

### **TITLE V OPERATING PERMIT APCD2010-TVP-00025**

**Issued To:**

Otay Mesa Energy Center, LLC  
Site ID # APCD1999-SITE-10882

**Site Address:**

606 De La Fuente Court  
San Diego, CA 92154  
(619) 210-1207

**Mailing Address**

606 De La Fuente Court  
San Diego, CA 92154

**Responsible Official** – Dale Donmoyer, Plant Manager

**Facility Contact** – Dale Donmoyer

**Permit Information Contact** – Morgan Day – EHS Specialist

---

Issued by the San Diego County Air Pollution Control District on \_\_\_\_\_.

This Title V Operating Permit expires on \_\_\_\_\_.

**Signed by:**

Mohsen Nazemi, MS, PE.

Chief, Engineering Division

San Diego County Air Pollution Control District

**Date** \_\_\_\_\_

# TABLE OF CONTENTS

	PAGE
PREAMBLE	1
SECTION I. REGULATION XIV PERMIT REQUIREMENTS	2
A. ADMINISTRATIVE PERMIT TERMS	2
B. RENEWAL REQUIREMENTS AND TERMS	3
C. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS	3
D. GENERAL PERMIT REQUIREMENTS	5
SECTION II. FACILITY-WIDE REQUIREMENTS	6
A. GENERAL PERMIT PROGRAM APPLICABLE REQUIREMENTS	6
B. GENERAL PROHIBITORY APPLICABLE REQUIREMENTS	6
C. PERMIT SHIELDS	6
D. ADDITIONAL TERMS	7
E. TITLE IV PERMIT (ACID RAIN)	7
SECTION III. EMISSION UNIT REQUIREMENTS	8
A. DISTRICT PERMITTED EMISSION UNITS	8
B. REGISTERED AND LEASED EMISSION UNITS	8
C. INSIGNIFICANT EMISSION UNITS AND ACTIVITIES	8
SECTION IV. DISTRICT-ONLY PROVISIONS	9
SECTION V. APPENDICES	A-1
A. DISTRICT PERMITS AND REGISTERED UNITS	A-1
B. RULE REFERENCE TABLE	B-1
C. ABBREVIATIONS	C-1

## PREAMBLE

This Title V Operating Permit consists of this document and all appendices, including District permits incorporated by reference. The facility is subject to all applicable requirements identified within this permit, unless a specific permit shield is specified within this permit. If an applicable requirement is omitted from this permit, the facility is still obligated to comply with such an applicable requirement. The permittee must comply with all of the terms listed in each section of this permit.

This permit contains five major sections: Section I contains the Regulation XIV requirements required to carry out the Title V Operating Permit program. Section II contains the requirements that are applicable to the facility on a facility-wide basis. Section III contains the requirements that are applicable to individual emission units which have been issued District permits or District registration, or which have been determined to be insignificant emission units. Section IV contains terms and requirements pertaining to variance procedures and compliance schedules, if applicable to the facility. Section V contains three appendices. Appendix A contains all the District permits incorporated within this permit. Appendix B contains a table of all SIP approved and District approved rules. Appendix C contains a list of abbreviations used within this permit.

Copies of the Rules and Regulations of the Air Pollution Control District of San Diego County and the Rules and Regulations for San Diego County contained in the State Implementation Plan (SIP) approved by EPA may be obtained at the District. Copies are also available for review at the following locations:

SD Air Pollution Control District (Library & Public Review Area)	County of SD Law Library (Downtown)	County of SD Law Library (North County)
10124 Old Grove Rd	1105 Front St.	325 S. Melrose Suite 300
San Diego, CA 92131-1649	San Diego, CA 92101	Vista, CA 92083
(858) 586-2600	(619) 531-3900	(760) 940-4386

The current Rules and Regulations of the Air Pollution Control District of San Diego County may also be viewed and downloaded using the following internet address:

[www.sdapcd.org](http://www.sdapcd.org)

The following addresses should be used to submit any certifications, reports or other information required by this permit:

SD Air Pollution Control District Compliance Division 10124 Old Grove Rd San Diego, CA 92131-1649	USEPA Region IX Director of the Air Division Attn: Air-3 75 Hawthorne Street San Francisco, CA 94105
--	---

## **SECTION I. REGULATION XIV PERMIT REQUIREMENTS**

### **A. ADMINISTRATIVE PERMIT TERMS**

1. This Title V Operating Permit expires 5 years from date of issuance. [Rule 1410]
2. Commencing or continuing operation under this permit to operate shall be deemed acceptance of all terms and conditions specified within this permit. This does not limit the right of the applicant to seek judicial review or seek federal EPA review of a permit term or condition. [Rule 1421]
3. This permit may be modified, revoked, reopened and reissued, or terminated by the District for cause. [Rule 1421]
4. The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay the applicability of any permit condition. [Rule 1421]
5. This permit does not convey any property rights of any sort, or any exclusive privilege. [Rule 1421]
6. The need for the permittee to halt or reduce a permitted activity in order to maintain compliance with any term or condition of this permit shall not be a defense for any enforcement action brought as a result of a violation of any such term or condition. [Rule 1421]
7. In the event of challenge to any portion of this permit, the rest of the permit remains valid. [Rule 1421]
8. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any applicable requirement in this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [Rule 1421]

**B. RENEWAL REQUIREMENTS AND TERMS**

1. The permittee shall submit a complete application for renewal of this permit to the Air Pollution Control Officer at least 12 months, but not more than 18 months, prior to permit expiration. [Rule 1410]
2. If an administratively complete application for renewal of this permit has been submitted to the Air Pollution Control Officer within the timeframe specified in Section I.B.1. , the terms and conditions of this permit shall remain in effect and the source may continue operations under these terms and conditions until the Air Pollution Control Officer issues or denies the permit renewal. [Rule 1410]

**C. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS**

1. The permittee shall provide the District access to the facility and all equipment subject to this permit, and access to all required records pursuant to California Health and Safety Code Section 41510. [Rule 1421]
2. The permittee shall maintain all records required by this permit including any calibration, maintenance, and other supporting information and copies of all reports required by this permit for at least five (5) years from their date of creation. Such records shall be maintained on-site for a minimum of three years. This requirement controls and supersedes any other record retention requirement under this permit as it pertains to, and is required by, District Rule 1421 and Title V of the Clean Air Act. [Rule 1421]
3. Records required by this permit shall be considered as being maintained "on-site" if records for the previous 12-month period are available at the stationary source and any additional records are maintained at a location to be specified by the source and made readily available to the District upon request. [Rule 21]
4. The permittee shall submit monitoring and recordkeeping summary reports and all other monitoring and recordkeeping reports required by this permit to the District every six months, unless a shorter time frame is required by a specific permit condition contained in Section III of this permit. Unless other dates are specified in Section III, reports for data required to be collected from January 1 through June 30, shall be submitted no later than September 1 of the calendar year, and reports for data required to be collected from July 1 through December 31, shall be submitted no later than March 1 of the following calendar year. The report for the final six months of the year may be consolidated with the annual compliance certification required below. All instances of noncompliance from federally enforceable applicable requirements shall be clearly identified in these reports. (Timely completion of District Certification Reports Form 1401-J1 and Form 1401-J2, if applicable, and all indicated attachments, fulfills the requirements of this condition.) [Rule 1421]
5. Each calendar year, the permittee shall submit to the District and to the federal EPA an annual compliance certification, in a manner and form approved in writing by the District, for the previous calendar year that includes the identification of each applicable term or condition of the final permit for which the compliance status is being certified, the compliance status and whether the facility was in continuous or intermittent compliance during the previous calendar

year, identification of the method used to determine compliance during the previous calendar year, and any other information required by the District to determine the compliance status.

The annual compliance certification for a calendar year shall be submitted no later than March 1 of the following calendar year and may be consolidated with the monitoring and recordkeeping report for the last six months of the year for which compliance is certified. (Timely completion of District Certification Reports Form 1401-J1 and Form 1401-J2, if applicable, and all indicated attachments, fulfills the requirements of this condition.) [Rule 1421]

6. Any report submitted to the District or federal EPA pursuant to this permit to comply with a federally enforceable applicable requirement, shall be certified by a responsible official stating that, based on information and belief formed after reasonable inquiry, the report is true, accurate and complete. [Rule 1421]
7. The permittee shall make any trade secret designations of records, documents, or other information submitted to the District or federal EPA in accordance with District Rule 176. [Rule 176]
8. The permittee shall promptly, as defined here, report all deviations from any and all federally enforceable permit terms and conditions including: (a) breakdowns, whether or not they result in excess emissions, (b) deviations that result in excess emissions of any regulated air pollutant, and (c) deviations from monitoring, recordkeeping, reporting and other administrative requirements that do not result in excess emissions. For deviations that result from breakdowns under District Rule 98, the permittee shall report the breakdown within two hours of detection of the breakdown and provide a follow-up written report after corrective actions have been taken. For deviations not due to a breakdown but which result in excess emissions, the permittee shall report the deviation within ten calendar days of detection. For all other deviations where no specific time frame for reporting a deviation applies, the permittee shall report the deviation at the time of the next semi-annual monitoring summary or annual compliance certification, whichever occurs first. If an underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, then the criteria for the applicable requirement shall apply. The report must include the probable cause of such deviations and any corrective actions or preventive measures taken. [Rule 1421]

#### D. GENERAL PERMIT REQUIREMENTS

1. The permittee shall comply with all terms and conditions of this permit. This permit consists of this document and Appendices A, B and C. Any noncompliance with the federally applicable terms and conditions of this permit shall constitute a violation of the federal Clean Air Act. Noncompliance with any federally applicable permit term or condition of this permit is grounds for federal enforcement action or enforcement action by the District; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Noncompliance with any District permit term or condition is grounds for enforcement action by the District. [Rule 1421]
2. Upon a written request by the District, the permittee shall furnish to the District any information needed to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit; any information required to determine compliance with this permit; or any records required to be maintained pursuant to this permit. Such information shall be provided within a reasonable time, as specified within the District's written request. [Rule 1421]
3. The permittee shall pay annual fees in accordance with District Rule 40. [Rule 1421]
4. The permittee shall provide access, facilities, utilities and any necessary safety equipment for source testing and inspection upon request from the District. [Rule 19]
5. This permit shall be maintained on-site at all times and be made available to the District upon request. [Rule 1410]
6. The Rule Reference Table provided in Appendix B shall be used to determine whether a cited rule is a federally and District enforceable requirement or a District only enforceable requirement. Any new or revised District rule shall not be considered federally enforceable until the rule is approved by EPA into the SIP. In cases where SIP approval is pending for a revised District rule, the rule citation shall refer to both the current SIP approved rule and the revised District rule. [Rule 1421]

Requirement	Rule Citation	Title
SDC APD Rule IV	27	Specific Components
SDC APD Rule IV	22	Particulate Matter
SDC APD Rule IV	21	Ozone
SDC APD Rule IV	20	Volatile Organic Compounds
SDC APD Rule II	19.2	Continuous Emission Monitoring Systems



## SECTION II. FACILITY-WIDE REQUIREMENTS

### A. GENERAL PERMIT PROGRAM APPLICABLE REQUIREMENTS

The permittee shall comply with the applicable requirements specified in the Rules and Regulations cited below, unless specifically exempted by the same Rule or Regulation.

