

Bay Area Air Quality Management District

375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 771-6000

Final

MAJOR FACILITY REVIEW PERMIT

Issued to:

C1 Santa Clara LLC.
Facility #A0732

Facility Address:

2600 De La Cruz Blvd
Santa Clara, CA 95050-2663

Mailing Address:

2101 Cedar Spring Road, Suite 900
Dallas, TX 75201

Responsible Official

Kyle Myers, Site Manager
(407) 492-8666

Facility Contact

Kyle Myers, Site Manager
(407) 492-8666

Type of Facility: Data Center and
Cogeneration Plant

BAAQMD Engineering Division Contact:
Madhav Patil

Primary SIC: 2631

Product: Data Center & Electricity Generation

ISSUED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Signed by Pamela J. Leong
Pamela J. Leong Director of Engineering

August 21, 2019
Date

TABLE OF CONTENTS

I.	STANDARD CONDITIONS	3
II.	EQUIPMENT LIST	7
III.	GENERALLY APPLICABLE REQUIREMENTS	8
IV.	SOURCE-SPECIFIC APPLICABLE REQUIREMENTS	111
V.	SCHEDULE OF COMPLIANCE	15
VI.	PERMIT CONDITIONS	16
VII.	APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS	18
VIII.	TEST METHODS	21
IX.	PERMIT SHIELD	24
X.	REVISION HISTORY	26
XI.	GLOSSARY	27

I. STANDARD CONDITIONS

A. Administrative Requirements

The permit holder shall comply with all applicable requirements in the following regulations:

BAAQMD Regulation 1 - General Provisions and Definitions
(as amended by the District Board on 5/4/11);

SIP Regulation 1 - General Provisions and Definitions
(as approved by EPA through 6/28/99);

BAAQMD Regulation 2, Rule 1 - Permits, General Requirements
(as amended by the District Board on 12/19/12, effective
8/31/16);

BAAQMD Regulation 2, Rule 2 - Permits, New Source Review
(as amended by the District Board on 12/19/12, effective
8/31/16);

BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
(as amended by the District Board on 12/19/12);

SIP Regulation 2, Rule 4 - Permits, Emissions Banking
(as approved by EPA through 1/26/99);

BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants
(as amended by the District Board on 12/07/16);

BAAQMD Regulation 2, Rule 6 - Permits, Major Facility Review
(as amended by the District Board on 4/16/03); and

SIP Regulation 2, Rule 6 – Permits, Major Facility Review
(as approved by EPA through 6/23/95).

B. Conditions to Implement Regulation 2, Rule 6, Major Facility Review

1. This Major Facility Review Permit was issued on February 6, 2017 and expires on February 5, 2022. The permit holder shall submit a complete application for renewal of this Major Facility Review Permit no later than August 5, 2021 and no earlier than February 5, 2022. **If a complete application for renewal has not been submitted in accordance with these deadlines, the facility may not operate after February 5, 2022.** If the permit renewal has not been issued by February 5, 2022, but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application. (Regulation 2-6-307, 404.2, 407, & 409.6; MOP Volume II, Part 3, §4.2)
2. The permit holder shall comply with all conditions of this permit. The permit consists of this document and all appendices. Any non-compliance with the terms and conditions of this permit will constitute a violation of the law and may be grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (Regulation 2-6-307; MOP Volume II, Part 3, §4.11)

I. Standard Conditions

3. In the event any enforcement action is brought as a result of a violation of any term or condition of this permit, the fact that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with such term or condition shall not be a defense to such enforcement action. (MOP Volume II, Part 3, §4.11)
4. This permit may be modified, revoked, reopened and reissued, or terminated for cause. (Regulation 2-6-307, 409.8, 415; MOP Volume II, Part 3, §4.11)
5. The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated non-compliance does not stay the applicability of any permit condition. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
6. This permit does not convey any property rights of any sort, or any exclusive privilege. (Regulation 2-6-409.7; MOP Volume II, Part 3, §4.11)
7. The permit holder shall supply within 30 days any information that the District requests in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. (Regulation 1-441, Regulation 2-6-409.4 & 501; MOP Volume II, Part 3, §4.11)
8. Any records required to be maintained pursuant to this permit that the permittee considers proprietary or trade secret information shall be prominently designated as such. Copies of any such proprietary or trade secret information which are provided to the District shall be maintained by the District in a locked confidential file, provided, however, that requests from the public for the review of any such information shall be handled in accordance with the District's procedures set forth in Section 11 of the District Administrative Code. (Regulation 2-6-419; MOP Volume II, Part 3, §4.11)
9. Proprietary or trade secret information provided to EPA will be subject to the requirements of 40 CFR Part 2, Subpart B - Public Information, Confidentiality of Business Information. (40 CFR Part 2)
10. The emissions inventory submitted with the application for this Major Facility Review Permit is an estimate of actual emissions or the potential to emit for the time period stated and is included only as one means of determining applicable requirements for emission sources. It does not establish, or constitute a basis for establishing, any new emission limitations. (MOP Volume II, Part 3, §4.11)
11. The responsible official shall certify all documents submitted by the facility pursuant to the major facility review permit. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The certifications shall be signed by a responsible official for the facility. (Regulation 2-6-409.20, MOP Volume II, Part 3, §4.11)
12. The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents,

