SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT
COOLIDGE

1. Introduction 3

2. Listing of Federally Enforceable Applicable Requirements 4

3. Compliance Certification 4
A. Compliance Plan 4
B. Compliance Schedule 4

4. Authority to Construct 5
A. In General 5
B. Equipment Authorized and Required 5
C. Operational Limitations to Avoid PSD Applicability; Emission Caps 5
D. Control Requirements 6

5. Emission Limitations 6
A. Applicable Limitations 6
B. Allowable Emissions 6
C. Emission Limits 7
1. NO_X Emission Limitation NSPS Subpart KKKK 7
2. Limitation Standard on Emissions of Oxides of Nitrogen - All Generating Units 7
3. SO_2 Emission Limitation - NSPS Subpart KKKK 7
D. Start-up and Shutdown Limitation 7
1. Definitions 7
2. Start-up and Shutdown Emissions 7
E. Standards of Performance for Stationary Rotating Machinery 8
F. NSPS Standards - Stationary Compression Ignition (CI) and Internal Combustion Engines 8
G. Sandblasting - Plant Wide 8
H. Fuel-Burning Equipment - Particulate Emissions 8
1. SIP Limitation 9
2. Current Code Limitation 9
I. Generally Applicable Opacity Limits 9
1. SIP Limitation 9
2. Visibility Limiting Standard 9
3. Code Limitation Rotating Equipment Only 9
J. Particulate Matter Reasonable Precautions 9
K. Surface Stabilization 10
L. Fuel Use Limitations - All Generating Units 11
1. CT Fuels 11
2. Diesel Driven Fire Pump 11
3. Other Fuels 11
M. General Maintenance Obligation - Plant Wide 11
N. Additional Applicable Limitations - Plant Wide 11
1. Asbestos NESHAP Compliance 11
2. Stratospheric Ozone and Climate Protection 11
3. Use of Paints 11
a. Architectural Coatings 11
b. Other Spray Painting 12
c. Disposal 12
4. Cutback and Emulsified Asphalt 12
5. Water Washes 12

O. Acid Rain Program Requirements - Combustion Turbine Generators 12
P. Emergency Risk Management Plan 14

6. Compliance Demonstration 14
A. Testing 14
1. Performance Tests 14
2. Test Protocol 14
3. Subsequent Performance Testing (Code §3-1-050) 14
a. PM Non-NSPS Testing Requirements 14
b. CO Non-NSPS Testing Requirements 14
c. VOC Non-NSPS Testing Requirements 14
d. NO_X NSPS Testing Requirements 14
e. SO_2 NSPS Testing Requirements 15
4. Performance Test Notices 15
5. Test Reports 15
B. Acid Rain Compliance 15
C. Operational Limitation/Emission Cap Compliance 15
1. Compliance with Synthetic Minor Limitations 15
2. Compliance with the Operational Limitation 15
D. Monitoring 15
1. Instrumental Emissions Monitoring - Oxides of Nitrogen 16
2. Instrumental Emissions Monitoring - Carbon Monoxide 16
3. Quantifying Emissions Prior to CEMS Certification 17
4. After-the-fact Adjustment of Reported Emissions to Reflect CEMS Accuracy Deviations Shown by RATA Testing 17
5. Instrumental Temperature Monitoring 17
6. Parametric Emissions Monitoring Requirements - Sulfur Dioxide 17
7. Parametric Emissions Monitoring - Particulate Matter 17
8. Parametric Emissions Monitoring - Volatile Organic Compounds 18
9. Periodic Monitoring - Emergency Fire Pump 18
10. General Parametric Emission Monitoring Requirements 18
E. Excess Emissions - NO_X [40 CFR Part 60, Subpart KKKK, Section §60.4380.(b)] 18
F. Excess Emissions - SO_2 [40 CFR Part 60, Subpart KKKK, Section §60.4385] 19
G. Recordkeeping 19
H. Semi-Annual Compliance Reporting 20
I. Regular Compliance/Compliance Progress Certification 20

7. Other Reporting Obligations 21
A. Supplemental Upset Reports 21
B. Reconstruction Reporting 21
C. NSPS Notification 21
D. Reporting Requirements [40 CFR Part 60, Subpart KKKK, Section §60.4375] 21

8. Fee Payment 21

9. General Conditions 21
A. Term 21
B. Basic Obligation 22
C. Duty to Supplement Application 22
D. Right to Enter 22
E. Transfer of Ownership 22
F. Posting of Permit 22
G. Permit Revocation for Cause 23

H. Application Certification 23
I. Permit Expiration and Renewal 23
J. Severability 23
K. Permit Shield 23
L. Permit Revisions 24
M. Permit Re-opening 24
N. Record Retention 25
O. Scope of License Conferred 25
P. Excess Emission Reports; Emergency Provision 25
Q. Emission Inventory 26

10. Additional Provisions Applicable to Title V Sources 26

11. Equipment Schedule 27

12. Insignificant Activities 27

1. Introduction

The permit pertains to an electrical power plant, owned and operated by Salt River Project Agricultural Improvement and Power District, a political subdivision of the State of Arizona. The facility, commonly known as the Coolidge Generating Station, is located at 859 East Randolph Road, Coolidge, Arizona, upon a parcel also identified by Pinal County Assessor number 401-30-001J. The SIC Code is 4911 and the NAICS Code is 221100. The source is situated in an area classified now as non-attainment for PM_{10}.

Significant Revision V20676.R02 authorizes the installation and operation of twelve (12) additional aero-derivative GE LM6000 PC natural gas-fired simple cycle combustion turbines (CTs) with 594 MW combined generating capacity, and up to six (6) wet surface air coolers (WSAC) – the "2023 Project."

~~This~~ Renewal V20676.000 clarifieds~~s~~ the excess NO_X emissions reporting requirement during the start-up and shutdown of the units in Section §5.D.2 of this permit. The ~~This~~ Renewal also addeds~~s~~ the SIP approved Particulate Matter Reasonable Precautions Rule and Surface Stabilization Rule to Sections §§5.N and 5.O ~~5.J and 5.K~~ respectively.

Revision V20635.R02 added the following requirements:

a. Start-up and shutdown definitions in Section §5.H.~~D.1~~ of this permit.
b. Water washes as a part of maintenance activity in Section §5.R ~~M.~~5 of this permit.
c. NO_X excess emissions per Subpart KKKK (New Source Performance Standards of Performance for Stationary Gas Turbines) in Section §6.F ~~E~~ of this permit.
d. SO_2 excess emissions per Subpart KKKK in Section §6.G ~~F~~ of this permit.
e. Reporting requirements per Subpart KKKK in Section §7.D of this permit.

An administrative amendment ~~issued 3/31/10 and referenced as~~ V20635.A01 fixed the typos throughout the permit.

~~The plant is a natural gas-fired, simple cycle, 575 MW generating plant.~~ The ~~project~~ existing stationary source includes twelve (12) individual General Electric LM6000 PC Sprint NXGEN combustion turbines ~~generators~~ ("CTs") and a diesel-fired emergency fire pump engine.

Emissions from both the existing and new CTs are controlled by use of the following:

· Clean burning pipeline quality natural gas to control sulfur dioxide (SO_2) and particulate matter (PM) less than 10 and 2.5 microns.

· Good operating practices to control SO_2 and PM emissions.

· Water injection followed by selective catalytic reduction (SCR) to reduce oxides of nitrogen (NO_X).

· Oxidation catalyst to reduce carbon monoxide (CO) and volatile organic compounds (VOC) emissions.

The facility is subject to Title V requirements due to its potential for annual emissions of either NO_X, CO, $PM_{10}/PM_{2.5}$ or VOCs to reach 100 tons. As an electric generating station with the potential to generate more than 25 MWs, the facility is also subject to the requirements of the Title IV Acid Rain Program.

At the time of the initial construction of the existing Coolidge Station, its location was in an area designated attainment or unclassifiable with respect to all criteria pollutants. The existing facility was permitted and constructed as ~~is~~ a "synthetic minor" with respect to Prevention of Significant Deterioration (PSD).

Therefore, the existing CTs were ~~is~~ not subject to Best Available Control Technology (BACT) requirements and for the purposes of demonstrating continuous "synthetic minor" status (annual emissions of either NO_X, CO, VOC, SO_2 or $PM_{10}/PM_{2.5}$ are less than 250 tons per year). Each CT~~G~~ stack is equipped with a continuous emission monitoring system (CEMS) for both NO_X and CO. NO_X is monitored in accordance with EPA's acid rain requirements. The facility uses CO CEMS, that meet~~s~~ the Performance Specifications contained in 40 CFR 60 Appendix B. Annual emissions of PM_{10}, SO_2 and VOC are calculated using non-instrumental test results along with fuel monitoring data.

Since the time of original construction of Coolidge Generating Station, West Pinal area (where the station is located) has been designated as 'serious' nonattainment for the PM_{10} NAAQS. It remains attainment or unclassifiable for all other criteria pollutants. The Permittee will be required to demonstrate "synthetic minor" status for PM_{10} for the existing stationary source, by limiting the annual emissions of PM10 to less than 70 tons per year. For the 2023 Project, annual emissions of PM10 are to be limited to less than 70 tons per year and annual emissions of NO_X, CO, VOC, SO_2 and $PM_{2.5}$ are each limited to less than 250 tons per year.

Pipeline quality natural gas is supplied from two separate pipelines in the area with a sulfur concentration of less than 5 grains per 100 dry standard cubic feet based on FERC tariffs from each supplier.

A complete list of equipment from which emissions are allowed by this permit is given in Section 11 of this permit.

2. Listing of Federally Enforceable Applicable Requirements *[Mandated by 40 CFR §70.5(c)(4)]* (Code §§3-1-060.B.2.d, 3-1-081.A.2, 3-1-081.A.8.a)

A. Those specific provisions of the Pinal-Gila Counties Air Quality Control District ("PGAQCD") Regulations, as adopted by the Pinal County Board of Supervisors on March 31, 1975, and approved by the Administrator as elements of the Arizona State Implementation Plan ("SIP") at 43 FR 50531, 50532 (11/15/78), and specifically the following rules:

7-3-1.1 Emission Standards - Particulates - Visible Emissions - General

4-2-040 ~~7-3-1.2~~ Fugitive Dust Standards ~~Emission Standards - Particulate Emissions - Fugitive Dust~~

~~7-3-1.3 Emission Standards - Particulates - Open Burning~~

~~7-3-1.7.A Particulate Emissions - Fuel Burning Equipment~~

~~7-3-1.7.C Particulate Emissions - Fuel Burning Equipment~~

~~7-3-1.7.D Particulate Emissions - Fuel Burning Equipment~~

~~7-3-1.7.E Particulate Emissions - Fuel Burning Equipment~~

7-3-2.2 SO_2 Emissions - Fuel Burning Installations

7-3-4.1 CO Emissions - Industrial

B. Those specific provisions of the Pinal-Gila Counties Air Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on June 16, 1980, and approved by the Administrator as elements of the Arizona SIP at 47 FR 15579 (4/12/82), specifically, the following rules:

2-8-300 ~~7-3-1.1~~ Visibility Limiting Standards – Performance Standard ~~Visible Emissions; General~~

7-3-1.7.F Fuel Burning Equipment

C. The New Source Performance Standard General Provisions, 40 CFR Part 60, Subpart A [40 CFR §§60.1 - 60.19 (1998)]; NSPS Standards of Performance for Stationary Gas Turbines, 40 CFR Part 60, Subpart KKKK [40 CFR §60.4300 *et seq.* (7/6/06)].

D. The Acid Rain Program, 40 CFR Part 72 (1998) and related regulations, Sulfur Dioxide Allowance System, 40 CFR Part 73 (1998) and Continuous Emission Monitoring, 40 CFR Part 75 (1998).

E. CAA §§608 & 611 (11/15/90); 40 CFR Part 82, Subpart F - Recycling and Emissions Reduction (9/7/95); regulations pertaining to use and handling of ozone-depleting substances.

F. Asbestos NESHAP Compliance [40 CFR Part 61§§145, 148, 150. Subpart M].

G. The New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines 40 CFR Part 60, Subpart IIII.

3. Compliance Certification

A. Compliance Plan ***[Mandated by 40 CFR §70.(5)(c)(8)]*** (Code §§3-1-081.C, 3-1-083.A.7)

Insofar as the Permittee has certified that it is currently in compliance, the compliance plan consists of continued adherence to the requirements of this permit.