Regulation	Rule Citation	Title
SDCAPCD Reg. II	10	Authority to Construct Required
SDCAPCD Reg. II	19	Provision of Sampling & Testing Facilities
SDCAPCD Reg. II	19.3	Emission Information
SDCAPCD Reg. II	20, 20.1, 20.2, 20.3	New Source Review (NSR)
SDCAPCD Reg. II	21	Permit Conditions
SDCAPCD Reg. II	24	Temporary Permit to Operate
SDCAPCD Reg. II	25	Appeals
SDCAPCD Reg. IV	60	Circumvention
SDCAPCD Reg. IV	71	Abrasive Blasting
SDCAPCD Reg. V	98	Breakdown Conditions: Emergency Variance
SDCAPCD Reg. VI	101	Burning Control
SDCAPCD Reg. VIII	131	Stationary Source Curtailment Plan
40 CFR Part 68	Part 68	Risk Management Plan (Ammonia Storage)
40 CFR Part 82	Subpart B	Servicing of Motor Vehicle Air Conditioners
40 CFR Part 82	Subpart F	Recycling and Emission Reducing
40 CFR Part 89	Part 89	VOC Standards for Consumer Products

### B. GENERAL PROHIBITORY AND OTHER MISC. REQUIREMENTS

The permittee shall comply with the generally applicable requirements specified in the Rules and Regulations cited below, unless specifically exempted by the same Rule or Regulation. These generally applicable requirements apply on a facility-wide basis to all permitted equipment, registered equipment, and insignificant activities. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more permitted emission units, the requirement is also included in Section III.A. of this permit.

Regulation	Rule Citation	Title
SDCAPCD Reg. II	19.2	Continuous Emission Monitoring Systems
SDCAPCD Reg. IV	50	Visible Emissions
SDCAPCD Reg. IV	51	Nuisance
SDCAPCD Reg. IV	52	Particulate Matter
SDCAPCD Reg. IV	53	Specific Contaminants



SDCAPCD Reg. IV	62	Sulfur Content of Fuels
SDCAPCD Reg. IV	67.0.1	Architectural Coatings
SDCAPCD Reg. IV	67.17	Storage of Organic Materials Containing VOC
SDCAPCD Reg. XII	1200	Toxic Air Contaminants – New Source Review
SDCAPCD Reg. XII	1206*	Asbestos Removal, Renovation, and Demolition
40 CFR Part 60	Subpart A	NSPS General Provisions
40 CFR Part 63	Subpart A	NESHAP General Provisions
40 CFR Part 61	Subpart M*	NESHAP - Asbestos
40 CFR Part 72	Part 72	Acid Rain Program
40 CFR Part 73	Part 73	Sulfur Dioxide Allowance System

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

#### C. PERMIT SHIELDS

The applicant has not requested any permit shields from any rules.

#### D. ADDITIONAL TERMS

1. Any emission unit described in this Title V operating permit as being fired on natural gas, shall only use Public Utility Commission (PUC)-quality natural gas, unless the emission unit permit specifies otherwise. [Rules 53, 62]
2. The permittee shall comply with all applicable requirements, including but not limited to, those applicable requirements of 40 CFR Parts 60 and 63.
3. Records required by this permit shall be considered as being maintained “on site” if records required for the last 12-months period are available at the stationary source and any additional records are maintained at the Otay Mesa Energy Center located at 606 De La Fuente Court, San Diego, CA 92154, and made readily available to the District upon request [Rule 21].
4. The Permittee shall fire quarterly emission reports in accordance with Rule 19.2. [Rule 19.2]

#### E. TITLE IV (ACID RAIN) REQUIREMENTS

1. The permittee shall not exceed any emission allowances that are lawfully held under Title IV of the federal Clean Air Act or the regulations promulgated thereunder. [Rule 1421]
2. The permittee shall install, operate, and maintain equipment for the determination of CO<sub>2</sub> and NO<sub>x</sub> emissions on each applicable exhaust stack in accordance with 40 CFR Parts 72 and 75. [40 CFR Parts 72 and 75.10(a)]
3. The permittee shall prepare and maintain onsite a written Quality Assurance program in accordance with 40 CFR Part 75, Appendix B for the continuous monitoring of NO<sub>x</sub> emissions from each applicable exhaust stack. The components of the Quality Assurance program include, but are not limited to, procedures for daily calibration testing, quarterly linearity testing, recordkeeping and reporting implementation, and relative accuracy testing. [40 CFR Parts 72 and 75]

4. The permittee shall monitor SO<sub>2</sub> emissions in accordance with 40 CFR Part 72 and 75. [40 CFR Parts 72 and 75]
5. The permittee shall submit quarterly electronic data reports to EPA for the emissions from each applicable exhaust stack in accordance with 40 CFR Part 75. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. [40 CFR Part 75]

### SECTION III. EMISSION UNIT REQUIREMENTS

#### A. EMISSION UNITS

Facility Emission Units (EU) are listed below and attached in Appendix A, including all terms and conditions of such permits, and comprise the emission unit portion of this Title V Operating Permit.

EU Reference	Source
APCD2011-PTO-000947	Power Station #1
APCD2011-PTO-000948	Power Station #2

#### B. REGISTERED AND LEASED EMISSION UNITS

The permittee shall comply with the source specific applicable requirements specified in the Rules and Regulations cited below for all registered emission units, unless specifically exempted by the same Rule or Regulations. Note that no registered or leased units were listed in the application.

Regulation	Rule Citation	Title
SDCAPCD Reg. II	19.2	Continuous Emission Monitoring Requirements
SDCAPCD Reg. II	NSR	New Source Review
SDCAPCD Reg. IV	52	Particulate Matter
SDCAPCD Reg. IV	53	Specific Contaminants
SDCAPCD Reg. IV	54	Dust and Fumes
SDCAPCD Reg. IV	62	Sulfur Content of Fuels
SDAPCD Reg. IV	67.6	Solvent Cleaning Operations
SDAPCD Reg. IV	69.4	Stationary Reciprocating Internal Combustion Engines
SDAPCD Reg. IV	69.4.1	Stationary Reciprocating Internal Combustion Engines

#### C. INSIGNIFICANT EMISSION UNITS AND ACTIVITIES

The permittee shall comply with the applicable requirements, including those specified in the District Rules and Regulations cited below, for any Insignificant Units located at this facility that are listed at District Regulation XIV, Appendix-A.

Regulation	Rule Citation	Title
SDCAPCD Reg. IV	52	Particulate Matter
SDCAPCD Reg. IV	53	Specific Contaminants
SDCAPCD Reg. IV	54	Dust and Fumes

SDCAPCD Reg. IV	62	Sulfur Content of Fuels
SDAPCD Reg. IV	66	Organic Solvents

## **SECTION IV. DISTRICT-ONLY PROVISIONS**

### **VARIANCE PROCEDURES**

The permittee may seek relief from District enforcement action from District-only provisions in the event of a breakdown in accordance with District Rule 98. Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance does not provide relief from federal enforcement or citizen's suits. [Rule 98]

## SECTION V. APPENDICES

### APPENDIX A: EMISSION UNITS – SPECIFIC CONDITIONS

EU Reference	Source
APCD2011-PTO-000947	Power Station #1
APCD2011-PTO-000948	Power Station #2

## APPENDIX B. RULE REFERENCE TABLE

Rule Citation <sup>1</sup>	Rule Title	A/R <sup>2</sup>	District Adoption Date <sup>3</sup>	SIP FR Approval Date
	REGULATION I - GENERAL PROVISIONS			
1	Title	F	04/30/80	09/28/81
2	Definitions	F	06/30/99	02/03/00 <sup>4</sup>
4	Review of Rules	F	01/01/70†	09/22/72
5	Authority to Arrest	F	03/24/76†	05/11/77
	REGULATION II - PERMITS			
10	Permits Required	F	04/27/00	03/11/98
10.1††	NSPS & NESHAP Requirements	D	11/8/76	N/A
11	Exemption from Rule 10 Permit Requirements	D/F	05/09/12	Pending
12	Registration of Specified Equipment	D	11/15/00	N/A
12.1	Portable Equipment Registration	D	05/21/97	N/A
14	Applications	F	04/30/80	09/28/81
15	Permit Process-Public Notifications	D/F	09/18/90	Pending
17	Cancellation of Applications	F	11/25/81	03/11/98
18	Action on Applications	F	01/17/72	09/22/72
18	Action on Applications	D/F	09/18/90	Pending
19	Provision of Sampling and Testing Facilities Requirements	F	04/06/93	03/11/98
19.1††	NSPS & NESHAP Provision of Sampling and Testing Facilities Requirements	D	11/08/76	N/A
19.2	Continuous Emission Monitoring Requirements	F	01/12/79	09/28/81
19.3	Emission Information	F	01/12/79	09/28/81
20	Standards for Granting Permits	D/F	04/25/89	Pending
20.1	Definitions, Emission Calculations, Emission Offsets and Banking, Exemptions and Other Requirements	F	12/17/98	04/14/81
20.1	NSR-General Provisions	D/F	10/14/21	10/28/22
20.2	NSR-Non-major Stationary Sources	D/F	06/26/19	10/16/20
20.3	NSR – Major Stationary Sources and PSD Stationary Sources	D/F	10/14/21	10/28/22
20.4	NSR – Portable Emission Units	D/F	10/14/21	10/28/22
20.5	Power Plant	F	07/05/79	04/14/81
20.6	Standards for Permit to Operate – Air Quality Analysis	D/F	04/27/16	04/27/16
20.8	Special Offset Requirement Relating to Banking	D	2/16/83	N/A
21	Permit Conditions	F	11/29/94	03/11/98
22	Denial of Applications	F	01/01/69†	09/22/72
23	Further Information	D/F	01/01/69†	N/A