I. Standard Conditions

contractors, or subcontractors. (Regulation 2-6-307)

C. Requirement to Pay Fees

The permit holder shall pay annual fees in accordance with District Regulation 3, including Schedule P. (Regulation 2-6-402 & 409.13, Regulation 3; MOP Volume II, Part 3, §4.12)

D. Inspection and Entry

Access to Facility: The permit holder shall provide reasonable access to the facility and equipment that is subject to this permit to the APCO and/or to his or her designee. (Regulation 1-440, Regulation 2-6-409.3; MOP Volume II, Part 3, §4.14)

E. Records

1. The permit holder must provide any information, records, and reports requested or specified by the APCO. (Regulation 1-441, Regulation 2-6-409.4)
2. Notwithstanding the specific wording in any requirement, all records for federally enforceable requirements shall be maintained for at least five years from the date of entry. (Regulation 2-6-501; MOP Volume II, Part 3, §4.7)

F. Monitoring Reports

Reports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting. Monitoring reports shall be submitted for the following periods: January 1st through June 30th and July 1st through December 31st, and are due on the last day of the month after the end of the reporting period. All instances of non-compliance shall be clearly identified in these reports. The reports shall be certified by the responsible official as true, accurate, and complete. In addition, all instances of non-compliance with the permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions. The reports shall be sent by e-mail to compliance@baaqmd.gov or postal mail to the following address:

Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
Attn: Title V Reports

(Regulation 2-6-502; MOP Volume II, Part 3, §4.7)

I. Standard Conditions

G. Compliance Certification

Compliance certifications shall be submitted annually by the responsible official of this facility to the Bay Area Air Quality Management District and to the Environmental Protection Agency. The certification period will be January 1st through December 31st. The certification shall be submitted by February 28th of each year. The certification must list each applicable requirement, the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance, and any other specific information required by the permit. The certification should be directed to the District's Compliance and Enforcement Division at the address above, and a copy of the certification should be sent by e-mail to r9.aeo@epa.gov or postal mail to the Environmental Protection Agency at the following address:

Director
Enforcement Division, TRI & Air Section (ENF-2-1)
USEPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

(MOP Volume II, Part 3, §4.5 and 4.15)

H. Emergency Provisions

1. The permit holder may seek relief from enforcement action in the event of a breakdown, as defined by Regulation 1-208 of the District's Rules and Regulations, by following the procedures contained in Regulations 1-431 and 1-432. The District will thereafter determine whether breakdown relief will be granted in accordance with Regulation 1-433. (MOP Volume II, Part 3, §4.8)
2. The permit holder may seek relief from enforcement action for a violation of any of the terms and conditions of this permit by applying to the District's Hearing Board for a variance pursuant to Health and Safety Code Section 42350. The Hearing Board will determine after notice and hearing whether variance relief should be granted in accordance with the procedures and standards set forth in Health and Safety Code Section 42350 et seq. (MOP Volume II, Part 3, §4.8)
3. The granting by the District of breakdown relief or the issuance by the Hearing Board of a variance will not provide relief from federal enforcement. (MOP Volume II, Part 3, §4.8)

I. Severability

In the event that any provision of this permit is invalidated by a court or tribunal of competent jurisdiction, or by the Administrator of the EPA, all remaining portions of the permit shall remain in full force and effect. (Regulation 2-6-409.5; MOP Volume II, Part 3, §4.10)

J. Miscellaneous Conditions

1. The maximum capacity for each source as shown in Table II-A is the maximum allowable capacity. Exceedance of the maximum allowable capacity for any source is a violation of Regulation 2, Rule 1, Section 301. (Regulation 2-1-301)

II. EQUIPMENT LIST

Table II-A - Permitted Sources

Each of the following sources has been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. The capacities in this table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-301.

S#	Description	Make or Type	Model	Capacity
S6	Gas Turbine, natural gas only, with Steam Injection (26 MW nominal)	General Electric	LM2500	219 MMBtu/hr
S7	Duct Burner, natural gas	Coen	C-0700-248	75 MM btu/hr, HHV (limited to 70.2 MM btu/hr, HHV)

III. GENERALLY APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. These requirements apply in a general manner to the facility and/or to sources exempt from the requirement to obtain a District Permit to Operate. The District has determined that these requirements would not be violated under normal, routine operations, and that no additional periodic monitoring or reporting to demonstrate compliance is warranted. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more sources, the requirement and the source are also included in Section IV, Source-Specific Applicable Requirements, of this permit. This section also contains provisions that may apply to temporary sources.