B. Compliance Schedule ***[Mandated by 40 CFR §§ 70.5(c)(8), 70.6(c)(3)]*** (Code §§3-1-060.B.1, 3-1-083.A.7.c)

Insofar as the Permittee is currently in compliance, no compliance schedule to attain compliance is required.

4. Authority to Construct *[Federally enforceable pursuant to PCAQCD Code §§3-1-010, 3-1-040 (10/12/95) approved as a SIP element at 65 FR 79742 (12/20/00)], A.A.C. R18-2-334 (for 2023 Project)*

A. In General

Emissions from this facility, specifically the equipment described in "Equipment Schedule" section below, and the operating configuration as defined below and more fully described in the application for permit, fall subject to the enforceable limitations identified throughout this permit. Therefore, based on the regulations in effect upon the date of issuance of this permit and a finding that allowable emissions from the equipment described in the Equipment Schedule will neither cause nor contribute to a violation of any ambient air quality standard even without any additional limitations, this permit constitutes authority to construct and operate such equipment.

B. Equipment Authorized and Required

1. The existing facility has twelve (12) individual General Electric LM6000 PC sprint NXGEN CTs, identified as CT01 through CT12, each rated at a lower ~~higher~~ heat value of 451 mm btu/hr and one 200 HP diesel fired emergency fire pump engine.

2. Revision V20676.R02 authorizes the installation and operation of twelve (12) additional individual GE LM6000 PC natural gas-fired simple cycle combustion turbines, identified as CT13 through CT24, each rated at a higher heat value of 490 mm btu/hr.

3. Each CT stack is/will be equipped with a CEMS system for NO_x, configured to meet prevailing Acid Rain requirements as specified under 40 CFR Part 75 Continuous Emission Monitoring, Subpart A, Section §75.2 (a).

4. Each CT stack is/will be equipped with a system configured to:

   a. Track actual NO_x and CO daily emissions on a rolling basis;

   b. Record annual NO_x and CO emissions on a monthly rolling basis;

   c. Generate, by the 10th day of the month, a report of cumulative actual NO_x and CO emissions during the preceding calendar month; and

   d. Generate, by the 10th day of the month, a report of cumulative actual NO_x and CO emissions during the preceding twelve calendar months.

5. Revision V20676.R02 authorizes the installation and operation of inlet chillers on the combustion turbines (CT01-CT24) to maintain the turbines performance at high ambient temperature.

C. Operational Limitations to Avoid PSD and Nonattainment NSR Applicability; Emission Caps
[Federally enforceable provision, pursuant to §3-1-084]

1. The operation of combustion turbines CT01 through CT12, ~~operation of the facility~~, including the number of emission units (CTs) operating along with the fire pump engine operation, the duration of unit-specific operation, start-up and shut-down events, and the unit-specific loading, shall be limited in combination to comply with Section §5.C of this permit. ~~such that emissions, including the emissions generated during start-up and shutdown events, of any of CO, NO_X, VOC, PM_{10}/$PM_{2.5}$ and SO_2 from the facility shall not exceed a cap of 245 tons per 12 calendar month period per pollutant.~~

2. The operation of combustion turbines CT13 through CT24, including the number of emission units (CTs) operating, along with WSAC1 through WSAC6 operation, the duration of unit-specific operation, start-up and shut-down events, and the unit-specific loading, shall be limited in combination to comply with §Section 5.D of this permit.

3. Exceeding that operational limitation shall constitute a violation of this permit for each day that emissions of the offending pollutant were emitted from any part of the facility during:

   i. The calendar month in which the cap was exceeded; and

   ii. Any subsequent calendar month in which the cap continues to be exceeded.

~~4. Absent a permit revision authorizing such emissions, exceeding 250 tons of emissions of any specific pollutant listed above during a rolling 12 calendar month period shall trigger PSD review.~~

4. Consequence of Triggering PSD Review *[Federally enforceable provision, pursuant to §3-1-084]* Code §3-3-250.H.

At such time that this facility becomes a major source or effects a major modification directly as a result of relaxation of the foregoing source-wide operational limitation and accompanying emission caps, then the requirements of Chapter 3, Article 3 of the Code (§3-3-200 *et seq.*) shall apply to the source or modification as though construction had not yet commenced on the source or modification.

D. Control Requirements (CT01-CT24) [Federally Enforceable Provision, pursuant to Code §3-1-084].

1. Each CT shall:

a. Incorporate a system for the reduction of NO_X, which shall consist of a system for the selective catalytic reduction of NO_X, including ammonia injection that will meet the emission cap of this permit.

b. Incorporate a system for the reduction of CO, which shall consist of a system for the catalytic oxidation of CO that will meet emission cap of this permit.

c. Incorporate a system to continuously record or allow accurate determination of the mass quantity of natural gas burned.

d. Have stacks equipped with such platforms and sampling ports as may be required to fulfill the testing and monitoring requirements set forth in this permit.

e. Include separate fuel-flow meters for each respective CT.

f. Include NO_X and CO monitoring systems as defined in the compliance provisions of this permit.

g. Include systems for monitoring and recording the inlet temperature for each of the turbine units.

h. At all times are operated in accordance with the manufacturer's specifications in order to minimize emissions of particulate matter, carbon monoxide, and volatile organic compounds. Permittee may transcribe those manufacturer's specifications into standard operating procedures to be utilized by on-site staff.

2. Except for emergencies, the diesel-driven fire pump shall not be operated more than 100 ~~200~~ hours per calendar year.

a. The fire pump engine shall be equipped with a non-resettable hour meter, configured to record hours of operation and to demonstrate compliance with the 100 ~~200~~ hours per year limitation.

E. Reasonably Available Control Technology (RACT) Requirements (CT13-CT24) (§R18-2-334.(C)(1)(b))

Permittee shall at all times use the following RACT measures for the new units (CT13-CT24):

a. Operate the units in accordance with good combustion practices including using clean fuel (natural gas) to reduce PM10 and PM2.5 emissions.

b. Use selective catalytic reduction system to reduce NO_X except during start-up, shutdown, or malfunction of the CTs.

c. Use oxidation catalyst to reduce CO and VOC emissions except during startup, shutdown, or malfunction of the CTs.

5. Emission Limitations [Mandated by 40 CFR §70.6(a)(1)] (Code §3-1-081.A.2)

A. Applicable Limitations ***[Federally enforceable pursuant to PCAQCD Code § 3-1-082 (11/3/93) approved as SIP Elements at 65 FR 79742 (12/20/00)]***

Where different standards or limitations apply under this permit, the most stringent combination shall prevail and be enforceable.

B. Allowable Emissions ***[Federally enforceable pursuant to PCAQCD Code § 3-1-040 (10/12/95) approved as SIP Elements at 65 FR 79742 (12/20/00), A.A.C. R18-2-302.A, B.1]***

The owner/operator ("Permittee") is authorized to discharge or cause to discharge into the atmosphere those emissions of air contaminants as set forth in this permit. Unless exempted under Code §3-1-040.C, or authorized by a separate permit, by this permit or by a revision or operational change allowed under Chapter 3, Article 2 of the Code, Permittee shall not commence construction of, operate or make any modification to this source in a manner which will cause emissions of any regulated air pollutant in excess of the *minimis* amount.

C. Emission Limits – CT01-CT12 and Emergency Fire Pump Engine [*Federally enforceable provision, pursuant to §3-1-084*]

1. The Permittee shall not cause or allow the combined PM10/PM2.5 emissions from the CTs and emergency fire pump to exceed 69.9 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration)

2. The Permittee shall not cause or allow the combined NOX emissions from the CTs and emergency fire pump to exceed 245 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration)

3. The Permittee shall not cause or allow the combined VOC emissions from the CTs and emergency fire pump to exceed 245 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration)

4. The Permittee shall not cause or allow the combined CO emissions from the CTs and emergency fire pump to exceed 245 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration)

5. The Permittee shall not cause or allow the combined SO2 emissions from the CTs and emergency fire pump to exceed 245 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration)

D. Emission Limits – CT13 – CT24 and WSAC1-WSAC6 (Codes §§3-1-084, A.A.C. R18-2-306.01.A and B)

1. The Permittee shall not cause or allow the combined PM/PM10/PM2.5 emissions from the CTs and WSACs to exceed 69.9 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration).

2. The Permittee shall not cause or allow the combined NOX emissions from the CTs and WSACs to exceed 249.5 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration).

3. The Permittee shall not cause or allow the combined VOC emissions from the CTs and WSACs to exceed 249.5 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration).

4. The Permittee shall not cause or allow the combined CO emissions from the CTs and WSACs to exceed 249.5 tons per 12-month rolling total sum (combined for normal operation and startup/shutdown duration).

E. Operational Requirements – CT13 – CT24 (Arizona Corporation Commission: Amended CEC 197, Decision No. 79020)

The Permittee shall limit the operations of the twelve (12) CTs, CT13 through CT24 together at or below an average 30 percent capacity factor over a calendar year

F. Facility-wide Hazardous Air Pollutants (HAPs) Limitation ***[Federally enforceable provision, Code §3-1-084]***

1. The Permittee shall not allow facility-wide HAP emissions into the atmosphere to exceed any one of the following emission limits:

Pollutant	Twelve Month Rolling Total Emission Limits (Tons)
Total Hazardous Air Pollutants (HAPs)	22.5
Any Single Hazardous Air Pollutant (HAP)	9.0

2. The 12-month rolling total HAP emissions shall be calculated monthly by the end of the following month by summing the emissions over the most recent 12 calendar months. The permittee shall keep this emission record on-site for inspection or submittal upon request.

G. NSPS Emission Limits (CT01-CT24)

1. NO_x Emission Limitation NSPS Subpart KKKK [40 CFR §60.4320, Table 1, §60.4350(g),§60.4350 (h), §60.4380(b)(1)]

a. No gases shall be discharged to the atmosphere from the combustion turbine which contains greater than 25 ppm of nitrogen oxides at 15% oxygen or 150 ng/J (1.2 lb/MWh) of useful output on a four (4) hour rolling average basis while the combustion turbine is operated at greater than or equal to 75% of the peak load.

b. No gases shall be discharged to the atmosphere from the combustion turbine which contains greater than 96 ppm of nitrogen oxides at 15% oxygen or 590 ng/J (4.7 lb/MWh) of useful output on a four (4) hour rolling average basis while the combustion turbine is operated at less than 75% of the peak load.

~~No gases shall be discharged to the atmosphere from the combustion turbine which contains greater than 25 ppm of nitrogen oxides at 15 percent oxygen or 150 ng/J of useful output.~~

2. Limitation Standard on Emissions of Oxides of Nitrogen - All Generating Units ***[PGAQCD Reg. 7-2-1.6 (3/31/75), approved by the Administrator as an element of the Arizona SIP at 43 FR 50531 (11/15/78)]***

Provided the turbine units are properly maintained and operated, the permitting authority finds that even under worst-case conditions, the maximum combined potential to emit will not cause an ambient concentration of oxides of nitrogen outside of the boundaries of the facility that exceeds the applicable air quality standard of an annual average of 100 micrograms per cubic meter. Accordingly, no additional operating limits apply with respect to emissions of oxides of nitrogen.

3. SO_2 Emission Limitation (CT01-CT24) - NSPS Subpart KKKK [40 CFR §60.4330]

a. Permittee shall not cause to be discharged into the atmosphere from the stationary combustion turbine any gases which contain SO_2 in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb/MWh)) gross output or;

b. Permittee shall not burn in stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO_2/J ~~or~~ (0.06 lb SO_2 / MMBtu) heat input.

4. CO2 Emission Limitation – NSPS TTTT (CT13–CT24) ***[40 CFR §60.5520.(a), Table 2]***

a. Newly constructed or reconstructed stationary combustion turbine that supplies its design efficiency or 50 percent, whichever is less, times its potential electric output or less as net-electric sales on either a 12-operating month or a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis, shall not discharge from the affected EGU any gases that contain CO_2 in excess of 50 kg CO_2 per gigajoule (GJ) of heat input (120 lb/CO2/MMBtu).

b. The Permittee shall only use natural gas with a consistent chemical composition that results in a consistent emission rate of 160 lb CO_2/MMBtu or less in the combustion turbines.

c. The Permittee shall limit the net electric output for each unit to no more than the design efficiency or 50%, whichever is less, times the potential electric output, on a 3-calendar year rolling average. The design efficiency and potential electric output will be determined during the initial performance test using the methods referenced in 40 CFR 60 Subpart TTTT.