24	Temporary Permit to Operate	F	03/20/96	10/24/08
25	Appeals	F	01/01/69†	09/22/72
25	Appeals	D/F	06/21/00	Pending
26.0	Banking of Emission Reduction Credits (ERCs) - General Requirements	D/F	10/22/97	Pending
26.1	Standards for Granting Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.2	Use of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.3	Reclassification of Class B Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.4	Permanency of Banked Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.5	Transfer of Emission Reduction Credits (ERC)	D/F	10/22/97	Pending
26.6	District Banking of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.7	Shutdown and Related Emission Unit	D/F	10/22/97	Pending
26.8	Banking of Limited Emission Reductions	D/F	10/22/97	Pending
26.9	Emission Reduction Credit Certificates and The Emission Reduction Credit Register	D/F	10/22/97	Pending
26.10	Banking For BRAC Military Base Closure or Realignment Actions	D/F	10/22/97	Pending
27	Banking of Mobile Source Emission Reduction Credits	D/F	11/29/94	Pending
27.1	Federal Requirements for San Diego County APCD Alternative Mobile Source Emission Reduction Program-Approved On 9/8/2000	F	08/06/08	06/03/09
	REGULATIONS III - FEES			
40	Permit Fees	D	01/01/12	N/A
42	Hearing Board Fees	D	07/01/00	N/A
44	Technical Reports, Charges for	D	12/07/83	N/A
	REGULATION IV - PROHIBITIONS			
50	Visible Emissions	F	08/13/97	12/07/98
50.1††	NSPS & NESHAPS Visible Emissions Requirements	D	11/08/76	N/A
51	Nuisance	F	01/01/69†	09/22/72
52	Particulate Matter	F	01/22/97	12/09/98
52.1††	NSPS & NESHAPS Particular Matter Requirements	D	11/08/76	N/A
53	Specific Contaminants	F	01/22/97	12/09/98
53.1	Scavenger Plants	F	01/01/69	09/22/72
53.2††	NSPS & NESHAPS Specific Contaminants Requirements	D	11/08/76	N/A
54	Dusts and Fumes	F	01/22/97	12/09/98
54.1	NSPS & NESHAP Dust and Fumes	D	11/08/76	N/A

	Requirement			
58	Incinerator Burning	F	01/17/73†	05/11/77
59	Control of Waste Disposal - Site Emissions	D	11/03/87	N/A
59.1	Municipal Solid Waste Land	D	06/17/98	N/A
60	Circumvention	F	05/17/94	03/09/00
60.2	Limiting Potential to Emit - Synthetic Minor Sources	D	04/04/12	N/A
61.0	Definitions Pertaining to the Storage & Handling of Organic Compounds	F	10/16/90	09/13/93
61.1	Receiving and Sorting Volatile Organic Compounds at Bulk Plants & Bulk Terminals	F	01/10/95	08/08/95
61.2	Transfer of Volatile Organic Compounds into Mobile Transport Tanks	F	07/26/00	08/26/03
61.3	Transfer of Volatile Organic Compounds into Stationary Storage Tanks	F	10/16/90	06/30/93
61.3.1	Transfer of Gasoline into Stationary Underground Storage Tanks	D	03/01/06	N/A
61.4	Transfer of Volatile Organic Compounds into Vehicle Fuel Tank	F	10/16/90	5/13/93
61.4	Transfer of Volatile Organic Compounds into Vehicle Fuel Tank	D/F	03/26/08	Pending
61.4.1	Transfer of Gasoline from Stationary Underground Storage Tank into Vehicle Fuel Tanks	D	03/01/06	N/A
61.5	Visible Emission Standards for Vapor Control Systems	F	09/20/78	04/14/81
61.6	NSPS Requirements for Storage of Volatile Organic Compounds	D	01/13/87	Withdrawn
61.7	Spillage and Leakage of Volatile Organic Compounds	F	01/13/87	3/11/98
61.8	Certification Requirements for Vapor Control Equipment	F	01/13/87	03/11/98
62	Sulfur Content of Fuel	F	10/21/81	07/06/82
62.1	NSPS Requirements for Sulfur Content of Fuels	D	11/08/76	N/A
64	Reduction of Animal Matter	F	08/21/81	07/06/82
66	Organic Solvents	F	07/25/95	08/11/98
66.1	Miscellaneous Surface Coating Operations and Other Processes Emitting VOCs	D/F	2/24/10	Pending
67.0	Architectural Coatings	F	04/09/03	03/27/97
67.0	Architectural Coatings	D/F	12/12/01	Pending
67.1	Alternative Emission Control Plans	F	05/15/96	03/27/97
67.2	Dry Cleaning Equipment Using Petroleum-Based Solvent	F	05/15/96	03/27/97



67.3	Metal Parts and Products Coating Operations	F	05/15/96	03/27/97
67.4	Metal Container, Metal Closure and Metal Coil Coating Operations	F	05/15/96	11/03/97
67.5	Paper, Film and Fabric Coating Operations	F	05/15/96	03/27/97
67.6.1	Cold Solvent Cleaning and Stripping Operations	F	5/23/07	10/13/09
67.6.2	Vapor Degreasing Operations	F	5/23/07	10/13/09
67.7	Cutback and Emulsified Asphalts	F	05/15/96	03/27/97
67.9	Aerospace Coating Operations	F	04/30/97	08/17/98
67.10	Kelp Processing and Bio-Polymer Manufacturing	F	06/25/97	06/22/98
67.11	Wood Parts and Product Coating Operations	D/F	09/25/02	Pending
67.11.1	Large Coating Operations for Wood Products	F	09/25/02	06/05/03
67.12	Polyester Resin Operations	F	05/15/96	03/27/97
67.15	Pharmaceutical and Cosmetic Manufacturing Operations	F	05/15/96	03/27/97
67.16	Graphic Arts Operations	F	05/09/12	03/27/97
67.17	Storage of Materials Containing Volatile Organic Compounds	F	05/15/96	03/27/97
67.18	Marine Coating Operations	F	05/15/96	03/27/97
67.19	Coating and Printing Inks Manufacturing Operations	F	05/15/96	01/19/00
67.20.1	Motor Vehicle and Mobile Equipment Coating Operation	D	06/30/10	N/A
67.21	Adhesive Material Application Operations	D	11/14/08	N/A
67.22	Expandable Polystyrene Foam Products Manufacturing Operations	D	05/15/96	N/A
67.24	Bakery Ovens	F	05/15/96	03/27/97
68	Fuel-Burning Equipment – Oxides of Nitrogen	F	09/20/94	04/09/96
68.1††	NSPS Requirements for Oxides of Nitrogen from Fuel-Burning Equipment	D	11/08/76	N/A
69	Electrical Generating Steam Boilers, Replacement Units & New Units	D	12/12/95	N/A
69.2	Industrial & Commercial Boilers, Process Heaters & Steam Generators	F	09/27/94	02/09/96
69.2.1	Small Boilers, Process Heaters and Steam Generators	D	03/25/09	N/A
69.3.1	Stationary Gas Turbine Engines – Best Available Retrofit Control Technology	D	02/24/10	N/A
69.4.1	Stationary Reciprocating Internal Combustion Engines – Best Available Retrofit Control	D	11/15/00	N/A

	Technology			
69.5	Natural Gas-Fired Water Heaters	D	01/01/99	N/A
69.5.1	Natural Gas-Fired Water Heaters	D	06/24/15	N/A
69.6	Natural Gas-Fired Fan-Type Central Furnaces	D	06/17/98	N/A
70	Orchard Heaters	F	01/17/72	09/22/72
71	Abrasive Blasting	F	03/30/77	08/31/78
	<b>REGULATION V – PROCEDURES BEFORE THE HEARING BOARD</b>			
75	Procedure Before the Hearing Board	D/F	09/17/85	Pending
75.1††	NSPS & NESHAPS Variance Procedures	D	09/17/85	07/30/79
97	Emergency Variance	D/F	07/25/95	Pending
98	Breakdown Conditions: Emergency Variance	D	07/25/95	Withdrawn
	<b>REGULATION VI – BURNING CONTROL</b>			
101	Burning Control	F	09/25/02	04/30/03
	<b>REGULATION VII – VALIDITY &amp; EFFECTIVE DATE</b>			
140	Validity		01/01/69	
141	Effective Date		01/01/69	
	<b>REGULATION VIII-SAN DIEGO EMERGENCY PLAN</b>			
126	Applicability		05/25/77	
127	Episode Criteria Levels		09/17/91	
128	Episode Declaration		09/17/91	
129	Episode Termination		05/25/77	
130	Episode Actions		09/17/91	
131	Stationary Source Curtailment		04/01/81	
131	Traffic Abatement Plan		12/17/97	
133	Schools	F	05/25/77	08/31/78
134	Source Inspection	F	04/01/81	06/21/82
135	Air Monitoring Stations	F	05/25/77	08/31/78
136	Interdistrict and Interbasin Coordination	F	05/25/77	08/31/78
137	Emergency Action Committee	F	05/25/77	08/31/78
138	Procedures and Plans	F	05/25/77	08/31/78
	<b>APPENDIX A – Persons to be Notified on Episode Declaration</b>	F		
	<b>REGULATION IX – PUBLIC RECORDS</b>			
175	General	F	05/22/74	05/11/77
176	Information Supplied to District	F	05/22/74	05/11/77
177	Inspection of Public Records	F	03/30/77	08/31/78
177	Inspection of Public Records	D/F	06/20/01	Pending
	<b>REGULATION XII – TOXIC AIR CONTAMINANTS</b>			
1200	Toxic Air Contaminants – New Source Review	D	06/12/96	N/A
1202	Hexavalent Chromium – Cooling Towers	D	07/25/95	N/A
1203	Ethylene Oxide Sterilizers and Aerators	D	07/26/00	N/A

