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AIR POLLUTION
CONTROL DISTRICT

Brian Yim
Senior Environmental Specialist
8315 Century Park Court, CP21E
San Diego, CA 92123
Tel: 858-654-1658
Fax: 858-637-3700
Mobile: 858-449-0242
byim@semprautilities.com

June 20, 2018

Mr. Doug Erwin
Senior Air Pollution Control Engineer
San Diego County Air Pollution Control District
10124 Old Grove Road
San Diego, CA 92131-1649

**SUBJECT: Title V Permit Renewal Application
San Diego Gas & Electric, Miramar Energy Facility**

Dear Mr. Erwin:

San Diego Gas & Electric Company ("SDG&E") is hereby submitting a renewal application for the Part 70 (Title V) Operating Permit (No. 984123) for its Miramar Energy Facility (MEF) located at 6875 Consolidated Way in San Diego, California. The Title V permit expires on August 13, 2019. According to Section I.B.1 of the permit, a Title V renewal application must be submitted to the San Diego Air Pollution Control District ("District") no later than August 13, 2018. SDG&E is submitting the attached permit renewal application package to comply with this requirement.

We believe this application package constitutes both a timely and complete submittal to fulfill Part 70 and Regulation XIV permit renewal application requirements. The forms and attachments included for your review are provided in accordance with guidance from the District and include the Responsible Certification. The forms included are as follows:

- 1401-A1 & A2 Stationary Source Summary
- 1401-G Insignificant Activity List
- 1401-H1 Applicable Requirements Summary Check List
- 1401-H2 List of Permits by Equipment Category
- 1401-I Certification Statement
- 1401-M Abatement Devices
- 1401-O Multiple Applicable Requirements Streamlining (MARS)
 - 1401-O Details on Attachment O-1 (Table 1)
- 1401-Q Request for Permit Shield

received

JUN 26 18

APCD

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

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

Company Name <u>San Diego Gas & Electric - Miramar Energy Facility</u>	District Use Only NEDS # _____ SITE ID # _____
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I. FACILITY IDENTIFICATION

- Facility Name (if different than company name): Miramar Energy Facility (MEF)
- Four digit SIC Code: 4911
- Parent Company (if different than Company Name): N/A
- Mailing Address: 8315 Century Park Court, CP21L (Attn: Environmental Operations)
City San Diego State CA Zip 92123
- Street Address or Source Location: 6875 Consolidated Way
City San Diego State CA Zip 92121
- UTM Coordinates: 484558.5E, 3637348.7N
- Source Located within 50 miles of a state line: ☐ Yes ☒ No (All sources are within 50 miles)
- Source Located within 1000 feet of a school: ☐ Yes ☒ No
- Type of Organization: ☒ Corporation ☐ Sole Ownership ☐ Government
☐ Partnership ☒ Utility Company
- Legal Owner's Name: San Diego Gas & Electric Company
- Owner's Agent name (if any): _____
- Responsible Official: Carl LaPater, Plant Manager
- Plant Site Manager/Contact: Casey Williams, Sr Env. Spec Phone #: 760-432-2506 FAX #: 760-432-2510
- Application Contact: Brian Yim, Sr. Env. Specialist
- Type of Facility: Electric Generation Plant
- General description of processes/products: Electric generation peaking plant served by simple-cycle, natural gas-fired turbines (GE LM6000 PC Sprint).
- Is a Federal Risk Management Plan (RMP) pursuant to Section 112(r) required? ☒ Yes ☐ No
(If application is submitted after RMP due date, attach verification that plan is registered with the appropriate agency.)

II. TYPE OF PERMIT ACTION (check)	CURRENT PERMIT (permit number)	EXPIRATION (date)
<input type="checkbox"/> Initial Title V Application	N/A	N/A
<input checked="" type="checkbox"/> Permit Renewal	984123	08/13/2019
<input type="checkbox"/> Significant Permit Modification		
<input type="checkbox"/> Minor Permit Modification		
<input type="checkbox"/> Administrative Amendment		

III. DESCRIPTION OF PERMIT ACTION

- Does the permit action requested involve: ☐ Temporary Source ☐ Voluntary Emissions Caps
☒ Acid Rain Source ☐ Alternative Operating Scenarios ☒ Abatement Devices
☒ CEMs ☒ Permit Shield
☐ Outdated SIP Requirement Streamlining ☒ Multiple Applicable Requirement Streamlining
☐ Source Subject to MACT Requirements [Section 112]
☐ Source Subject to Enhanced Monitoring (40CFR64) [Compliance Assurance Monitoring]
- Is source operating under a Compliance Schedule? ☐ Yes ☒ No ☐ Proposed
- Is source operating under a Variance ☐ Yes ☒ No (If Yes, please attach variance information)
- For permit modification, provide a general description of the proposed permit modification: _____

IV. SUPPLEMENTAL ATTACHMENTS*: See attached table of contents

* Means all attachments to the complete application.

Received

JUN 26 18

APCD

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

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

Company Name	District Use Only
<u>San Diego Gas & Electric -Miramar Energy Facility</u>	NEDS # _____ SITE ID # _____

I. MAJOR SOURCE APPLICABILITY

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

POLLUTANT	MAJOR SOURCE THRESHOLD TOTAL EMISSIONS, TPY	(check if appropriate)
VOC	100	<input type="checkbox"/>
PM ₁₀	100	<input type="checkbox"/>
SO ₂	100	<input type="checkbox"/>
NO _x	100	<input type="checkbox"/>
CO	100	<input type="checkbox"/>
ODC	100	<input type="checkbox"/>
LEAD COMPOUNDS	10	<input type="checkbox"/>
HAZARDOUS AIR POLLUTANTS		
SINGLE HAP	10	<input type="checkbox"/>
N/A		<input type="checkbox"/>
		<input type="checkbox"/>
COMBINATION HAP	25	<input type="checkbox"/>
N/A		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

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

Reference MEF Toxic/Criteria Inventory ReportInventory Year 2014Signature of Responsible Official Carl S. LaPeterDate 22 JUN 2018Carl LaPeter
Print Name of Responsible Official(760) 432-2503
Telephone No. of Responsible OfficialPlant Manager
Title of Responsible Official**II. EMISSIONS CALCULATIONS ATTACHED (as needed)**☒ Yes ☐ No

DISTRICT USE ONLY

Date Application Received: _____

Application # _____

Application Filing Fee: _____

District Received Stamp: _____

Receipt #: _____

Fee Code: _____

Pursuant to your advice, we have also included greenhouse gas (GHG) potential to emit calculations from the plant to address applicability of MEF to EPA's PSD and Title V GHG Tailoring Rule.

In addition, a check in the amount of \$9,239.00 is also being submitted (pursuant to the Title V permit renewal application fee estimate provided by the District).

If you have any questions regarding this application please contact me at (858) 654-1658 (email: byim@semprautilities.com).

Sincerely,
Brian Yim
Senior Environmental Specialist

Enclosures

cc: Carl LaPeter (SDG&E)
Charles Hardman (SDG&E)
Mo Peram (SDG&E)
Casey Williams (SDG&E)

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San Diego Gas & Electric

2018 JUN 26 A 9:31 **Miramar Energy Facility**

AIR POLLUTION
CONTROL DISTRICT

6875 Consolidated Way
San Diego, CA 92121

**Title V Operating Permit No. 984123
Renewal Application Submittal**

Date: June 2018

Application Contents

- Project Summary/Statement of Basis
- Area Maps

San Diego County Air Pollution Control District Forms

- 1401-A1 & A2 Stationary Source Summary
- 1401-G Insignificant Activity List
- 1401-H1 Applicable Requirements Summary Check List
- 1401-H2 List of Permits by Equipment Category
- 1401-I Certification Statement
- 1401-M Abatement Devices
- 1401-O Multiple Applicable Requirements Streamlining (MARS)
- 1401-Q Request for Permit Shield

Attachments

- Greenhouse Gas (GHG) Potential to Emit Calculations
- Attachment O-1 (MARS)
- Excerpt from CPUC Rule 30 Regarding Natural Gas Quality Standards
- PTO No. APCD2009-PTO-981360 for Turbine #1
- PTO No. APCD2010-PTO-000397 for Turbine #2
- PTO No. APCD2009-PTO-000395 for emergency black-start engine

Form 1401-A1 & A2

Stationary Source Summary

Form 1401-G

Insignificant Activity List

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

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

Company Name <u>San Diego Gas & Electric - Miramar Energy Facility</u>	District Use Only NEDS # _____ SITE ID # _____
Facility Address: <u>6875 Consolidated Way, San Diego CA 92121</u>	

LIST OF EQUIPMENT – INSIGNIFICANT ACTIVITIES

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

Exemptions based on Size (Capacity)

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

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

Continued - Exemptions based on Size (Capacity)

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

Exemptions based on Production Rates (Emission Limits)

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

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

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

Form 1401-H1

Applicable Requirements Summary Check List

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

Company Name SDG&E - Miramar Energy Facility	District Use Only NEDS # _____ SITE ID # _____
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APPLICABLE REQUIREMENTS: Applicable requirements which apply to an entire facility are listed first. The applicant should check appropriate boxes on the form and attach emission unit specific permit number lists where necessary. Where streamlining is employed, note on this form. If information does not fit in the space allotted, attach documentation and reference it on this form. **Type or print legibly.**

RULE	RULE DESCRIPTION	Test Method or Rule Section	Monitoring, Records, Reports, Rule Section	Facility	Gas Turbine #1	Gas Turbine #2	Emergen. Engine												Future Effective Date
Facility Applicable Requirement Description																			
10(a)	Permits Required – (a) Authority to Construct			X															
10(b)	Permits Required – (b) Permit to Operate			X															
19	Provision of Sampling & Testing Facilities			X															
19.2	Continuous Emission Monitoring Requirements				X	X													
19.3	Emission Information			X															
NSR	New Source Review			X															
PSD	Prevention of Significant Deterioration			X															
21	Permit Conditions			X															
50	Visible Emissions			X															
51	Nuisance			X															
60	Circumvention			X															
67.0	Architectural Coatings	(g)		X															
67.17	Storage of Materials Containing VOC	(e)		X															
71	Abrasive Blasting			X															
98	Breakdown Conditions: Emergency Variance			X															
101	Burning Control			X															
131	Stationary Source Curtailment Plan																		
132	Traffic Abatement Plan																		

TITLE V APPLICATION

[illegible]

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

RULE	RULE DESCRIPTION	Test Method or Rule Section	Monitoring, Records, Reports, Rule Section	Facility	Gas Turbine #1	Gas Turbine #2	Emergen. Engine											Future Effective Date
67.12	Polyester Resin Operations	(g)	(f)															
67.15	Pharmaceutical & Cosmetic Manufacturing	(e)																
67.16	Graphic Arts Operations	(g)	(f)															
67.17	Open VOC Containers	(e)																
67.18	Marine Coating Operations	(g)	(f)															
67.19	Coating and Printing Inks Mfg. Operations	(g)	(f)															
67.20	Motor Vehicle & Mobile Equipment Refinishing Operations																	
67.21	Adhesive Material Application Operations																	
67.22	Expandable Polystyrene Foam Products Manufacturing Operations (not in SIP)																	
67.24	Bakery Ovens	(f)	(e)															
68	Fuel Burning Equipment - NOx																	
69.2	Boilers	(f)	(e) & (g)															
69.3	Stationary Gas Turbine Engines - RACT	(f)	(e) & (g)		S	S												
69.3.1	Stationary Gas Turbine Engines - BART	(f)	(e) & (g)		S	S												
69.3.1	(not in SIP)																	
69.4	Stationary Internal Combustion Engines - RACT	(f)	(e)				X											
69.4.1	Stationary Internal Combustion Engines - BART	(f)	(e)				X											
69.4.1	(not in SIP)																	
70	Orchard Heaters																	
71	Abrasive Blasting																	
	Applicability, Definitions, Emission Calculations, Emission Offsets and Banking, Exemptions, and Other Requirements (SIP Version 7/5/79)				X	X	X											
20.1	NSR - General Provisions (Version 11/4/98) (not in SIP)				X	X	X											
20.1	Standards for Authority to Construct Best Available Control Technology (SIP Version 7/5/79)				X	X	X											
20.2	NSR - Non-major Stationary Sources (Version 11/4/98) (not in SIP)				X	X	X											
20.2	Standards for Authority to Construct - Air Quality Analysis (SIP Version 7/5/79)																	

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

RULE	RULE DESCRIPTION	Test Method or Rule Section	Monitoring, Records, Reports, Rule Section	Facility	Gas Turbine #1	Gas Turbine #2	Emergen. Engine											Future Effective Date
20.3	NSR – Major Stationary Source and PSD Stationary Source (Version 11/4/98) (not in SIP)																	
20.4	Standards for Authority to Construct - Major Sources (SIP Version 7/5/79)																	
20.4	NSR – Portable Emission Units (Version 11/4/98) (not in SIP)																	
20.5	Power Plants (SIP Version 7/5/79)																	
20.6	Standards for Permit to Operate Air Quality Analysis (SIP Version 7/5/79)																	
SUBPART	Regulation X - Standards of Performance for New Stationary Sources (NSPS)	Rule #	Rule #															
A	General Provisions		260.7 260.13		S	S	X											
D	Standards of Performance for Fossil-Fuel Fired Steam Generators	260.46	260.45 260.47a 260.48a 260.49a															
Da	Standards of Performance for Electric Utility Steam Generating Units Constructed After September 18, 1978		260.47b 260.48b 260.49b															
Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating	260.45b 260.46b	260.53															
E	Standards of Performance for Incinerators	260.54																
I	Standards of Performance for Asphalt Concrete Plants	260.93																
K	Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after June 11, 1973 and Prior to May 19, 1978		260.113															
Ka	Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after May 18, 1978	260.113a	260.115a															
Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984	260.113b	260.115b 260.116b															