H. Start-up and Shutdown Limitations

1. Definitions (CT01-CT12)

a. Start-up is defined as the 32-minute period following an initiation of fuel flow.

b. Shutdown is defined as the 12-minute period prior to shut-off the fuel supply.

1. Definitions (CT13-CT24)

a. Start-up is defined as the 30-minute period following an initiation of fuel flow.

b. Shutdown is defined as the 9-minute period prior to shut-off the fuel supply.

3. "Malfunction" is defined as any sudden and unavoidable failure of air pollution control equipment, process equipment or a process to operate in a normal and usual manner, but does not include failures that are caused by poor maintenance, careless operation or any other upset condition or equipment breakdown which could have been prevented by the exercise of reasonable care.

~~2. Start-up and Shutdown Emissions~~

~~Anytime during the start-up or shutdown of the units, if the NO_X emissions exceed 25 ppm, then in accordance with the definition of excess emissions in Section §6.E.1 of this permit, these excess emissions will be reported monthly to the department (All Modes Report). Although these excess emissions are not considered to be violations of the NO_X emission limit, Permittee shall continue to exercise "good combustion practice" consisting of adherence to standard operating procedure.~~

I. Standards of Performance for Stationary Rotating Machinery [Code §5-23-1010.A.B.C.D]

a. For equipment having a heat input rate of 4200 million Btu/hr or less, the maximum allowable emissions shall be determined by the following equation:

$E = 1.02*Q^{0.769}$

Where: E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the total heat input of all operating fuel burning units on a plant or premises in million btu/hr

b. For references purposes only, the actual values shall be calculated from the applicable equations and rounded off to two decimal places.

c. No person shall cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

d. When low sulfur oil is fired, stationary rotating machinery installations shall burn fuel which limits the emission of sulfur dioxide to 1.0 pound per million Btu heat input.

J. NSPS Standards - Stationary Compression Ignition (CI) and Internal Combustion Engines ***[40 CFR Part 60, Subpart IIII, Table 4]***

Owners and operators of emergency fire pump engines shall meet the emission standards shown below:

Maximum Engine Power (HP)	Model Year(s)	NMHC+NOx k/KW-hr (G/HP-HR)	CO G/KW-hr (G/HP-HR)	PM k/KW-hr (G/HP-HR)
130≤KW<225 (175 ≤HP<300)	2008 and earlier 2009	10.5 (7.8) 4.0 (3.0)	3.5 (2.6)	0.54 (0.40) 0.20 (0.15)

K. Sandblasting - Plant Wide (Code §5-4-160)

1. Permittee shall use at least one of the following control measures during sandblasting operations (Code §5-4-160)

a. Confined blasting.

b. Wet abrasive blasting.

c. Hydroblasting.

d. A control measure that is determined by the Control Officer to be equally effective to control particulate emissions.

2. The opacity of emissions from sandblasting shall not be greater than 40% as measured in accordance with the Arizona Testing Manual Reference Method 9.

L. Fuel-Burning Equipment - Particulate Emissions

1. SIP Limitation ***[Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.7.(F) (3/31/75) approved as a SIP element at 43 FR 50531 (11/15/78)]***

For equipment with a heat input capacity of ~~greater ten but~~ less than 4,000 million Btu per hour, particulate emissions shall not exceed[1]:

$E = 1.02X^{-.231}$, where E = allowable rate of emissions in lbs per million BTU heat input, and

X = maximum heat input capacity in million BTU per hour.

2. Current Code Limitation (§5-23-1010)

For equipment with a heat input capacity of less than 4,200 million Btu per hour, particulate emissions shall not exceed~~3~~:

$E = 1.02Q^{0.769}$, where E = maximum emissions in lbs./hr.

Q = maximum heat input of all operating fuel burning units on a plant premises, in million BTU per hour.

M. Generally Applicable Opacity Limits

[1] ~~The turbines are rated at 450 mmBtu/hr (HHV) each, and that mathematically reduces to an allowable PM emission rate of 111.92 lb/hr.~~

1. SIP Limitation ***[Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.1 (6/16/80) approved as a SIP element at 47 FR 15579 (4/12/82)]***

   The opacity of any plume or effluent shall not be greater than 40 percent as determined by Reference Method 9 in the Arizona Testing Manual (ADEQ, 1992). Nothing in this limitation shall be interpreted to prevent the discharge or emission of uncontaminated aqueous steam, or uncombined water vapor, to the open air.

2. Visibility Limiting Standard ***[Federally enforceable provision, pursuant to Code §2-8-300.B (as amended 5/18/05) approved as a SIP element at 47 FR 15043 (3/27/06)]***

   The opacity of any plume or effluent from any point source not subject to a New Source Performance Standard adopted under Chapter 6 of the Code, and not subject to an opacity standard in Chapter 5 of the Code, shall not be greater than 20% as determined in Method 9 in 40 CFR Part 60, Appendix A.

3. Code Limitation Rotating Equipment Only (Code §5-23-1010)

   Permittee shall limit the opacity of emissions from any stationary rotating machinery, such that opacity does not exceed 40% for longer than 10 consecutive seconds. Visible emissions when starting cold equipment shall be exempt from the requirement of this subparagraph for the first 10 minutes of operation.

N. Particulate Matter Reasonable Precautions ***[Currently federally enforceable pursuant to Code §4-2-040 (6/29/93) approved as a SIP element at 72 FR 41896 (8/1/07) and PGAQCD Reg. 7-3-1.2 approved as a SIP element at 43 FR 53034 (11/15/78)***

1. Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, subdivision site, driveway, parking area, vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, or fill dirt to be deposited, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

2. Permittee shall not cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, such as but not limited to all-terrain vehicles, trucks, cars, cycles, bikes, or buggies, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

3. Permittee shall not disturb or remove soil or natural cover from any area without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

4. Permittee shall not crush, screen, handle or convey materials or cause, suffer, allow or permit material to be stacked, piled or otherwise stored without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

5. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such a manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne. Other reasonable precautions shall be taken, as necessary, to effectively prevent fugitive dust from becoming airborne.

6. Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to fugitive dust without taking reasonable precautions to prevent fugitive dust from

becoming airborne. Earth and other material that is tracked out or transported by trucking and earth moving equipment on paved streets shall be removed by the party or person responsible for such deposits.

7. Permittee shall not cause, suffer, allow or permit the use, repair, construction or reconstruction of any road or alley without taking every reasonable precaution to effectively prevent fugitive dust from becoming airborne.

O. Surface Stabilization ***[Federally enforceable pursuant to Code §4-1-010 (10/28/15) approved as a SIP element at 82 FR 20267 (5/1/17), Amended 1/25/23]***

1. Vehicle Use in Open Areas and Vacant Lots (Code §4-1-030.2)

a. Permittee shall not cause or allow visible emissions of particulate matter, including fugitive dust generated from the vehicle use in open areas and vacant lots beyond the property line within which the emissions are generated.

b. Permittee shall stabilize the open areas and vacant lots on which vehicles are used to by complying with any one of the stabilization requirements listed in PCAQCD Code §4-1-030.2.A.

c. Permittee shall apply appropriate control measures to the open areas and vacant lots on which vehicles are used as listed in PCAQCD Code §4-1-030.2.B.

d. Permittee shall implement one or more of the control measures described in PCAQCD Code §4-1-030.2.B within 60 calendar days following the initial discovery by the Control Officer of any open areas and vacant lots that are 0.10 acre (4,356 square feet) or larger and having a cumulative of 500 square feet or more that are disturbed by being driven over and/or used by motor vehicles, by off road vehicles, or for material dumping.

e. Permittee shall, within 30 calendar days following the initial discovery by the Control Officer of the disturbance or vehicle use on open areas and vacant lots, provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such disturbance.

f. Permittee shall implement all control measures necessary to limit the disturbance or vehicle use on open areas and vacant lots in accordance with the requirements of PCAQCD Code §4-1-030.2.B. Control measure(s) shall be considered effectively implemented when the open areas and vacant lots meets the requirements described in PCAQCD Code §4-1-030.2.A.

g. Use of or parking on open areas and vacant lots by the Permittee shall not be considered vehicles use in open areas and vacant lots.

h. Establishing initial landscapes without the use of mechanized equipment or conducting landscape maintenance without the use of mechanized equipment shall not be considered vehicle use in open areas and vacant lots.

2. Open Areas and Vacant Lots (Code §4-1-030.3)

a. Permittee shall not cause or allow visible emissions of particulate matter, including fugitive dust generated from the open areas and vacant lots beyond the property line within which the emissions are generated.

b. Permittee shall stabilize the open areas and vacant lots by complying with any one of the stabilization requirements listed in PCAQCD Code §4-1-030.3.A.ii.

c. Permittee shall apply appropriate control measures to the disturbed open areas and vacant lots as listed in PCAQCD Code §4-1-030.3.B.

d. Permittee shall implement one or more of the control measures described in PCAQCD Code §4-1-030.3.B within 60 calendar days following the initial discovery by the Control Officer of any open areas and vacant lots that are 0.10 acre (4,356 square feet) or larger and having a cumulative of 500 square feet or more that are disturbed, and if such disturbed area remains unoccupied, unused, vacant, or undeveloped for more than 15 days.

e. Permittee shall, within 30 calendar days following the initial discovery by the Control Officer of the disturbance on the open areas and vacant lots, provide in writing to the Control Officer a description and date of the control measure(s) to be implemented to prevent such disturbance.

f. Permittee shall apply the control measures listed in PCAQCD Code §4-1-030.5.A if machinery is used to clear weeds and/or trash from open areas and vacant lots of 5,000 square feet or larger.

3. Unpaved Parking Lots (Code §4-1-030.4)

a. Permittee shall not cause or allow visible emissions of particulate matter, including fugitive dust generated from the unpaved parking lots beyond the property line within which the emissions are generated.

b. Permittee shall apply appropriate control measures to the disturbed unpaved parking lots as listed in PCAQCD Code §4-1-030.4.B.

c. Permittee shall repair and/or replace the control measures listed in PCAQCD Code §4-1-030.4.B, and shall clean-up immediately any trackout from areas accessible to the public including curbs, gutters and sidewalks when trackout extends a cumulative distance of 25 linear feet or more and at the end of the day for all other trackout.

4. Paved Public Roadway (Code §4-1-030.7)

a. Permittee upon discovery of the mud/dirt on its property due to the trackout or erosion-caused deposition that extends 25 feet or more from the nearest unpaved surface exit onto the paved public roadway shall apply any one of the control measures listed in PCAQCD §4-1-030.7.A.i.

b. Permittee shall remove the mud/dirt in a manner that does not cause another source of fugitive dust.

c. In the event unsafe travel conditions would result from restricting traffic and removal of such material is not possible within 72 hours due to a weekend or

holiday condition, the provisions of PCAQCD Code §4-1-030.7.A.i can be extended upon notification to and approval by the Control Officer.

d. Permittee who is the owner and/or operator of any existing paved public roadways shall apply in sufficient quantity a dust suppressants to the total surface area subject to the disturbance and prevent track by applying any one of the control measures listed in PCAQCD §4-1-030.7.A.i, prior to, during and after work on unpaved road shoulders.

e. Permittee who is the owner and/or operator having jurisdiction over, or ownership of, public or private paved roads shall construct, or require to be constructed, all new or modified paved roads in conformance with the road shoulder width and drivable median stabilization as required in PCAQCD Code §4-1-030.7.D.

f. Unpaved shoulders and medians of paved roads shall be considered to have control measures effectively implemented when fugitive dust emissions do not exceed 20% opacity and silt loading does not equal or exceed 0.33 oz/ft^2 as determined in PCAQCD Code §4-9-310 except for unpaved shoulders on which gravel has been applied. Where gravel is utilized to prevent trackout from unpaved shoulders and medians of paved roads, surface gravel shall be uniformly applied and maintained to a depth of two (2) inches to comply with the 20% opacity standards, the gravel depth and silt content test methods in PCAQCD Code §4-9-310.

g. Permittee who is the owner and/or operator having jurisdiction over, or ownership of, existing public or private paved roads which do not conform with the requirements of PCAQCD Code §4-1-030.7.D shall reconstruct, or require to be reconstructed, the existing nonconforming paved road within 365 calendar days following the initial discovery that the road fails to meet the requirements. The control officer may require short-term stabilization of any paved road subject to the requirements set forth in PCAQCD Codes §§4-1-030.7.D and 4-1-030.7.E

5. Recordkeeping (Codes §§4-1-040 and 4-1-050)

Permittee, if subject to the above requirements, shall compile and retain records that provide evidence of control measure application including records of receipts/purchase, street sweeping, water applications, maintenance of trackout control devices, gravel pads, fences, wind barriers, tarps, type of treatment/control measure application, extent of coverage, and date applied. The supporting documentation shall be provided as soon as possible but no later than 48 hours upon a verbal or written request by the Control Officer, excluding weekends. If the Control Officer is at the site where requested records are kept, the records shall be provided without delay. Copies of such records shall be retained for at least two years.

