MARICOPA COUNTY AIR QUALITY DEPARTMENT (MCAQD)
301 W. Jefferson St., Suite 410
Phoenix, Arizona 85003
602-506-6010
602-506-6985 (FAX)

TITLE V AIR QUALITY OPERATING PERMIT

Facility Number:	F000040	Original Issue Date:	02/11/2000
Permit Number:	P0011682	Revision Date:	10/01/2025
		Expiration Date:	09/28/2026

Permittee Name:	ARIZONA PUBLIC SERVICE
Mailing Address:	11600 S 363RD AVENUE, ARLINGTON AZ 85322
Business Name:	REDHAWK GENERATING FACILITY
Facility Address:	11600 S 363RD AVENUE, ARLINGTON AZ 85322.

Equipment and Processes Covered: The Redhawk Generating Facility is an electrical power generation plant. The facility consists of four combustions turbines, four duct burners, two steam turbines, and associated equipment. The facility requires a Title V Permit because it exceeds the major source threshold for nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter (PM_{10}), and volatile organic compounds (VOC) emissions and it is subject to the federal Acid Rain Program.

This Permit is issued in accordance with Maricopa County Air Pollution Control Regulations, Rule 200, §301, and Arizona Revised Statutes (A.R.S), §49-404c and §49-480. The attached Permit Conditions are incorporated into and form an integral part of this Permit. The Permit is issued to provide regulators, site operators or owners, and members of the public, a clear picture of what the Permit holder is required to do to meet applicable requirements. As the Permit holder, you are expected to review this Permit, become familiar with its provisions and conditions and to operate in conformance with them. This Permit is an enforceable document. Failure to conform to the emission limits and any other condition contained in the Permit is a violation of law and will form the basis of enforcement action by the department which may include civil or criminal sanctions.

If the MCAQD Control Officer determines that additional monitoring, sampling, modeling and/or control of emissions from the facility may reasonably be needed to provide for the continued protection of public health, safety and/or welfare, the MCAQD Control Officer will amend the provisions of this Permit. This Permit may be subject to suspension or revocation for cause including nonpayment of fees, noncompliance with Arizona State Statutes, Maricopa County Air Quality Regulations, or the attached Permit Conditions, or if the MCAQD Control Officer determines that significant misrepresentation exists in the application and supporting documentation filed to obtain or modify this Permit.

DocuSigned by:
Philip McNeely
E2594C67E0C0400...

Philip A. McNeely, R.G.
Maricopa County Air Quality Control Officer

TABLE OF CONTENTS

GENERAL CONDITIONS....3
1. AIR POLLUTION PROHIBITED:....3
2. CIRCUMVENTION:....3
3. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS:....3
4. COMPLIANCE REQUIRED:....3
5. CONFIDENTIALITY CLAIMS:....4
6. CONTINGENT REQUIREMENTS:....4
7. DUTY TO SUPPLEMENT OR CORRECT APPLICATION:....5
8. EMERGENCY EPISODES:....5
9. EMERGENCY PROVISIONS:....5
10. EXCESS EMISSIONS:....6
11. FEES:....6
12. MODELING:....6
13. MONITORING AND TESTING:....6
14. PERMITS:....6
15. RECORDKEEPING:....10
16. REPORTING:....10
17. RIGHT TO ENTRY AND INSPECTION OF PREMISES:....13
SPECIFIC CONDITIONS....13
18. ALLOWABLE EMISSION LIMITATIONS:....14
19. OPERATIONAL LIMITATIONS AND REQUIREMENTS:....21
20. MONITORING AND RECORDKEEPING REQUIREMENTS:....32
21. REPORTING REQUIREMENTS:....38
22. TESTING REQUIREMENTS:....40
23. OTHER REQUIREMENTS:....45
24. RULE 310: FUGITIVE DUST FROM DUST-GENERATING OPERATING OPERATIONS....46
APPENDIX A – EQUIPMENT LIST....51

In accordance with Maricopa County Air Pollution Control Rules and Regulations (Rules), Rule 210 §302.2, all Conditions of this Permit are federally enforceable unless they are identified as being locally enforceable only. However, any Permit Condition identified as locally enforceable only will become federally enforceable if, during the term of this Permit, the underlying requirement becomes a requirement of the Clean Air Act (CAA) or any of the CAA's applicable requirements.