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s):
The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:
The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full language of SIP requirements is on EPA Region 9's website. The address is:
<http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>.

NOTE:

There are differences between current BAAQMD rules and the versions of the rules in the SIP. All sources must comply with both versions of a rule until US EPA has reviewed and approved (or disapproved) the District's revision of the regulation.

III. Generally Applicable Requirements

Table III
Generally Applicable Requirements

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)	N
SIP Regulation 1	General Provisions and Definitions (6/28/99)	Y
BAAQMD Regulation 2, Rule 1	General Requirements (12/19/12, effective 8/31/16)	Y
BAAQMD 2-1-429	Federal Emissions Statement (12/21/04)	Y
BAAQMD Regulation 4	Air Pollution Episode Plan (3/20/91)	N
SIP Regulation 4	Air Pollution Episode Plan (8/06/90)	Y
BAAQMD Regulation 5	Open Burning 6/19/13)	N
SIP Regulation 5	Open Burning (9/4/98)	Y
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/5/07)	N
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)	Y
BAAQMD Regulation 7	Odorous Substances (3/17/82)	N
BAAQMD Regulation 8, Rule 1	Organic Compounds - General Provisions (6/15/94)	Y
BAAQMD Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (7/20/05)	N
SIP Regulation 8, Rule 2	Organic Compounds – Miscellaneous Operations (3/22/95)	Y
BAAQMD Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (7/01/09)	Y
SIP Regulation 8, Rule 3	Organic Compounds - Architectural Coatings (1/2/04)	Y
BAAQMD Regulation 8, Rule 4	Organic compounds - General Solvent and Surface Coating Operations (10/16/02)	Y
BAAQMD Regulation 8, Rule 15	Organic Compounds – Emulsified and Liquid Asphalts (6/1/94)	Y
BAAQMD Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (6/15/05)	N
SIP Regulation 8, Rule 40	Organic Compounds - Aeration of Contaminated Soil and Removal of Underground Storage Tanks (4/19/01)	Y
BAAQMD Regulation 8, Rule 47	Organic Compounds - Air Stripping and Soil Vapor Extraction Operations (6/15/05)	N
SIP Regulation 8, Rule 47	Organic Compounds - Air Stripping and Soil Vapor Extraction Operations (4/26/95)	Y
BAAQMD Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (12/20/95)	N
SIP Regulation 8, Rule 49	Organic Compounds - Aerosol Paint Products (3/22/95)	Y
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)	N
SIP Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (6/8/99)	Y

III. Generally Applicable Requirements

**Table III
 Generally Applicable Requirements**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)
BAAQMD Regulation 11, Rule 2	Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing (10/7/98)	N
BAAQMD Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (7/11/90)	N
SIP Regulation 12, Rule 4	Miscellaneous Standards of Performance - Sandblasting (9/2/81)	Y
California Health and Safety Code Section 41750 et seq.	Portable Equipment	N
California Health and Safety Code Section 44300 et seq.	Air Toxics "Hot Spots" Information and Assessment Act of 1987	N
California Health and Safety Code Title 17, Section 93115	Airborne Toxic Control Measure for Stationary Compression Ignition Engines	N
California Health and Safety Code Title 17, Section 93116	Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater	N
40 CFR Part 61, Subpart M	National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos (6/19/95)	Y
EPA Regulation 40 CFR 82	Protection of Stratospheric Ozone (2/21/95)	
Subpart F, 40 CFR 82.156	Recycling and Emissions Reductions – Required Practices	Y
Subpart F, 40 CFR 82.161	Recycling and Emissions Reduction – Technician Certification	Y
Subpart F, 40 CFR 82.166	Recycling and Emissions Reductions – Reporting and Recordkeeping Requirements	Y

IV. SOURCE-SPECIFIC APPLICABLE REQUIREMENTS

The permit holder shall comply with all applicable requirements, including those specified in the BAAQMD and SIP Rules and Regulations and other federal requirements cited below. The requirements cited in the following tables apply in a specific manner to the indicated source(s).

The dates in parentheses in the Title column identify the versions of the regulations being cited and are, as applicable:

1. BAAQMD regulation(s): The date(s) of adoption or most recent amendment of the regulation by the District Board of Directors
2. Any federal requirement, including a version of a District regulation that has been approved into the SIP:
 The most recent date of EPA approval of any portion of the rule, encompassing all actions on the rule through that date

The full text of each permit condition cited is included in Section VI, Permit Conditions, of this permit. The full language of SIP requirements is on EPA Region 9’s website. The address is: <http://yosemite.epa.gov/r9/r9sips.nsf/Agency?ReadForm&count=500&state=California&cat=Bay+Area+Air+Quality+Management+District-Agency-Wide+Provisions>. All other text may be found in the regulations themselves.