~~O. Surface Stabilization ***[Federally enforceable pursuant to Code §4-1-030 (10/28/15) approved as a SIP element at 82 FR 20267 (5/1/17)]***~~

~~1. Permittee shall not cause or allow visible fugitive dust emissions from open areas / vacant lots (areas not being utilized for an activity) to exceed 20% opacity based on EPA Method 9 or the continuous plume or intermittent plume methods listed in PCAQCD Code §4-9-340.~~

2. ~~Permittee shall erect barriers or no trespassing signs upon evidence of trespass on open areas / vacant lots.~~

3. ~~Permittee shall stabilize any open area / vacant lot greater than 1.0 acre that has 0.5 acre or more of disturbed surface and sign up for the Pinal County Dust Control forecast within 30 days of discovery. The open area / vacant lot shall be stabilized the day leading up to and the day that is forecast to be high risk for dust emissions.~~

4. ~~Permittee shall not remove vegetation from open areas / vacant lots without applying dust suppressants before and during the weed abatement. Track out onto paved surfaces must be prevented or eliminated and dust suppressants must be applied following weed abatement to stabilize the entire surface.~~

5. ~~Stabilization of open areas / vacant lots is determined by the drop ball, threshold friction velocity, flat vegetation or standing vegetation methods listed in PCAQCD Code 4-9-320.~~

6. ~~Permittee shall not cause or allow visible fugitive dust emissions from unpaved lots (areas being utilized for an activity) greater than 5000 square feet to exceed 20% opacity based on EPA Method 9 or the continuous plume or intermittent plume methods listed in PCAQCD Code §4-9-340.~~

7. ~~Permittee shall not allow silt loading equal to or greater than 0.33 oz/ft^2 or allow the silt content to exceed 8% on unpaved lots greater than 5000 square feet.~~

8. ~~Permittee shall stabilize unpaved lots greater than 5000 square feet by paving, applying a dust suppressant or graveling.~~

9. ~~Permittee shall clean up track out on a paved public roadway that exceeds 50 feet within 24 hours of discovery and limit opacity to 20% or less while using a rotary brush or broom.~~

10. ~~Permittee shall make a record of the control measures applied.~~

P. Fuel Use Limitations - All Generating Units

1. CT Fuels (Code §3-3-250.A.1)

In the CT units, Permittee is allowed to burn exclusively pipeline natural gas, provided Permittee shall not procure natural gas having a total sulfur content in excess of 5 grains per 100 standard cubic feet (scf). For compliance reporting and emission inventory purposes, permittee shall quantify SO2 emissions using an SO_2 emission rate of 0.06 lbs/mmBtu.

2. Diesel Driven Fire Pump (Code §5-23-1020.B)

In the diesel driven fire pump, Permittee shall not burn diesel fuel having a sulfur content exceeding 500 ppmv.

3. Other Fuels (Codes §§3-1-081.G, 5-23-1010.F)

Permittee shall not use used oil, used oil fuel, hazardous waste, and hazardous waste fuel (as defined in federal, state, or county codes and rules) in the steam generating units or the combustion turbines without first obtaining a separate permit or an appropriate permit revision.

Q. General Maintenance Obligation - Plant Wide (Codes §§3-1-081.E., 8-1-030.A.3)

At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the permitted facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

R. Additional Applicable Limitations - Plant Wide

1. Asbestos NESHAP Compliance ***[40 CFR Part 61, Subpart M]*** (Code §§7-1-030.A.8, 7-1-060)

Permittee shall comply with Code §§7-1-030.A.8 and 7-1-060 and 40 CFR Part 61, Subpart M, when conducting any renovation or demolition activities at the facility.

2. Stratospheric Ozone and Climate Protection ***[40 CFR Part 82 Subpart F]*** (Code §§1-3-140.15, 1-3-140.58.k)

The Permittee shall comply with the applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

3. Use of Paints

a. Architectural Coatings (Code §5-12-370)

Permittee shall not employ, apply, evaporate or dry any architectural coating, as defined in §5-12-370.C, for industrial or commercial purposes, material containing photo chemically reactive solvent as defined in §5-9-280 or shall thin or dilute any architectural coating with a photo chemically reactive solvent.

b. Other Spray Painting (Code §5-13-390)

Permittee shall conduct spray painting operations except architectural coatings in an enclosed area designed to contain not less than 96% by weight of the over spray. An enclosed area means a 3-sided structure with walls a minimum of 8 feet high.

c. Disposal (Codes §$5-12-370 and 5-13-390)

Permittee shall not, during any one day, dispose of a total of more than one and one-half gallons of any photo chemically reactive solvent or of any material containing more than one and one-half gallons of any such photo chemically reactive solvent by any means which will permit the evaporation of such solvent into the atmosphere.

4. Cutback and Emulsified Asphalt (Code §5-16-670)

Except as exempted in §5-16-680, Permittee:

a. Shall not use or apply the following materials for paving, construction or maintenance:

i. Rapid cure cutback asphalt;

ii. Any cutback asphalt material, road oils or tar which contains more than 1.5% by volume VOCs which evaporate at 500°F or less using ASTM Test Method D-402-76 or more than 27% by volume total solvent in the asphalt binder.

iii. Any emulsified asphalt or emulsified tar containing more than 3% by volume VOCs which evaporate at 500°F or less using ASTM Test Method D-244-89.

b. Shall not store within Pinal County any emulsified or cutback asphalt product which contains more than 1.5% by volume solvent-VOC unless such material lot included a designation of solvent-VOC content on data sheet(s) expressed in percent solvent-VOC by volume.

5. Water Washes (Code §8-1-030.C)

Permittee is allowed to perform semi-annual water washes of the turbines to clean the turbine blades of grease, grime and sand that may have accumulated during operation. After the blades are washed, the units are turned on, without any emission controls, to dry the blades. Although this is considered to be a part of the maintenance activity, Permittee shall report any excess emissions that may occur due to this activity, in accordance with Section §7.D and Section §9.P of this permit. These excess emissions shall be counted towards the plant wide emissions cap of 245 tons per year as specified in Section §4.C of this permit and reported in the annual emissions inventory report submitted to PCAQCD.

S. Acid Rain Program Requirements - Combustion Turbines ~~Generators~~ ***[40 CFR Parts 72, 73, 75 and 76]*** (Code §3-6-565)

1. Affected Units[4]

For purposes of the continuous emission monitoring and reporting requirements under the Acid Rain program, each of the CTs constitute an "affected unit," and shall be known as "CT01 – CT24~~12~~."

2. The Acid Rain Phase II Permit application and Certificate of Representation signed by the Designated Representative shall constitute the basis of the Acid Rain Permit element of this permit.

3. The Permittee shall comply with the Acid Rain requirements listed in 40 CFR Parts 72, 73 and 75, and any additional requirements listed within this permit. At a minimum, compliance with 40 CFR Part 75 shall include installation and operation of monitoring equipment and/or maintenance of recordkeeping as required under 40 CFR §§75.10, 75.11, 75.12 and 75.13.

4. The Permittee shall hold SO_2 allowances as of the allowance transfer deadline in the facility's compliance account not less than the total annual actual emissions of SO_2 for

[4]None of the affected units at this facility are subject to a NOX emission limitation under 40 CFR Part 76.

the previous calendar year as required by the Acid Rain Program. In calculating those allowances, Permittee may utilize SO_2 Allowance Allocations for the respective units.~~, as follows:~~

~~Affected Units~~	~~Pollutant~~	~~Years 2000 – 2009~~	~~Years 2010 and thereafter~~
~~CT01 – CT12~~	~~SO_2~~	~~N/A[5]~~	~~N/A~~

5. When provisions or requirements of the regulations incorporated pursuant to Code §3-6-565 (Acid rain Program) conflict with any of the other applicable requirements set forth in this permit, the regulations incorporated under §3-6-565 shall apply and take precedence.

6. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement. (Code §3-1-081.A.6.a)

7. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to be in non-compliance with any other applicable requirement. (Code §3-1-081.A.6.b)

8. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Part IV of the CAA, commonly known as CAA Title IV. (Code §3-1-081.A.6.c)

9. All of the following are prohibited: (Code §3-1-081.A.6.d.)

   a. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners or operators of the unit or the designated representative of the owners or operators.

   b. Exceedances of applicable emission rates specified in this permit.

   c. The use of any allowance prior to the year for which it was allocated.

   d. Contravention of any other provision of this permit.

T. Emergency Risk Management Plan

Since the concentration of the aqueous ammonia (19%) used in the SCR to control NO_X emissions is below the listed applicability level of 40 CFR Part 68 (Chemical Accident Prevention Provisions) therefore, a risk management plan is not required for the storage of 30,000 gallons of ammonia at the facility.

6. Compliance Demonstration *[Mandated by 40 CFR §70.6.(c))]* (Code §§3-1-060.b.2.d, 3-1-081.A.2, 3-1-083)

A. Non-NSPS and NSPS Subpart KKKK NOX Testing (CT13 – CT24) [Mandated by 40 CFR §70.6(a)(3) Codes §§3-1-160 & 3-1-170, R18-2-311, R18-2-312]

[5] N/A means no allocations are available for the unit, and allowances must be obtained elsewhere.

1. Initial Performance Testing

Within 60 days after achieving maximum production rate of each CT (CT13-CT248), but no later than 180 days after the initial start-up of the CTs, Permittee shall conduct performance tests, using either standard test methods as provided by Code §3-1-160 specified below, or equivalent methods as approved by the District pursuant to approval of the test plan required below, or alternative test methods approved by the EPA (40 CFR Part 60). These tests shall be performed at a maximum heat input capacity available on the day of testing. The continuous monitoring systems required by this permit shall be operating prior to conducting the performance tests. The performance tests shall address:

a. Nitrogen oxides (NOX) emissions: Ref. Part 60, App. A, Ref. Method 7E **or** use NOX CEMS RATA as the initial NOX performance test (NSPS Subpart KKKK, 40 CFR Part §60.4400.(b).(5), §60.4405)
b. Carbon monoxide (CO) emissions: Ref. Part 60, App. A, Ref. Method 10, or use CO CEMS RATA
c. Particulate matter emissions (PM_{10}, PM2.5): Ref. Part 60, App. A, Ref. Method 5 or 201A and (condensable PM10), Ref. Method 202
d. Volatile organic compound emissions (VOC): Ref. Part 60, App. A-7, Ref. Method 25a
e. Opacity: Ref. Part 60, App. A, Ref. Method 9, 40 CFR §60.11
f. Ammonia

2. Test Protocol

Test protocols for all the tests shall be submitted to the District at least thirty (30) days prior to the test.

3. Performance Test Notice

Notice of any performance test required by this permit shall be submitted to the District at least thirty days (30) days prior to conducting the test.