1205	Control of Dioxins Emissions from Medical Waster Incinerators	D	01/01/94	N/A
1210	Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction	D	06/12/96	N/A
	REGULATION XIV – TILTE V OPERATING PERMITS			
1401	General Provisions		08/13/03	
1410	Permits Required		08/13/03	
1411	Exemption from Permit to Operate for Insignificant Units		03/07/95	
1412	Federal Acid Rain Program Requirements		01/18/94	
1413	Early Reduction of Hazardous Air Pollutants		03/07/95	
1414	Applications		03/07/95	
1415	Permit Process-Public Notification		08/13/03	
1417	Pendency and Cancellation of Applications		03/07/95	
1418	Action on Applications		08/13/03	
1419	Provision of Sampling and Testing Facilities & Emission Information		03/07/95	
1420	Standards for Granting Permits		03/07/95	
1421	Permit Conditions		08/13/03	
1422	Denial or Cancellation of Application		03/07/95	
1423	Further Information		None	
1424	Applications Deemed Denied		None	
1425	Appeal and Judicial Review		08/13/03	
Appendix A	Insignificant Units		08/13/03	
	REGULATION XV – FEDERAL CONFORMITY			
Rule 1501	Conformity of General Federal Actions		03/07/95	

The following NSPS and NESHAP have been adopted locally by the District. EPA has granted the District delegation for each of these rules. Therefore, these rules, as adopted by the District are the federally applicable requirements. For all other NSPS and NESHAP, the versions cited in the CFR are the federally applicable requirements.

Subpart & Citation	Rule Title	District Adoption Date	Federal Delegation Date
Part 60	Regulation X -Standards of Performance for New Stationary Sources		
A	General Provisions	Unknown 11/03/92	11/08/76
E	Standards of Performance for Incinerators	Unknown	03/30/77
I	Standards of Performance for Asphalt Concrete Plants	Unknown 01/13/87	11/08/76
L	Standards of Performance for Secondary Lead	Unknown	11/08/76

	Smelters		
M	Standards of Performance for Secondary Brass and Bronze Ingot Production Plants	Unknown 09/17/85	03/30/77
O	Standards of Performance for Sewage treatment Plants	01/13/87	09/17/87
DD	Standards of Performance for Grain Elevators	Unknown	05/24/82
EE	Standards of Performance for Surface Coating Metal Furniture	03/04/86 11/03/92	03/19/87
QQ	Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing	08/24/83	12/22/83
RR	Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations	09/17/86 11/03/92	03/19/87
SS	Standards of Performance for the Industrial Surface Coating Large Appliances	02/22/84 11/03/92	04/24/84
TT	Standards of Performance for Metal Coil Surface Coating	02/22/84 11/03/92	04/24/84
BBB	Standards of Performance for the Rubber Tire Manufacturing Industry	03/14/89	07/18/89
FFF	Standards of Performance for Flexible Vinyl and Urethane Coating and Printing	09/17/86	03/19/87
JJJ	Standards of Performance for Petroleum Dry Cleaners	12/15/87	07/18/89
<b>Part 63</b>	<b>REGULATION XI – NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP)</b>		
A	General Provisions	01/13/87	05/24/82
C	National Emission Standard for Beryllium	Unknown	11/08/76
D	National Emission Standard for Beryllium Rocket Motor Firing	Unknown	11/08/76
E	National Emission Standard for Mercury	03/27/90	05/17/91
F	National Emission Standard for Vinyl Chloride	08/17/77 06/16/78	11/21/77
M	National Emission Standard for Asbestos	06/04/85 02/01/95	07/18/89
SSSS	Surface Coating of Metal Coil	F	03/17/03
VVVV	Boat Manufacturing	F	08/22/01
WWWW	Reinforced Plastic Composites Production	F	08/25/05
YYYY	Stationary Combustion Turbines	F	08/18/04
ZZZZ	Stationary Reciprocating Internal Combustion Engines	F	03/09/11
DDDDD	Industrial, Commercial, and Institutional Boilers and Process Heaters	F	05/18/11
GGGGG	Site Remediation	F	11/29/06
HHHH	Miscellaneous Coating Manufacturing	F	10/04/06
PPPPP	Engine Test Cells/Standards	F	08/28/03

WWWWW	Hospital Ethylene Oxide Sterilizers Area Sources	F	12/28/07
BBBBBB	Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities	F	01/24/11
CCCCC	Gasoline Dispensing Facilities	F	01/24/11
HHHHHH	Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources	F	01/09/08
JJJJJ	Area Sources: Industrial, Commercial and Institutional Boilers	F	03/21/11
QQQQQQ	Wood Preserving Area Sources	F	07/16/07
VVVVVV	Chemical Manufacturing Area Sources	F	11/29/09
WWWWWW	Plating and Polishing Operations Area Sources	F	07/01/08
XXXXXX	Metal Fabrication and Finishing Area Sources	F	07/23/08
AAAAAAA	Asphalt Processing and Asphalt Roofing Manufacturing Area Sources	F	12/02/09
CCCCCCC	Paint and Allied Products Manufacturing Area Sources	F	12/03/09

The following NSPS have not been adopted by the District and are not delegated to the District. However, the District has the authority to enforce the NSPS through the Title V program. The rules listed below are the CFR versions of these rules, which are federally applicable requirements.

Subpart & Citation	RULE TITLE	Latest EPA Promulgation Date	District Adoption Date	Delegation Date
<b>Part 60</b>				
III	Standard of Performance for Stationary Compression Ignition Internal Combustion Engines	07/11/06	N/A	N/A
JJJ	Standard of Performance for Stationary Spark Ignition Internal Combustion Engines	01/18/08	N/A	N/A

The following ATCM have not been adopted by the District, but are being implemented and enforced by the District as ATCM's.

Citation	RULE TITLE	A/R	Most Recent Adoption Date
	CALIFORNIA AIRBORNE TOXIC CONTROL MEASURES (ATCM)		
17CCR 93102	Hexavalent Chromium ATCM for Chrome Plating & Chronic Acid Anodizing Operations	D/F	12/07/06
17CCR 93109	ATCM for Emissions of Perchloroethylene From Dry Cleaning Operations	F	01/25/07
17CCR 93101.5	ATCM to Reduce Emissions of Hexavalent Chromium and	D	09/30/05

	Nickel from Thermal Spraying		
17CCR 93105	ATCM for Construction, Grading, Quarrying and Surface Mining Operations	D	07/26/01
17CCR 93106	Asbestos ATCM for Surface Applications	D	07/20/00
17CCR 93107	ATCM for Emissions of Toxic Metals From Non-Ferrous Metal Melting	D	01/14/93
17CCR 93111	ATCM for Emissions of Chlorinated Toxic Air Contaminants from Automotive Maintenance & Repair Activities	D	04/27/00
17CCR 93112	ATCM for Emissions of Hexavalent Chromium and Cadmium from Motor Vehicle and Motor Equipment Coatings	D	09/20/01
17CCR 93113	ATCM to Reduce Emissions of Toxic Air Contaminants from Outdoor Residential Waste Burning	D	02/03/03
17CCR 93115	ATCM for Stationary Compression Ignition Engines	D	05/19/11
17CCR 93116	ATCM for Portable Diesel-Fueled Engines	D	02/19/11

1. Rule Citations marked with an “††” contain no substantive requirements and are listed for informational purposes only.

2. ‘A/R’ Denotes enforceability of the listed applicable requirement as follows:

‘F’ Denotes a Federal applicable requirement that is federally enforceable and District enforceable.

‘D/F’ Denotes a District applicable requirement which is pending SIP approval. When such a rule receives SIP approval, it supersedes the existing SIP rule and becomes the Federal applicable requirement.

‘D’ Denotes a District only applicable requirement. This may include some state requirements that are enforceable by the District.

3. District adoption dates marked with an “†” are the effective date of the rule, the actual adoption date is uncertain.

4. On September 17, 2010, EPA approved the District’s November, 4, 2009, revision to the table of exempt compounds in Rule 2, which can be administratively amended without Board action to amend the rule.

## APPENDIX C: ABBREVIATIONS THAT MAY APPEAR IN THIS PERMIT

APCO Air Pollution Control Officer

ASTM American Society for Testing and Methods

BACT Best Available Control Technology

CAA federal Clean Air Act

CFR Code of Federal Regulations

CO Carbon Monoxide

CO2 Carbon Dioxide

District San Diego County Air Pollution Control District

EF Emission Factor

EPA US Environmental Protection Agency

HAP Hazardous Air Pollutant  
 I&M Inspection and Maintenance  
 NESHAP National Emission Standard for Hazardous Air Pollutants  
 NSPS New Source Performance Standards  
 NSR New Source Review  
 [NSR] New Source Review based condition  
 NOx Oxides of nitrogen  
 O2 Oxygen  
 OES Office of Environmental Services  
 O&M Operation and maintenance  
 Pb Lead  
 PM Total Particulate Matter  
 PM10 Particulate matter with aerodynamic equivalent diameter of  $\leq 10$  microns  
 PSD Prevention of Significant Deterioration  
 RMP Risk Management Plan  
 SDCAPCD San Diego County Air Pollution Control District  
 SIP State Implementation Plan  
 SOx Oxides of sulfur  
 Title IV Title IV of the federal Clean Air Act  
 Title V Title V of the federal Clean Air Act  
 VOC Volatile organic compound  
 Units of Measure:  
 dscf = Dry standard cubic foot  
 g = grams  
 gal = gallon  
 gr/dscf = Grains per dry standard cubic foot  
 hr = hour  
 lb = pound  
 in = inches  
 max = maximum  
 min = minute  
 MM Btu = Million British thermal units  
 psia = pounds per square inch, absolute  
 scf = Standard cubic foot  
 scfm = standard cubic feet per minute  
 yr = year





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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000947**

Otay Mesa Energy Center LLC  
Plant Manager Dale Donmoyer  
606 De La Fuente Ct  
San Diego CA, 92154

**EQUIPMENT ADDRESS**  
Otay Mesa Energy Center LLC  
Plant Manager Dale Donmoyer  
606 De La Fuente Ct.  
San Diego CA 92154

## **PERMIT TO OPERATE**

This permit is not valid until required fees are received by the District.