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

RULE	RULE DESCRIPTION	Test Method or Rule Section	Monitoring, Records, Reports, Rule Section	Facility	Gas Turbine #1	Gas Turbine #2	Emergen. Engine										Future Effective Date
Subpart																	
L	Standards of Performance for Secondary Lead Smelters	260.123															
M	Standards of Performance for Secondary Brass and Bronze Ingot Production Plants	260.133															
O	Standards of Performance for Sewage Treatment Plants	260.154	260.153														
DD	Standards of Performance for Grain Elevators	260.303															
EE	Standards of Performance for Surface Coating Metal Furniture	260.313 260.316	260.314 260.315														
GG	Standards of Performance for Stationary Gas Turbines	260.335	260.334		S	S											
QQ	Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing	260.433 260.435	260.434														
RR	Standards of Performance for the Pressure Sensitive Tape and Label Surface Coating Operations	260.444 260.446	260.445 260.447														
SS	Standard of Performance for the Industrial Surface Coating Large Appliances	260.453 260.456	260.454 260.455														
TT	Standards of Performance for Metal Coil Surface Coating	260.463 260.466	260.464 260.465														
BBB	Standards of Performance for the Rubber Tire Manufacturing Industry	260.543 260.547	260.544 260.545 260.546														
FFF	Standards of Performance for Flexible Vinyl and Urethane Coating and Printing	260.583	260.584 260.585														
JJJ	Standards of Performance for Petroleum Dry Cleaners																
Subpart																	
New Source Performance Standards (40 CFR 60)																	
Cb, F	Portland Cement Plants																
	Small Industrial -Commercial -Institutional Steam Generators >10 MM Btu but <100 MM Btu.																
Dc																	
Ea	Municipal Waste Combustors																
G	Nitric Acid Plants																
H & Cb	Sulfuric Acid Plants																

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

[illegible]

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

RULE	RULE DESCRIPTION	Test Method or Rule Section	Monitoring, Records, Reports, Rule Section	Facility	Gas Turbine #1	Gas Turbine #2	Emergen. Engine											Future Effective Date
Subpart																		
HHH	Synthetic Fiber Production Facilities																	
KKK, LLL	Onshore Natural Gas Processing: VOC Equipment Leaks and SO ₂ Emissions.																	
HHH	Synthetic Fiber Production Facilities																	
KKK, LLL	Onshore Natural Gas Processing: VOC Equipment Leaks and SO ₂ Emissions.																	
NNN	VOC Emissions from Synthetic Organic Chemical Manufacturing Industry Distillation Operations.																	
OOO	Standard of Performance for Nonmetallic Mineral Processing Plants																	
PPP	Wool Fiberglass Insulation Mfg. Plants																	
QQQ	VOC Emissions from Petroleum Refinery Wastewater Systems.																	
RRR	VOC Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes.																	
SSS	Magnetic Tape Coating Facilities																	
TTT	Industrial Surface Coating Surface, Surface Coating of Plastic Parts for Business Machines.																	
UUU	Calciners and Dryers in Mineral Industries.																	
VVV	Polymeric Coating of Supporting Substances Facilities.																	
WWW	Standards of Performance for Municipal Solid Waste Facilities																	

REGULATION XI - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR

POLLUTANTS (NESHAPS)																		
A	General Provisions																	
	Beryllium Extraction Plants; Ceramic Plants, Foundries, Incinerators, Propellant Plants, and Machine Shops that Process Beryllium Containing Material; and Rocket Motor Firing Test Sites.																	
C, D																		

TITLE V APPLICATION
Applicable Requirements Summary Checklist (FORM 1401-IH1) - continued

RULE	RULE DESCRIPTION	Test Method or Rule Section	Monitoring, Records, Reports, Rule Section	Facility	Gas Turbine #1	Gas Turbine #2	Emergen. Engine												Future Effective Date
Subpart																			
E	Mercury Ore Processing; Manufacturing Processes Using Mercury Chloralkali Cells; and Sludge Incinerators.																		
F	Ethylene Dichloride Mfg. Via Oxygen, HCl and Ethylene; Vinyl Chloride Mfg.; and Polyvinyl Chloride Mfg.																		
M	Asbestos Mills; Roadway Surfacing with Asbestos Tailings; Manufacture of Products Containing Asbestos; Demolition; Renovation; and Spraying and Disposal of Asbestos Waste.																		
SUBPART NESHAPS (40 CFR 61)																			
B,Q,R,T,W,	Underground Uranium Mines; Dept. of Energy Facilities; Phosphorus Fertilizer Plants; & Facilities Processing or Disposing of Uranium Ore & Tailings.																		
H,I,K	Dept. of Energy; Nuclear Regulatory Commission Licensed Facilities; Other Federal Facilities; and Elemental Phosphorus Plants.																		
J,L,Y, BB,FF	Fugitive Process, Storage, and Transfer Equipment Leaks; Coke By-Product Recovery Plants; Benzene Storage Vessels; Benzene Transfer Operations; and Benzene Waste Operations.																		
N,O,P	Glass Manufacturer; Primary Copper Smelter; Arsenic Trioxide and Metallic Arsenic Production Facilities.																		
V	Pumps, Compressors, Pressure Relief Devices, Connections, Valves, Lines, Flanges, Product Accumulator Vessels, etc. in VHAP Service.																		
SUBPART MACT Standards (40 CFR 63)																			
F,G,H,I	Amendment: Reopening, Averaging Issue																		
L	Coke Ovens																		
O	Ethylene Oxide Sterilizers																		
Q	Industrial Process Cooling Towers																		
R	Gasoline Distribution Facilities																		

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

RULE	RULE DESCRIPTION	Test Method or Rule Section	Monitoring, Records, Reports, Rule Section	Facility	Gas Turbine #1	Gas Turbine #2	Emergen. Engine											Future Effective Date
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Subpart

T	Halogenated Solvent Cleaning Degreasing																	
X	Secondary Lead Smelters																	
Y	Marine Tank Loading/Unloading																	
CC	Petroleum Refineries																	
DD	Off-Site Waste and Recovery Operations																	
EE	Magnetic Tape																	
GG	Aerospace (Coatings)																	
II	Shipbuilding for Ship Repair (Surface Coating)																	
JJ	Wood Furniture Industry (Coatings)																	
KK	Printing and Publishing																	
AAAA	Municipal Solid Waste Landfills																	
DDDD	Industrial, Commercial and Institutional Boilers and Process Heaters																	
MMMM	Surface Coating of Miscellaneous Metal Parts and Products																	
PPPP	Surface Coating of Plastic Parts																	
ZZZZ	Reciprocating Internal Combustion Engines						X											
YYYY	Stationary Combustion Turbines																	

California Airborne Toxic Control Measures (ATCM)
17 CCR

§93102	Hexavalent Chromium ATCM for Chrome Plating and Chromic Acid Anodizing Operations																	
§93109	ATCM for Emissions of Perchloroethylene from Dry Cleaning Operations																	

	40 CFR Part 68 RMP																	
	Title IV - Acid Rain (40 CFR 72)																	

Title VI-Ozone Depleting Compounds (40 CFR 82)

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

Form 1401-H2

List of Permits by Equipment Category

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

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

Company Name	District Use Only
<u>San Diego Gas & Electric - Miramar Energy Facility</u>	NEDS # _____
Facility Address: <u>6875 Consolidated Way</u>	SITE ID # _____
<u>San Diego, CA 92121</u>	

PERMITTED EMISSION UNITS BY EQUIPMENT CATEGORY

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

Emission Unit Category	Application/ Permit No.	Status of Emission Unit
Gas Turbine #1	APCD2009-PTO-981360	O
Gas Turbine #2	APCD2010-PTO-000397	O
Black-Start Emergency IC Engine	APCD2009-PTO-000395	O

Form 1401-I

Certification Statement

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

TITLE V APPLICATION
Certification Statement (FORM 1401-I)

Company Name	District Use Only
San Diego Gas & Electric - Miramar Energy Fac	NEDS # _____
Facility Address: 6875 Consolidated Way	SITE ID # _____
San Diego, CA 92121	

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

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

Carl S. LaPete
Signature of Responsible Official

22 JUN 2018
Date

Carl LaPete
Print Name of Responsible Official

(760) 432-2503
Telephone No. of Responsible Official

Plant Manager
Title of Responsible Official

Form 1401-M

Abatement Devices

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

TITLE V APPLICATION
Abatement Devices (FORM 1401-M)

Company Name <u>San Diego Gas & Electric- Miramar Energy Facility</u>	District Use Only NEDS # _____ SITE ID # _____
Facility Address: <u>6875 Consolidated Way, San Diego, CA 92121</u>	

LIST OF ABATEMENT DEVICES

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

Permit No(s)	Abatement Device Name or Description	Emission Unit(s) or Operation(s) Abated
981360*	Selective Catalytic Reduction System and Oxidation Catalyst	Gas Turbine #1
000397**	Selective Catalytic Reduction System and Oxidation Catalyst	Gas Turbine #2
	* Full Permit No. is: APCD2009-PTO-981360	
	** Full Permit No. is: APCD2010-PTO-000397	

Form 1401-O

Multiple Applicable Requirements
Streamlining (MARS)

TITLE V APPLICATION
Multiple Applicable Requirements Streamlining (FORM 1401-O)

Form 1401-Q

Request for Permit Shield

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

TITLE V APPLICATION
Permit Shield (FORM 1401-Q)

Company Name <u>San Diego Gas & Electric - Miramar Energy Facility</u>	District Use Only NEDS # _____ SITE ID # _____
Facility Address: <u>6875 Consolidated Way, San Diego, CA 92121</u>	

REQUEST FOR PERMIT SHIELD

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

Application No(s) Permit No(s)	Requirements to be Shielded	Basis	Attachment Number
981360 & 000397	SDCAPCD Rule 52 (Particulate Matter)	Not applicable, per Section (a), Rule 53 applies to turbines	
981360 & 000397	SDAPCD Rule 53(d)(1) (Specific Contaminants)	Subsumed. (See Attachment O-1 re: MARS)	O-1
981360 & 000397	SDCAPCD Rule 54 (Dust and Fumes)	Not applicable as Section (b) exempts gaseous fuels burning	
981360 & 000397	SDAPCD Rule 62 (Sulfur Content of Fuels)	Subsumed (See Attachment O-1 re: MARS)	O-1
981360 & 000397	SDCAPCD Rule 68 (Fuel Burning Equipment - NOx)	Not Applicable per R-69.3 which is specific to turbines	
981360 & 000397	SDAPCD Rule 69.3 (Stationary Gas Turbine Engines)	Subsumed. (See Attachment O-1 re: MARS)	O-1
981360 & 000397	40 CFR Part 60, Subpart GG -NSPS for Stationary Gas Turbines	Subsumed. (See Attachment O-1 re: MARS)	O-1
981360 & 000397	40 CFR 64 Compliance Assurance Monitoring (CAM)	CAM not required per R-69.3 and CEMS installation	
	* Full Permit No. for Turbine #1 is: APCD2009-PTO-981360		
	** Full Permit No. for Turbine #2 is: APCD2010-PTO-000397		

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Attachment O-1

MARS (Table 1)

Attachment O-1

Multiple Applicable Requirements Streamlining¹ Gas Turbine #1 (Permit ID: APCD2009-PTO-981360) & Gas Turbine #2 (Permit ID: APCD2010-PTO-000397)

Table 1. Summary of Multiple Applicable Requirements

Subject	Permit Condition	SDAPCD Rule	Federal Requirement
<u>NOx Emission Rates</u>	SDAPCD NSR; Turbine #1 (No. 981360), Condition No. 15	SDAPCD Rule 69.3(d)(1)(i)	40 CFR Part 60 §60.332(a)(1)
	SDAPCD NSR; Turbine #2 (No. 000397), Condition No. 14	SDAPCD Regulation X, Subpart GG, Rule 260.332 (a)(1)	
<u>NOx Control Work Practices</u>	SDAPCD NSR; Turbine #1 (No. 981360), Condition Nos. 15 and 26	None	None
	SDAPCD NSR; Turbine #2 (No. 000397), Condition Nos. 14 and 24		
<u>NOx Emissions Monitoring Requirements: Continuous Emissions Monitoring System</u>	SDAPCD NSR; Turbine #1 (No. 981360), Condition Nos. 8, 11, and 12.	SDAPCD Rule 69.3(e)(1) and (2), (g)	40 CFR Part 75 §75.10(a)(2) and §75.12(d)
	SDAPCD NSR; Turbine #2 (No. 000397), Condition Nos. 7, 10, and 11		
<u>NOx Emissions Recordkeeping Requirements</u>	SDAPCD NSR; Turbine #1 (No. 981360), Condition Nos. 9, 11, and 14	SDAPCD Rule 69.3(e)(3)-(5) SDAPCD Regulation X, Subpart A, Rule 260.4(b), 260.7(c)	40 CFR Part 75 §75.57(a), (b), and (d) 40 CFR Part 60 §60.4(b) 40 CFR Part 60 §60.7(c)
	SDAPCD NSR; Turbine #2 (No. 000397), Condition Nos. 8, 10, and 13		
<u>SOx Emission Rates</u>	None	SDAPCD Rule 53(d)(1) SDAPCD Regulation X, Subpart GG, Rule 260.333(a)	40 CFR Part 60 § 60.333(a)
<u>Sulfur Content of Fuels</u>	SDAPCD NSR; Turbine #1 (No. 981360), Condition No. 6	SDAPCD Rule 62(b)(1) SDAPCD Regulation X, Subpart GG, Rule 260.333(b)	40 CFR Part 60 § 60.333(b)
	SDAPCD NSR; Turbine #2 (No. 000397), Condition No. 5		
<u>Sulfur Content of Fuels Monitoring and Recordkeeping Requirements</u>	SDAPCD NSR; Turbine #1 (No. 981360), Condition Nos. 6 and 14	SDAPCD Regulation X, Subpart A, Rule 260.4(b), 260.7(c)	40 CFR Part 60 §60.4(b) 40 CFR Part 60 §60.7(c)
	SDAPCD NSR; Turbine #2 (No. 000397), Condition Nos. 5 and 13		

¹ As noted on Form 1401-O, multiple requirements were identified pertaining to the gas turbine (for normal, non-commissioning, operations): (1) NOx emission limits, (2) SOx emission limit, and (3) sulfur content of fuel. The following is a discussion of the applicable requirements, determination of the most stringent emission limit and associated monitoring and record keeping requirements, and proposed streamlined requirements.