All federally enforceable terms and conditions of this Permit are enforceable by the Administrator of the United States Environmental Protection Agency (Administrator or Administrator of the USEPA hereafter) and citizens under the CAA.

Any cited regulatory paragraphs or section numbers refer to the version of the regulation that was in effect on the first date of public notice of the applicable Permit Condition unless specified otherwise. In the event the rules and regulations are amended during the term of this Permit, the amended rules and regulations shall apply.

GENERAL CONDITIONS

1. AIR POLLUTION PROHIBITED:

The Permittee shall not discharge from any source whatever into the atmosphere regulated air pollutants which exceed in quantity or concentration that specified and allowed in the County or SIP Rules, the Arizona Administrative Code (A.A.C) or the Arizona Revised Statutes (A.R.S), or which cause damage to property or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the Maricopa County Board of Supervisors or the Director of the Arizona Department of Environmental Quality (ADEQ).

[SIP Rule 100 § 301]

2. CIRCUMVENTION:

The Permittee shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of regulated air pollutants to the atmosphere, conceals or dilutes an emission which would otherwise constitute a violation of this Permit or any Rule or any emission limitation or standard. The Permittee shall not circumvent the requirements concerning dilution of regulated air pollutants by using more emission openings than is considered normal practice by the industry or activity in question.

[SIP Rule 100 § 104]

3. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS:

Any application form, report, or compliance certification submitted under County or Federal Rules or these Permit Conditions shall contain certification by a responsible official of truth, accuracy, and completeness of the application form or report as of the time of submittal. This certification and any other certification required under County or Federal Rules or these Permit Conditions shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[SIP Rule 100 § 401] [SIP Rule 210 § 301.7]

4. COMPLIANCE REQUIRED:

a. The Permittee shall comply with all conditions of this permit and with all applicable requirements of Arizona air quality statutes and the air quality rules. Compliance with permit terms and conditions does not relieve, modify, or otherwise affect the Permittee's duty to comply with all applicable requirements of Arizona air quality statutes and the Maricopa County Air Pollution Control Regulations. 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. Noncompliance with any federally enforceable requirement in this Permit constitutes a violation of the Act.

[SIP Rule 200 § 310.3, 310.4]

b. The Permittee shall halt or reduce the permitted activity in order to maintain compliance with applicable requirements of Federal laws, Arizona laws, the County Rules, or other conditions of this Permit.

[SIP Rule 210 §302.1(h)(2)]

c. For any major source operating in a nonattainment area for any pollutant(s) for which the source is classified as a major source, the source shall comply with reasonably available control technology (RACT) as defined in Rule 100.

[SIP Rule 210 §302.1(h)(6)]

d. For any major source operating in a nonattainment area designated as serious for PM_{10}, for which the source is classified as a major source for PM_{10}, the source shall comply with the best available control technology (BACT), as defined in Rule 100 for PM_{10}.

[SIP Rule 210 §302.1(h)(7)]

e. COMPLIANCE PLAN: Based on the certified information contained in the application for this Permit, the facility is in compliance with all applicable requirements in effect as of the first date of public notice of the proposed conditions for this Permit unless a Compliance Plan is included in the Specific Conditions of this Permit. The Permittee shall continue to comply with all applicable requirements and shall meet any applicable requirements that may become effective during the term of this permit on a timely basis.

[SIP Rule 210 §305.1(g)]

5. CONFIDENTIALITY CLAIMS:

a. Any records, reports or information obtained from the Permittee under the County Rules or this Permit shall be available to the public, unless the Permittee files a claim of confidentiality in accordance with ARS §49-487(c) that:

i. Precisely identifies the information in the permit(s), records, or reports that is considered confidential, and

ii. Provides sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position. The claim of confidentiality is subject to the determination by the Control Officer as to whether the claim satisfies these requirements.

b. A claim of confidentiality shall not excuse the Permittee from providing any and all information required or requested by the Control Officer and shall not be a defense for failure to provide such information.

c. If the Permittee submits information with an application under a claim of confidentiality pursuant to ARS §49-487 and Rule 200, the Permittee shall submit a copy of such information directly to the Administrator of the USEPA.

[SIP Rule 100 § 402] [SIP Rule 200 § 411] [SIP Rule 210 § 301.5]

6. CONTINGENT REQUIREMENTS:

NOTE: This Permit Condition covers activities and processes addressed by the CAA which may or may not be present at the facility.

a. ASBESTOS:

The Permittee shall comply with the applicable requirements of 40 CFR §§ 61.145 through 61.147 and 61.150 of the National Emission Standard for Asbestos and Rule 370 for all demolition and renovation projects.