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**

Otay Mesa Energy Center, LLC 606 De La Fuente Court, San Diego, CA 92154

### **EQUIPMENT DESCRIPTION**

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

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 [93A] Test Witness and Report Review (T&M)  
1 [20F] Non- Aircraft Turbine Engine

BEC: APCD2011-CON-000277

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

#### **A. FEDERALLY-ENFORCEABLE AND DISTRICT-ENFORCEABLE CONDITIONS**

1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
2. This equipment shall be properly maintained and kept in good operating condition at all times.
3. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. [Rule 62; 40 CFR 60 Subpart GG]
4. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO<sub>2</sub> allowances. (40 CFR Part 73)



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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000947**

5. The emissions of any single federal hazardous air pollutant (HAP) shall not equal or exceed 10 tons, and the aggregate of all federal HAPs, shall not equal or exceed 25 tons in any rolling 12 calendar month period. Compliance with the HAP limits shall be based on a surrogate VOC/HAP correlation factor determined during initial source testing. If emissions exceed these limits, the permittee shall apply to amend this permit to reflect applicable Federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR 63. [40 CFR 63]
6. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
9. The total aggregate annual emissions from all emission units at the stationary source shall not exceed 100 tons of oxides of nitrogen (NOx), calculated as nitrogen dioxide, and shall not exceed 316 tons of carbon monoxide (CO) for each consecutive 12-calendar month period. The NOx and CO emissions shall begin accruing at the initial firing of each turbine. Compliance with this limit shall be verified using the CEMS system on each gas turbine as well as EPA- or ARB-certified NOx emissions factors, testing results, or other representative emissions information for all other combustion equipment. [Rule 20.3]
10. The total aggregate emissions of volatile organic compounds (VOC) from all emission units at the stationary source shall not exceed 47.5 tons for each consecutive 12-calendar month period. The VOC emissions shall begin accruing at the initial firing of each piece of equipment. Compliance shall be verified using testing results, EPA- or ARB-certified VOC emissions factors, and/or other representative emissions information for all other combustion equipment. [Rule 20.3]
11. The emissions of oxides of nitrogen (NOx) from each turbine, calculated as nitrogen dioxide, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each 1-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified through annual source testing. This limit shall not apply to the first fifteen 1-hour average NOx emissions measurements above 2.0 ppmvd corrected to 15% oxygen in any rolling 12-month period for each gas turbine provided the following requirements are met:
  - a. this equipment operates under any one of the following:
    - i) Rapid combustion turbine load changes due to the following conditions:
      - A) Load changes initiated by the California Independent Systems Operator (ISO) or a successor entity when the plant is operating under Automatic Generation Control; or
      - B) Activation of a plant automatic safety or equipment protection system which rapidly decreases turbine load
    - ii) The first two 1-hour reporting periods following the initiation or shutdown of a system injection pump
    - iii) The first two 1-hour reporting periods following the initiation of HRSG duct burners
    - iv) Events as the result of technological limitation identified by the operator and approved in writing by the District.
  - b. the 1-hour average NOx emissions above 2.0 ppmvd corrected to 15% oxygen did not occur as a result of operator neglect, improper operation or maintenance, and is a qualified breakdown under District Rule 98.
  - c. the qualified operating conditions described in (a) above are recorded in the plant's operating log within 24 hours of the event. The notations in the log shall describe the data and time of entry into the log and the plant operating conditions responsible for NOx emissions exceeding the 2.0 ppmvd 1-hour average limit.
  - d. the 1-hour average NOx concentration for periods that result from a qualified operating condition described in (a) above does not exceed 25 ppmvd corrected to 15% oxygen.All NOx emissions during these events shall be included in all calculations of hourly, daily, and annual mass emission rates as required by this Permit to Operate. [Rule 20.3]
12. The emissions of oxides of nitrogen (NOx) from each turbine, calculated as nitrogen dioxide, shall not exceed 110 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. This limit shall apply at all times, including periods of startup and shutdown. Compliance with this limit shall be based on CEMS data for each unit as averaged in accordance with 40 CFR 60 Subpart GG Subsection 60.334. [40 CFR 60 Subpart GG]



# COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT

10124 OLD GROVE ROAD, SAN DIEGO, CA 92131

PHONE (858) 586-2600 Fax (858) 586-2601

www.sdapcd.org

Sectors: 5, S

Site ID: APCD1999-SITE-10882

App ID: APCD2012-APP-002154

PERMIT ID

APCD2011-PTO-000947

13. Excess emissions, as defined in 40 CFR 60 Subpart GG Subsection 60.334, shall be reported pursuant for all periods of unit operation, including startup, shutdown, and malfunction in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be postmarked by the 30th day following the end of each calendar 6-month period unless more frequent reporting is required in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be submitted to the District's Compliance Division. [40 CFR 60 Subpart GG]
14. The emissions of carbon monoxide (CO) from each turbine shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with these limits shall be based on CEMS data for each unit and averaged over each continuous 3-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified annual source testing. [Rule 20.3]
15. The emissions of volatile organic compounds (VOC) from each turbine, calculated as methane, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CO CEMS data for each unit, averaged over each 1-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation, and the District approved CO/VOC surrogate relationship. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on annual source testing. [Rule 20.3]
16. When operated with the duct burner at or below 38.8 MMBtu/hr heat input, the emissions from each turbine shall not exceed the following emission limits, except during startup or shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a continuous 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

Pollutant	Emission Limit, lbs/hr
Oxides of Nitrogen, NOx (calculated as NO2)	13.14
Carbon Monoxide, CO	24.0
Volatile Organic Compounds, VOC	4.58

17. When operated with the duct burner above 38.8 MMBtu/hr heat input, the emissions from this equipment shall not exceed the following emission limits, except during startup or shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a continuous 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

Pollutant	Emission Limit, lbs/hr
Oxides of Nitrogen, NOx (calculated as NO2)	15.95
Carbon Monoxide, CO	29.13
Volatile Organic Compounds, VOC	5.56

18. The emissions of particulate matter less than 10 microns (PM10) from each turbine shall not exceed 9.0 lbs/hr when operated with the duct burner at or below 38.8 MMBtu/hr heat input and shall not exceed 11.5 lbs/hr from each turbine when operated with the duct burner above 38.8 MMBtu/hr. Compliance with this limit shall be based on annual source testing (only with the duct burner operating in accordance with Condition 37). [Rule 20.3]
19. Except during startups and shutdowns, the emissions of ammonia (slippage) from each gas turbine exhaust stack shall not exceed 10.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a 1-hour period. Compliance with this limit shall be based on a District approved calculation methodology and verified during annual source testing. [Rule 1200]



# COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT

10124 OLD GROVE ROAD, SAN DIEGO, CA 92131

PHONE (858) 586-2600 Fax (858) 586-2601

www.sdapcd.org

Sectors: 5, S

Site ID: APCD1999-SITE-10882

App ID: APCD2012-APP-002154

PERMIT ID

APCD2011-PTO-000947

20. Fuel consumption by the duct burners for both turbines shall not exceed 3,881,000 MMBtu (HHV) per rolling 12-month period. Whenever the duct burners are in operation, the CEMS shall record the dates and fuel consumption for each duct burner. The CEMS shall also record the total duct burner fuel usage for each rolling 12-month period (in MMBtu). The applicant shall maintain a log that contains, at a minimum, the dates and fuel usage when one or both turbines are operated with duct firing. These records shall be maintained on site for a minimum of five years and made available to District personnel upon request. [Rule 20.3]
21. When operated under startup conditions, the emissions from each turbine shall not exceed the following emission limits, averaged over each 1-hour period, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing:
- | Pollutant  | Emission Limit, lbs/hr |
|--|------------------------|
| Oxides of Nitrogen, NOx (calculated as NO <sub>2</sub> ) | 240.0                  |
| Carbon Monoxide, CO                                      | 2706                   |
| Volatile Organic Compounds, VOC                          | 48.0                   |
- [Rule 20.3]
22. When operated under startup or shutdown conditions, the emissions from each turbine shall not exceed the following emission limits, totaled per event, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing:
- | Pollutant (during startups)                              | Emission Limit, lbs/ event |
|--|----------------------------|
| Oxides of Nitrogen, NOx (calculated as NO <sub>2</sub> ) | 480                        |
| Carbon Monoxide, CO                                      | 5412                       |
| Volatile Organic Compounds, VOC                          | 96                         |
- 
- | Pollutant (during shutdowns)                             | Emission Limit, lbs/ event |
|--|----------------------------|
| Oxides of Nitrogen, NOx (calculated as NO <sub>2</sub> ) | 80                         |
| Carbon Monoxide, CO                                      | 902                        |
| Volatile Organic Compounds, VOC                          | 16                         |
- [Rule 20.3]
23. Startup for each gas turbine shall be defined as the period beginning with the introduction of fuel to the combustion turbine following a non-operational period and ending after the lesser of either 360 minutes of continuous of fuel flow or when the CEMS records ten consecutive one-minute data points in compliance with the emission concentration limits of Conditions 11, 14, and 19 for the gas turbine. Excluding extended startups and the first 120 minutes of all other startups, the gas turbines shall comply with a NOx emission concentration limit of 11.8 ppmvd corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period. For the purposes of this Permit to Operate, an extended startup shall be defined as the time during any startup when the steam turbine inner casing temperature is less than or equal to 500 °F. [Rules 20.3, 69.3.1]
24. During startups, including extended startups as defined in Condition 23, excluding the first 120 minutes of the startup, NOx emissions from the gas turbine shall not exceed 42 ppm corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period. [Rule 69.3]
25. Shutdown for each gas turbine shall be defined as the 60-minute period preceding the termination of fuel flow to the gas turbine. [Rules 20.3, 69.3.1]
26. Both gas turbines shall not be operated simultaneously in startup mode. [Rule 20.3]
27. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein. [40 CFR 75]