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(A) NO_x EMISSIONS FROM GAS TURBINE

<p>Step One: Identification of multiple requirements</p>	<ul style="list-style-type: none"> • SDAPCD Rule 69.3(d)(1)(i) Emissions concentration of oxides of nitrogen (NO_x) from any unit subject to this rule, calculated as nitrogen dioxide at 15% oxygen on a dry basis, shall not exceed 42 parts per million by volume (ppmv) when operated on a gaseous fuel. • SDAPCD Regulation X, Subpart GG, Rule 260.332(a)(1) (See below for 40 CFR 60 applicable requirement; Rule is the equivalent of 40 CFR 60 incorporated by reference.) • SDAPCD NSR; Turbine #1 (No. 981360), Condition 15 <ul style="list-style-type: none"> - THE EMISSIONS OF OXIDES OF NITROGEN (NO_x), CALCULATED AS NITROGEN OXIDE, FROM THE UNIT EXHAUST STACK SHALL NOT EXCEED 5 PPMVD AVERAGED OVER EACH CLOCK HOUR AND SHALL NOT EXCEED 2.5 PPMVD AVERAGED OVER EACH ROLLING 3-CLOCK HOUR PERIOD (CORRECTED TO 15% OXYGEN). COMPLIANCE WITH THESE LIMITS SHALL BE DEMONSTRATED AT THE TIME OF THE INITIAL SOURCE TEST AND CONTINUOUSLY BASED ON THE CEMS DATA AND BASED UPON SOURCE TESTING CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN PERIODS, OR DURING APPROVED PERIODS OF TESTING, TUNING, AND MAINTENANCE AS DEFINED BY THIS PERMIT. • SDAPCD NSR; Turbine #2 (No. 000397), Condition 14 <ul style="list-style-type: none"> - THE EMISSIONS OF OXIDES OF NITROGEN (NO_x), CALCULATED AS NITROGEN OXIDE, FROM THE UNIT EXHAUST STACK SHALL NOT EXCEED 2.5 PPMVD AVERAGED OVER EACH ROLLING 3-CLOCK HOUR PERIOD (CORRECTED TO 15% OXYGEN). COMPLIANCE WITH THESE LIMITS SHALL BE DEMONSTRATED AT THE TIME OF THE INITIAL SOURCE TEST AND CONTINUOUSLY BASED ON THE CEMS DATA AND BASED UPON SOURCE TESTING CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN PERIODS, OR DURING APPROVED PERIODS OF TESTING, TUNING, AND MAINTENANCE AS DEFINED BY THIS PERMIT.. • 40 CFR Part 60 Subpart GG, §60.332(a)(1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of: $STD = 0.0075 \frac{(14.4)}{Y} + F$ [The facility's turbine parameters are as follows: 49 MW, 462 MMBTU/hr = 4.88 x 10⁸ kJ/hr; Y = 9.95 kJ/watt-hr; F = 0.005 for natural gas with nitrogen content of 0.2610%. Therefore, the emission limit is: 159 ppmdv @ 15% O₂.]
<p>Step Two: Determine most stringent NO_x emission limit</p>	<p>The SDAPCD NSR permit limits are:</p> <p style="padding-left: 40px;">2.5 ppmvd @ 15% O₂ (3-CLOCK HOUR) 5.0 ppmvd @ 15% O₂ (1-CLOCK HOUR)</p> <p><i>The NO_x emission limits in the SDAPCD NSR permits are the most stringent of the multiple requirements and therefore the streamlined requirements. The other limits are subsumed.</i></p>

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Step Three: Evaluate work practice requirements

- **SDAPCD Rule 69.3: None.**
- **SDAPCD Regulation X, Subpart GG, Rule 260.300: None**
- **SDAPCD NSR; Turbine #1 (No. 981360), Condition 15**
 - THE EMISSIONS OF OXIDES OF NITROGEN (NOX), CALCULATED AS NITROGEN OXIDE, FROM THE UNIT EXHAUST STACK SHALL NOT EXCEED 5 PPMVD AVERAGED OVER EACH CLOCK HOUR AND SHALL NOT EXCEED 2.5 PPMVD AVERAGED OVER EACH ROLLING 3-CLOCK HOUR PERIOD (CORRECTED TO 15% OXYGEN). COMPLIANCE WITH THESE LIMITS SHALL BE DEMONSTRATED AT THE TIME OF THE INITIAL SOURCE TEST AND CONTINUOUSLY BASED ON THE CEMS DATA AND BASED UPON SOURCE TESTING CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN PERIODS, OR DURING APPROVED PERIODS OF TESTING, TUNING, AND MAINTENANCE AS DEFINED BY THIS PERMIT..
- **SDAPCD NSR; Turbine #1 (No. 981360), Condition 26**
 - THIS UNIT SHALL BE SOURCE TESTED TO DEMONSTRATE COMPLIANCE WITH THE NOX, CO, VOC, AND AMMONIA EMISSION STANDARDS OF THIS PERMIT, USING DISTRICT APPROVED METHODS. THE SOURCE TEST AND THE NOX AND CO RATA TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE RATA FREQUENCY REQUIREMENTS OF 40 CFR 75 APPENDIX B, SECTIONS 2.3.1 and 2.3.3.
- **SDAPCD NSR; Turbine #2 (No. 000397), Condition 14**
 - THE EMISSIONS OF OXIDES OF NITROGEN (NOX), CALCULATED AS NITROGEN OXIDE, FROM THE UNIT EXHAUST STACK SHALL NOT EXCEED 2.5 PPMVD AVERAGED OVER EACH ROLLING 3-CLOCK HOUR PERIOD (CORRECTED TO 15% OXYGEN). COMPLIANCE WITH THESE LIMITS SHALL BE DEMONSTRATED AT THE TIME OF THE INITIAL SOURCE TEST AND CONTINUOUSLY BASED ON THE CEMS DATA AND BASED UPON SOURCE TESTING CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN PERIODS, OR DURING APPROVED PERIODS OF TESTING, TUNING, AND MAINTENANCE AS DEFINED BY THIS PERMIT..
- **SDAPCD NSR; Turbine #2 (No. 000397), Condition 24**
 - IN ADDITION TO ANY OTHER SOURCE TESTS OR RAT AS REQUIRED BY THIS PERMIT, PERIODIC SOURCE TESTS AND NOX AND CO RATA SHALL BE CONDUCTED IN ACCORDANCE WITH THE RATA FREQUENCY REQUIREMENTS OF 40CFR 75, APPENDIX B, SECTION 2.3.1 AND 2.3.3. IT IS THE RESPONSIBILITY OF THE PERMITTEE TO SCHEDULE THE SOURCE TESTS AND RATAS REQUIRED BY THIS PERMIT WITH THE DISTRICT. ALL SOURCE TESTS AND RATA AS SHALL BE PERFORMED OR WITNESSED BY THE DISTRICT.

- **40 CFR Part 60 Subpart GG: None**

The streamlined work practice requirement will be the work practices associated with the most stringent emission limit in the SDAPCD NSR

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	<p><i>permits. The work practices contained in the SDAPCD NSR permits are considered to be the streamlined requirements.</i></p>
<p>Step Four: Evaluate monitoring requirements</p>	<ul style="list-style-type: none"> <p>• SDAPCD Rule 69.3(e)(1) and (2), (g)</p> <p>Continuous monitoring for operational characteristics of the unit and NOx emissions reduction system including:</p> <ul style="list-style-type: none"> (i)exhaust gas flow rate; (ii)exhaust gas temperature; (iii)ammonia injection rate; (iv)water injection rate; and (v)stack-gas oxygen content. <p>An owner or operator of any unit with a continuous emission monitoring system (CEMS) which has been installed to measure NOx emissions pursuant to any federal regulation shall certify, calibrate and maintain the CEMS in accordance with applicable federal regulations including the reporting requirements of Sections 60.7(c), 60.7(d), and 60.13 of Title 40, Code of Federal Regulations Part 60 (40 CFR 60), performance specifications of Appendix B of 40 CFR 60, quality assurance procedures of Appendix F of 40 CFR 60, and a protocol approved in writing by the Air Pollution Control Officer.</p> <p>Any required source testing shall be performed at no less than 80% of the power rating. A unit subject to the requirements of Section (d) shall be tested for compliance at least annually before the Permit to Operate renewal date, unless otherwise specified in writing by the Air Pollution Control Officer.</p> <p>• SDAPCD NSR; Turbine#1(No.981360), Conditions 8, 11, &12 & Turbine #2 (No. 000397), Conditions 7, 10, & 11</p> <ul style="list-style-type: none"> - THE UNIT SHALL BE EQUIPPED WITH CONTINUOUS MONITORS TO MEASURE, CALCULATE AND RECORD THE FOLLOWING OPERATIONAL CHARACTERISTICS: <ul style="list-style-type: none"> A. HOURS OF OPERATION (HOURS); B. NATURAL GAS FLOW RATE (KSCFH); C. EXHAUST GAS TEMPERATURE (DEGREES FAHRENHEIT); D. SCR AVERAGE TEMPERATURE (DEGREES FAHRENHEIT); E. AMMONIA INJECTION RATE (LBS/HOUR); F. NET POWER OUTPUT TO GRID (MW); G. WATER (FOR NOX CONTROL) INJECTION RATE (LB/HR) IF EQUIPPED WITH WATER INJECTION. <p>THESE PARAMETERS SHALL BE CONTINUOUSLY MONITORED. THESE MONITORS SHALL BE CALIBRATED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED PROCEDURES AND A PROTOCOL APPROVED BY THE DISTRICT.</p> - A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) SHALL BE MAINTAINED AND CALIBRATED TO MEASURE AND RECORD THE CONCENTRATIONS OF OXIDES OF NITROGEN (NOX) AND CARBON MONOXIDE (CO) IN THE EXHAUST GAS ON A DRY BASIS (PPMVD)CORRECTED TO 15% OXYGEN. THE CEMS SHALL ALSO MEASURE THE OXYGEN CONTACT IN THE EXHAUST GAS. THE CEMS SHALL BE IN FULL OPERATION AT ALL TIMES WHEN THE UNIT IS IN OPERATION. - THE OXIDES OF NITROGEN (NOX) AND OXYGEN (O2) CEMS SHALL BE CERTIFIED AND MAINTAINED IN ACCORDANCE

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WITH APPLICABLE FEDERAL REGULATIONS INCLUDING THE REQUIREMENTS OF SECTIONS 75.10 AND 75.12 OF TITLE 40, CODE OF FEDERAL REGULATIONS PART 75 (40 CFR75), THE PERFORMANCE SPECIFICATIONS OF APPENDIX A OF 40 CFR 75, THE QUALITY ASSURANCE PROCEDURES OF APPENDIX B OF 40 CFR 75 AND 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, §75.10(a)(2) and §75.12(d)**

To determine NO_x emissions, the owner or operator shall install, certify, operate, and maintain, in accordance with all the requirements of this part, a NO_x-diluent continuous emission monitoring system (consisting of a NO_x pollutant concentration monitor and an O₂ or CO₂ diluent gas monitor) with an automated data acquisition and handling system for measuring and recording NO_x concentration (in ppm), O₂ or CO₂ concentration (in percent O₂ or CO₂) and NO_x emission rate (in lb/MMBtu) discharged to the atmosphere;

Gas-fired peaking units or oil-fired peaking units. The owner or operator of an affected unit that qualifies as a gas-fired peaking unit or oil-fired peaking unit, as defined in § 72.2 of this chapter, based on information submitted by the designated representative in the monitoring plan shall comply with one of the following:

(1) Meet the general operating requirements in §75.10 for a NO_x continuous emission monitoring system; or (2) Provide information satisfactory to the Administrator using the procedure specified in appendix E of this part for estimating hourly NO_x emission rate.

The streamlined monitoring requirements will be the monitoring requirements associated with the most stringent emission limit in the SDAPCD NSR permits. The monitoring requirements contained in the SDAPCD NSR permits are considered to be the streamlined requirements. Any other monitoring requirements are subsumed.

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(A) NO_x EMISSIONS FROM GAS TURBINE (continued)

Step Five: Evaluate recordkeeping / reporting

- **SDAPCD Rule 69.3(e)(3)-(5)**
Maintain an operating log and record actual times and duration of all startups, shutdowns and fuel changes, and the type and quantity of each fuel used; record the hours of operation for non-emergency purposes and during each emergency situation; maintain all records required by Section (e) for a minimum of two calendar years.
- **SDAPCD Regulation X, Subpart A, Rule 260.4(b), 260.7(c)**
(See below for 40 CFR 60 applicable requirement; Rule is the equivalent of 40 CFR 60 incorporated by reference.)
- **SDAPCD NSR; Turbine#1(No.981360), Conditions 9, 11, &14 & Turbine #2 (No. 000397), Conditions 8, 10, & 13**
 - AN OPERATING LOG OR DATA ACQUISITION AND HANDLING SYSTEM (DAHS) RECORDS SHALL BE MAINTAINED EITHER ONSITE, OR AT A DISTRICT-APPROVED ALTERNATE LOCATION TO RECORD EACH OF THE OPERATIONAL CHARACTERISTICS LISTED IN THIS PERMIT AT LEAST EVERY 15 MINUTES.
 - A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) SHALL BE MAINTAINED AND CALIBRATED TO MEASURE AND RECORD THE CONCENTRATIONS OF OXIDES OF NITROGEN (NO_x) AND CARBON MONOXIDE (CO) IN THE EXHAUST GAS ON A DRY BASIS (PPMVD)CORRECTED TO 15% OXYGEN. THE CEMS SHALL ALSO MEASURE THE OXYGEN CONTACT IN THE EXHAUST GAS. THE CEMS SHALL BE IN FULL OPERATION AT ALL TIMES WHEN THE UNIT IS IN OPERATION.
 - AN OPERATING LOG OR DATA ACQUISITION AND HANDLING SYSTEM (DAHS) RECORDS SHALL BE MAINTAINED EITHER ON SITE OR AT A DISTRICT-APPROVED ALTERNATE LOCATION TO RECORD ACTUAL TIMES AND DURATIONS OF ALL STARTUPS AND SHUT-DOWNS, QUANTITY OF FUEL USED (SCF) AND ENERGY GENERATED (MW-HR), (MONTHLY AND ANNUALLY BY CALENDAR YEAR), HOURS OF DAILY OPERATION AND TOTAL CUMULATIVE HOURS OF OPERATION (MONTHLY AND ANNUALLY BY CALENDAR YEAR).
- **40 CFR Part 75 §75.57(a), (b), and (d)**
 - Maintain for each affected unit a file of all measurements, data, reports, and other information required by this part at the source in a form suitable for inspection for at least three (3) years from the date of each record.
 - The owner or operator shall record for each hour the required information on unit operating time, heat input rate, and load, separately for each affected unit.
 - The owner or operator shall record the applicable information required for NO_x emissions monitoring for each affected unit for each hour or partial hour during which the unit operates.
- **40 CFR Part 60 §60.4(b), §60.7(c)**
 - Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement).
 - Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report and-or summary report form to the Administrator semiannually, except when: more

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frequent reporting is specifically required or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period.

The recordkeeping requirements in the SDAPCD NSR permits and 40 CFR Part 75 §75.57(a), (b), and (d) are the most stringent and therefore the streamlined requirements. The other requirements are subsumed.