**Table IV-A
 Source-Specific Applicable Requirements
 S6, Turbine; S7, Duct Burner**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/4/11)		
1-107	Combination of Emissions	Y	
1-520	Continuous Emission Monitoring	Y	
1-520.8	Monitors required per Reg. 2-1-403	Y	
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.4	reporting of inoperative CEMs	Y	
1-522.5	CEM calibration requirements	Y	
1-522.6	CEM accuracy requirements	Y	
1-522.7	emission limit exceedance reporting requirements	N	
1-522.8	monitoring data submittal requirements	Y	
1-522.9	recordkeeping requirements	Y	
1-602	Area and Continuous Emission Monitoring Requirements	N	

IV. Source-Specific Applicable Requirements

Table IV-A
Source-Specific Applicable Requirements
S6, Turbine; S7, Duct Burner

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
SIP Regulation 1	General Provisions and Definitions (6/28/99)		
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.7	Monitor excesses	Y	
BAAQMD Regulation 2, Rule 1	Regulation 2, Rule 1 - Permits, General Requirements (6/7/95)		
2-1-501	Monitors	Y	
BAAQMD Regulation 6, Rule 1	Particulate Matter, General Requirements (12/5/07)		
6-1-301	Ringelmann #1 Limitation	N	
6-1-305	Visible Particles	N	
6-1-310	Particulate Weight Limitation	N	
6-1-310.3	Particulate Weight Limitation @ 6% O2	N	
6-1-401	Appearance of Emissions	N	
SIP Regulation 6	Particulate Matter and Visible Emissions (9/4/98)		
6-301	Ringelmann #1 Limitation	Y	
6-305	Visible Particles	Y	
6-310	Particulate Weight Limitation	Y	
6-310.3	Particulate Weight Limitation @ 6% O2	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95)		
9-1-301	Limitations on Ground Level Concentrations	Y	
9-1-302	General Emission Limitations	Y	
BAAQMD Regulation 9, Rule 9	Inorganic Gaseous Pollutants - Nitrogen Oxides from Stationary Gas Turbines (12/6/06)		
9-9-113	Exemption - Inspection/Maintenance	N	
9-9-114	Exemption - Startup/Shutdown	N	
9-9-115	Limited Exemption, Minor Inspection and Maintenance Work	N	

IV. Source-Specific Applicable Requirements

Table IV-A
Source-Specific Applicable Requirements
S6, Turbine; S7, Duct Burner

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
9-9-120	Limited Exemption, Interchangeable Emission Reduction Credits	N	
9-9-301	Emission Limits – General	N	
9-9-301.1.2	Emission Limits - Turbines over 10.0 MW without SCR	Y	
9-9-301.2	Emission limits	N	
9-9-301.4	Rebuttable presumption	N	
9-9-501	Monitoring & Recordkeeping	N	
9-9-603	Continuous Emission Monitoring	N	
9-9-605	Compliance With Output Based NOx Emissions Standards	N	
SIP Regulation 9, Rule 9	Inorganic Gaseous Pollutants - Nitrogen Oxides from Stationary Gas Turbines (12/15/97)		
9-9-113	Exemption - Inspection/Maintenance	Y	
9-9-114	Exemption - Startup/Shutdown	Y	
9-9-301	Emission Limits – General	Y	
9-9-301.2	Emission Limits - Turbines over 10.0 MW without SCR	Y	
9-9-501	Monitoring & Recordkeeping	Y	
BAAQMD Manual of Procedures, Volume V	Continuous Emission Monitoring Policy and Procedures (1/20/82)	Y	
40 CFR 60 Subpart A	Standards of Performance for New Stationary Sources – General Provisions (12/23/71)	Y	
60.4(b)	Reports to EPA and District	Y	
60.7(a)(4)	Written notification of physical or operational changes	Y	
60.7(b)	Records	Y	
60.8	Performance Tests	Y	
60.9	Availability of Information	Y	
60.11(a)	Compliance with standards and maintenance requirements	Y	
60.11(d)	Minimizing emissions	Y	
60.12	Circumvention	Y	
60.13	Monitoring Requirements	Y	
NSPS Subpart GG	Standards of Performance for Stationary Gas Turbines (10/17/00)		
60.332 (a)(2)	Performance Standard, NOx	Y	