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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000947**

28. For each emission limit expressed as pounds per hour or parts per million based on a 1-hour averaging period, compliance shall be based on each 1-clock hour period using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data. A valid clock hour shall be defined as one that includes at least 16 minutes of valid 1-minute data or includes a data point from at least two different quadrants that are spaced at least 15 minutes apart. A duct burner clock hour shall be defined as a valid clock hour in which the duct burner heat input exceeds 38.8 MMBtu/hr. [40 CFR 75]
29. For each emission limit expressed as pounds per hour or parts per million based on a 3-hour averaging period, compliance shall be based on rolling 3-clock hour period, not including startup and shutdown periods, using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data. [40 CFR 75]
30. The Oxides of Nitrogen (NO<sub>x</sub>) and Oxygen (O<sub>2</sub>) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of: -Sections 75.10 and 75.12 of Title 40 -Code of Federal Regulations Part 75 (40 CFR 75) -the performance specifications of Appendix A of 40 CFR 75 -the quality assurance procedures of Appendix B of 40 CFR 75 -the CEMs protocol approved by the District. The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60. (40 CFR Part 75, 40 CFR Part 60), and a CEMS protocol approved by the District, unless otherwise specified in this permit. [40 CFR 60; 40 CFR 75]
31. When the CEMS is not recording data and the unit is operating, hourly NO<sub>x</sub> emissions shall be determined in accordance with 40 CFR 75 Appendix C. Additionally, hourly CO emissions for the annual emission calculations shall be determined using the hourly emission rate recorded by the CEMS during the most recent hours in which the unit operated 3 continuous hours at no less than 80% of full power rating of each power station, either with or without duct firing. [40 CFR 60; 40 CFR 75]
32. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence. [40 CFR 75]
33. The CEMs shall be maintained and operated, and reports submitted, in accordance with the requirements of Rule 19.2 Sections (D), (E), (F)(2), (F)(3), (F)(4) and (F)(5) and CEMs Protocol approved by the District. [Rule 19.2]
34. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS. [40 CFR 75]
35. Operating logs or Data Acquisition System (DAS) records shall be maintained to record the following:
  - a. dates of all startups and shutdowns;
  - b. beginning and end times, to the nearest minute, of all startups and shutdowns;
  - c. fuel usage, in standard cubic feet, for each clock hour, calendar month, and 12-calendar month period;
  - d. hours of daily operation; and
  - e. total cumulative hours per calendar year.[Rules 20.3, 69.3.1]
36. Continuous monitors shall be installed on each turbine to monitor or calculate and record the following:
  - a. gas turbine natural gas flow rate (scfh),
  - b. duct burner natural gas flow rate (scfh),
  - c. gas turbine heat input rate (MMBtu/hr), HHV,
  - d. duct burner heat input rate (MMBtu/hr), HHV,
  - e. ammonia stack concentration (ppmvd, corrected to 15% oxygen),
  - f. ammonia injection rate (lbs/hr),
  - g. steam turbine inner casing temperature (°F),
  - h. SCR inlet temperature (°F),
  - i. exhaust gas temperature (°F), and
  - j. power output (gross MW).The monitors shall be installed, calibrated, and maintained in accordance with an approved protocol. The monitors shall be in full operation at all times when the turbine is in operation. [Rule 69.3.1]



## COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT

10124 OLD GROVE ROAD, SAN DIEGO, CA 92131

PHONE (858) 586-2600 Fax (858) 586-2601

www.sdapcd.org

Sectors: 5, S

Site ID: APCD1999-SITE-10882

App ID: APCD2012-APP-002154

PERMIT ID


APCD2011-PTO-000947

37. The applicant shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO<sub>x</sub>, CO and VOC, in tons per year, from all emission units, at this stationary source for the previous 12-calendar month period. These records shall be made available for inspection within 30 calendar days after the end of each calendar month. [Rule 20.3]
38. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. [Rules 20.3, 69.3.1, 1421(b)]
39. This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards specified in Conditions 11, 14, 15, 17, 18, and 19 of 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. If this testing will be performed by someone other than the District, a source test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. The source test protocol shall comply with the following requirements:
- a. Measurements of oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and stack gas oxygen content (O<sub>2</sub>) shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) Methods 7E, 10 and 3A, respectively, and the San Diego Air Pollution Control District Method 100, or alternative methods approved by the District and the EPA.
  - b. Measurements of particulate matter less than 10 microns shall be conducted in accordance with the U.S. Environmental Protection Agency (EPA) Methods 201A and 202, or alternative methods approved by the District and the EPA.
  - c. Measurements of volatile organic compounds (VOC) shall be conducted in accordance with San Diego Air Pollution Control District Methods 18 and/or 25A, or alternative methods approved by the District and the EPA.
  - d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District (BAAQMD) Method ST-1B, or alternative methods approved by the District and the EPA.
  - e. Source testing shall be performed only with both the combustion turbine and duct burner in operation. The duct burner shall be operated at not less than 80% of the rated heat input unless it is demonstrated to the satisfaction of the District that the unit cannot operate under these conditions. If the demonstration is accepted, then the emissions source testing shall be performed at the highest achievable continuous heat input.
  - f. Source testing shall be performed at not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the District that the unit cannot operate under these conditions. If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous power level.
  - g. The following additional operating characteristics shall also be measured or calculated and recorded:
    - gas turbine natural gas flow rate (scfh),
    - duct burner natural gas flow rate (scfh),
    - fuel higher heating value (Btu/scf),
    - gas turbine heat input rate (MMBtu/hr),
    - duct burner heat input rate (MMBtu/hr),
    - ammonia injection rate (lbs/hr),
    - SCR inlet temperature (°F),
    - exhaust gas temperature (°F),
    - power output (gross MW).
- [Rules 20.3, 69.3.1; 40 CFR 60 Subpart GG]
40. A Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with applicable provisions of 40 CFR part 75 Appendix A and B performance specifications. At least 30 days prior to the test date, the permittee shall submit a test protocol to the District for approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present. [40 CFR 75]
41. Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval. [40 CFR 75]



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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000947**  


42. Beginning with the start of the ongoing emission reduction monitoring period as defined in "Alternative Mobile Source Emission Reduction Program for Replacing Heavy and Medium Heavy-Duty Diesel Powered Vehicles and Repowering of Marine Vessels Under Rule 27 (c)(1)(vi)" as approved on September 8, 2000 (herein referred to as the Alternative MERC Program), the owner or operator shall, on or before the last day of the second calendar month following the end of each ongoing emission reduction monitoring year:
- a. for each ongoing emission reduction monitoring year, based on the quarterly activity levels submitted by the mobile source owners and the applicable calculation method specified in the Alternative MERC Program, perform a calculation of the annual average and annual aggregate ongoing emission reductions and the ongoing emission reduction deficit, if any, for the MERCs surrendered to offset the facility's emissions;
  - b. provide an annual report to the District that summarizes the annual average ongoing emission reductions for each MERC, aggregate ongoing emission reductions, and the ongoing emission reduction deficit, if any, and provides supporting calculations and documentation; and
  - c. if the calculated annual ongoing emission reduction deficit is positive, notify the District, provide a compliance schedule to correct the ongoing emission reduction deficit, and correct the ongoing emission reduction deficit in accordance with Subsection (h)(4) of the Alternative MERC Program. [Rule 27.1]
43. Beginning with the second calendar year following the calendar year that the facility commences operations, the owner or operator shall, on or before March 1 of each calendar year:
- a. based on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment is less than 0.8;
  - b. based on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment in primary service is less than 0.8; and
  - c. if one or more MERCs fractional employment or fractional employment in primary service is less than 0.8, provide a compliance schedule to correct any MERC shortfall and correct any MERC shortfall in accordance with Subsection (j)(4) of the Alternative MERC Program. [Rule 27.1]
44. On or before the expiration date, if any, of a MERC surrendered to offset the NOx emissions from this facility, additional Class A emission reduction credits equivalent to the expiring MERC shall be surrendered to the District to offset project emissions unless project emissions are reduced such that the emissions of oxides of nitrogen (NOx) shall not exceed 1.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each 3-hour period, excluding hours when the equipment is operated under any startup condition. If the project NOx emissions limit is reduced to 1.0 ppm, the total annual emissions of oxides of nitrogen (NOx), calculated as nitrogen dioxide, shall not exceed 50 tons per rolling 12-month period. Compliance with this limit shall be verified using the CEMS system on each gas turbine. [Rule 27.1]

**B. DISTRICT-ONLY ENFORCEABLE CONDITIONS**

7. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
8. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)







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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000948**

Otay Mesa Energy Center LLC  
Plant Manager Dale Donmoyer  
606 De La Fuente Ct  
San Diego CA, 92154

**EQUIPMENT ADDRESS**  
Otay Mesa Energy Center LLC  
Plant Manager Dale Donmoyer  
606 De La Fuente Ct.  
San Diego CA 92154

## **PERMIT TO OPERATE**

This permit is not valid until required fees are received by the District.