[40 CFR Part 61 Subpart M] [Rule 370 §301.9]

b. RISK MANAGEMENT PLAN (RMP):
Should this stationary source, as defined in 40 CFR 68.3, be subject to the accidental release prevention regulations in 40 CFR Part 68, then the Permittee shall submit an RMP by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70. However, neither the RMP nor modifications to the RMP shall be considered to be a part of this Permit.

[40 CFR 68]

c. STRATOSPHERIC OZONE PROTECTION:
If applicable, the Permittee shall

i. Follow the requirements of 40 CFR 82.100 through 82.124 with respect to the labeling of products using ozone depleting substances.

ii. If applicable, the Permittee shall comply with all of the following requirements with respect to recycling and emissions reductions for Class I and Class II Refrigerants and their substitutes:

1) All Persons opening and disposing of appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

2) Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR 82.158.

3) Equipment testing organizations must comply with 40 CFR 82.160.

4) Persons performing maintenance, service, repair, or disposal of appliances must be certified pursuant to 40 CFR 82.161.

5) Certification requirements of 40 CFR 82.162 and 82.164, as applicable.

6) Reporting and Recordkeeping requirements in 40 CFR 82.166.

iii. Follow the requirements of 40 CFR Part 82 Subpart G, including all Appendices, with respect to the safe alternatives policy on the acceptability of substitutes for ozone-depleting compounds.

[40 CFR 82 Subparts E, F, and G]

7. DUTY TO SUPPLEMENT OR CORRECT APPLICATION:
If the Permittee fails to submit any relevant facts or has submitted incorrect information in a permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.

[SIP Rule 210 §301.6]

8. EMERGENCY EPISODES:
If an air pollution alert, warning, or emergency has been declared, the Permittee shall comply with any applicable requirements of Rule 600 §302.

[Rule 600 §302] [SIP Rule 600 §302]

9. EMERGENCY PROVISIONS:
An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this 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.

[Rule 130 §201] [Locally Enforceable Only]

10. EXCESS EMISSIONS:

There are reporting requirements associated with excess emissions. These requirements are contained in Permit Condition 16.f in a subparagraph called Excess Emissions Reporting. The definition of excess emissions can be found in Rule 100 §200.

[SIP Rule 100 § 502] [Rule 140 § 500]

11. FEES:

The Permittee shall pay fees to the Control Officer pursuant to ARS §49-480(D) and Rule 280. No permit or permit revision is valid until the applicable permit fee has been received and until the permit is issued by the Control Officer.

[SIP Rule 200 § 409] [SIP Rule 210 § 401] [Rule 280 § 302] [SIP Rule 28] [A.R.S. 49-480(D)]

12. MODELING:

The Permittee shall perform any required modeling in a manner consistent with 40 CFR 51, Appendix W, "Guideline on Air Quality Models". For minor New Source Review, the Permittee shall perform air quality impact modeling in a manner consistent with “MCAQD Minor New Source Review Air Dispersion Modeling Guideline”. Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted if found to be acceptable to the Control Officer.

[40 CFR Part 51 App. W] [SIP Rule 200 §407]

13. MONITORING AND TESTING:

a. MONITORING REQUIRED: The Permittee shall monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to the facility if required to do so by the Control Officer, either by Permit or by order in accordance with Rule 200 §310.

[SIP Rule 200 §310] [SIP Rule 41.A]

b. TESTING REQUIRED: Except as otherwise specified in these Permit Conditions or by the Control Officer, the Permittee shall conduct required testing used to determine compliance with standards or permit conditions established pursuant to the County or SIP Rules or these Permit Conditions in accordance with Rule 270.

[SIP Rules 200 § 408] [SIP 200 § 310.1] [Rule 270 §§ 301, 401]

c. TESTING FACILITIES: The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

i. Sampling ports adequate for test methods applicable to such source.

ii. Safe sampling platform(s).

iii. Safe access to sampling platforms(s).

iv. Utilities for sampling and testing equipment.

[Rule 270 §405] [SIP Rule 42]

14. PERMITS:

a. BASIC:

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.