Attachment O-1

(B) SO_x EMISSIONS FROM GAS TURBINE

<p>Step One: Identification of multiple requirements</p>	<ul style="list-style-type: none"> • SDAPCD Rule 53(d)(1) A person shall not discharge into the atmosphere from any single source of emission whatsoever Sulfur compounds calculated as sulfur dioxide (SO₂) in excess of 0.05 percent, by volume, on a dry basis. • SDAPCD Regulation X, Subpart GG, Rule 260.333(a) (See below for 40 CFR 60 applicable requirement; Rule is the equivalent of 40 CFR 60 incorporated by reference.) • SDAPCD NSR; Turbine #1 (No. 981360) & Turbine #2 (No. 000397): None • 40 CFR Part 60 Subpart GG §60.333(a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis. NOTE: 0.015 % dry volume equals 0.02 % dry volume for the gas turbine at actual O₂.
<p>Step Two: Determine most stringent SO_x emission limit</p>	<ul style="list-style-type: none"> • SDAPCD Rule 53(d)(1) 0.05 % dry volume • SDAPCD Regulation X, Subpart GG, Rule 260.333(a) (See below for 40 CFR 60 applicable requirement; Rule is the equivalent of 40 CFR 60 incorporated by reference.) • SDAPCD NSR; Turbine #1 (No. 981360) & Turbine #2 (No. 000397): None • 40 CFR Part 60 Subpart GG, §60.333(a) 0.015% dry volume @ 15% O₂ <p>NOTE: Limits on sulfur content of fuel (PUC) inherently ensures compliance w/these limits. See sulfur content demonstration (Attachment O-1, Item C).</p> <p><i>0.015 % dry volume equals 0.02 % dry volume for the gas turbine at actual O₂. By satisfying the §60.333(a) limit, the other limit is also satisfied. Therefore, the Subpart GG limit is the streamlined limit. The other requirement is subsumed.</i></p>

Attachment O-1

(B) SO_x EMISSIONS FROM GAS TURBINE (continued)

Step Three: Evaluate work practice requirements	<ul style="list-style-type: none"> • SDAPCD Rule 53: None • SDAPCD Regulation X Subpart GG: None • SDAPCD NSR; Turbine #1 (No. 981360)& Turbine #2 (No. 000397): None • 40 CFR Part 60 Subpart GG: None
Step Four: Evaluate monitoring requirements	<ul style="list-style-type: none"> • SDAPCD Rule 53: None • SDAPCD Regulation X Subpart GG: None • SDAPCD NSR; Turbine #1 (No. 981360)& Turbine #2 (No. 000397): None • 40 CFR Part 60 Subpart GG: None
Step Five: Evaluate recordkeeping / reporting	<ul style="list-style-type: none"> • SDAPCD Rule 53: None • SDAPCD Regulation X Subpart A, Rule 260.4(b), 260.7(c) <i>See below for 40 CFR 60 applicable requirement; Rule is the equivalent of 40 CFR 60 incorporated by reference.)</i> • SDAPCD NSR; Turbine #1 (No. 981360) & Turbine #2 (No. 000397): None • 40 CFR Part 60 §60.4(b), §60.7(c) <ul style="list-style-type: none"> - Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). - Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report and-or summary report form to the Administrator semiannually, except when: more frequent reporting is specifically required or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. <p>NOTE: The SDAPCD has been delegated authority to implement and enforce NSPS requirements and therefore is the agency to which all information required under NSPS is submitted.</p> <p><i>SDAPCD Rule 53 has no requirements for recordkeeping. Therefore, the recordkeeping requirements of Rule §60.333 are the streamlined requirements, and the reporting requirements of the above listed 40 CFR Part 60 are the streamlined requirements.</i></p>

Attachment O-1

(C) SULFUR CONTENT IN FUEL FOR GAS TURBINE

<p>Step One: Identification of multiple requirements</p>	<ul style="list-style-type: none"> • SDAPCD Rule 62(b)(1) A person shall not operate any stationary fuel-burning equipment subject to this rule unless any gaseous fuel used contains no more than 10 grains of sulfur compounds, calculated as hydrogen sulfide, per 100 cubic feet of dry gaseous fuel (0.23 grams of sulfur compounds, calculated as hydrogen sulfide, per cubic meter of dry gaseous fuel), at standard conditions. • SDAPCD Regulation X Subpart GG, Rule 260.333(b) <i>(See below for 40 CFR 60 applicable requirement; Rule is the equivalent of 40 CFR 60 incorporated by reference.)</i> • SDAPCD NSR; Turbine #1 (No. 981360), Condition 6 & Turbine #2 (No. 000397), Condition 5 The unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The applicant shall maintain on site quarterly records of the natural gas sulfur content (grains of sulfur compounds per 100 dscf of natural gas) and the higher and lower heating values (Btu/scf) of the natural gas, and provide such records to District personnel upon request. <p>NOTE: The total sulfur content in the natural gas is specified in the PUC Rule 30 (see attached) to be less than 0.75 grains/100 cubic ft.</p> <ul style="list-style-type: none"> • 40 CFR Part 60 Subpart GG §60.333(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw).
<p>Step Two: Determine most stringent limit</p>	<ul style="list-style-type: none"> • SDAPCD Rule 62(b)(1) 10.0 grains/100 cubic ft sulfur as H₂S • SDAPCD Regulation X Subpart GG, Rule 260.333(b) <i>(See below for 40 CFR 60 applicable requirement; Rule is the equivalent of 40 CFR 60 incorporated by reference.)</i> • SDAPCD NSR; Turbine #1 (No. 981360), Condition 6 & Turbine #2 (No. 000397), Condition 5 The turbine shall be fired on Public Utility Commission (PUC) quality natural gas only. • 40 CFR Part 60 Subpart GG, §60.333(b) 0.8% sulfur by weight (8,000 ppmw) <p><i>SDG&E is the only supplier of natural gas in the San Diego area. The total sulfur content in the natural gas is specified in the PUC Rule 30 to be less than 0.75 grains/100 cubic ft. The most stringent limit is the SDAPCD NSR permit limit requiring PUC natural gas firing. All other requirements are subsumed.</i></p>
<p>Step Three: Evaluate work practice requirements</p>	<ul style="list-style-type: none"> • SDAPCD Rule 62: None • SDAPCD Regulation X Subpart GG: None • SDAPCD NSR A/C, Turbine #1 (No. 981360) & Turbine #2 (No. 000397): None • 40 CFR Part 60 Subpart GG: None

Attachment O-1

(C) SULFUR CONTENT IN FUEL FOR GAS TURBINE (continued)

<p>Step Four: Evaluate monitoring requirements</p>	<ul style="list-style-type: none"> • SDAPCD Rule 62: None • SDAPCD Regulation X Subpart GG: None • SDAPCD NSR; Turbine#1 (No.981360), Conditions 6 & 14 & Turbine #2 (No. 000397), Conditions 5 & 13 <ul style="list-style-type: none"> - 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. - AN OPERATING LOG OR DATA ACQUISITION AND HANDLING SYSTEM (DAHS) RECORDS SHALL BE MAINTAINED EITHER ON SITE OR AT A DISTRICT-APPROVED ALTERNATE LOCATION TO RECORD ACTUAL TIMES AND DURATIONS OF ALL STARTUPS AND SHUT-DOWNS, QUANTITY OF FUEL USED (SCF) AND ENERGY GENERATED (MW-HR), (MONTHLY AND ANNUALLY BY CALENDAR YEAR), HOURS OF DAILY OPERATION AND TOTAL CUMULATIVE HOURS OF OPERATION (MONTHLY AND ANNUALLY BY CALENDAR YEAR). • 40 CFR Part 60 Subpart GG: None <p><i>SDG&E is the only supplier of natural gas in the San Diego area. The total sulfur content in the natural gas is specified in the PUC Rule 30 to be less than 0.75 grains/100 cubic ft. The most stringent (and therefore streamlined) monitoring requirement is in the SDAPCD NSR permit, which requires monitoring of the natural gas supply sulfur content and heat values, and of the gas flow.</i></p>
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Attachment O-1

(C) SULFUR CONTENT IN FUEL FOR GAS TURBINE (continued)

<p>Step Five: Evaluate recordkeeping / reporting</p>	<ul style="list-style-type: none"> • SDAPCD Rule 62: None • SDAPCD Regulation X Subpart A, Rule 260.4(b), 260.7(c): (See below for 40 CFR 60 applicable requirements; Rule is the equivalent of 40 CFR 60 incorporated by reference.) • SDAPCD NSR; Turbine#1 (No.981360), Conditions 6 & 14 & Turbine #2 (No. 000397), Conditions 5 & 13 <ul style="list-style-type: none"> - 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. - AN OPERATING LOG OR DATA ACQUISITION AND HANDLING SYSTEM (DAHS) RECORDS SHALL BE MAINTAINED EITHER ON SITE OR AT A DISTRICT-APPROVED ALTERNATE LOCATION TO RECORD ACTUAL TIMES AND DURATIONS OF ALL STARTUPS AND SHUT-DOWNS, QUANTITY OF FUEL USED (SCF) AND ENERGY GENERATED (MW-HR), (MONTHLY AND ANNUALLY BY CALENDAR YEAR), HOURS OF DAILY OPERATION AND TOTAL CUMULATIVE HOURS OF OPERATION (MONTHLY AND ANNUALLY BY CALENDAR YEAR). • 40 CFR Part 60 §60.4(b), §60.7(c) <ul style="list-style-type: none"> - Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). - Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report and-or summary report form to the Administrator semiannually, except when: more frequent reporting is specifically required or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. <p>NOTE: The SDAPCD has been delegated authority to implement and enforce NSPS requirements and therefore is the agency to which all information required under NSPS is submitted.</p> <p><i>SDG&E is the only supplier of natural gas in the San Diego area. The total sulfur content in the natural gas is specified in the PUC Rule 30 to be less than 0.75 grains/100 cubic ft. SDAPCD Rule 62 and NSR Permit Conditions have no requirements for reporting. The streamlined recordkeeping and reporting requirements are the NSR permit conditions.</i></p>
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Permit to Operate
No. APCD2009-PTO-981360

(Turbine #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: 3, G
Site Record ID: APCD1995-SITE-09138
Application Record ID: APCD2014-APP-003595

PERMIT RECORD ID
APCD2009-PTO-981360



San Diego Gas & Electric
SDG&E
8315 Century Park Ct, CP21L
San Diego CA 92123

EQUIPMENT ADDRESS
San Diego Gas & Electric -
Jason Bowman
6875 Consolidated Way
San Diego CA 92121

PERMIT TO OPERATE

EXPIRES: May 31, 2018

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

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

EQUIPMENT OWNER

San Diego Gas & Electric SDG&E 8315 Century Park Ct. CP21L, San Diego, CA 92123

EQUIPMENT DESCRIPTION

Simple cycle natural gas fueled combustion turbine (Unit #1)
Mfr: General Electric, Model: LM6000PC, S/N 191506, Rated Heat Input: 462.5 MMBtu/hour, 49.9 megawatt maximum rated power output, with water injection, SCR with ammonia injection and oxidation catalyst, system equipped with Cisco Cedar data acquisition and handling system (DAHS), remote data collection node (RDCN) and continuous emission monitoring systems.

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
1 [92A] Particulate Matter Source Test
1 [92J] Ammonia Source Test
1 [92F] NOx and CO Source Test

BEC: APCD2014-CON-000884

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

1. The combined emissions of NOx from all permitted equipment at this stationary source shall not exceed 50 tons per year. Any application to increase facility wide NOx emissions above 50 tons per year shall include emission offsets of all emissions of permitted equipment at this stationary source. (NSR)



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2. Total aggregate emissions from all stationary emission units at this stationary source, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1(d)(1), shall not exceed the following limit in each rolling 12-calendar month period. The total aggregate emissions shall include emissions during all times that the equipment is operating, including but not limited to, emissions during periods of startup, shutdown and tuning.
 - I. Oxides of nitrogen (NOx) 50 tons/year
 - II. Carbon monoxide (CO) 100 tons/year
 - III. Volatile organic compounds (VOC) 50 tons/year
 - IV. Oxides of sulfur (SOx) 100 tons/year(NSR)
3. The emissions of oxides of nitrogen (NOx), calculated as nitrogen oxide, from the unit exhaust stack shall not exceed 2.5 ppmvd corrected to 15% oxygen and averaged over each rolling 3-clock hour period, and shall not exceed 5 ppmvd corrected to 15% oxygen and averaged over each clock hour period. Compliance with these limits shall be demonstrated at the time of the initial source test and continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. [Rule 20.2(d)(1)]
4. Emissions of nitrogen oxides from the unit exhaust stack shall not exceed 14.7 ppmvd at 15 percent O₂, calculated as a 1 clock hour average pursuant to 69.3.1(g)(7). This limit shall not apply during the first 120 minutes of any startup or last 120 minutes of any shutdown. [Rule 69.3.1]
5. Emissions of nitrogen oxides from the unit exhaust stack shall not exceed 115 ppmvd at 15 percent O₂, calculated as a 4 hour (unit operating hour) average pursuant to 40 CFR § 60.334(j)(1)(iii)). This limit applies at all times. [40 CFR Subpart GG § 60.332(a)(1)]
6. The emissions of carbon monoxide (CO), from the unit exhaust stack shall not exceed 6 parts per million volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each rolling 3-clock hour period. Compliance with this limit shall be demonstrated at the time of the initial source test and continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. [Rule 20.2(d)(1)]
7. Emissions of volatile organic compounds (VOCs), calculated as methane, from the unit exhaust stack shall not exceed 2 parts per million volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be demonstrated by source testing, calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. [Rule 20.2(d)(1)]
8. The Emission unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. [Rule 62 and/or 40 CFR 60 Subpart KKKK]
9. In the event of a breakdown in an automatic ammonia injection control system, the unit shall be shut down or a trained operator shall operate the ammonia injection control system manually and the breakdown shall be reported to the District Compliance Division pursuant to Rule 98(b)(1) and 98(e). (Rule 98)
10. The combined unit operating hours for all turbines at this stationary source shall not exceed a total of 5,000 hours per calendar year. Stationary source is defined in Rule 2. Unit operating hour is defined in 40 CFR 72.2. (NSR)
11. Power output (net MW) to the grid shall not exceed 49.9 MW. (NSR)
12. Except during startups, shutdowns and approved testing, tuning and maintenance operation, the air pollution control system including the water injection system, and the ammonia injection system serving the SCR, shall be operated in automatic mode in accordance with manufacturer's specifications at all times when the unit is in operation. All manufacturer's specifications shall be maintained on site or at a District-approved alternate location and made available to District personnel within 48 hours after request. (NSR, Rule 1200)