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**

Otay Mesa Energy Center, LLC 606 De La Fuente Court, San Diego, CA 92154

### **EQUIPMENT DESCRIPTION**

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

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 [93A] Test Witness and Report Review (T&M)  
1 [20F] Non- Aircraft Turbine Engine

BEC: APCD2011-CON-000277

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

#### **A. FEDERALLY-ENFORCEABLE AND DISTRICT-ENFORCEABLE CONDITIONS**

1. Operation of this equipment shall be conducted in accordance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
2. This equipment shall be properly maintained and kept in good operating condition at all times.
3. The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. [Rule 62; 40 CFR 60 Subpart GG]
4. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO2 allowances. (40 CFR Part 73)



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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000948**

5. The emissions of any single federal hazardous air pollutant (HAP) shall not equal or exceed 10 tons, and the aggregate of all federal HAPs, shall not equal or exceed 25 tons in any rolling 12 calendar month period. Compliance with the HAP limits shall be based on a surrogate VOC/HAP correlation factor determined during initial source testing. If emissions exceed these limits, the permittee shall apply to amend this permit to reflect applicable Federal Maximum Achievable Control Technology (MACT) standards and requirements in accordance with applicable provisions (including timing requirements) of 40 CFR 63. [40 CFR 63]
6. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
9. The total aggregate annual emissions from all emission units at the stationary source shall not exceed 100 tons of oxides of nitrogen (NOx), calculated as nitrogen dioxide, and shall not exceed 316 tons of carbon monoxide (CO) for each consecutive 12-calendar month period. The NOx and CO emissions shall begin accruing at the initial firing of each turbine. Compliance with this limit shall be verified using the CEMS system on each gas turbine as well as EPA- or ARB-certified NOx emissions factors, testing results, or other representative emissions information for all other combustion equipment. [Rule 20.3]
10. The total aggregate emissions of volatile organic compounds (VOC) from all emission units at the stationary source shall not exceed 47.5 tons for each consecutive 12-calendar month period. The VOC emissions shall begin accruing at the initial firing of each piece of equipment. Compliance shall be verified using testing results, EPA- or ARB-certified VOC emissions factors, and/or other representative emissions information for all other combustion equipment. [Rule 20.3]
11. The emissions of oxides of nitrogen (NOx) from each turbine, calculated as nitrogen dioxide, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each 1-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified through annual source testing. This limit shall not apply to the first fifteen 1-hour average NOx emissions measurements above 2.0 ppmvd corrected to 15% oxygen in any rolling 12-month period for each gas turbine provided the following requirements are met:
  - a. this equipment operates under any one of the following:
    - i) Rapid combustion turbine load changes due to the following conditions:
      - A) Load changes initiated by the California Independent Systems Operator (ISO) or a successor entity when the plant is operating under Automatic Generation Control; or
      - B) Activation of a plant automatic safety or equipment protection system which rapidly decreases turbine load
    - ii) The first two 1-hour reporting periods following the initiation or shutdown of a system injection pump
    - iii) The first two 1-hour reporting periods following the initiation of HRSG duct burners
    - iv) Events as the result of technological limitation identified by the operator and approved in writing by the District.
  - b. the 1-hour average NOx emissions above 2.0 ppmvd corrected to 15% oxygen did not occur as a result of operator neglect, improper operation or maintenance, and is a qualified breakdown under District Rule 98.
  - c. the qualified operating conditions described in (a) above are recorded in the plant's operating log within 24 hours of the event. The notations in the log shall describe the data and time of entry into the log and the plant operating conditions responsible for NOx emissions exceeding the 2.0 ppmvd 1-hour average limit.
  - d. the 1-hour average NOx concentration for periods that result from a qualified operating condition described in (a) above does not exceed 25 ppmvd corrected to 15% oxygen.All NOx emissions during these events shall be included in all calculations of hourly, daily, and annual mass emission rates as required by this Permit to Operate. [Rule 20.3]
12. The emissions of oxides of nitrogen (NOx) from each turbine, calculated as nitrogen dioxide, shall not exceed 110 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. This limit shall apply at all times, including periods of startup and shutdown. Compliance with this limit shall be based on CEMS data for each unit as averaged in accordance with 40 CFR 60 Subpart GG Subsection 60.334. [40 CFR 60 Subpart GG]



# COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT

10124 OLD GROVE ROAD, SAN DIEGO, CA 92131

PHONE (858) 586-2600 Fax (858) 586-2601

www.sdapcd.org

Sectors: 5, S

Site ID: APCD1999-SITE-10882

App ID: APCD2012-APP-002154

PERMIT ID

APCD2011-PTO-000948

13. Excess emissions, as defined in 40 CFR 60 Subpart GG Subsection 60.334, shall be reported pursuant for all periods of unit operation, including startup, shutdown, and malfunction in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be postmarked by the 30th day following the end of each calendar 6-month period unless more frequent reporting is required in accordance with 40 CFR 60 Subpart A Subsection 60.7(c). These reports shall be submitted to the District's Compliance Division. [40 CFR 60 Subpart GG]
14. The emissions of carbon monoxide (CO) from each turbine shall not exceed 6.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with these limits shall be based on CEMS data for each unit and averaged over each continuous 3-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation. Compliance with this limit shall also be verified annual source testing. [Rule 20.3]
15. The emissions of volatile organic compounds (VOC) from each turbine, calculated as methane, shall not exceed 2.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CO CEMS data for each unit, averaged over each 1-hour period, excluding time when the equipment is operated under startup or shutdown conditions and time that the equipment is not in operation, and the District approved CO/VOC surrogate relationship. The CO/VOC surrogate relationship shall be verified and/or modified, if necessary, based on annual source testing. [Rule 20.3]
16. When operated with the duct burner at or below 38.8 MMBtu/hr heat input, the emissions from each turbine shall not exceed the following emission limits, except during startup or shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a continuous 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

Pollutant	Emission Limit, lbs/hr
Oxides of Nitrogen, NOx (calculated as NO2)	13.14
Carbon Monoxide, CO	24.0
Volatile Organic Compounds, VOC	4.58

[Rule 20.3]

17. When operated with the duct burner above 38.8 MMBtu/hr heat input, the emissions from this equipment shall not exceed the following emission limits, except during startup or shutdown conditions, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and/or District approved emission source testing. Compliance with the NOx and CO limits shall be based on a continuous 3-hour averaging period and compliance with the VOC limit shall be based on a 1-hour averaging period.

Pollutant	Emission Limit, lbs/hr
Oxides of Nitrogen, NOx (calculated as NO2)	15.95
Carbon Monoxide, CO	29.13
Volatile Organic Compounds, VOC	5.56

[Rule 20.3]

18. The emissions of particulate matter less than 10 microns (PM10) from each turbine shall not exceed 9.0 lbs/hr when operated with the duct burner at or below 38.8 MMBtu/hr heat input and shall not exceed 11.5 lbs/hr from each turbine when operated with the duct burner above 38.8 MMBtu/hr. Compliance with this limit shall be based on annual source testing (only with the duct burner operating in accordance with Condition 37). [Rule 20.3]
19. Except during startups and shutdowns, the emissions of ammonia (slippage) from each gas turbine exhaust stack shall not exceed 10.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over a 1-hour period. Compliance with this limit shall be based on a District approved calculation methodology and verified during annual source testing. [Rule 1200]



# COUNTY OF SAN DIEGO, AIR POLLUTION CONTROL DISTRICT

10124 OLD GROVE ROAD, SAN DIEGO, CA 92131

PHONE (858) 586-2600 Fax (858) 586-2601

www.sdapcd.org

Sectors: 5, S

Site ID: APCD1999-SITE-10882

App ID: APCD2012-APP-002154

PERMIT ID

APCD2011-PTO-000948



20. Fuel consumption by the duct burners for both turbines shall not exceed 3,881,000 MMBtu (HHV) per rolling 12-month period. Whenever the duct burners are in operation, the CEMS shall record the dates and fuel consumption for each duct burner. The CEMS shall also record the total duct burner fuel usage for each rolling 12-month period (in MMBtu). The applicant shall maintain a log that contains, at a minimum, the dates and fuel usage when one or both turbines are operated with duct firing. These records shall be maintained on site for a minimum of five years and made available to District personnel upon request. [Rule 20.3]
21. When operated under startup conditions, the emissions from each turbine shall not exceed the following emission limits, averaged over each 1-hour period, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing:
- | Pollutant  | Emission Limit, lbs/hr |
|--|------------------------|
| Oxides of Nitrogen, NO <sub>x</sub> (calculated as NO <sub>2</sub> ) | 240.0                  |
| Carbon Monoxide, CO  | 2706                   |
| Volatile Organic Compounds, VOC                                      | 48.0                   |
- [Rule 20.3]
22. When operated under startup or shutdown conditions, the emissions from each turbine shall not exceed the following emission limits, totaled per event, as determined by the Continuous Emissions Monitoring System (CEMS), the District approved CO/VOC surrogate relationship, and continuous monitors and/or District approved emission source testing:
- | Pollutant (during startups)  | Emission Limit, lbs/ event |
|--|----------------------------|
| Oxides of Nitrogen, NO <sub>x</sub> (calculated as NO <sub>2</sub> ) | 480                        |
| Carbon Monoxide, CO  | 5412                       |
| Volatile Organic Compounds, VOC                                      | 96                         |
- 
- | Pollutant (during shutdowns)   | Emission Limit, lbs/ event |
|--|----------------------------|
| Oxides of Nitrogen, NO <sub>x</sub> (calculated as NO <sub>2</sub> ) | 80                         |
| Carbon Monoxide, CO  | 902                        |
| Volatile Organic Compounds, VOC                                      | 16                         |
- [Rule 20.3]
23. Startup for each gas turbine shall be defined as the period beginning with the introduction of fuel to the combustion turbine following a non-operational period and ending after the lesser of either 360 minutes of continuous of fuel flow or when the CEMS records ten consecutive one-minute data points in compliance with the emission concentration limits of Conditions 11, 14, and 19 for the gas turbine. Excluding extended startups and the first 120 minutes of all other startups, the gas turbines shall comply with a NO<sub>x</sub> emission concentration limit of 11.8 ppmvd corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period. For the purposes of this Permit to Operate, an extended startup shall be defined as the time during any startup when the steam turbine inner casing temperature is less than or equal to 500 °F. [Rules 20.3, 69.3.1]
24. During startups, including extended startups as defined in Condition 23, excluding the first 120 minutes of the startup, NO<sub>x</sub> emissions from the gas turbine shall not exceed 42 ppm corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data averaged over each one-hour period. [Rule 69.3]
25. Shutdown for each gas turbine shall be defined as the 60-minute period preceding the termination of fuel flow to the gas turbine. [Rules 20.3, 69.3.1]
26. Both gas turbines shall not be operated simultaneously in startup mode. [Rule 20.3]
27. For purposes of determining compliance based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on the CEMS, data collected in accordance with the CEMS protocol shall be used and averaging periods shall be as specified herein. [40 CFR 75]