IV. Source-Specific Applicable Requirements

Table IV-A
Source-Specific Applicable Requirements
S6, Turbine; S7, Duct Burner

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.333(b)	Performance Standards, SO ₂ : percentage of S in fuel (S6, Turbine only)	Y	
60.334(b)	Use of CEM to monitor NO _x	Y	
60.334(h)(3)(i)	Valid purchase contract, tariff sheet, or transportation contract for natural gas	Y	
60.334(j)(iii)	4-hour average	Y	
60.335	Test Methods and Procedures	Y	
40 CFR 60, Appendix B	Performance Specifications		
Performance Specification 2	Specifications and Test Procedures for SO ₂ and NO _x Continuous Emission Monitoring Systems in Stationary Sources	Y	
Performance Specification 3	Specifications and Test Procedures for O ₂ and CO ₂ Continuous Emission Monitoring Systems in Stationary Sources	Y	
40 CFR 60 Appendix F	Quality Assurance Procedures		
Procedure 1	QA requirements for gas continuous emission monitoring systems	Y	
BAAQMD Condition #14522	Permit to Operate Condition	Y	
Part 1	Natural gas firing [BACT]	Y	
Part 4	Steam Injection to control NO _x emissions during all periods of gas turbine operation except during times of start-up, shutdown, and inspection and maintenance [BAAQMD Regulation 9, Rule 9]	Y	
Part 5	Monitoring & recordkeeping [BACT, BAAQMD Regulation 9, Rule 9]	Y	
Part 6	Sulfur Limit (PUC quality gas) [BAAQMD Regulation 2-1-403]	Y	
Part 7	Heat input limit for turbine [Cumulative Increase, 2-1-305, 2-2-409]	Y	
Part 8	Hourly records of turbine heat input [2-6-503]	Y	
Part 9	Heat input limit for duct burner [Cumulative Increase, 2-1-305, 2-2-409]	Y	
Part 10	Hourly records of duct burner heat input [2-6-503]	Y	
Part 11	Records of fuel usage [2-6-501, 2-6-503]	Y	

V. SCHEDULE OF COMPLIANCE

The permit holder shall comply with all applicable requirements cited in this permit. The permit holder shall also comply with applicable requirements that become effective during the term of this permit on a timely basis.

VI. PERMIT CONDITIONS

Any condition that is preceded by an asterisk is not federally enforceable.

Condition #14522

Sources S6, S7 - Turbine & Duct Burner

1. S6, Gas Turbine, and S7, Duct Burner, shall be fired only on natural gas. [basis: BACT]
2. Deleted 6/18/01
3. Deleted 7/2/01
4. The owner/operator shall not operate the turbine unless the steam injection system to control NOx emissions from S6 Turbine is in operation, except during times of start-up and shutdown pursuant to Regulation 9-9-114. The start-up period may be followed by a commissioning period of no more than 4 hours, during which the steam injection system is not required, if one or more of the following activities were conducted during the shutdown:
 - Replacement of more than 1/3 of the duct burners
 - Replacement of steam injection parts
 - Replacement of gas compressor parts
 - Computer control system upgrades
 - Gas turbine fuel nozzle replacementThe commissioning period shall end when the steam injection system is in operation and the turbine is in compliance with Regulation 9-9-305. The turbine shall be operated in low-fire mode during the commissioning period. The steam injection rate shall be controlled by the gas turbine control system at all times during the operation of the steam injection system. [basis: BAAQMD Regulation 9, Rule 9]
5. JSC shall install, calibrate and operate District-approved continuous monitors and recorders for oxides of nitrogen and either oxygen or carbon dioxide as required by District Regulation 10. These monitoring records shall be supplied to the Director of the Compliance and Enforcement Division upon request. [basis: BACT, Regulation 9, Rule 9]
6. All natural gas burned at S6, Gas Turbine, and S7, Duct Burner, shall be PUC quality gas. [basis: BAAQMD Regulation 2, Rule 1, Section 403]
7. The owner/operator shall ensure that the heat input to S6, Gas Turbine, does not exceed 2190 therms/hr. [Cumulative Increase, 2-1-305, 2-2-409]

VI. Permit Conditions

8. The owner/operator shall maintain records of the heat input at S6 and make them available to District staff upon request. Records shall be maintained for a period of at least five years from the date of entry. [2-6-503]
9. The owner/operator shall ensure that the heat input to S7, Duct Burner, does not exceed 1684.8 MMbtu/day (HHV). [Cumulative Increase, 2-1-234, 2-1-305, 2-2-409]
10. The owner/operator shall maintain records of the daily heat input at S7 and make them available to District staff upon request. Records shall be maintained for a period of at least five years from the date of entry. [2-6-503]
11. Within 6 months of issuance of the renewed Major Facility Review permit, the owner/operator shall record fuel usage for S6 and S7 on an hourly basis. The owner/operator shall record S6 and S7 separately. The fuel usage data shall be made available to the District upon request. [basis: 2-6-501, 2-6-503]

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency column indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, using the following codes: annual (A), quarterly (Q), monthly (M), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

This section is only a summary of the limits and monitoring requirements. In the case of a conflict with any requirement in Sections I-VI, the preceding sections take precedence over Section VII.