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13. In the event of a breakdown in an automatic water injection or ammonia injection control system, or during any testing, tuning or maintenance operation that involve tuning of either of these systems, a trained operator shall operate the system manually and if due to a breakdown, the breakdown shall be reported to the District Compliance Division pursuant to Rule 98. [Rule 20.2(d)(1), Rule 98]
 14. The permittee shall comply with the applicable requirements in 40 CFR Parts 60, 72, 73, and 75. (Rules 1412 and 1421)
 15. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO₂ allowances. [40 CFR 73]
 16. A continuous emission monitoring system (CEMS) shall be maintained and calibrated to measure and record the concentrations of oxides of nitrogen (NO_x) and carbon monoxide (CO) in the exhaust gas on a dry basis (ppmvd) corrected to 15% oxygen. The CEMS shall also measure the oxygen content in the exhaust gas. The CEMS shall be in full operation at all times when the unit is in operation. (NSR, Rule 69.3.1)
 17. When the CEMS is not recording data and the unit is operating, hourly NO_x 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. [40 CFR 60; 40 CFR 75]
 18. 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]
 19. The Oxides of Nitrogen (NO_x) and Oxygen (O₂) CEMS shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of:
 - a. -Sections 75.10 and 75.12 of Title 40 Code of Federal Regulations Part 75 (40 CFR 75).
 - b. -The performance specifications of Appendix A of 40 CFR 75.
 - c. -The quality assurance procedures of Appendix B of 40 CFR 75.
 - d. -The CEMS protocol approved by the District.
- The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit. (Rule 69.3.1)
20. Except for changes that are specified in the initial approved NO_x monitoring protocol or a subsequent revision to that protocol that is approved in advance, in writing, by the District, the District shall be notified in writing at least thirty (30) days prior to any planned changes made in the CEMS/DAHS (including the programmable logic controller) software which affects the value of data displayed on the CEMS/DAHS monitors with respect to the parameters measured by their respective sensing devices or any planned changes to the software that controls the ammonia flow to the SCR. Unplanned or emergency changes shall be reported to the District within 96 hours. [NSR]
 21. The Unit shall be equipped with continuous monitors to measure, calculate and record the following operational characteristics:
 - a. Hours of operation (hours)
 - b. Natural Gas flow rate (kscfh)
 - c. Exhaust gas temperature (degrees Fahrenheit)
 - d. SCR average temperature (degrees Fahrenheit)
 - e. Ammonia injection rate (lbs/hour)
 - f. Net power output to grid (MW)
 - g. Water (for NO_x control) injection rate (lb/hr) if equipped with water injectionThese parameters shall be continuously monitored. These monitors shall be calibrated and maintained in accordance with manufacturer's recommended procedures and a Protocol approved by the District. (Rule 69.3.1)



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22. Fuel, water injection (for NO_x control), and ammonia flow meters shall be installed and maintained to measure the flow rate corrected for temperature and pressure. Calibration reports, correction factors and constants for the previous five years shall be maintained on site or at a District approved alternate location and made available to the District within 48 hours after request. Fuel flow meters shall meet the applicable quality assurance requirements of 40 CFR Part 75, Appendix D, Section 2.1.6. (NSR, Rule 69.3.1, Rule 1200)
23. For the purposes of this permit, startup and shutdown shall be as defined in District rule 69.3.1. [Rule 69.3.1, Rule 20.2(d)(1)]
24. For the purposes of this permit, approved periods of testing, tuning and maintenance shall include the following:
 - a. Operation for conducting reliability, baseline or other related testing mandated by standards issued by the Federal Energy Regulatory Commission (FERC), or its 3rd party delegates including the North American Reliability Corporation (NERC), Western Electric Coordinating Council (WECC), or other related organizations.
 - b. Operation for tuning, testing or maintaining components of the gas turbine, emission control system(s) or electrical components in order to restore or measure system efficiency or performance.
 - c. Operation for tuning, testing or maintaining components of the gas turbine or emission control system(s) for purposes recommended by the manufacturer of the gas turbine or component(s) or servicing company for ensuring proper and efficient operation of the system.[Rule 20.2(d)(1)]
25. Approved periods of testing, tuning and maintenance shall not exceed either 4 hours per calendar day or 48 hours per calendar year for any of these purposes. Any period of operation where the emission controls are in full operation as required by this permit and as shown by DAS/CEMS records shall not be included in determination of these limits. [Rule 20.2(d)(1)]
26. In order to claim that a period of operation meets the requirements for an approved period of testing, tuning and maintenance, the owner or operator must maintain the following records for each period:
 - a. Date(s) and time(s) of operation
 - b. Purpose of operation
 - c. Any applicable test procedure, regulation, or other records to demonstrate the need or purpose for the operation
 - d. Technical justification that steady-state emission standards cannot be met during this operation. Acceptable technical justifications include: need to operate turbine for extended period of time at low load, need to operate turbine in transient modes that exceed the ability of the emission controls to maintain steady state emission levels, tuning of the system or emission controls that involves operation outside the normal acceptable operating ranges for the emission control system, and any other operating scenarios that have been approved by the District.[Rule 20.2(d)(1)]
27. The permittee shall submit to the District reports of excess emissions and monitor downtime, in accordance with § 60.7 (c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. Reports submitted pursuant to this requirement shall be postmarked no later than the 30th day following the end of the 6-month reporting period. 6-month reporting periods comprise January 1 through June 30, and July 1 through December 31. [40 CFR Subpart KKKK § 60.4375(a) or 40 CFR GG § 60.334(j)]
28. Excess emissions and monitor downtime shall be as defined in 40 CFR GG § 60.334(j)(1)(iii). An excess emission is any unit operating period, including periods of startup, shutdown and approved periods of testing, tuning and maintenance, in which the 4-hour rolling average NO_x emission rate exceeds the applicable emission limit in 40 CFR 60 Subpart GG § 60.332(a) contained in this permit.
29. An operating log or data acquisition and handling system (DAHS) records shall be maintained either onsite, or at a District-approved alternate location to record each of the operational characteristics listed in this permit at least every 15 minutes. (NSR, Rule 69.3.1)
30. An operating log or data acquisition and handling system (DAHS) records shall be maintained either on site or at a District-approved alternate location to record actual times and durations of all startups and shut-downs, quantity of fuel used (scf) and energy generated (MW-hr), (monthly and annually by calendar year), hours of daily operation and total cumulative hours of operation (monthly and annually by calendar year). (NSR, Rule 69.3.1)



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31. Except as specified herein, all records required by this permit shall be maintained on-site for a minimum of five years and made available to District personnel upon request. If this site becomes unmanned, the permittee shall submit an alternate site for the maintenance of records to the District for approval. [Rule 1421]
32. A Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with 40 CFR Part 75 Appendix A and B (Performance Specifications). At least 21 days prior to the test date, the permittee shall submit 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 Part 75)
33. Within 30 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval. (NSR, Rule 1200)
34. This unit shall be source tested to demonstrate compliance with the NO_x, CO, VOC, and Ammonia emission standards of this permit, using District approved methods. The source test and the NO_x and CO RATA tests shall be conducted in accordance with the RATA frequency requirements of 40 CFR 75 Appendix B, Sections 2.3.1 and 2.3.3. 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. (NSR, Rule 1200)
35. The source test protocol shall comply with the following requirements:
 - a. Measurements of oxides of nitrogen (NO_x), carbon monoxide (CO), and stack gas oxygen content (O₂%) shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) Method 7E and District Source Test Method 100, or the Air Resources Board (ARB) Test Method 100, as approved by the EPA.
 - b. Measurement of volatile organic compounds (VOCs) emissions shall be conducted in accordance with the San Diego Air Pollution Control District Methods 25A and/or 18.
 - c. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District (BAAQMD) Test Method ST-1B.
 - d. Source testing shall be performed at or above the normal load level, as specified in 40 CFR Part 75 Appendix A, Section 6.5.2.1 (d), and at no 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 this demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous power level. (NSR, Rule 1200)
36. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District. [Rule 19]
37. Ammonia emissions from the unit exhaust stack shall not exceed 10 parts per million volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be demonstrated through source testing calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. (Rule 1200)
38. 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.)
39. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence. [CA Health & Safety Code 42706]
40. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.

Permit to Operate
No. APCD2010-PTO-000397

(Turbine #2)



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: 3, G
Site Record ID: APCD1995-SITE-09318
Application Record ID: APCD2013-APP-002575

PERMIT RECORD ID
APCD2010-PTO-000397



San Diego Gas & Electric
SDG&E
8315 Century Park Ct, CP21L
San Diego CA 92123

EQUIPMENT ADDRESS
San Diego Gas & Electric -
Jason Bowman
6875 Consolidated Way
San Diego CA 92121

PERMIT TO OPERATE
EXPIRES: May 31, 2018

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

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

EQUIPMENT OWNER

San Diego Gas & Electric SDG&E 8315 Century Park Ct. CP21L, San Diego, CA 92123

EQUIPMENT DESCRIPTION

Simple cycle natural gas fueled combustion turbine (Unit #2-East)
Mfr: General Electric, Model: LM6000PC, S/N: 7218022, Rated Heat Input: 462.5 MMBtu/hour, 49.9 megawatt maximum rated power output, with water injection, SCR with ammonia injection and oxidation catalyst, system equipped with Cisco Cedar data acquisition and handling system (DAHS), remote data collection node (RDCN) and continuous emission monitoring systems

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 [92F] NOx and CO Source Test
1 [92I] Ammonia Source Test
1 [93A] Test Witness and Report Review (T&M)
1 [20F] Non- Aircraft Turbine Engine
1 [92A] Particulate Matter Source Test

BEC: APCD2009-CON-000046

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

1. The combined emissions of NOx from all permitted equipment at this stationary source shall not exceed 50 tons per year. Any application to increase facility wide NOx emissions above 50 tons per year shall include emission offsets of all emissions of permitted equipment at this stationary source. (NSR)



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2. Total aggregate emissions from all stationary emission units at this stationary source, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1(d)(1), shall not exceed the following limit in each rolling 12-calendar month period. The total aggregate emissions shall include emissions during all times that the equipment is operating, including but not limited to, emissions during periods of startup, shutdown and tuning.
 - I. Oxides of nitrogen (NOx) 50 tons/year
 - II. Carbon monoxide (CO) 100 tons/year
 - III. Volatile organic compounds (VOC) 50 tons/year
 - IV. Oxides of sulfur (SOx) 100 tons/year (NSR)
3. The emissions of oxides of nitrogen (NOx), calculated as nitrogen oxide, from the unit exhaust stack shall not exceed 2.5 ppmvd corrected to 15% oxygen and averaged over each rolling 3-clock hour period, and shall not exceed 5 ppmvd corrected to 15% oxygen and averaged over each clock hour period. Compliance with these limits shall be demonstrated at the time of the initial source test and continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. [Rule 20.2(d)(1)]
4. Emissions of nitrogen oxides from the unit exhaust stack shall not exceed 14.7 ppmvd at 15 percent O₂, calculated as a 1 clock hour average pursuant to 69.3.1(g)(7). This limit shall not apply during the first 120 minutes of any startup or last 120 minutes of any shutdown. [Rule 69.3.1]
5. Emissions of nitrogen oxides from the unit exhaust stack shall not exceed 25 ppm at 15 percent O₂ or 150 ng/J of useful output (1.2 lb/MWh), calculated as a 4 hour (unit operating hour) average pursuant to 40 CFR § 60.4380(b)). This limit applies at all times. [40 CFR 60 Subpart KKKK, Appendix Table 1]
6. The emissions of carbon monoxide (CO), from the unit exhaust stack shall not exceed 6 parts per million volume on a dry basis (ppmvd) corrected to 15% oxygen and averaged over each rolling 3-clock hour period. Compliance with this limit shall be demonstrated at the time of the initial source test and continuously based on the CEMs data and based upon source testing calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. [Rule 20.2(d)(1)]
7. Emissions of volatile organic compounds (VOCs), calculated as methane, from the unit exhaust stack shall not exceed 2 parts per million volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be demonstrated by source testing, calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. [Rule 20.2(d)(1)]
8. The Emission unit shall be fired on Public Utility Commission (PUC) quality natural gas only. The permittee shall maintain quarterly records of sulfur content (grains/100 dscf) and higher and lower heating values (Btu/dscf) of the natural gas and provide such records to the District personnel upon request. [Rule 62 and/or 40 CFR 60 Subpart KKKK]
9. In the event of a breakdown in an automatic ammonia injection control system, the unit shall be shut down or a trained operator shall operate the ammonia injection control system manually and the breakdown shall be reported to the District Compliance Division pursuant to Rule 98(b)(1) and 98(e). (Rule 98)
10. The combined unit operating hours for all turbines at this stationary source shall not exceed a total of 5,000 hours per calendar year. Stationary source is defined in Rule 2. Unit operating hour is defined in 40 CFR 72.2. (NSR)
11. Power output (net MW) to the grid shall not exceed 49.9 MW. (NSR)
12. Except during startups, shutdowns and approved testing, tuning and maintenance operation, the air pollution control system including the water injection system, and the ammonia injection system serving the SCR, shall be operated in automatic mode in accordance with manufacturer's specifications at all times when the unit is in operation. All manufacturer's specifications shall be maintained on site or at a District-approved alternate location and made available to District personnel within 48 hours after request. (NSR, Rule 1200)



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13. In the event of a breakdown in an automatic water injection or ammonia injection control system, or during any testing, tuning or maintenance operation that involve tuning of either of these systems, a trained operator shall operate the system manually and if due to a breakdown, the breakdown shall be reported to the District Compliance Division pursuant to Rule 98. [Rule 20.2(d)(1), Rule 98]
 14. The permittee shall comply with the applicable requirements in 40 CFR Parts 60, 72, 73, and 75. (Rules 1412 and 1421)
 15. The permittee shall comply with all the applicable provisions of 40 CFR 73, including requirements to offset, hold and retire SO₂ allowances. [40 CFR 73]
 16. A continuous emission monitoring system (CEMS) shall be maintained and calibrated to measure and record the concentrations of oxides of nitrogen (NO_x) and carbon monoxide (CO) in the exhaust gas on a dry basis (ppmvd) corrected to 15% oxygen. The CEMS shall also measure the oxygen content in the exhaust gas. The CEMS shall be in full operation at all times when the unit is in operation. (NSR, Rule 69.3.1)
 17. When the CEMS is not recording data and the unit is operating, hourly NO_x 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. [40 CFR 60; 40 CFR 75]
 18. 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]
 19. The Oxides of Nitrogen (NO_x) and Oxygen (O₂) CEMS shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of:
 - a. -Sections 75.10 and 75.12 of Title 40 Code of Federal Regulations Part 75 (40 CFR 75).
 - b. -The performance specifications of Appendix A of 40 CFR 75.
 - c. -The quality assurance procedures of Appendix B of 40 CFR 75.
 - d. -The CEMS protocol approved by the District.
- The Carbon Monoxide (CO) CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit. (Rule 69.3.1)
20. Except for changes that are specified in the initial approved NO_x monitoring protocol or a subsequent revision to that protocol that is approved in advance, in writing, by the District, the District shall be notified in writing at least thirty (30) days prior to any planned changes made in the CEMS/DAHS (including the programmable logic controller) software which affects the value of data displayed on the CEMS/DAHS monitors with respect to the parameters measured by their respective sensing devices or any planned changes to the software that controls the ammonia flow to the SCR. Unplanned or emergency changes shall be reported to the District within 96 hours. [NSR]
 21. The Unit shall be equipped with continuous monitors to measure, calculate and record the following operational characteristics:
 - a. Hours of operation (hours)
 - b. Natural Gas flow rate (kscfh)
 - c. Exhaust gas temperature (degrees Fahrenheit)
 - d. SCR average temperature (degrees Fahrenheit)
 - e. Ammonia injection rate (lbs/hour)
 - f. Net power output to grid (MW)
 - g. Water (for NO_x control) injection rate (lb/hr) if equipped with water injectionThese parameters shall be continuously monitored. These monitors shall be calibrated and maintained in accordance with manufacturer's recommended procedures and a Protocol approved by the District.
(Rule 69.3.1)