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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000948**

28. For each emission limit expressed as pounds per hour or parts per million based on a 1-hour averaging period, compliance shall be based on each 1-clock hour period using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data. A valid clock hour shall be defined as one that includes at least 16 minutes of valid 1-minute data or includes a data point from at least two different quadrants that are spaced at least 15 minutes apart. A duct burner clock hour shall be defined as a valid clock hour in which the duct burner heat input exceeds 38.8 MMBtu/hr. [40 CFR 75]
29. For each emission limit expressed as pounds per hour or parts per million based on a 3-hour averaging period, compliance shall be based on rolling 3-clock hour period, not including startup and shutdown periods, using data collected at least once every 15 minutes when compliance is based on continuous emissions monitoring data. [40 CFR 75]
30. The Oxides of Nitrogen (NO<sub>x</sub>) and Oxygen (O<sub>2</sub>) CEMs shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of: -Sections 75.10 and 75.12 of Title 40 -Code of Federal Regulations Part 75 (40 CFR 75) -the performance specifications of Appendix A of 40 CFR 75 -the quality assurance procedures of Appendix B of 40 CFR 75 -the CEMs protocol approved by the District. The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60. (40 CFR Part 75, 40 CFR Part 60), and a CEMS protocol approved by the District, unless otherwise specified in this permit. [40 CFR 60; 40 CFR 75]
31. When the CEMS is not recording data and the unit is operating, hourly NO<sub>x</sub> emissions shall be determined in accordance with 40 CFR 75 Appendix C. Additionally, hourly CO emissions for the annual emission calculations shall be determined using the hourly emission rate recorded by the CEMS during the most recent hours in which the unit operated 3 continuous hours at no less than 80% of full power rating of each power station, either with or without duct firing. [40 CFR 60; 40 CFR 75]
32. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence. [40 CFR 75]
33. The CEMs shall be maintained and operated, and reports submitted, in accordance with the requirements of Rule 19.2 Sections (D), (E), (F)(2), (F)(3), (F)(4) and (F)(5) and CEMs Protocol approved by the District. [Rule 19.2]
34. The District shall be notified at least two weeks prior to any changes made in CEMS software that affect the measurement, calculation or correction of data displayed and/or recorded by the CEMS. [40 CFR 75]
35. Operating logs or Data Acquisition System (DAS) records shall be maintained to record the following:
- a. dates of all startups and shutdowns;
  - b. beginning and end times, to the nearest minute, of all startups and shutdowns;
  - c. fuel usage, in standard cubic feet, for each clock hour, calendar month, and 12-calendar month period;
  - d. hours of daily operation; and
  - e. total cumulative hours per calendar year.
- [Rules 20.3, 69.3.1]
36. Continuous monitors shall be installed on each turbine to monitor or calculate and record the following:
- a. gas turbine natural gas flow rate (scfh),
  - b. duct burner natural gas flow rate (scfh),
  - c. gas turbine heat input rate (MMBtu/hr), HHV,
  - d. duct burner heat input rate (MMBtu/hr), HHV,
  - e. ammonia stack concentration (ppmvd, corrected to 15% oxygen),
  - f. ammonia injection rate (lbs/hr),
  - g. steam turbine inner casing temperature (°F),
  - h. SCR inlet temperature (°F),
  - i. exhaust gas temperature (°F), and
  - j. power output (gross MW).
- The monitors shall be installed, calibrated, and maintained in accordance with an approved protocol. The monitors shall be in full operation at all times when the turbine is in operation. [Rule 69.3.1]



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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000948**

37. The applicant shall maintain records, at least on a calendar monthly basis, of total aggregate mass emissions of NO<sub>x</sub>, CO and VOC, in tons per year, from all emission units, at this stationary source for the previous 12-calendar month period. These records shall be made available for inspection within 30 calendar days after the end of each calendar month. [Rule 20.3]
38. All records required by this written permit shall be maintained on site for a minimum of five years and made available to the District upon request. [Rules 20.3, 69.3.1, 1421(b)]
39. This equipment shall be source tested once each permit year (annual source test) to demonstrate compliance with the emission standards specified in Conditions 11, 14, 15, 17, 18, and 19 of 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. If this testing will be performed by someone other than the District, a source test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. The source test protocol shall comply with the following requirements:
- a. Measurements of oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and stack gas oxygen content (O<sub>2</sub>) shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) Methods 7E, 10 and 3A, respectively, and the San Diego Air Pollution Control District Method 100, or alternative methods approved by the District and the EPA.
  - b. Measurements of particulate matter less than 10 microns shall be conducted in accordance with the U.S. Environmental Protection Agency (EPA) Methods 201A and 202, or alternative methods approved by the District and the EPA.
  - c. Measurements of volatile organic compounds (VOC) shall be conducted in accordance with San Diego Air Pollution Control District Methods 18 and/or 25A, or alternative methods approved by the District and the EPA.
  - d. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District (BAAQMD) Method ST-1B, or alternative methods approved by the District and the EPA.
  - e. Source testing shall be performed only with both the combustion turbine and duct burner in operation. The duct burner shall be operated at not less than 80% of the rated heat input unless it is demonstrated to the satisfaction of the District that the unit cannot operate under these conditions. If the demonstration is accepted, then the emissions source testing shall be performed at the highest achievable continuous heat input.
  - f. Source testing shall be performed at not less than 80% of the unit's rated load unless it is demonstrated to the satisfaction of the District that the unit cannot operate under these conditions. If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous power level.
  - g. The following additional operating characteristics shall also be measured or calculated and recorded:
    - gas turbine natural gas flow rate (scfh),
    - duct burner natural gas flow rate (scfh),
    - fuel higher heating value (Btu/scf),
    - gas turbine heat input rate (MMBtu/hr),
    - duct burner heat input rate (MMBtu/hr),
    - ammonia injection rate (lbs/hr),
    - SCR inlet temperature (°F),
    - exhaust gas temperature (°F),
    - power output (gross MW).
- [Rules 20.3, 69.3.1; 40 CFR 60 Subpart GG]
40. A Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with applicable provisions of 40 CFR part 75 Appendix A and B performance specifications. At least 30 days prior to the test date, the permittee shall submit a test protocol to the District for approval. Additionally, the District shall be notified a minimum of 21 days prior to the test so that observers may be present. [40 CFR 75]
41. Within 45 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval. [40 CFR 75]





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

**Sectors:** 5, S  
**Site ID:** APCD1999-SITE-10882  
**App ID:** APCD2012-APP-002154

**PERMIT ID**  
**APCD2011-PTO-000948**  


42. Beginning with the start of the ongoing emission reduction monitoring period as defined in "Alternative Mobile Source Emission Reduction Program for Replacing Heavy and Medium Heavy-Duty Diesel Powered Vehicles and Repowering of Marine Vessels Under Rule 27 (c)(1)(vi)" as approved on September 8, 2000 (herein referred to as the Alternative MERC Program), the owner or operator shall, on or before the last day of the second calendar month following the end of each ongoing emission reduction monitoring year:
- a. for each ongoing emission reduction monitoring year, based on the quarterly activity levels submitted by the mobile source owners and the applicable calculation method specified in the Alternative MERC Program, perform a calculation of the annual average and annual aggregate ongoing emission reductions and the ongoing emission reduction deficit, if any, for the MERCs surrendered to offset the facility's emissions;
  - b. provide an annual report to the District that summarizes the annual average ongoing emission reductions for each MERC, aggregate ongoing emission reductions, and the ongoing emission reduction deficit, if any, and provides supporting calculations and documentation; and
  - c. if the calculated annual ongoing emission reduction deficit is positive, notify the District, provide a compliance schedule to correct the ongoing emission reduction deficit, and correct the ongoing emission reduction deficit in accordance with Subsection (h)(4) of the Alternative MERC Program. [Rule 27.1]
43. Beginning with the second calendar year following the calendar year that the facility commences operations, the owner or operator shall, on or before March 1 of each calendar year:
- a. based on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment is less than 0.8;
  - b. based on information supplied by the mobile source owners for each MERC surrendered to the District, notify the District if the MERC fractional employment in primary service is less than 0.8; and
  - c. if one or more MERCs fractional employment or fractional employment in primary service is less than 0.8, provide a compliance schedule to correct any MERC shortfall and correct any MERC shortfall in accordance with Subsection (j)(4) of the Alternative MERC Program. [Rule 27.1]
44. On or before the expiration date, if any, of a MERC surrendered to offset the NOx emissions from this facility, additional Class A emission reduction credits equivalent to the expiring MERC shall be surrendered to the District to offset project emissions unless project emissions are reduced such that the emissions of oxides of nitrogen (NOx) shall not exceed 1.0 parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be based on CEMS data for each unit and averaged over each 3-hour period, excluding hours when the equipment is operated under any startup condition. If the project NOx emissions limit is reduced to 1.0 ppm, the total annual emissions of oxides of nitrogen (NOx), calculated as nitrogen dioxide, shall not exceed 50 tons per rolling 12-month period. Compliance with this limit shall be verified using the CEMS system on each gas turbine. [Rule 27.1]

**B. DISTRICT-ONLY ENFORCEABLE CONDITIONS**

7. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
8. 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.)