4. Test Report

A copy of each test report shall be submitted to the District for approval within forty-five (45) days after the test. In addition to any other information required under this permit, the test report shall specifically define that the following pollutants meet the emission limitations specified in §Section 5.C of this permit:

a. NOX emissions rates, defined as function of heat input
b. PM_{10} emission rates, defined as a function of heat input
c. $PM_{2.5}$ emission rates, defined as a function of heat input
d. CO emission rates, defined as a function of heat input
e. VOC emission rates, defined as a function of heat input

B. Testing ***[Mandated by 40 CFR §70.6(a)(3)]***

1. Subsequent Performance Tests (CT01-CT24) ***[40 CFR 60.8, Code §§3-1-160 & 3-1-170, R18-2-311, R18-2-312)***

Permittee shall conduct performance tests, using standard test methods as provided by Code §3-1-160 as specified below, or equivalent methods as approved by the District pursuant to approval of the test plan required below, or alternative test methods approved by the EPA (40 CFR Part 60). These tests shall be performed at a maximum heat input capacity available at the day of testing. The continuous monitoring systems required by this permit shall be operating prior to conducting the performance tests. The performance tests shall address:

~~Within one year of the previous performance test but no later than fourteen (14) months of the test, Permittee shall conduct performance tests, using standard test methods specified below, or equivalent methods as approved by the District pursuant to approval of the test plan required below. The tests shall be conducted using standard test methods approved by the EPA (40 CFR Part 60). These tests shall be performed at the maximum practical production rate. The continuous monitoring systems required by this permit shall be in place and operating prior to conducting the performance tests. Each performance tests shall address:~~

a. Nitrogen oxides (NOX) emissions Ref. Part 60, App. A, Ref. Method 7E or 20 **or** Permittee may use NOX CEMS RATA to demonstrate compliance with the NOX emission limits (NSPS Subpart KKKK, 40 CFR §60.4340(b).(1)).
b. Carbon monoxide (CO) emissions Ref. Part 60, App. A, Ref. Method 10
c. Particulate matter emissions (filterable PM_{10},PM2.5) Ref. Part 60, App. A, Ref. Method 5 or 201A and (condensable) PM_{10}) Method 202.
d. Volatile organic compounds (VOCs) emissions Ref. Part 60, App. A, Ref. Method 25a
~~e. Opacity Ref. Part 60, App. A, Ref. Method 9, 40 CFR §60.11.~~
~~f. Ammonia~~

2. Test Protocol

A test plan protocol for each test shall be submitted to the District at least thirty (30) days before the testing.

~~3. Subsequent Performance Testing (Code §3-1-050)~~

~~a. PM Non-NSPS Testing Requirements~~

~~Permittee shall conduct annual testing of turbines for particulate matter using the testing methods listed in Section §6.A.1 of this permit.~~

b. ~~CO Non-NSPS Testing Requirements~~

~~Performance testing for carbon monoxide shall be covered under annual Relative Accuracy Test Audits (RATA).~~

~~c. VOC Non-NSPS Testing Requirements~~

~~Permittee shall conduct annual testing of turbines for volatile organic compounds using the testing methods listed in Section §6.A.1 of this permit.~~

d. ~~NO_X NSPS Testing Requirements [40 CFR Part 60,Subpart KKKK §60.4400]~~

~~Permittee shall conduct subsequent nitrogen oxides performance tests on an annual basis, no more than 14 calendar months following the previous performance test. Test method listed in Section §6.A.1 of this permit shall be used.~~

e. ~~SO_2 NSPS Testing Requirements [40 CFR Part 60, Subpart KKKK, §60.4415]~~

~~Permittee shall conduct subsequent sulfur dioxide performance tests on an annual basis, no more than 14 calendar months following the previous performance test. One of the three methodologies described in Section §60.4415 of the Subpart KKKK can be used to conduct the performance tests~~.

3. Performance Test Notices

Notice of any performance test required by this permit shall be submitted to the District at least thirty (30) days prior to conducting ~~running~~ the test.

4. Test Reports

A copy of each test report shall be submitted to the District for approval within forty-five (45) days after the test. In addition to any other information required under this permit, test report for all mandatory tests shall specifically define:

a. NOX emissions rates, defined as function of heat input
b. PM_{10} emission rates, defined as a function of heat input
c. $PM_{2.5}$ emission rates, defined as a function of heat input
d. CO emission rates, defined as a function of heat input
e. VOC emission rates, defined as a function of heat input

~~a. NO_X emission rates, defined as both as a function of heat input, and expressed in the same units as the NO_X emission limitations imposed in Section §5.C.1 of this permit.~~

b. ~~SO_2 emission rates , defined as both as a function of heat input, and expressed in the same units as the SO_2 emission limitations imposed in Section §5.C.3.a of this permit.~~

5. Recurring Testing Cycle

Except as provided below, Performance tests shall be repeated within 5 years of the previous performance tests in accordance with Section §6.~~A~~B.1 of this permit. At least two CTs shall be selected for testing and used to represent all of the identical CTs at the facility to meet this requirement and used for emissions calculations and emissions inventory. Selection of the CTs tested shall be rotated for each subsequent testing.

i. Subsequent NO_X performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test) in accordance with Section §6.B.1 of this permit. If the Permittee elects to demonstrate compliance using the NOX-diluent CEMS, no subsequent performance tests are required, and RATA shall be performed at the frequency required by 40 CFR Part 75, Appendix B, Sections 2.3.1.1 or 2.3.1.2 as applicable.

ii. Subsequent SO2 tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test). One of the three methodologies described in Section §60.4415 of the Subpart KKKK can be used to conduct the performance tests.

6. NSPS (Subpart TTTT) Greenhouse Gas Emissions for Electric Generating Units

Testing Requirements - CT13-CT24 ***[Federally enforceable pursuant to 40 CFR 60.5580]***

Design efficiency of the combustion turbines shall be determined using one of the following methods: ASME PTC 22 Gas Turbines (incorporated by reference, see §60.17), ASME PTC 46 Overall Plant Performance (incorporated by reference, see §60.17) or ISO 2314 Gas turbines—acceptance tests (incorporated by reference, see §60.17).

C. Acid Rain Compliance [Mandated by 40 CFR Parts 72 and 76]

For affected units defined above as "CT01 – CT24~~12~~", Permittee shall monitor SO_2, and NO_X emissions in accord with the requirements of 40 CFR Part 75. At a minimum, monitoring and corresponding records required under this subsection shall conform to the requirements of 40 CFR §§75.10, 75.11, 75.12 and 75.13.

D. Operational Limitations/Emission Cap Compliance

1. Compliance with Synthetic Minor Limitations

~~a.~~ To comply with the operational limitations and emission limits as specified in Sections §§4.C and 5.C of this permit respectively, Permittee shall on the 10th day of each month calculate actual 12 month rolling emissions and a 12 month rolling emissions "budget." This emission budget shall be based on the past 10 months of historical emissions data and the amount of emissions (or emissions budget) that could be allowable in the upcoming 2 months (including the current month) without exceeding the applicable ~~245~~ tons per 12-month per pollutant synthetic minor limit.

~~b. To the extent the application of the bias adjustment factor as determined under §6.D.4 results in an increase of emissions during the reference period since the previous RATA test, by the 10th of the month following the completion of the latest RATA test, permittee shall correspondingly demonstrate continued continuous compliance with the 245 ton per year synthetic minor limit by recalculating the 12 month rolling average of emissions for each prior month affected by application of the bias adjustment factor.~~

2. Compliance with the Operational and Emission Limitations

To comply with the operational limitations and emission limits as specified in Sections §§5.C and 5.D of this permit respectively, Permittee shall install, calibrate, maintain and operate a continuous monitoring system to record NO_X and CO emissions during every start-up and shutdown event~~. Start-up VOC emissions will be factored from CO CEMS data using performance test results.~~

E. Monitoring ***[Mandated by 40 CFR §70.6(a)(3)]***

1. Instrumental Emissions Monitoring - Oxides of Nitrogen [40 CFR 60.4345 ~~47 (a), (c) & (d)~~, Code §3-3-260.]

   a. Permittee shall install, calibrate, maintain and operate a continuous emissions monitoring system to record daily emissions of nitrogen oxides from the CTs. The monitoring equipment required under this permit subsection shall be installed and operated in accord with requirements of 40 CFR Part 75.

   b. Permittee shall conduct an initial NO_X CEMS evaluation and subsequent annual evaluations, in accord with the RATA requirements for NO_X-diluent CEMS, under 40 CFR Part 75, Appendix A.

   c. Permittee shall monitor and record daily emissions of NO_X from the CTs, shall total and record those daily emissions on a calendar-month basis and shall maintain and record a rolling annual average of emissions, rolled on a calendar-month basis. In the event that CEMS data is unavailable due to monitoring equipment malfunction, Permittee may use Part 75 data substitution methodology to define the missing data.

   d. The Permittee shall install, calibrate, maintain, and operate continuous emissions monitoring systems on CT13 through CT24, and record the output of each system, for measuring nitrogen oxides emissions to the atmosphere during startup and shutdown events and the normal operation of the combustion turbines. Monitoring equipment required under this subsection shall be installed and operated in accordance with a plan submitted to the District by the permittee.

   e. On a calendar-month basis, Permittee shall generate a record of cumulative actual nitrogen oxides emissions from CT01 through CT12 and CT13 through CT24 emitted for the previous month and for the preceding 12-months, and shall compare the total to the annual nitrogen oxides emissions limitations under Sections §§5.C and 5.D. The Permittee shall maintain records of these monthly total calculations, and monthly conclusion regarding compliance with the emissions limitations under Sections §§5.C and 5.D.

2. Instrumental Emissions Monitoring - Carbon Monoxide [Code §3-3-260.G]

   a. Permittee shall install, calibrate, maintain and operate a continuous monitoring system to record daily emissions of carbon monoxide from the CTs. The monitoring equipment required under this permit subsection shall be installed and operated in accord with requirements of 40 CFR Part 60.

   b. Permittee shall conduct an initial CO CEMS evaluation and subsequent annual evaluations, in accord with 40 CFR Part 60, Appendix B, Performance Specification 4 or 4A.

   c. Permittee shall follow the quality assurance procedures in Procedure 1 of 40 CFR Part 60 Appendix F for the CO CEMS. The procedures include daily calibration drift and quarterly accuracy determinations.

   d. Permittee shall evaluate the CO CEMS daily when operating and semi-annually as specified in Appendix A of this permit.

e. Permittee shall obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average and complete at least one cycle of operation (sampling, analyzing and data recording) for each 15-minute period of operation.

f. Permittee shall obtain 1-hour averages for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter.

g. If the Permittee does not obtain the minimum data required in paragraph "g" of this section, all valid data from the CO CEMS must be used in calculating emissions concentrations.

h. Permittee shall monitor and record daily emissions of CO from the CTs, shall total and record those daily emissions on a calendar-month basis and shall maintain and record a rolling annual average of emissions, rolled on a calendar-month basis. In the event that CEMS data is unavailable due to monitoring equipment malfunction, Permittee may use Part 75 data substitution methodology to define the missing data.

i. The permittee shall install, calibrate, maintain, and operate continuous emissions monitoring systems on CT13 through CT24, and record the output of each system, for measuring carbon monoxide emissions to the atmosphere during startup and shutdown events and the normal operation of the combustion turbines. Monitoring equipment required under this subsection shall be installed and operated in accordance with a plan submitted to the District by the permittee.

j. On a calendar-month basis, Permittee shall generate a record of cumulative actual carbon monoxide emissions from CT01 through CT12 and CT13 through CT24 emitted for the previous month and for the preceding 12-months and shall compare the total to the annual nitrogen oxides emissions limitations under Sections §§5.C and 5.D. The Permittee shall maintain records of these monthly total calculations, and monthly conclusion regarding compliance with the emissions limitations under Sections §§5.C and 5.D.

3. Quantifying Emissions Prior to CEMS Certification

For the time period between initial startup of the CTs and the initial evaluation/ certification of the CEM systems, Permittee shall use fuel usage records and emissions factors determined from the initial performance tests to quantify NO_X and CO emissions.

4. The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system on CT01 through CT24, and record the output of each system, for measuring the amount of fuel used. Monitoring equipment required under this subsection shall be installed and operated pursuant to a plan submitted to PCAQCD by the Permittee.

~~4. After the fact Adjustment of Reported Emissions to Reflect CEMS Accuracy Deviations Shown by RATA Testing~~

~~The "reference period" shall consist of the time between successive RATA tests. If RATA testing establishes that actual emission rates, as shown by reference method testing, exceed the emission rates reported by the CEMS for the preceding reference~~

~~period, then permittee shall apply a "bias adjustment factor" to the data acquisition system such that future reported emissions reflect the newly re-calibrated CEMS. In addition, the Permittee shall recalculate the previously logged monthly emissions for each full month during the reference period by applying the same bias adjustment factor.~~

5. Instrumental Temperature Monitoring

On each CT unit, Permittee shall install, calibrate, maintain, and operate a continuous inlet air temperature monitoring system, and shall record the output of the system. The plan shall require inlet temperature monitoring and data recording on consistent with the monitoring requirements of 40 CFR Part 60.