[SIP Rule 200 §§ 310.4, 402.1(a), 402.3] [SIP Rule 210 § 302.1(h)(3)]

b. PERMITS AND PERMIT CHANGES, AMENDMENTS AND REVISIONS:

i. The Permittee shall comply with the Administrative Requirements of Section 400 of Rule 210 for all

changes, amendments and revisions at the facility for any source subject to regulation under Rule 200, shall comply with all required time frames, and shall obtain any required preapproval from the Control Officer before making changes. All applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision including information listed in Rule 200 §309 and Rule 210 §301.

[SIP Rule 200 §§ 301, 309] [SIP Rule 210 §§ 301,400]

ii. The Permittee shall supply a complete copy of each application for a permit, a minor permit revision, or a significant permit revision directly to the Administrator of the USEPA. The Control Officer may require the application information to be submitted in a computer-readable format compatible with the Administrator's national database management system.

[SIP Rule 210 §§ 303.1(a), 303.2]

iii. While processing an application, the Control Officer may require the applicant to provide additional information and may set a reasonable deadline for a response. If, while processing an application that has been determined or deemed to be complete, the Control Officer determines that additional information is necessary to evaluate or to take final action on that application, the Control Officer may request such information in writing and may set a reasonable deadline for a response.

[SIP Rule 210 § 301.4(f)]

iv. No permit revision shall be required pursuant to any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

[SIP Rule 210 §§ 302.1(j), 403]

c. POSTING:

i. The Permittee shall keep a complete permit clearly visible and accessible on the site where the equipment is installed.

[SIP Rule 200 § 312]

ii. Any approved Dust Control Plan or Dust Control Permit required by Rule 310 shall be posted in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise be kept available on site at all times.

[Rule 310 § 409] [SIP Rule 310 § 409]

d. PROHIBITION ON PERMIT MODIFICATION:
The Permittee shall not willfully deface, alter, forge, counterfeit, or falsify this permit.

[SIP Rule 200 § 311]

e. RENEWAL:

i. The Permittee shall submit an application for the renewal of this Permit through the AQD Online Portal (IMPACT) in a timely and complete manner. If IMPACT is not accessible, the Permittee may submit the application through alternative means (such as certified mail, facsimile, email, or hand delivery). The Permittee shall file all permit applications in the manner and form prescribed by the Control Officer. For purposes of permit renewal, a timely application is one that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. A complete application shall contain all of the information required by the County Rules including Rule 200 §309 and Rule 210 §§301 & 302.3.

[SIP Rule 200 § 309] [SIP Rule 210 §§ 301.1, 301.2]

ii. If the Permittee submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit,

then the permit shall not expire until the renewal permit has been issued or denied. This protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application.

[SIP Rule 200 § 403.2] [SIP Rule 210 §§ 301.4(f) and 301.9]

f. REVISION / REOPENING / REVOCATION:

i. If the Permittee becomes subject to a standard promulgated by the Administrator under Section 112(d) of the CAA, the Permittee shall, within 12 months of the date on which the standard was promulgated, submit an application for a permit revision through the AQD Online Portal (IMPACT) demonstrating how the source will comply with the standard. If IMPACT is not accessible, the Permittee may use alternative means of submittal (such as certified mail, facsimile, email, or hand delivery).

[SIP Rule 210 § 301.2(c)]

ii. This permit shall be reopened and revised to incorporate additional applicable requirements adopted by the Administrator pursuant to the CAA that become applicable to the facility if this permit has a remaining permit term of three or more years and the facility is a major source. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this Permit is due to expire unless the original permit or any of its terms have been extended pursuant to Rule 200 §403.2.

[SIP Rule 200 § 402.1(a)(1)]

Any permit revision required pursuant to this Permit Condition, 14.f.ii, shall reopen the entire permit, shall comply with provisions in Rule 200 for permit renewal, and shall reset the five year permit term.

[SIP Rule 200 § 402.1(a)(1)]

iii. This permit shall be reopened and revised under any of the following circumstances:

1) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Title V permit.

2) The Control Officer or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

3) The Control Officer or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue a permit under this Permit Condition, 14.f.iii, shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the Permit for which cause to reopen exists.

[SIP Rule 200 § 402.1]

iv. This permit shall be reopened by the Control Officer and any permit shield revised when it is determined that standards or conditions in the permit are based on incorrect information provided by the applicant.