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APCD2010-PTO-000397



22. Fuel, water injection (for NOx control), and ammonia flow meters shall be installed and maintained to measure the flow rate corrected for temperature and pressure. Calibration reports, correction factors and constants for the previous five years shall be maintained on site or at a District approved alternate location and made available to the District within 48 hours after request. Fuel flow meters shall meet the applicable quality assurance requirements of 40 CFR Part 75, Appendix D, Section 2.1.6. (NSR, Rule 69.3.1, Rule 1200)
23. For the purposes of this permit, startup and shutdown shall be as defined in District rule 69.3.1. [Rule 69.3.1, Rule 20.2(d)(1)]
24. For the purposes of this permit, approved periods of testing, tuning and maintenance shall include the following:
 - a. Operation for conducting reliability, baseline or other related testing mandated by standards issued by the Federal Energy Regulatory Commission (FERC), or its 3rd party delegates including the North American Reliability Corporation (NERC), Western Electric Coordinating Council (WECC), or other related organizations.
 - b. Operation for tuning, testing or maintaining components of the gas turbine, emission control system(s) or electrical components in order to restore or measure system efficiency or performance.
 - c. Operation for tuning, testing or maintaining components of the gas turbine or emission control system(s) for purposes recommended by the manufacturer of the gas turbine or component(s) or servicing company for ensuring proper and efficient operation of the system.[Rule 20.2(d)(1)]
25. Approved periods of testing, tuning and maintenance shall not exceed either 4 hours per calendar day or 48 hours per calendar year for any of these purposes. Any period of operation where the emission controls are in full operation as required by this permit and as shown by DAS/CEMS records shall not be included in determination of these limits. [Rule 20.2(d)(1)]
26. In order to claim that a period of operation meets the requirements for an approved period of testing, tuning and maintenance, the owner or operator must maintain the following records for each period:
 - a. Date(s) and time(s) of operation
 - b. Purpose of operation
 - c. Any applicable test procedure, regulation, or other records to demonstrate the need or purpose for the operation
 - d. Technical justification that steady-state emission standards cannot be met during this operation. Acceptable technical justifications include: need to operate turbine for extended period of time at low load, need to operate turbine in transient modes that exceed the ability of the emission controls to maintain steady state emission levels, tuning of the system or emission controls that involves operation outside the normal acceptable operating ranges for the emission control system, and any other operating scenarios that have been approved by the District.[Rule 20.2(d)(1)]
27. The permittee shall submit to the District reports of excess emissions and monitor downtime, in accordance with § 60.7 (c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. Reports submitted pursuant to this requirement shall be postmarked no later than the 30th day following the end of the 6-month reporting period. 6-month reporting periods comprise January 1 through June 30, and July 1 through December 31. [40 CFR Subpart KKKK § 60.4375(a) or 40 CFR GG § 60.334(j)]
28. Excess emissions and monitor downtime shall be as defined in 40 CFR Subpart KKKK § 60.4380(b). An excess emission is any unit operating period, including periods of startup, shutdown and approved periods of testing, tuning and maintenance, in which the 4-hour rolling average NOx emission rate exceeds the applicable emission limit in 40 CFR 60 Subpart KKKK, Appendix Table 1 contained in this permit.
29. An operating log or data acquisition and handling system (DAHS) records shall be maintained either onsite, or at a District-approved alternate location to record each of the operational characteristics listed in this permit at least every 15 minutes. (NSR, Rule 69.3.1)
30. An operating log or data acquisition and handling system (DAHS) records shall be maintained either on site or at a District-approved alternate location to record actual times and durations of all startups and shut-downs, quantity of fuel used (scf) and energy generated (MW-hr), (monthly and annually by calendar year), hours of daily operation and total cumulative hours of operation (monthly and annually by calendar year). (NSR, Rule 69.3.1)



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PERMIT RECORD ID
APCD2010-PTO-000397



31. Except as specified herein, all records required by this permit shall be maintained on-site for a minimum of five years and made available to District personnel upon request. If this site becomes unmanned, the permittee shall submit an alternate site for the maintenance of records to the District for approval.
32. A Relative Accuracy Test Audit (RATA) and all other required certification tests shall be performed and completed on the CEMS in accordance with 40 CFR Part 75 Appendix A and B (Performance Specifications). At least 21 days prior to the test date, the permittee shall submit 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 Part 75)
33. Within 30 days after completion of the renewal source test or RATA, a final test report shall be submitted to the District for review and approval. (NSR, Rule 1200)
34. This unit shall be source tested to demonstrate compliance with the NO_x, CO, VOC, and Ammonia emission standards of this permit, using District approved methods. The source test and the NO_x and CO RATA tests shall be conducted in accordance with the RATA frequency requirements of 40 CFR 75 Appendix B, Sections 2.3.1 and 2.3.3. 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. (NSR, Rule 1200)
35. The source test protocol shall comply with the following requirements:
 - a. Measurements of oxides of nitrogen (NO_x), carbon monoxide (CO), and stack gas oxygen content (O₂%) shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) Method 7E and District Source Test Method 100, or the Air Resources Board (ARB) Test Method 100, as approved by the EPA.
 - b. Measurement of volatile organic compounds (VOCs) emissions shall be conducted in accordance with the San Diego Air Pollution Control District Methods 25A and/or 18.
 - c. Measurements of ammonia emissions shall be conducted in accordance with Bay Area Air Quality Management District (BAAQMD) Test Method ST-1B.
 - d. Source testing shall be performed at or above the normal load level, as specified in 40 CFR Part 75 Appendix A, Section 6.5.2.1 (d), and at no 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 this demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous power level. (NSR, Rule 1200)
36. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District. [Rule 19]
37. Ammonia emissions from the unit exhaust stack shall not exceed 10 parts per million volume on a dry basis (ppmvd) corrected to 15% oxygen. Compliance with this limit shall be demonstrated through source testing calculated as the average of three subtests. This limit shall not apply during the first 30 minutes of any startup, last 15 minutes of any shutdown, or during approved periods of testing, tuning and maintenance as defined in this permit. (Rule 1200)
38. 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.)
39. Any violation of any emission standard as indicated by the CEMS shall be reported to the District's Compliance Division within 96 hours after such occurrence. [CA Health & Safety Code 42706]
40. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.

Permit to Operate
No. APCD2009-PTO-000395

(Emergency Black-Start Engine)



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: 3, G
Site Record ID: APCD1995-SITE-09138
Application Record ID: APCD Condition Update

PERMIT RECORD ID
APCD2009-PTO-000395



San Diego Gas & Electric
SDG&E
8315 Century Park Ct, CP21L
San Diego CA 92123

EQUIPMENT ADDRESS
San Diego Gas & Electric
Jason Bowman
6875 Consolidated Way
San Diego CA 92121

PERMIT TO OPERATE
EXPIRES: May 31, 2018

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

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

EQUIPMENT OWNER

San Diego Gas & Electric SDG&E 8315 Century Park Ct. CP21L, San Diego, CA 92123

EQUIPMENT DESCRIPTION

Emergency black start engine: Mfr: Waukesha, Model: L36GLD, S/N: C-95181/1, rated at 924 bhp, fueled with natural gas, lean burn, driving a 689 KW generator (Mfr: Kohler, Model: 600RZW, S/N: 2176636)

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

Fee Schedules: 1 [34C] Emergency Standby Engine

BEC: APCD2016-CON-001156

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

1. The engine shall be operated exclusively during emergencies as defined in Rule 69.4.1 or Rule 12 or 17CCR93115 as applicable, or for maintenance and testing.
2. This engine shall not be used as a part of a non-emergency Demand Response Program (DRP). This condition shall not apply to engines operating pursuant to the rolling blackout reduction program as defined in 17 CCR 93115.4(a)(65). (Rule 12, or Rule 69.4.1)
3. This internal combustion engine shall not exceed 52 hours of operation per calendar year for non-emergency purposes (testing and maintenance).
4. Gaseous fuel engines shall use only gaseous fuel which contains no more than 10 grains of sulfur compounds, calculated as hydrogen sulfide, per 100 cubic feet of dry gaseous fuel at standard conditions. Gaseous fuels include natural gas, propane, liquefied petroleum gas (LPG), butane. Gasoline engines shall use only California reformulated gasoline. (Rule 62)
5. Visible emissions including crank case smoke shall comply with Air Pollution Control District Rule 50. (Rule 50)
6. The equipment described above shall not cause or contribute to a public nuisance. (Rule 51)



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APCD2009-PTO-000395

7. A non-resettable engine hour meter shall be installed on this engine, maintained in good working order, and used for recording engine operation hours. If a meter is replaced, the Air Pollution Control District's Compliance Division shall be notified in writing within 10 calendar days. The written notification shall include the following information:
 - (a) old meter's hour reading,
 - (b) replacement meter's manufacturer name, model and serial number if available and current hour reading on replacement meter, and
 - (c) copy of receipt of new meter or of installation work order.A copy of the meter replacement notification shall be maintained onsite and made available to the Air Pollution Control District upon request.
(Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ)
8. The owner or operator of this engine shall, at their discretion, either:
 - a) operate and maintain a certified engine and any control device according to the manufacturer's emission-related written instructions, or
 - b) operate and maintain the engine in a manner consistent with good air pollution control practice for minimizing emissions.The periodic maintenance shall be conducted at least once each calendar year.
(40 CFR 60 Subpart JJJJ, or Rule 12, or Rule 69.4.1)
9. The owner or operator of the engine shall maintain the manual of recommended maintenance provided by the manufacturer, or other maintenance procedure as approved in writing by the Air Pollution Control Officer on site for at least the same period of time as the engine is located at the site.
This manual shall be made available to the Air Pollution Control District upon request.
(Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ)
10. The owner or operator of this engine shall maintain a monthly operating log containing, at a minimum, the following:
 - (a) dates and times of engine operation; whether the operation was for maintenance and testing purposes or emergency use; and the nature of the emergency, if known;
 - (b) records of periodic engine maintenance shall include the date and a description of the maintenance that was performed; and
 - (c) hours of operation for all uses other than those specified above and identification of the nature of that use.(Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ)
11. All records required by this permit shall be maintained on site and readily available for District inspection for a minimum of 36 months from their date of creation unless otherwise indicated by the conditions of this permit. (Rule 12, Rule 69.4.1, 40 CFR 60 Subpart JJJJ)
12. Access, facilities, utilities and any necessary safety equipment for source testing and inspection shall be provided upon request of the Air Pollution Control District.
13. This Air Pollution Control District Permit does not relieve the holder from obtaining permits or authorizations required by other governmental agencies.
14. The permittee shall, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)

Project Area Maps

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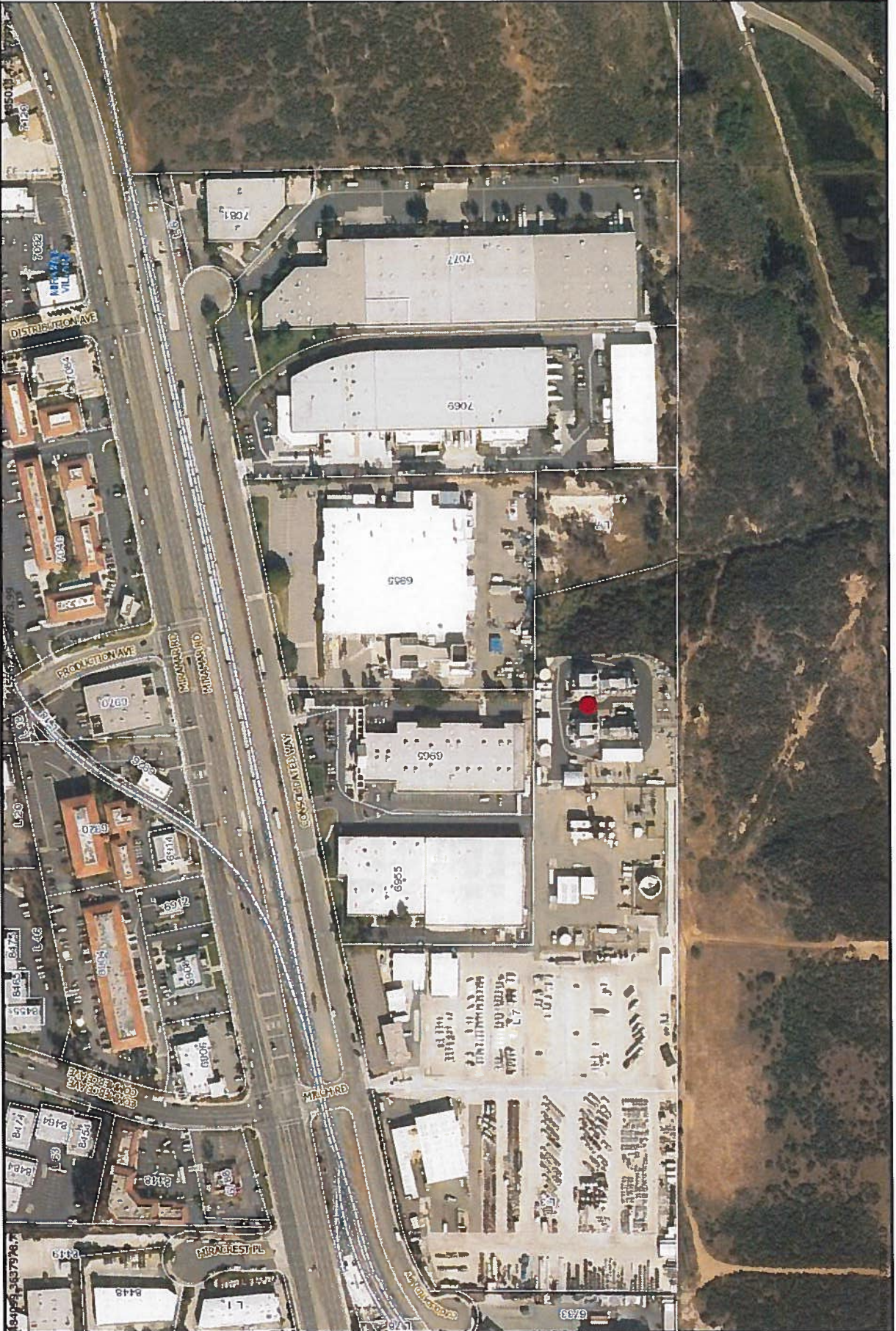
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By:

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Printed Date: 6/11/2018

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Project Summary/Description

Miramar Energy Facility
Renewal Application for Title V Operating Permit No. 984123
Project Summary

The Miramar Energy Facility (MEF) is an electrical generation plant designed to meet local and regional electric power requirements and to support the local electric grid. This peaker power plant was constructed to supplement the operations of Reliability Must Run (RMR) facilities in the San Diego region, to alleviate electrical capacity shortages in the region, and to enhance the reliability of service to the City of San Diego.