6. Parametric Emissions Monitoring Requirements - Sulfur Dioxide [Code §3-3-260.G]

As a surrogate measurement for monitoring emissions of sulfur dioxide from an affected unit, Permittee shall maintain daily records reflecting total fuel consumption in each CT unit. On a cycle adequate to comply with the emission limitations and semi-annual reporting requirements under this permit, Permittee shall utilize the SO_2 emission calculation methodology set forth in 40 CFR part 75, Appendix D §2.3, to calculate and report SO_2 emissions. Permittee shall determine fuel sulfur content by either:

a. Sampling the gaseous fuel quarterly ~~daily~~ when operating; or

b. Maintaining a contractual commitment with the pipeline gas supplier demonstrating that the gas has a total sulfur content of 5 grains per 100 standard cubic feet (scf) or less.

7. Parametric Emissions Monitoring - Particulate Matter [Code §3-3-260.G.]

a. By the 10th of each month, Permittee shall calculate and record the quantity of PM/PM10/PM2.5 emissions from CT01 through CT24, separately for each emission unit, for the previous calendar month. Calculations shall be performed using records of fuel use data, startup and shutdown events, and emission factors as provided in paragraphs j and k below.

b. By the 10th day of each month, Permittee shall calculate and record the combined PM/PM10/PM2.5 emissions from CT01 through CT12 on a rolling 12-month total sum basis. This value shall be calculated as the sum of the emissions from the affected emissions units during the previous month and during the preceding eleven months.

c. Permittee shall calculate and record the PM/PM10/PM2.5 emissions from the emergency fire pump on a rolling 12-month total sum basis using the emission factors included in the site inventories and the monthly fuel use.

d. Permittee shall compare emissions from CT01 through CT12 and emergency fire pump for a 12-month total to the annual PM/PM10/PM2.5 emission under Section §5.C of this permit.

e. By the 10th day of each month, Permittee shall calculate and record the combined PM/PM10/PM2.5 emissions from CT13 through CT24 on a rolling 12-month total sum basis. This value shall be calculated as the sum of the

emissions from the affected emissions units during the previous month and during the preceding eleven months.

f. Permittee shall calculate and record the combined PM/PM10/PM2.5 emissions from WSAC1 through WSAC6 on a rolling 12-month total sum basis using the procedures in paragraph n.iii below.

g. Permittee shall compare emissions from CT13 through CT24 and WSAC1 through WSAC6 for a 12-month total to the annual PM/PM10/PM2.5 emission under Section §5.D of this permit.

h. Records of the monthly total calculations and compliance with the PM/PM10/PM2.5 emissions limitations shall be maintained.

i. Monthly total PM/PM10/PM2.5 emissions from each of the unit shall be calculated separately as the sum of the emissions from that unit during startup and shutdown events, calculated as provided in paragraphs j and k below, and the emissions from that unit during non-startup/shutdown periods, calculated as provided in paragraph l below.

j. The PM/PM10/PM2.5 emissions from startup and shutdown events for CT01 through CT12 shall be calculated as the product of the number of events and an approved emission factor of 7.0 pounds per event[1]. An event is one startup followed by one shutdown.

k. The PM/PM10/PM2.5 emissions from startup and shutdown events for CT13 through CT24 shall be calculated as the product of the number of events and an approved emission factor of 5.1 pounds per event[2]. An event is one startup followed by one shutdown.

l. The PM/PM10/PM2.5 emissions during non-startup/shutdown operating periods at a combustion turbine shall be calculated as the product of the cumulative heat input during such period, expressed in MMBtu, and the approved emission factor, expressed in lb/MMBtu:

i. Permittee shall use PM/PM10/PM2.5 emission factor as reported in the site emissions inventories to calculate emissions from CT01 through CT12 during operating periods from the January 1 of the year of permit issuance through the last day of the calendar month during which PCAQCD first approves a test-derived emission factor for such combustion turbine in accordance with paragraph m below.

ii. Permittee shall use an approved PM/PM10/PM2.5 emission factor of 0.011 lb/MMBtu to calculate emissions from CT13 through CT24 during operating periods from the date of initial startup of a combustion turbine through the last day of the calendar month during which PCAQCD first approves a test-derived emission factor for such combustion turbine in accordance with paragraph m below.

[1] Conservative emission factors derived from the information provided by the vendor and included in the initial Class I Application submitted to PCAQD in August 2008. PM includes filterable and condensable.

[2] Vendor data

iii. Following approval of a test-derived PM/PM10/PM2.5 emission factor for a combustion turbine by PCAQCD in accordance with paragraph m below, Permittee shall use the approved test-derived PM/PM10/PM2.5 emission factor to calculate emissions during operating periods beginning with the first day of the calendar month after such approval. Permittee shall continue to use such approved test-derived PM/PM10/PM2.5 emission factor until it is superseded by approval of a new test-derived PM/PM10/PM2.5 emission factor for such combustion turbine.

m. During each PM/PM10/PM2.5 performance test conducted at combustion turbines pursuant to Sections §§6.A and 6.B of this permit, Permittee shall calculate a test-derived PM/PM10/PM2.5 emission factor for such combustion turbine and shall submit such emission factor to PCAQCD for approval. The test derived emission factor shall be calculated as the arithmetic mean of the emission factor results for all valid runs conducted as part of such performance test. The emission factor result for each run shall be calculated by dividing the measured emission rate during that run, expressed in lb/hour by the heat input rate during that run, expressed in MMBtu/hour.

n. WSAC1-WSAC6

i. The permittee shall install, calibrate, maintain, and operate a monitoring system on WSAC1 through WSAC6, and record the output of the system, for measuring the amount of recirculation water used in the system. Monitoring equipment required under this subsection shall be installed and operated in accordance with a plan submitted to the District by the permittee.

ii. Once per quarter, the Permittee shall measure conductivity (as surrogate for TDS) or TDS for recirculation water for WSAC1 through WSAC6 pursuant to a plan submitted to the District by the permittee.

iii. The Permittee shall calculate the quantity of monthly emissions for WSAC1 through WSAC6 each by using the following equation:
$E = k * Q * 60$ [min/hour] * 8. 345 [lb H_2O/gallon] * [CTDS/10^6] * DL*t

Where:
E = Particulate matter emissions, pounds per month
Q = Circulating water flow rate, gallons per minute
CTDS = Circulating water total dissolved solids, ppm
DL = Drift loss, %
k = Particle size multiplier for PM10 and PM2.5
t = hours of operation, hours per month

~~a. As a surrogate measurement for monitoring emissions of PM_{10}, Permittee shall maintain daily records of the type and quantity of fuel usage in the CTs as well as the quantity of power produced when combusting that fuel. PM_{10} emissions shall be calculated on the basis of that fuel consumption data and calculated PM_{10} emissions rates shall reflect both filterable and condensable fractions.~~

~~Permittee may rely upon manufacturer's data or test results to calculate PM emissions.~~

o. Opacity Monitoring - Stack Emissions

On at least a semi-annual basis during operations, Permittee shall conduct a visual opacity screening on each stack, and on the open areas of the facility. The individual conducting the opacity screen need not be a certified opacity observer, and the screening need not conform to any EPA reference method. If visible emission from a unit is observed, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 operating days for that unit. Submission of such a report may constitute cause to reopen this permit to add additional testing and/or control requirements.

8. Parametric Emissions Monitoring - Volatile Organic Compounds [Code §3-3-260.G.]

~~a. As a surrogate measurement for monitoring emissions of VOC, Permittee shall maintain daily records of the type and quantity of fuel usage in the CTs as well as the quantity of power produced when combusting that fuel. VOC emissions shall be calculated on the basis of the fuel consumption data. Permittee may rely upon manufacturer's data or test results to calculate VOC emissions.~~

a. By the 10th day of each month, Permittee shall calculate and record the quantity of VOC emissions from CT01 through CT24, separately for each emission unit, for the previous calendar month. Calculations shall be performed using records of fuel use data, startup and shutdown events, and emission factors, as provided in paragraphs i and j below.

b. By the 10th day of each month, Permittee shall calculate and record the combined VOC emissions from CT01 through CT12 on a rolling 12-month total sum basis. This value shall be calculated as the sum of the emissions from the affected emissions units during the previous month and during the preceding eleven months.

c. Permittee shall calculate and record the VOC emissions from Emergency Fire Pump on a rolling 12-month total sum basis using the emission factors included in the site inventories and the monthly fuel use.

d. Permittee shall compare emissions from CT01 through CT12 and Emergency Fire Pump for a 12-month total to the annual VOC emission limitation under Section §5.C of this permit.

e. By the 10th day of each month, Permittee shall calculate and record the combined VOC emissions from CT13 through CT24 on a rolling 12-month total sum basis. This value shall be calculated as the sum of the emissions from the affected emissions units during the previous month and during the preceding eleven months.

f. Permittee shall compare emissions from CT13 through CT24 for a 12-month total to the annual VOC emission limitation under Section 5.D of this permit.

g. Records of the monthly total calculations and compliance with the VOC emission limitations shall be maintained.

h. Monthly total VOC emissions from each of the unit shall be calculated separately as the sum of the emissions from that unit during startup and shutdown events, calculated as provided in paragraphs i and j below, and the emissions from that unit during non-startup/shutdown periods, calculated as provided in paragraph k below.

i. VOC emissions from startup and shutdown events for CT01 through CT12 shall be calculated as the product of the number of events and an approved emission factor of 1.0 pounds per event.[3] An event is one startup followed by one shutdown.

j. VOC emissions from startup and shutdown events for CT13 through CT24 shall be calculated as the product of the number of events and an approved emission factor of 2.7 pounds per event.[4] An event is one startup followed by one shutdown.

k. VOC emissions during non-startup/shutdown operating periods at a combustion turbine shall be calculated as the product of the cumulative heat input during such period, expressed in MMBtu, and the approved emission factor, expressed in lb/MMBtu:

i. Permittee shall use VOC emission factor as reported in the site emissions inventories to calculate emissions from CT01 through CT12 during operating periods from the January 1 of the year of permit issuance through the last day of the calendar month during which PCAQCD first approves a test-derived emission factor for such combustion turbine in accordance with Section l below.

ii. Permittee shall use an approved VOC emission factor of 0.009 lb/MMBtu to calculate emissions from CT13 through CT24 during operating periods from the date of initial startup of a combustion turbine through the last day of the calendar month during which PCAQCD first approves a test-derived emission factor for such combustion turbine in accordance with paragraph l below.

iii. Following approval of a test-derived VOC emission factor for a combustion turbine by PCAQCD in accordance with paragraph l below, Permittee shall use the approved test-derived VOC emission factor to calculate emissions during operating periods beginning with the first day of the calendar month after such approval. Permittee shall continue to use such approved test-derived VOC emission factor until it is superseded by approval of a new test-derived VOC emission factor for such combustion turbine.

l. During each VOC performance test conducted at combustion turbines pursuant

[3] Emission factors derived from the information provided by the vendor and included in the initial Class I Application submitted to PCAQD in August 2008. PM includes filterable and condensable.

[4] Vendor data

to Sections §§6.A and 6.B of this permit, Permittee shall calculate a test-derived VOC emission factor for such combustion turbine and shall submit such emission factor to PCAQCD for approval. The test derived emission factor shall be calculated as the arithmetic mean of the emission factor results for all valid runs conducted as part of such performance test. The emission factor result for each run shall be calculated by dividing the measured emission rate during that run, expressed in lb/hour by the heat input rate during that run, expressed in MMBtu/hour.