**Table VII-A
 Applicable Limits and Compliance Monitoring Requirements
 S6, Turbine, S7, Duct Burner**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.1.2 and 9-9-401	N		17.2 ppmv @15% O ₂ (dry), 3-hour average except during startup, not to exceed 3 hours, and shutdown, not to exceed 1 hour and inspection and maintenance periods as allowed by BAAQMD 9-9-113 and 9-9-115	BAAQMD 9-9-501	C	CEM

VII. Applicable Limits and Compliance Monitoring Requirements

**Table VII-A
 Applicable Limits and Compliance Monitoring Requirements
 S6, Turbine, S7, Duct Burner**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	BAAQMD 9-9-301.2	N		15 ppmv or 0.7 lb/MWhr @15% O ₂ (dry), 3-hour average except during startup, not to exceed 3 hours, and shutdown, not to exceed 1 hour and inspection and maintenance periods as allowed by BAAQMD 9-9-113 and 9-9-115	BAAQMD 9-9-501	C	CEM
NOx	SIP 9-9-301.2 and 9-9-401	Y		17 ppmv @15% O ₂ (dry), 3-hour average except during startup, not to exceed 3 hours, and shutdown, not to exceed 1 hour and inspection and maintenance periods as allowed by BAAQMD 9-9-113	BAAQMD 9-9-501	C	CEM
	40 CFR 60.332(a)(2)	Y		122 ppmv @15% O ₂ , dry, 4-hour average except during startup, shutdown, and malfunction	40 CFR 60.334(b);	C	CEM

VII. Applicable Limits and Compliance Monitoring Requirements

Table VII-A
Applicable Limits and Compliance Monitoring Requirements
S6, Turbine, S7, Duct Burner

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD 9-1-301	N		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO2	BAAQMD 9-1-302	Y		300 ppm (dry)		N	
SO2	40 CFR 60.333(b)	Y		Fuel sulfur content of 0.8 percent by weight (applies to turbine only)	40 CFR 60.334(h)(3)	N	
Opacity	BAAQMD 6-1-301	N		Ringelmann No. 1 for less than 3 min/hr		N	
Opacity	SIP 6-301	Y		Ringelmann No. 1 for less than 3 min/hr		N	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf	None	N	
FP	SIP 6-310	Y		0.15 grain/dscf	None	N	
FP	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O ₂	None	N	
FP	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O ₂	None	N	
Heat input	BAAQMD Condition #14522, part 7	Y		2190 therms/hr (applies to turbine only)	BAAQMD Cond #14522, part 8	P/H	
Heat input	BAAQMD Condition #14522, part 9			1684.8 MMbtu/day (HHV) applies to duct burner only)	BAAQMD Cond #14522, part 10	P/D	

VIII. TEST METHODS

The test methods associated with the emission limit of a District regulation are generally found in Section 600 et seq. of the regulation. The following table indicates only the test methods associated with the emission limits referenced in Section VII, Applicable Emission Limits & Compliance Monitoring Requirements, of this permit.

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 6-1-301	Ringelmann No. 1 Limitation	Manual of Procedures, Volume I, Evaluation of Visible Emissions
BAAQMD 6-1-310	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling or USEPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 6-1-310.3	Particulate Weight Limitation	Manual of Procedures, Volume IV, ST-15, Particulates Sampling or USEPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 6-1-311	General Operations	Manual of Procedures, Volume IV, ST-15, Particulates Sampling or USEPA Method 5, Determination of Particulate Matter Emissions from Stationary Sources
BAAQMD 9-1-302	General Emission Limitation	Manual of Procedures, Volume IV, ST-19A, Sulfur Dioxide, Continuous Sampling, or ST-19B, Total Sulfur Oxides Integrated Sample
BAAQMD 9-1-304	Fuel Burning (Liquid and Solid Fuels)	Manual of Procedures, Volume III, Method 10, Determination of Sulfur in Fuel Oils.
BAAQMD 9-7-301.1	Performance Standard, NO _x , Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-301.2	Performance Standard, CO, Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-302.1	Performance Standard, NO _x , Non-Gaseous Fuel	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling

VIII. Test Methods

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
BAAQMD 9-7-302.2	Performance Standard, CO, Non-Gaseous Fuel	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-305.1	Natural Gas Curtailment Performance Standard, NOx	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-305.2	Natural Gas Curtailment Performance Standard, CO	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-306.1	Equipment Testing - Non-Gaseous Fuel NOx Performance Standard	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-7-306.2	Equipment Testing - Non-Gaseous Fuel CO Performance Standard	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
BAAQMD 9-9-301.2	Emission Limits, Turbines over 10 mw w/o SCR (9/21/94)	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
NSPS Subpart GG	Standards of Performance for Stationary Gas Turbines (1/27/82)	
60.332 (a)(1)	Performance Standard, NOx	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (a)	SO2 Volumetric Emission Limit	EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
60.333 (b)	Fuel Sulfur Limit (gaseous fuel)	ASTM D 1072-80, Standard Method for Total Sulfur in Fuel Gases ASTM D 3031-81, Standard Test Method for Total Sulfur in Natural Gas by Hydrogenation ASTM D 4084-82, Standard Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), ASTM D 3246-81, Standard Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry
Permit Condition 12231 part 7	NOx Limit	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling

VIII. Test Methods

Table VIII

Applicable Requirement	Description of Requirement	Acceptable Test Methods
Permit Condition 12231 part 8	NOx Limit	Manual of Procedures, Volume IV, ST-13A, Oxides of Nitrogen, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
Permit Condition 12231 part 9	CO Limit	Manual of Procedures, Volume IV, ST-6, Carbon Monoxide, Continuous Sampling and ST-14, Oxygen, Continuous Sampling
Permit Condition 12231 part 10	SO2 Limit in distillate oil	ASTM D 2880-71, Standard Specification for Gas Turbine Fuel Oils
Permit Condition 12231 part 11	Visible particulate emissions	Manual of Procedures, Volume IV, ST-15, Particulate
NSPS Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (12/16/87)	
40 CFR 60.43b(f)	Opacity Standard	EPA Method 9

IX. PERMIT SHIELD

A. Non-Applicable Requirements

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the federally enforceable regulations and/or standards cited in the following table[s] are not applicable to the source or group of sources identified at the top of the table[s]. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited, as long as the reasons listed below remain valid for the source or group of sources covered by this shield.

**Table IX-A
 S7, Duct Burner**

Citation	Title or Description NOx from boilers
BAAQMD Regulation 9, Rule 7	Nitrogen Oxides And Carbon Monoxide From Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters Waste heat recovery boilers are exempt per 9-7-110.5
NSPS, 40 CFR 60, Subpart D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971 The capacity of S7 is less than 250 MMbtu/hr.
NSPS, 40 CFR 60, Subpart Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978 The capacity of S7 is less than 250 MMbtu/hr.
NSPS, 40 CFR 60 Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units S7 is less than 100 MMbtu/hr.
NSPS, 40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units S7 was built before 1989.

IX. Permit Shield

**Table IX-C
 Facility-Wide**

Citation	Title or Description
BAAQMD Regulation 6-1-302 and 6-1-502	Data, Records and Reporting The APCO has not required the owner/operator to install opacity monitors.
Regulation 8, Rule 5	Storage of Organic Liquids Organic chemicals have a vapor pressure below 25.8 mmHg
NESHAPS, 40 CFR 63	Major source MACT standards Facility is not a major source of hazardous air pollutants
40 CFR 68	Accidental Release Facility does not store large quantities of materials subject to this standard.
40 CFR 82.166(k)	Recordkeeping Regulation not applicable to refrigerant units containing 50 lbs or less refrigerant
Federal Clean Power Plan, 40 CFR 60, Subpart UUUU, Section 60.5850(d)	Federal regulation applies only to states. Gas turbine and cogeneration plant, which has never sold 219,000 MWh electricity per year, determined by state as not affected unit under state Clean Power Plan.

B. Subsumed Requirements

None

X. REVISION HISTORY

Initial Issuance (Application 25822):	February 16, 1999
Administrative Amendment (no application): Changes in monitoring report dates	September 28, 2000
Administrative Amendments (no application): Change to the responsible official and title of contact Deletion of Permit Condition 14522, Parts 2 and 3 because the duct burner no longer burns fuel oil. Merger of Permit Condition 14522, Parts 1 and 7 because both of them require use of natural gas. Addition of standard condition I.11 to conform with Manual of Procedures, Volume 2, Part 3, as amended on May 2, 2001. Changes to standard conditions H.2 and H.3 to with Manual of Procedures, Volume 2, Part 3, as amended on May 2, 2001. Updates of District rule and SIP amendments Changes to the permit shield language in Section X.B to conform to Regulation 2, Rule 6, as amended on May 2, 2001 Deletion of out-dated SIP rules	July 6, 2001
Renewal (Application 8095):	September 30, 2011
Renewal (Application 28132):	February 6, 2017
Administrative Amendment (Application 29703): Archived S9, S10, S11, S13 and S14, and 16 through S25. Change to the responsible official and title of contact. Archived Permit Condition #12231 (S9), 13344 (S10), 16714 (S11 & S13), and 22851 (S14).	August 21, 2019

XI. GLOSSARY

ACT

Federal Clean Air Act

APCO

Air Pollution Control Officer

API

American Petroleum Institute

ARB

Air Resources Board

BAAQMD

Bay Area Air Quality Management District

BACT

Best Available Control Technology

BARCT

Best Available Retrofit Control Technology

Basis

The underlying authority that allows the District to impose requirements.