The plant is currently owned and operated by San Diego Gas & Electric ("SDG&E") and is located at 6875 Consolidated Way in the City of San Diego, CA.

The plant currently consists of two 49.9 MW simple-cycle, natural-gas fired combustion turbines (Model: GE LM6000PC) and a 924 HP natural gas fired black-start emergency engine. The emissions from the turbines are controlled by a high-temperature selective catalytic reduction system (with water and ammonia injections) and oxidation catalyst. The plant is also equipped with a Cisco Systems Data Acquisition and Handling System (DAHS) and a Continuous Emission Monitoring System (CEMS) that monitors emissions of NO_x, CO, and Oxygen. The combined operation of the turbines is limited to a maximum of 5,000 hours per calendar year.

The San Diego Air Pollution Control District (District) issued an Authority to Construct for Turbine #1 (No. 981360) at MEF in September 2004 with a maximum operation limit of 5000 hours per calendar year. Turbine #1 started initial operation in May 2005. Although the MEF was not a major source of criteria pollutants, its designation as a Title IV (Acid Rain) emissions source made it subject to a Part 70 (Title V) Facility Operating Permit. As such, SDG&E submitted a Title V application to the District on April 17, 2006. The District subsequently issued a Title V permit (No. 984123) on July 22, 2008.

On May 25, 2007, an application was submitted to the District for addition of a new 49.9 MW simple-cycle turbine (i.e. Turbine #2) and 925 HP black-start emergency engine (Waukesha, Model L36GLD) to the plant. Turbine #2 is identical to Turbine #1 (i.e. GE LM6000PC) and the maximum annual operating hour limit (for both turbines combined) was maintained at 5,000 hours.

The District adopted a Mitigated Negative Declaration (pursuant to CEQA) and issued Authorities to Construct (ATCs) for Turbine #2 (No. 985423) and black-start emergency engine (No. 985424) in November 2008. The new equipment was installed and commenced operation in July 2009. The final PTOs for Turbine #2 and the black-start emergency engines were issued by the District in May 2011.

SDG&E submitted a Title V permit modification application to incorporate Turbine #2 and the black-start emergency engine into the Title V Facility Operating Permit (No. 984123) for the plant on February 2, 2009. The application was assigned an Application No. of 987530. The District, however, has not yet issued the updated Title V permit to reflect the addition of Turbine #2 and the black-start engine.

The Title V permit expires on August 13, 2019. According to Section I.B.1, of the permit, a Title V renewal application is required to be submitted to the District no later than August 13, 2018. SDG&E is hereby submitting the attached Title V renewal application for MEF to comply with this requirement.

TITLE V OPERATING PERMIT STATEMENT OF BASIS

Facility Name: San Diego Gas & Electric (SDGE), Miramar

Title V Permit No.: APCD2006-PTO-984123

Permit Application Nos.: APCD2009-APP-987530 (revision)
APCD2012-APP-002231 (renewal)
APCD2013-APP-002574 (administrative change)

Site ID: APCD1995-SITE-09138

Equipment Address: 6875 Consolidated Way
San Diego, CA 92121

Facility Contact: Carl LaPeter
Contact Phone: (760) 432-2503

Permit Engineer: Doug Erwin
Date Completed: 8/14/14

1.0 Purpose/Introduction

This statement of basis describes a renewal Title V application and permit covering two stationary natural gas-fired combustion turbines and one emergency engine. The basis for submittal under Title V is that the facility is subject to the acid rain program under Title IV of the federal Clean Air Act (CAA) which requires Title V permitting pursuant to 40 CFR § 70.3.

2.0 Background

In February 2009, after operating a single stationary turbine generator under a Title V permit, the source submitted an application to revise its permit to add a turbine and an emergency engine. In May of 2010, the draft Title V permit completed the public notice phase without comment under APCD2009-APP-987530. This project has remained open since that time and the revised permit was not issued. In July 2012, the source submitted an application for renewal of its Title V permit, as required (APCD2012-APP-002231). This report addresses the renewal, which comprises few changes, and summarizes the recent revision to add a turbine and emergency engine. An administrative change (name of responsible official) under APCD2013-APP-002574 has been combined with this project.

3.0 Facility Description

The facility comprises two simple cycle natural gas-fired turbine generators and an emergency engine. Both turbine generators are General Electric, with rated generation capacities of 46 MW and 49.9 MW, as described in the subject permit. Both are equipped with emissions controls and monitoring equipment, including selective catalytic reduction (SCR), data acquisition and handling systems (DAHS), and continuous emissions monitoring systems (CEMS). The emergency engine (black start) is manufactured by Waukasha, rated at 924 bhp, natural gas fired, lean burn, and drives a 689 kW generator. The emission units are summarized in the first of the following tables. The second table summarizes total facility emissions based on the District's emission inventory.

Permit Number	Source Category
APCD2009-PTO-981360	Turbine (1) – Electric Generation
APCD2010-PTO-000397	Turbine (2) – Electric Generation
APCD2009-PTO-000395	Natural Gas Black Start Generator

Emissions Summary (as reported for 2014)		
Criteria Pollutants	lb/hr (at capacity)	Annual (tons)
NOx	31.5	5.4
VOC	2.9	5.8
Total PM	28.7	13.9
SO2	0.5	0.3
CO	7.9	2.6
Total Federal HAPs	12.4	5.8

4.0 Title IV (Acid Rain) and Title V Permitting

The facility is subject to the acid rain provisions under District Rule 1412 and Title IV of the federal CAA, as given at 40 Code of Federal Regulation (CFR) § 72.6(a). Under the acid rain program, an *affected source* (a term specifically defined in Title IV of the CAA, and which applies to this facility) is subject to Title V permitting pursuant to District Rule 1401 and 40 CFR § 70.3(a)(4).

5.0 Applicable Requirements

5.1 Summary by Pollutant

Turbine (1)	
Pollutant	Primary Limiting Regulation(s)
NOx	Rule 20.2 (NSR); 40 CFR 60 Subpart GG

SO ₂	Rule 20.2; Rule 62; Rule 53; 40 CFR 60 Subpart GG
VOC	Rule 20.2
CO	Rule 20.2 (AQIA only)
PM ₁₀	Rule 20.2; Rule 53
Toxic Pollutants	Rule 1200
Turbine (2)	
Pollutant	Primary Limiting Regulation(s)
NO _x	Rule 20.2 (NSR); 40 CFR 60 Subpart KKKK
SO ₂	Rule 20.2; Rule 62; Rule 53; 40 CFR 60 Subpart KKKK
VOC	Rule 20.2
CO	Rule 20.2 (AQIA only)
PM ₁₀	Rule 20.2; Rule 53
Toxic Pollutants	Rule 1200
Emergency Engine	
Pollutant	Primary Limiting Regulation(s)
NO _x	Rule 20.2 (NSR)
SO ₂	Rule 20.2; Rule 62; Rule 53
VOC	Rule 20.2
CO	Rule 20.2 (AQIA only)
PM ₁₀	Rule 20.2; Rule 53
Toxic Pollutants	Rule 1200
Federal HAPs	40 CFR 63 Subpart ZZZZ

5.2 Discussion

The above table summarizes those rules on which the permit conditions are based. It should be noted that “streamlining” of the applicable regulations has been requested and applied for this and prior evaluations for District permits. This simply means that, where multiple requirements apply, the most stringent requirement has been identified through a sequential analysis of the emission standards and means of compliance (e.g., monitoring, recordkeeping and reporting), and then cited singularly in the permit as a streamlined alternative to citing all of the requirements. The permittee must comply with the most stringent requirement, as cited in the permit, which also serves as the compliance measure for the less stringent requirements.

District Rule 20.2

Rule 20.2 provides for new source review (NSR) with the introduction of any new or modified unit. This rule was considered at the time of the original Authority to Construct (A/C) for turbine (1) and for the combination of turbine (2) and the emergency black start engine. Best available control technology (BACT) limits were established based on this rule for all three emission units (District permits), and an air quality impact analysis (AQIA) was most recently performed for combined emissions of criteria pollutants from

turbine (2) and the emergency engine. No exceedances were shown from the results of the AQIA.

District Rule 1200

Rule 1200 provides for NSR pertaining to toxic pollutants. Though combustion of natural gas is not associated with appreciable emissions of toxic pollutants, Rule 1200 requires a toxic health risk assessment for new, relocated, or modified sources of toxics. As with NSR under Rule 20.2, the required assessment was conducted at the time of A/C issuance and found the introduction of these emission units to comply with Rule 1200 requirements.

40 CFR 60 Subpart KKKK

40 CFR 60 Subpart KKKK – *Standards of Performance for Stationary Combustion Turbines* (adopted by reference in District Regulation X) applies to stationary combustion turbines with a heat input at peak load 10 MMBtu/hr (HHV of the fuel), which commenced construction, modification, or reconstruction after February 18, 2005. The turbine in question falls within these criteria and is subject to this rule.

Subpart KKKK limits NO_x to 25 ppm at 15% excess oxygen and SO₂ to 0.90 lb/MW-hr gross output or 0.060 lb/MMBtu/hr heat input. The originally established limit for NO_x of 2.5 ppm, pursuant to District new source review, is lower than that of Subpart KKKK. However, this lower NO_x limit excludes periods of startup and shutdown. Therefore, a condition citing the 25 ppm limit of Subpart KKKK is included in the permit in addition to the 2.5 ppm limit.

A condition is included in the permit requiring the exclusive use of Public Utility Commission (PUC) quality natural gas, which is limited in sulfur content to 5 grains per 100 standard cubic feet by California PUC General Order 58-A. By complying with this fuel sulfur standard, the source will comply with District Rule 62 and the SO₂ standards of 40 CFR 60 Subpart KKKK, with the exception of startup and shutdown periods, as discussed above.

Federal NESHAP – RICE

The facility's emergency engine is subject to 40 CFR 63 Subpart ZZZZ -- *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)*. This rule places limits on the non-emergency hours of engine operation at § 63.6640(f). Additionally, maintenance practices and record keeping apply for this type of engine as specified at Table 2d of the rule and § 63.6655(e). Records showing fulfillment of maintenance requirements must be retained for a minimum of 5 years in accordance with §§ 63.6660(c) and 63.10(b).

6.0 Monitoring, Recordkeeping and Reporting

Pursuant to New Source Review (NSR) the turbines are required to operate and maintain the CEMS to measure NO_x, CO, and NH₃, which is also required by District Rules 69.3, 69.3.1, and 40 CFR 60 Subpart KKKK.

Monitoring and testing are required in the existing District permits. For the related Title V permit, additional recordkeeping and reporting are required pursuant to District Rule 1421.

Compliance Assurance Monitoring (CAM) under 40 CFR Part 64 was considered for this review. None of the emission units fulfill the criteria for applicability under Part 64. Additionally, the turbines are equipped with continuous emissions monitoring systems (CEMS), which also excludes them from being subject to CAM under § 64.2 (b)(vi).

7.0 Permit Shield

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

A permit shield was requested by the applicant and is provided at Section II. D. of the permit. The requirements listed in the permit shield, from which the permittee is shielded from enforcement action as long as it complies with the permit, were evaluated against the provisions of the aforementioned regulations. Each listed requirement in the permit shield was determined to be acceptable either because it does not apply or because it is superseded in stringency by another requirement remaining in the permit.

8.0 Outside Review

In accordance with District Rule 1415, the District will provide notice to the public and notice to the Environmental Protection Agency Region 9.

9.0 Conclusions / Recommendations

The source is expected to comply with all applicable requirements including those cited in the current District permit as well as those under District Rule 1401 and Title V. Therefore, the recommendation of this report is for the subject initial Title V permit to be issued following public notice and EPA review.

Excerpt from
CPUC Rule 30
Transportation of Customer Procured Gas

(Specifies Natural Gas Quality Standards including Sulfur Content)



San Diego Gas & Electric Company
San Diego, California

Original Cal. P.U.C. Sheet No. 16813-G
Canceling Original Cal. P.U.C. Sheet No. 15879-G

RULE 30

Sheet 12

TRANSPORTATION OF CUSTOMER-OWNED GAS

3. Utility shall render to customer an invoice for the transportation services hereunder showing the quantities of gas, expressed in therms, delivered to utility for customer's account, at each point of receipt and the quantities of gas, expressed in therms, redelivered by utility for customer's account at each point of delivery during the preceding billing period. Customer shall pay such amounts due hereunder upon presentation of the bill, and in accordance with the provisions of Rule 9. In order to match interstate pipeline allocated calendar month delivery to usage, noncore transportation-only gas customers will be billed on a calendar month basis. Core transportation-only customers will remain in their regular billing cycle, but will have their average daily usage projected to a calendar month amount for the purpose of matching interstate pipeline allocated calendar month delivery. The calendar month usage projection will be trued-up in the next month based on that month's actual average daily usage.
4. Each party hereto shall have, at its expense, the right at all reasonable times, to examine the books and records of the other party to the extent necessary to verify the accuracy of any statement, charge, computation, or demand made under or pursuant to the Contract. Each party agrees to keep records and books of account in accordance with generally accepted accounting principles and practices in the industry.

i. Gas Delivery Specifications

1. The natural gas delivered into the Utility System Operator's system shall conform to the gas quality specifications as provided in any applicable agreements and contracts currently in place between the entity delivering such natural gas and the Utility System Operator at the time of the delivery. If no such agreement is in place, the natural gas shall conform to the gas specifications as defined below.
2. Gas delivered into the Utility System Operator's system for the account of a customer for which there is no existing contract between the delivering pipeline and the Utility System Operator shall be at a pressure such that the gas can be integrated into the Utility System Operator's system at the point(s) of receipt and shall conform to the following minimum specifications at the time of delivery:
 - a. Heating Value: The minimum heating value is nine hundred and ninety (990) Btu (gross) per standard cubic feet on a dry basis. The maximum heating value is one thousand one hundred fifty (1150) Btu (gross) per standard cubic foot on a dry basis.
 - b. Moisture Content or Water Content: For gas delivered at or below a pressure of eight hundred (800) psig, the gas shall have a water content not in excess of seven (7) pounds per million standard cubic feet. For gas delivered at a pressure exceeding eight hundred (800) psig, the gas shall have a water dew point not exceeding 20 degrees F at delivery pressure.
 - c. Hydrogen Sulfide: The gas shall not contain more than twenty-five hundredths (0.25) of one (1) grain of hydrogen sulfide, measured as hydrogen sulfide, per one hundred (100) standard cubic feet (4 ppm). The gas shall not contain any entrained hydrogen sulfide treatment chemical (solvent) or its by-products in the gas steam.