9. Periodic Monitoring - Emergency Fire Pump

a. Fuel Sulfur Content

As a surrogate measurement for quantifying the sulfur content in diesel fuel for the emergency fire pump, Permittee shall:

i. Maintain contractual commitment with each supplier that furnishes diesel fuel, showing the sulfur fuel content on receipts of all fuel shipments qualifies for on-highway diesel fuel and does not exceed the 500 ppmv sulfur content limitation or

ii. Maintain MSDS from each fuel supplier showing that all diesel fuel purchased complies with this permit or

iii. Determine the percent sulfur by ASTM Method D-129-91 (Test Method for Sulfur in Petroleum Products - General Bomb Method).

b. Compliance Demonstration [40 CFR Part 60, Subpart IIII, §60.4211.(f)]

Owners and operators of stationary Internal Combustion Engines (ICE) must limit annual calendar year hours of operation as follows to be considered an emergency stationary ICE.

i. There is no limit on the use of emergency generator in emergency situations.

ii. Permittee may operate the emergency engine for the purpose of maintenance checks and readiness testing, provided the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission organization or the insurance company associated with the engine. Permittee shall not operate the ICE for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to the District upon request.

iii. Non-emergency operation is limited to 50 hours per calendar year. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance, readiness checks, and demand response operation.

iv. The 50 hours per calendar year for non-emergency operation cannot be used to supply power to another entity without a separate permit issued by the District.

v. All engines must be installed, configured, operated and maintained according to the specifications and instructions provided by the manufacturer.

10. General Parametric Emission Monitoring Requirements [Code §3-3-260.G]

To provide a basis for the other aspects of parametric monitoring set forth below, Permittee shall maintain operating logs detailing:

a. Hours of operation for each CT unit, defining periods of normal operation, start-up periods, warm-up periods, shut-down periods and any repairs with regard to each CT.

b. Fuel flow/heat input to the CT units, separately defining fuel flow/heat input during the various system operating modes, including during startups, warm-up periods, normal operation of the CT units, and during shutdown.

c. To verify compliance with the operational limitations on the diesel-driven fire pump, Permittee shall maintain a log, reflecting hours of both emergency and non-emergency operation. The log shall further include a narrative explanation of the nature of any "emergency" that required emergency use of the fire pump.

F. Excess Emissions - NO_X [40 CFR Part 60, Subpart KKKK, ~~Section~~ §60.4380.(b)]

For turbines using continuous emission monitoring, excess emissions and monitoring downtime are defined as:

1. An excess emissions is any unit operating period in which the 4-hour ~~or 30-day rolling average~~ NO_X emission rate exceeds the applicable emission limit in §60.4320. For the purposes of this subpart, a "4-hour rolling average NO_X emission rate" is the arithmetic average of the average NO_X emission rate in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given hour and the three unit operating hour average NO_X emission rates immediately preceding that unit operating hour. Calculate the rolling average if a valid NO_X emission rate is obtained for at least 3 of the 4 hours.

2. For operating periods during which multiple emissions standards apply, the applicable standard is the average of the applicable standards during each hour. For hours with multiple emissions standards, the applicable limit for that hour is determined based on the condition that corresponded to the highest emissions standard.

G. Excess Emissions - SO_2 [40 CFR Part 60, Subpart KKKK, ~~Section~~ §60.4385]

If the option to monitor the sulfur content of the fuel is chosen, excess emissions and monitoring downtime are defined as:

1. For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

2. If the option to sample each delivery of fuel oil has been selected, immediate switching to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) shall be done if the sulfur content of a delivery exceeds 0.05 weight percent. You must continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and you must evaluate excess emissions according to paragraph (a) of this section. When all of the fuel from the delivery has been burned, you may resume using the as-delivered sampling option.

3. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.

H. Recordkeeping ***[Mandated by 40 CFR §70.6(a)(3)]*** (Code §3-1-083)

1. Permittee shall maintain at the source, a file of all measurements, including monitoring system, monitoring device, and performance testing measurements; all monitoring system performance evaluations; all monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required pursuant to any federally enforceable provision of this permit, recorded in a permanent form suitable for inspection.

2. Permittee shall record the following in a permanent logbook, which may be in written or digital form, for inclusion in the semi-annual report:

   a. Monthly emissions of nitrogen oxides, carbon monoxide, particulate matter (PM_{10}), volatile organic compounds, and sulfur dioxide,

   b. Total natural gas burned.

   c. CT run times.

   d. The number of start-up and shut-down cycles for each CT unit.

   e. Any malfunction in the operation of the permitted facility or any air pollution control equipment.

   f. Maintain records of all the diesel shipments received for the fire pump engine.

   g. Maintain operational hours of the fire pump engine.

   h. Date and duration of the water washes.

   i. Total net electrical output generated.

2. The permittee shall document the drift specification for the drift eliminators used to control particulate matter emissions from WSAC1 through WSAC6 units from the manufacturer’s specification or other engineering information.

3. Recordkeeping for HAPs

a. Pursuant to Section §5.F of this permit, the Permittee shall generate a record each calendar month of HAP emissions from all units for the previous month and for the preceding 12-consecutive months. The Permittee shall maintain a record of the emissions quantities for those monthly and rolling 12-month period total calculations, to demonstrate compliance with the emission limitations under Section §5.F of this permit.

c. Pursuant to Section §5.F.2 of this permit, emissions calculations for all units shall be based on fuel usage and the appropriate emission factor from the EPA's online emission factor repository, retrieval, and development tool (WebFIRE).

5. Recordkeeping of Periodic Facility-Wide Activities (§3-1-081.A.3.b)

Each time an abrasive blasting or spray painting project is conducted, Permittee shall record the following:

a. Date the project was conducted;

b. Duration of the project;

c. Type of control measures employed; and

d. Material Safety Data Sheets for all paints and solvents used in the project.

6. All information required pursuant to any federally enforceable provision of this permit, recorded in a permanent form suitable for inspection.

I. Semi-Annual Compliance Reporting ***[Mandated by 40 CFR §§70.6(a)(3) and 70.6(c)(4)]*** (Code §3-1-083.A)

In order to demonstrate compliance with the provisions of this permit, the Permittee shall submit a semi-annual report containing the information required to be recorded pursuant to this permit. The report shall be submitted to the District within 30 days after the end of each calendar half.

J. Regular Compliance/Compliance Progress Certification ***[Mandated by 40 CFR §§70.5(c)(8), 70.5(c)(9), 70.6(c)(4), 70.6(c)(5)]***

Permittee shall annually submit a certification of compliance with the provisions of this permit to the Control Officer, and also to the Administrator of the US EPA. The certification shall:

1. Be signed by a responsible official, namely the president, secretary, treasurer or vice-president of the corporation, the director of fossil generation, the plant manager, or such other person as may be approved by the Control Officer as an administrative amendment to this permit;
2. Identify each term or condition of the permit that is the basis of the certification;
3. Verify the compliance status with respect to each such term or condition;
4. Verify whether compliance with respect to each such term or condition has been continuous or intermittent;
5. Identify the permit provision, or other compliance mechanism upon which the certification is based; and
6. Be postmarked within thirty (30) days of the start of each calendar year.

7. Other Reporting Obligations

A. Supplemental Upset Reports ***[Mandated by 40 CFR §§70.6(a)(3)(iii)(B), 70.6(g)]***

Permittee shall report any deviation from the requirements of this permit along with the probable cause for such deviation, and any corrective actions or preventative measures taken to the District within fifteen days of the deviation unless earlier notification is required by the provisions of this permit.

B. Reconstruction Reporting ***[40 CFR Part 60, Subpart A, Code §6-1-030.1 and a delegation from the EPA Administrator dated 2/24/93]***

If the Permittee proposes to replace components of any of the CTs, such that the capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new unit, the Permittee shall notify the District of the proposed replacements. The notice shall be postmarked 60 days (or as soon as practicable) before construction is commenced, and must include the information required under 40 CFR §60.15(d) (1993).

C. NSPS Notification ***[40 CFR Part 60, Subpart A]***

Permittee shall provide notifications required by 40 CFR Part 60, Subpart A, pertaining to installation of, modification of, or a change in the method of operation of NSPS-affected units in a manner that will cause an increase in emissions of a regulated pollutant.

D. Reporting Requirements [40 CFR Part 60, Subpart KKKK, Section §60.4375]

1. For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, reports of excess emissions and monitor downtime shall be submitted in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.

3. For each affected unit that performs annual performance tests in accordance with § 60.4340(a), a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test shall be submitted.

8. Fee Payment *[Mandated by 40 CFR §§70.6(a)(7), 70.9]* (Code §3-1-081.A.9)

As an essential term of this permit, an annual permit fee shall be assessed by the District and paid by Permittee in accord with the provisions of Code Chapter 3, Article 7 generally, and Code §3-1-081.A.9. specifically. The annual permit fee shall be due on or before the anniversary date of the issuance of an individual permit, or formal grant of approval to operate under a general permit. The District will notify the Permittee of the amount to be due, as well as the specific date on which the fee is due.

9. General Conditions

A. Term *[Mandated by 40 CFR §70.6(a)(2)]* (Code §3-1-089)

This permit shall have a term of five (5) years, measured from the date of issuance.

B. Basic Obligation *[Mandated by 40 CFR §§70.4(b)(15), 70.6(a)(6(I), 70.6(a)(6)(ii), 70.7.b]* (Code §3-1-081.)

1. The owner or operator ("Permittee") of the facilities shall operate them in compliance with all conditions of this permit, the Pinal County Air Quality Control District ("the District") Code of Regulations ("Code"), and consistent with all State and Federal laws, statutes, and codes relating to air quality that apply to these facilities. Any permit noncompliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application and may additionally constitute a violation of the Clean Air Act (1990).

2. All equipment, facilities, and systems used to achieve compliance with the terms and conditions of this permit shall at all times be maintained and operated in good working order.

3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

C. Duty to Supplement Application *[Mandated by 40 CFR §§70.5(b), 70.6(a)(6)(v)]* (Code §3-1-081.A.8.e.)

Even after the issuance of this permit, a Permittee, who as an applicant who failed to include all relevant facts, or who submitted incorrect information in an application, shall, upon becoming award of such failure or incorrect submittal, promptly submit a supplement to the application, correcting such failure or incorrect submittal. In addition, Permittee shall furnish to the District within thirty days any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit and/or the Code.

D. Right to Enter *[Mandated by 40 CFR §70.6(c)(2)]* (Code §§ 3-1-083.A.6, 3-1-132)

Authorized representatives of the District shall, upon presentation of proper credentials, be allowed:

1. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this permit;

2. To inspect any equipment, operation, or method required in this permit;

3. To sample emissions from the source.

4. To have access to and copy, at reasonable times, any records that are required to be kept under the terms of this permit; and

5. To record any inspection by use of written, electronic, magnetic and photographic media.

E. Transfer of Ownership *[Mandated by 40 CFR §70.7(d)(4)]* (Code §3-1-090)

This permit may be transferred from one person to another by notifying the District at least 30 days in advance of the transfer. The notice shall contain all the information and items required by Code § 3-1-090. The transfer may take place if not denied by the District within 10 days of the receipt of the transfer notification.

F. Posting of Permit (Code §3-1-100)

Permittee shall firmly affix the permit, an approved facsimile of the permit, or other approved identification bearing the permit number, upon such building, structure, facility or installation for which the permit was issued. In the event that such building, structure, facility or installation is so constructed or operated that the permit cannot be so placed, the permit shall be mounted so as to be clearly visible in an accessible place within a reasonable distance of the equipment or maintained readily available at all times on the operating premises.

G. Permit Revocation for Cause *[Mandated by 40 CFR §70.6(a)(6)(iii)]* (Code §3-1-140)

The Director of the District ("Director") may issue a notice of intent to revoke this permit for cause pursuant to Code §3-1-140, which cause shall include occurrence of any of the following:

1. The Director has reasonable cause to believe that the permit was obtained by fraud or material misrepresentation;

2. Permittee failed to disclose a material fact required by the permit application form or a regulation applicable to the permit;

3. The terms and conditions of the permit have been or are being violated.

H. Application Certification *[Mandated by 40 CFR §70.5)(d)]* (Code §§ 3-1-050. & 3-1-070.)

All representations with regard to construction plans, operating parameters, and operational procedures in the application for the permit are conditions upon which this permit is issued. Except as provided in Code §3-2-180, any variance from such representation if the change will cause a change in the method of control of emissions, the emission of any new regulated air pollutant in excess of the 5.5 pound-per-day *de minimis* amount defined in Code §1-3-140.37, or will result in an increase in the discharge of regulated air pollutants will be considered a violation of this permit unless the Permittee first applies for a permit, permit revision, or permit amendment, or provides advance notification of the change to the extent required by Code Chapter 3, Article 2.