[SIP Rule 210 § 407.3]

g. REQUIREMENTS FOR A PERMIT:

i. Except as noted in Sections 403 and 405 of County Rule 210, no source may operate after the time that it is required to submit a timely and complete application, except in compliance with a permit issued under Rule 210. Permit expiration terminates the Permittee's right to operate. However, if a

source submits a timely and complete application, as defined in Rule 210 §301.4, for permit issuance or renewal, the source's failure to have a permit is not a violation of the County Rules until the Control Officer takes final action on the application. The Source's ability to operate without a permit as set forth in this paragraph shall be in effect from the date the application is determined to be complete until the final permit is issued. This protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application.

[SIP Rule 210 § 301.9]

ii. A subcontractor who is engaged in dust-generating operations at a site that is subject to a Dust Control Permit shall register with the Control Officer and follow those registration requirements in Rule 200.

[SIP Rule 200 §§ 306 & 307]

iii. Burn Permit: The Permittee shall obtain a Permit To Burn from the Control Officer before conducting any open outdoor fire except for the activities listed in Rule 314 §303.

[Rule 200 § 308] [SIP Rule 314]

h. RIGHTS AND PRIVILEGES:
This Permit does not convey any property rights nor exclusive privilege of any sort.

[SIP Rule 210 § 302.1(h)(4)]

i. SEVERABILITY:
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.

[SIP Rule 210 § 302.1(g)]

j. SCOPE:
The issuance of any permit or permit revision shall not relieve the Permittee from compliance with any Federal laws, Arizona laws, or the County or SIP Rules, nor does any other law, regulation or permit relieve the Permittee from obtaining a permit or permit revision required under the County Rules.

[SIP Rule 200 § 309]

Nothing in this permit shall alter or affect the following:

i. The provisions of Section 303 of the Act, including the authority of the Administrator pursuant to that section.

ii. The liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

iii. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act.

iv. The ability of the Administrator of the USEPA or of the Control Officer to obtain information from the Permittee pursuant to Section 114 of the Act, or any provision of State law.

v. The authority of the Control Officer to require compliance with new applicable requirements adopted after the permit is issued.

[SIP Rule 210 § 407.2]

k. TERM OF PERMIT:
This Permit shall remain in effect for no more than 5 years from the date of issuance.

[SIP Rule 210 § 402]

l. TRANSFER:
Except as provided in ARS §49-429 and Rule 200, this permit may be transferred to another person if the Permittee gives notice to the Control Officer in writing at least 30 days before the proposed transfer and

complies with the permit transfer requirements of Rule 200 and the administrative permit amendment procedures pursuant to Rule 210.

[SIP Rule 200 §404] [SIP Rule 210 §404]

15. RECORDKEEPING:

a. RECORDS REQUIRED:
The Permittee shall maintain records of all emissions testing and monitoring, records detailing all malfunctions which may cause any applicable emission limitation to be exceeded, records detailing the implementation of approved control plans and compliance schedules, records required as a condition of any permit, records of materials used or produced and any other records relating to the emission of air contaminants which may be requested by the Control Officer.

[SIP Rule 100 § 501]

b. RETENTION OF RECORDS:
Unless a longer time frame is specified by the Rules or these Permit Conditions, the Permittee shall retain information and records required by either the Control Officer or these Permit Conditions as well as copies of summarizing reports recorded by the Permittee and submitted to the Control Officer for 5 years after the date on which the pertinent report is submitted.

[SIP Rule 100 § 504]

c. MONITORING RECORDS:
The Permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or physical records for continuous monitoring instrumentation, and copies of all reports required by the permit. Records of any monitoring required by this Permit shall include the following:

i. The date, place as defined in the permit, and time of sampling or measurements;

ii. The date(s) analyses were performed;

iii. The company or entity that performed the analyses;

iv. The analytical techniques or methods used;

v. The results of such analyses; and

vi. The operating conditions as existing at the time of sampling or measurement.

[SIP Rule 210 §§ 302.1(d),305.1(b)]

d. RIGHT OF INSPECTION OF RECORDS:
When the Control Officer has reasonable cause to believe that the Permittee has violated or is in violation of any provision of Rule 100 or any County Rule adopted under Rule 100, or any requirement of this permit, the Control Officer may request, in writing, that the Permittee produce all existing books, records, and other documents evidencing tests, inspections, or studies which may reasonably relate to compliance or noncompliance with County Rules adopted under Rule 100. No person shall fail nor refuse to produce all existing documents required in such written request by the Control Officer.