C₅

An Organic chemical compound with five carbon atoms

C₆

An Organic chemical compound with six carbon atoms

CAA

The federal Clean Air Act

CAAQS

California Ambient Air Quality Standards

CAPCOA

California Air Pollution Control Officers Association

CEC

California Energy Commission

CEM

Continuous Emission Monitor

CEQA

California Environmental Quality Act

XI. Glossary

CFR

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO

Carbon Monoxide

CO₂

Carbon Dioxide

COM

Continuous Opacity Monitor

Cumulative Increase

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

District

The Bay Area Air Quality Management District

dscf

Dry Standard Cubic Feet

dscm

Dry Standard Cubic Meter

E 6, E 9, E 12

Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53 E 6 equals $(4.53) \times (10^6) = (4.53) \times (10 \times 10 \times 10 \times 10 \times 10 \times 10) = 4,530,000$. Scientific notation is used to express large or small numbers without writing out long strings of zeros.

EPA

The federal Environmental Protection Agency.

Excluded

Not subject to any District Regulations.

Federally Enforceable, FE

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60, (NSPS), Part 61, (NESHAPs), Part 63 (HAP), and Part 72 (Permits Regulation, Acid Rain), and also including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

XI. Glossary

FP

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

FR

Federal Register

grain

1/7000 of a pound

HAP

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by both 40 CFR Part 63, and District Regulation 2, Rule 5.

Major Facility

A facility with potential emissions of: (1) at least 100 tons per year of any regulated air pollutant, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

MFR

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Act and implemented by District Regulation 2, Rule 6.

MOP

The District's Manual of Procedures.

NAAQS

National Ambient Air Quality Standards

NESHAP

National Emission Standard for Hazardous Air Pollutants as codified in 40 CFR Parts 61 and 63.

NMHC

Non-methane Hydrocarbons

NMOC

Non-methane Organic Compounds (Same as NMHC)

NO_x

Oxides of nitrogen.

NSPS

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Act, and implemented by both 40 CFR Part 60 and District Regulation 10.

XI. Glossary

NSR

New Source Review. A federal program for preconstruction review and permitting of new and modified sources of air pollutants for which the District is classified "non-attainment". Mandated by Title I of the Clean Air Act and implemented by 40 CFR Parts 51 and 52 as well as District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

O₂

The chemical name for naturally-occurring oxygen gas.

Offset Requirement

A New Source Review requirement to provide federally enforceable emission offsets at a specified ratio for the emissions from a new or modified source and any pre-existing cumulative increase minus any onsite contemporaneous emission reduction credits. Applies to emissions of POC, NO_x, PM₁₀, and SO₂.

POC

Precursor Organic Compounds

PM

Total Particulate Matter

PM₁₀

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

SIP

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO₂

Sulfur dioxide

SO₃

Sulfur trioxide

THC

Total Hydrocarbons (NMHC + Methane)

XI. Glossary

therm

100,000 British Thermal Units

Title V

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC

Total Organic Compounds (NMOC + Methane, Same as THC)

TSP

Total Suspended Particulate

TVP

True Vapor Pressure

VMS

Branched, cyclic, or linear completely methylated siloxane

VOC

Volatile Organic Compounds

Units of Measure:

bhp	=	brake-horsepower
Btu	=	British Thermal Unit
C	=	degrees Celcius
F	=	degrees Fahrenheit
f ³	=	cubic feet
g	=	gram
gal	=	gallon
GLC	=	ground level concentration
gpm	=	gallons per minute
gr	=	grain
Hr	=	hour
hp	=	horsepower
lb	=	pound
in	=	inches
m ²	=	square meter
max	=	maximum
min	=	minute
M	=	thousand

XI. Glossary

Units of Measure:

Mg	=	mega-gram, one thousand grams
µg	=	micro-gram, one millionth of a gram
MM	=	million
mm	=	millimeter
MMbtu	=	million btu
mm Hg	=	millimeters of Mercury (pressure)
MW	=	megawatts
O ₂	=	diatomaceous oxygen
ppb	=	parts per billion
ppm	=	parts per million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
S	=	sulfur
scfm	=	standard cubic feet per minute
std	=	standard
vol	=	volume
wt	=	weight
yr	=	year

Symbols:

<	=	less than
>	=	greater than
≤	=	less than or equal to
≥	=	greater than or equal to