I. Permit Expiration and Renewal *[Mandated by 40 CFR §§70.5(a)(1)(iii), 70.7.(c))]* (Code §3-1-050.C.2)

Expiration of this permit will terminate the facility's right to operate unless either a timely application for renewal has been submitted in accordance with §§3-1-050, 3-1-055 and 3-1-060, or a substitute application for a general permit under §3-5-490. For Class I permit renewals, a timely application is one that is submitted at least 6 months, but not greater than 18 months prior to the date of the permit expiration. For Class II or Class III permit renewals, a timely application is one that is submitted at least 3 months, but not greater than 12 months prior to the date of permit expiration.

J. Severability *[Mandated by 40 CFR §70.6(a)(5)]* (Code §3-1-081.A.7)

Pursuant to Code § 3-1-081.A.7., the provisions of this permit are severable, and if any provision of this permit is held invalid the remainder of this permit shall not be affected thereby.

K. Permit Shield *[Mandated by 40 CFR §70.6(f)]* (Code § 3-1-102.)

1. Generally

Subject to the following schedule of exclusions, compliance with the terms of this permit shall be deemed compliance with any applicable requirement identified in Section §2 of this permit. The permit-shield exclusions include:

a. PGCAQCD Rule §7-3-1.3 Open Burning;

b. PGCAQCD Rule §7-3-4.1 Industrial - Carbon Monoxide Emissions.

c. Items listed in Section 10 of this permit as not being federally enforceable.

2. Additional Inclusions under the Permit Shield

The permit shield also extends to the following provisions of the code, due to a finding by the Control Officer of non-applicability:

a. Code §§5-22-950, 5-22-960 & 5-22-970, all dealing with Fossil Fuel-Fired Steam Generators.

L. Permit Revisions *[Mandated by 40 CFR §70.7(d), 70.7(e)]* (Code Chapter 3, Article 2, specifically Code §3-1-081.A.8.c)

1. This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

2. The permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit.

3. Permit amendments, permit revisions, and changes made without a permit revision shall conform to the requirements in Article 2, Chapter 3, of the Code.

4. Should this source become subject to a standard promulgated by the Administrator pursuant to CAA §112(d), then Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard. (Code §3-1-050.C.5)

5. Revision to Permit Provisions Designated as Federally Enforceable Pursuant to Code §3-1-084 *[Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)]*

As an express condition of preserving the federal enforceability of any provision of this permit designated "federally enforceable" pursuant to Code §3-1-084, Permittee shall not make any facility allowed change that would contravene such provision, until thirty (30) days after the Permittee has previously furnished notice of the proposed change to the District and to the Administrator, to thereby allow the Administrator opportunity to

comment upon the continued "federal enforceability" of the subject provision after the proposed change.

M. Permit Re-opening *[Mandated by 40 CFR §§70.6(a)(6)(iii), 70.7(f), 70.7(g)]* (Code §3-1-087.)

1. This permit shall be reopened if:

a. Additional applicable requirements under the Clean Air Act (1990) become applicable to this source, and on that date, this permit has a remaining term of three or more years. Provided, that no such reopening under this subparagraph is required if the effective date of the newly applicable requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to Code §3-1-089.C.

b. The Control Officer determines that it contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of it;

c. The Control Officer determines that it needs to be revised or revoked to assure compliance with the applicable requirements; or

d. The EPA Administrator finds that cause exists to terminate, modify, or revoke and reissue this permit.

2. If this permit must be reopened or revised, the District will notify the permittee in accord with Code §3-1-087.A.3.

N. Record Retention *[Mandated by 40 CFR §70.6(a)(3)(ii)(B)]* (Code §3-1-083.A.2.b)

Permittee shall retain for a period of five (5) years all documents required under this permit, including reports, monitoring data, support information, calibration and maintenance records, and all original recordings or physical records of required continuous monitoring instrumentation.

O. Scope of License Conferred *[Mandated by 40 CFR §70.6(a)(6)(iv)]* (Code §3-1-081.A.8.d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

P. Excess Emission Reports; Emergency Provision *[Mandated by 40 CFR §70.6(g)]* (Code §3-1-081.E, Code §8-1-030)

1. To the extent Permittee may wish to offer a showing in mitigation of any potential penalty, underlying upset events resulting in excess emissions shall reported as follows:

a. The permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. Such report shall be in two parts:

i. Notifications by telephone or facsimile within 24 hours or the next business day, whichever is later, of the time when the owner or operator first learned of the occurrence of excess emissions, including all available information required under subparagraph b. below.

ii. Detailed written notification within 3 working days of the initial occurrence containing the information required under subparagraph b. below.

b. The excess emissions report shall contain the following information:

i. The identity of each stack or other emission point where the excess emissions occurred.

ii. The magnitude of the excess emissions expressed in the units of the applicable limitation.

iii. The time and duration or expected duration of the excess emissions.

iv. The identity of the equipment from which the excess emissions occurred.

v. The nature and cause of such emissions.

vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.

vii. The steps that were or are being taken to limit the excess emissions. To the extent this permit defines procedures governing operations during periods of start-up or malfunction, the report shall contain a list of steps taken to comply with this permit.

viii. To the extent excess emissions are continuous or recurring, the initial notification shall include an estimate of the time the excess emissions will continue. Continued excess emissions beyond the estimated date will require an additional notification.

2. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

3. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of the following subparagraph are met.

4. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

d. The Permittee submitted notice of the emergency to the Control Officer by certified mail or hand delivery within 2 working days of the time when emissions limitations were exceeded due to emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

Q. Emission Inventory (Code §3-1-103)

Permittee shall annually prepare and submit an emission inventory of actual emissions. In order of preference, the inventory shall be based on:

1. CEMs data where available;

2. Mass balance analysis based on fuel testing for sulfur;

3. SO_2 quantification conventions allowed under 40 CFR Part 75, Appendix D;

4. Parametric monitoring of fuel or other throughput parameters, coupled with AP-42 emission factors, based on the latest edition and supplement for AP-42;

5. Parametric monitoring of fuel or other throughput parameters, coupled with performance test data for the emission unit in question;

6. Other rational analysis.

10. Additional Provisions Applicable to Title V Sources (Code §3-1-081.B.2)

Subject to the following specific exclusions, all terms and conditions of this permit are enforceable by the Administrator and citizens under the Clean Air Act. The exclusions include:

A.	Section 1	Introduction
B.	Section 4	Authority to Construct
C.	Section 5.C.2	Emission Limitation - NO_x Emission Concentration
D.	Section 5.D	Start-up Shutdown Limitations
E.	Section 5.K	Fuel Use Limitations
F.	Section 9.F	Posting of Permit

11. Equipment Schedule *[Mandated by 40 CFR §70.5(c)(3)(iii)]* (Code §3-1-040.A)

Equipment for which emissions are allowed by this permit are as follows:

ID#	Equipment	Manufacturer	Capacity

Combustion Turbine Generators CT01 –CT12	LM6000 Combustion Turbines	General Electric	48 MW each
~~CT02~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT03~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT04~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT05~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT06~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT07~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT08~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT09~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT10~~	~~LM6000 Combustion~~	~~General Electric~~	~~48 MW~~
~~CT11~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
~~CT12~~	~~LM6000 Combustion Turbine~~	~~General Electric~~	~~48 MW~~
Combustion Turbines ~~Generators~~ CT13-CT24	LM6000PC Combustion Turbines	General Electric	49.5 MW each (site rating)
WSAC1-WSAC6	Wet Surface Air Coolers		10,600 gpm
	Emergency Fire Pump		190 HP

12. Insignificant Activities [Mandated by 40 CFR §70.5.(C) [Code §3-1-050.E]

Permittee has disclosed the following insignificant activities in the permit application:

A. Short term maintenance activities including but not limited to:

1. Abrasive blasting

2. Painting

3. Solvent use

4. Steam cleaning

5. Equipment removal and replacement

6. Welding, brazing and soldering operations

B. Operation of oil/water systems/scrubber liquid systems.

C. Operation of cooling water, plant water, wastewater and other water systems.

D. Emissions from testing and sampling.

E. Emissions from oil systems and tanks.

F. Cathodic protection system.

G. Storage of chemicals and fuels.

H. Operation of battery systems.

I. Operation of emergency and standby equipment rated at less than 325 brake horsepower and used less than 72 hours per year.

Appendix A

Semi-annual Report

Permit V20676.R02 ~~A01~~

Abstract

This constitutes an outline of semi-annual report regarding required monitoring, documenting emissions during the subject reporting period. This constitutes a guide only, and is not meant to in any way absolve the permittee of the full burden of the reporting requirements defined in the permit.

Facility - Salt River Project Agricultural Improvement and Power District
Coolidge Generating Station
859 East Randolph Road, Coolidge, AZ

Reporting Period - January-June ___ or July-December ___ Year_____

Fuel Consumption Report

Natural gas burned during reporting period - _____ therms

Diesel fuel burned during reporting period - _____ gallons

Operations Report

Power generated during reporting period (CT01-CT12) - _____ net megawatt-hours

Power generated during reporting period (CT13-CT24) - _____ net megawatt-hours

Compliance Report

CT01 - "normal" run time - _____ hours

CT02 - "normal" run time - _____ hours

CT03 - "normal" run time - _____ hours

CT04 - "normal" run time - _____ hours

CT05 - "normal" run time - _____ hours

CT06 - "normal" run time - _____ hours

CT07 - "normal" run time - _____ hours

CT08 - "normal" run time - _____ hours

CT09 - "normal" run time - _____ hours

CT10 - "normal" run time - _____ hours

CT11 - "normal" run time - _____ hours

CT12 - "normal" run time - _____ hours

CT13 - "normal" run time - _____ hours

CT14 - "normal" run time - _____ hours

CT15 - "normal" run time - _____ hours

CT16 - "normal" run time - _____ hours

CT17 - "normal" run time - _____ hours

CT18 - "normal" run time - _____ hours

CT19 - "normal" run time - _____ hours

CT20 - "normal" run time - _____ hours

CT21 - "normal" run time - _____ hours

CT22 - "normal" run time - _____ hours

CT23 - "normal" run time - _____ hours

CT24 - "normal" run time - _____ hours

Operational hours of the fire pump engine - _____ hours

Emissions Report

Emissions of nitrogen oxides - _____ tons

Emissions of carbon monoxide - _____ tons

Emissions of particulate matter PM_{10} - _____ tons

Emissions of particulate matter $PM_{2.5}$ - _____ tons

Emissions of volatile organic compounds - _____ tons

Emissions of sulfur dioxide - _____ tons

Other Reporting Requirements

~~On a separate sheet, describe and explain any monitoring activity or recordkeeping that occurred with respect to the Asbestos NESHAP or Stratospheric Ozone requirements respectively defined in §§5.L.1 and 5.L.2 of the permit during the reporting period. Is such a supplemental disclosure attached? .....Yes / No~~

~~On a separate sheet, describe and explain any previously un-reported deviations from the terms of this permit. Is such a supplemental disclosure attached? .....Yes / No~~

Pursuant to the NO_x emission limitations of §§5.C.2 and 5.D.2, did the monitoring requirements under §6.E.1 show continuous compliance during the reporting period?.....Yes / No

Pursuant to the SO_2 emission limitations of §5.C.5, did the monitoring requirements under §6.E.6 show continuous compliance during the reporting period? ..... Yes / No

Pursuant to §6.D.1.a, have monthly rolling averages of power production, calculated as a function of baseload, been maintained? ..... Yes / No

Pursuant to §6.E.2.d, were CO CEMS evaluated daily while in operation? ..... Yes / No

Have opacity screens been performed pursuant to §6.E.7? ..... Yes / No

Pursuant to §6.E.6, has natural gas sulfur content been monitored either by:

- maintaining a contractual commitment to purchase only conforming pipeline natural gas? ..... Yes / No
- testing and analyzing gas on a quarterly basis? ..... Yes / No

Have repair logs been maintained pursuant to §6.E.10? ..... Yes / No

Have records of shipment identifying the sulfur content of the diesel fuel maintained as required under Section §6.E.9.a.i of this permit? ..... Yes / No

Pursuant to § 6.E.10.c, were records of the non-emergency operation of the diesel-driven fire pump maintained during the reporting period? ..... Yes / No

Were any water washes performed during the reporting period? ..... Yes / No

Duration of the water washes_____ minutes

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, that the statements and information in this report are true, accurate and complete.

Signed_____

Print Name_____

Title_____

Contact Phone Number_____

Date_____

Email to: compliancereports@pinal.gov, or

Mail to: Pinal County Air Quality Control District
P.O. Box 987
Florence, AZ 85132