(Continued)

12C27

Advice Ltr. No. 1745-G

Decision No. D.07-12-019

Issued by
Lee Schavrien
Senior Vice President
Regulatory Affairs

Date Filed Jan 22, 2008
Effective Apr 1, 2009
Resolution No.



San Diego Gas & Electric Company
San Diego, California

Original _____ Cal. P.U.C. Sheet No. 16814-G
Canceling _____ Cal. P.U.C. Sheet No. _____

RULE 30

Sheet 13

TRANSPORTATION OF CUSTOMER-OWNED GAS

I. Gas Delivery Specifications (Continued)

- d. Mercaptan Sulfur: The gas shall not contain more than three tenths (0.3) grains of mercaptan sulfur, measured as sulfur, per hundred standard cubic feet (5 ppm).
- e. Total Sulfur: The gas shall not contain more than seventy-five hundredths (0.75) of a grain of total sulfur compounds, measured as sulfur, per one hundred (100) standard cubic feet (12.6 ppm). This includes COS and CS₂, hydrogen sulfide, mercaptans and mono, di and poly sulfides.
- f. Carbon Dioxide: The gas shall not have a total carbon dioxide content in excess of three percent (3%) by volume.
- g. Oxygen: The gas shall not have an oxygen content in excess of two-tenths of one percent (0.2%) by volume, and customer will make every reasonable effort to keep the gas free of oxygen.
- h. Inerts: The gas shall not contain in excess of four percent (4%) total inerts (the total combined carbon dioxide, nitrogen, oxygen and any other inert compound) by volume.
- i. Hydrocarbons: For gas delivered at a pressure of 800 psig or below, the gas hydrocarbon dew point is not to exceed 45 degrees F at 400 psig or at the delivery pressure if the delivery pressure is below 400 psig. For gas delivered at a pressure above 800 psig the gas hydrocarbon dew point is not to exceed 20 degrees F measured at a pressure of 400 psig.
- j. Merchantability: The gas shall not contain dust, sand, dirt, gums and other substances injurious to utility facilities or that would cause gas to be unmarketable.
- k. Hazardous Substances: The gas must not contain hazardous substances (including but not limited to toxic and/or carcinogenic substances and/or reproductive toxins) concentrations which would prevent or restrict the normal marketing of gas, be injurious to pipeline facilities, or which would present a health and/or safety hazard to utility employees and/or the general public.
- l. Delivery Temperature: The gas delivery temperature is not to be below 50 degrees F or above 105 degrees F.
- m. Interchangeability: The gas shall have a minimum Wobbe Number of 1279 and shall not have a maximum Wobbe Number greater than 1385. The gas shall meet American Gas Association's Lifting Index, Flashback Index and Yellow Tip Index interchangeability indices for high methane gas relative to a typical composition of gas in the utility system serving the area. Acceptable specification ranges are:
 - * Lifting Index (IL)
IL ≤ 1.06
 - * Flashback Index (IF)
IF ≤ 1.2

(Continued)

13C24

Advice Ltr. No. 1745-G

Decision No. D.07-12-019

Issued by
Lee Schavrien
Senior Vice President
Regulatory Affairs

Date Filed Jan 22, 2008
Effective Apr 1, 2009
Resolution No. _____

Miramar Energy Facility (MEF)
Greenhouse Gas Potential to Emit Calculations

Facility Name: SDG&E - Miramar Energy Facility

Facility ARB ID: 101401

Facility Reporting Year: 2016

Confidential Data Indication Set to "No" by Reporter

Certification Statement: The designated representative or alternate designated representative must sign (i.e., agree to) this certification statement. If you are an agent and you click on "SUBMIT", you are not agreeing to the certification statement, but are submitting the certification statement on behalf of the designated representative or alternate designated representative who is agreeing to the certification statement. An agent is only authorized to make the electronic submission on behalf of the designated representative, not to sign (i.e., agree to) the certification statement.

Facility Representatives

Designated Representative: HASHIM NAVROZALI

Agent: Greg Hauser

Facility Location

Physical Address: 6875 Consolidated Way

City: San Diego

State / Province: CA

ZIP / Postal Code: 92121

Country: USA

Latitude: 32.8769

Longitude: -117.1664

County: SAN DIEGO

Air Basin: SAN DIEGO

District: SAN DIEGO COUNTY APCD

Mailing Address: 8315 CENTURY PARK COURT, CP21E

City: SAN DIEGO

State / Province: CA

ZIP / Postal Code: 92123

Country: USA

Payment Information (required if subject to AB 32 Cost of Implementation Fee Regulation)

Responsible Party for Payment: HASHIM NAVROZALI

Responsible Party Email: hnavrozali@semprautilities.com

Responsible Party Phone: 858-650-4087

Billing Address: 8315 CENTURY PARK COURT, CP21E

City: SAN DIEGO

State / Province: CA

ZIP / Postal Code: 92123

Country: USA

Owners / Operators

Name: SAN DIEGO GAS & ELECTRIC

GHG Quantity

CO2 equivalent emissions, excluding biogenic (subparts C –

AA): 66,898.062424 Metric Tons

Exempt biogenic CO2 emissions (subparts C – AA): 0 Metric Tons

CO2 equivalent emissions from fuel supplier categories,

excluding biogenic (subparts MM – NN): 0 Metric Tons

Exempt biogenic CO2 emissions from fuel supplier categories

(subparts MM – NN): 0 Metric Tons

CO2 emissions from CO2 Suppliers (excluding biogenic)

(subpart PP): 0 Metric Tons

Exempt biogenic CO2 emissions from CO2 Suppliers (subpart

PP): 0 Metric Tons

CO2 equivalent emissions from electric power entities:

0 Metric Tons

Covered CO2 equivalent emissions: 66,898.062424 Metric

Tons

De Minimis CO2 equivalent emissions: 0 Metric Tons

Maximum allowable De Minimis emissions: 2,006.941873

Metric Tons

General Facility Reporting Information**NAICS Codes**

Primary: 221112 (Fossil Fuel Electric Power Generation)

Second Primary:

Additional:

U.S. Parent Companies

Parent Company Name: SEMPRA ENERGY INC

Address: 488 8th Avenue, San Diego, CA 92101

Percentage of Ownership Interest: 100%

GHG Report Start Date: 2016-01-01

GHG Report End Date: 2016-12-31

Explanation of any calculation methodology changes during the reporting year:

EPA e-GGRT Facility IDs

521721

Full or Abbreviated GHG Report: Full

Company or Entity qualifies for Small Business Status: No

Are you applying for legacy contract transition assistance under the cap-and-trade program [95894]?: No

Electricity Purchases/Acquisitions for Reporting Facilities (95104(d))

Electricity Provider's Name: San Diego Gas & Electric

Provider's ARB ID: 3004

Purchases/Acquisitions (MWh): 2,316

Natural Gas Purchases/Acquisitions for Reporting Facilities [95115(k), 95103(a)(1)]

Natural Gas Supplier Name: San Diego Gas and Electric -
Local Distribution
Supplier's ARB ID: 104085
Customer Number: None
Purchases/Acquisitions (MMBtu): 1,239,662
Was this natural gas received directly from an interstate
pipeline? No

Increases and Decreases in Facility Emissions [95104(f)]:

Have facility emissions increased or decreased more than
five percent in relation to the previous data year? Yes
Change in production: Yes
Changes in facility operations in order to comply with:
The cap-and-trade regulation: No
Other air pollution regulations: No
Other regulations, not related to air pollution or
greenhouse gases: No
Changes in efficiency due to:
Process or material changes: No
The addition of control equipment: No
Other efficiency measures: No
Other reason(s) for increase or decrease: No
Provide a narrative description of how each reason
identified in section 95104(f)(2) caused the increase or
decrease in emissions. Include in this description any
changes in your air permit status: GHG emissions increased
in 2016 due to higher demand for produced energy.
Note: This section is not subject to the third-party
verification requirements

Electricity Generation

Facility has the capacity to generate electricity: Yes
CEC ID (if applicable): G0123
EIA ID (if applicable): 56232
FERC QFID (if applicable): N/A
CAISO ID (if applicable): MRGT_6_MMAREF, MRGT_6_MEF2
Total Facility Nameplate Generating Capacity: 92 MW
Facility Type: Stand-alone electricity generating facility
Facility's Energy Disposition: Grid-dedicated facility

Disposition of Generated Electricity [95112(a)(4)]

Generated Electricity for Grid Disposition [95112(a)(4)(A)]
Unit, System Or Group Name MEF CT1 & MEF CT2

Retail Provider/Marketer Name San Diego Gas & Electric (SDG&E)

Electricity Provided or Sold (MWh) 122,061
Generated electricity used for other on-site industrial processes that are not in support of or a part of the power generation system: 0 MWh

Reported emissions include emissions from a cogeneration/bigeneration unit: No

Parasitic Steam Use: Generated thermal energy used for supporting power production (excluding steam used directly for generating electricity) [95112(a)(5)(B)]:

Generated thermal energy for on-site industrial applications not related to electricity generation [95112(a)(5)(C)]:

Subpart D: Electricity Generation

Gas Information Details

Gas Name	Gas Quantity (Metric Tons)
Methane	1.239662
Exempt Biogenic Carbon dioxide	0
Nitrous Oxide	0.123966
Carbon Dioxide	66,833.60
Total CO2e	66,898.06

Annual CO2 emissions from sorbent injection: 0 (Metric Tons)

Total Covered CO2e Emissions: 66,898.062424 (Metric Tons)

Emissions shown above that are claimed as De Minimis (CO2e): 0 Metric Tons

Unit Details

Unit Name: MEF CT1

Unit Type: Electricity Generator

Unit Description: Combustion Turbine Engine (e.g. Peaker)

Part 75 Methodology: Appendix G, Equation G-4

Methodology Start Date: 2013-01-01

Methodology End Date: 2016-12-31

Is this unit/stack/pipe in the Acid Rain Program? Yes

Is this configuration a Part 75 unit? Yes

Electricity Generating Unit Information

Nameplate Generating Capacity: 46 MW
Prime Mover Technology: Combustion Turbine (Single Cycle)
Type of Thermal Energy Generation: Electricity only EGU
95112(b)(2): Gross Generation: 57,779 MWh
95112(b)(2): Net Generation: 54,891 MWh
95112(b)(3): Total Thermal Output (for Cogeneration or
Bigeneration):
95112(b)(8): Other Steam Used for Electricity Generation:
Additional Comments and Information:

Total Annual CO2 Mass Emissions

Annual CO2 Emissions Including Biomass: 29,597.3 metric
tons
Annual CO2 Emissions (Fossil Fuels Only): 29,597.3 metric
tons
Annual CO2 emissions generated from sorbent injection: 0
metric tons
Annual Exempt Biogenic CO2 Emissions: 0 metric tons

Missing Data Information

Total number of source operating hours in the reporting year
that fuel flow rate was missing: 0
Total number of source operating hours in the reporting year
that high heating value was missing: 0

Fuel-Specific CH4 and N2O Emissions Information**Fuel: Natural Gas**

Annual Mass or Volume of Fuel Combusted: 530,149,000
short tons, scf, or gallons
CH4 Emissions: 0.548999 metric tons
N2O Emissions: 0.0549 metric tons
Total CO2e for CH4: 11.528979 metric tons
Total CO2e for N2O: 17.018969 metric tons

Equation Inputs

Cumulative Annual Heat Input from fuel combustion:
548,999 mmBtu
Fuel Specific CH4 Emission Factor: 0.001 kg/mmBtu
Fuel Specific N2O Emission Factor: 0.0001 kg/mmBtu

Unit Name: MEF CT2

Unit Type: Electricity Generator

Unit Description: Combustion Turbine Engine (e.g. Peaker)

Part 75 Methodology: Appendix G, Equation G-4

Methodology Start Date: 2013-01-01

Methodology End Date: 2016-12-31

Is this unit/stack/pipe in the Acid Rain Program? Yes

Is this configuration a Part 75 unit? Yes

Electricity Generating Unit Information

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CONTROL DISTRICT

Nameplate Generating Capacity: 46 MW
Prime Mover Technology: Combustion Turbine (Single Cycle)
Type of Thermal Energy Generation: Electricity only EGU
95112(b)(2): Gross Generation: 68,955 MWh
95112(b)(2): Net Generation: 67,170 MWh
95112(b)(3): Total Thermal Output (for Cogeneration or
Bigeneration):
95112(b)(8): Other Steam Used for Electricity Generation:
Additional Comments and Information:

Total Annual CO2 Mass Emissions

Annual CO2 Emissions Including Biomass: 37,236.3 metric
tons
Annual CO2 Emissions (Fossil Fuels Only): 37,236.3 metric
tons
Annual CO2 emissions generated from sorbent injection: 0
metric tons
Annual Exempt Biogenic CO2 Emissions: 0 metric tons

Missing Data Information

Total number of source operating hours in the reporting year
that fuel flow rate was missing: 0
Total number of source operating hours in the reporting year
that high heating value was missing: 0

Fuel-Specific CH4 and N2O Emissions Information

Fuel: Natural Gas

Annual Mass or Volume of Fuel Combusted: 666,703,000
short tons, scf, or gallons
CH4 Emissions: 0.690663 metric tons
N2O Emissions: 0.069066 metric tons
Total CO2e for CH4: 14.503923 metric tons
Total CO2e for N2O: 21.410553 metric tons

Equation Inputs

Cumulative Annual Heat Input from fuel combustion:
690,663 mmBtu
Fuel Specific CH4 Emission Factor: 0.001 kg/mmBtu
Fuel Specific N2O Emission Factor: 0.0001 kg/mmBtu

Time And Date Report Generated: 03/13/2017 15:05