[SIP Rule 100 § 106]

16. REPORTING:

NOTE: See Permit Condition 3 in conjunction with reporting requirements.

a. ANNUAL EMISSION INVENTORY REPORT:
Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall complete and shall submit to the Control Officer an annual emissions inventory report. The report is due by April 30 or 90 days after the Control Officer makes the inventory forms available, whichever occurs later. The

annual emissions inventory report shall be in the format provided by the Control Officer and shall be submitted through the AQD Online Portal (IMPACT). If IMPACT is not accessible, the Permittee may use alternative means of submittal (such as certified mail, facsimile, email, or hand delivery). The Control Officer may require submittal of supplemental emissions inventory information forms for air contaminants under ARS §49-476.01, ARS §49-480.03.

[SIP Rule 100 § 505]

b. DATA REPORTING:
When requested by the Control Officer, the Permittee shall furnish information to locate and classify air contaminant sources according to type, level, duration, frequency and other characteristics of emissions and such other information as may be necessary. This information shall be sufficient to evaluate the effect on air quality and compliance with the County or SIP Rules. The Permittee may be required to submit annually, or at such intervals specified by the Control Officer, reports detailing any changes in the nature of the source since the previous report and the total annual quantities of materials used or air contaminants emitted.

[SIP Rule 100 § 502]

c. DEVIATION REPORTING:
The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions. Unless specified otherwise elsewhere in these Permit Conditions, an upset for the purposes of this Permit Condition shall be defined as the operation of any process, equipment or air pollution control device outside of either its normal design criteria or operating conditions specified in this Permit and which results in an exceedance of any applicable emission limitation or standard.

i. For emissions in excess of permit requirements, the Permittee shall notify the Control Officer by email, telephone, or facsimile within 24 hours of knowledge of the deviation. A detailed written deviation report shall be submitted within 72 hours of the notification.

ii. All other deviations that do not result in an exceedance of any applicable emission limitation or standard shall be documented in the same manner, promptly logged in the facility records within 2 working days and included in the next semiannual monitoring report.

The report and documentation in the log shall contain a description of the probable cause of such deviations and any corrective actions or preventive measures taken. In addition, the Permittee shall report within a reasonable time any long-term corrective actions or preventive actions taken as the result of any deviations from permit requirements if applicable. All instances of deviations from the requirements of this Permit shall be clearly identified in the semiannual monitoring reports.

[SIP Rule 210 § 302.1(e)] [Rule 140 § 500]

d. EMERGENCY REPORTING:
The Permittee shall, as soon as possible, telephone the Control Officer giving notice of the emergency and submit notice of the emergency to the Control Officer through the AQD Online Portal (IMPACT) within 2 working days of the time when emission limitations were exceeded due to the emergency. If IMPACT is not accessible, the Permittee may use alternative means of submittal (such as certified mail, facsimile, email, or hand delivery). This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[Rule 130 § 402.4] [Locally Enforceable Only]

e. EMISSION STATEMENTS REQUIRED AS STATED IN THE ACT:
Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall provide the Control Officer with an annual emission statement, in such form as the Control Officer prescribes, showing measured actual emissions or estimated actual emissions. At a minimum the emission statement shall contain all information required by the Consolidated Emissions Reporting Rule in 40 CFR Part 51, Subpart

A, Appendix A, Table 2A. The statement shall contain emissions for the time period specified by the Control Officer. The statement shall also contain a certification by a responsible official of the company that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement.

[SIP Rule 100 § 503]

f. EXCESS EMISSIONS REPORTING:
NOTE: This reporting subsection is associated with Permit Condition 10,Excess Emissions

i. The Permittee shall report to the Control Officer any emissions in excess of the limits established either by the County or SIP Rules or these Permit Conditions. The report shall be in two parts as specified below:

1) Notification by email, telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions. This notification shall include all available information listed in Permit Condition 16.f.ii.

2) A detailed written notification of an excess emissions report shall be submitted through the AQD Online Portal (IMPACT) within 72 hours of the telephone notification in Permit Condition 16.f.i.1). If IMPACT is not accessible, the Permittee may use alternative means of submittal (such as certified mail, facsimile, email, or hand delivery).

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

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

2) The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.

3) The time and duration or expected duration of the excess emissions.

4) The identity of the equipment from which the excess emissions emanated.

5) The nature and cause of such emissions.

6) The steps taken if the excess emissions were the result of a malfunction to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction.

7) The steps that were or are being taken to limit the excess emissions.

8) If this Permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

iii. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the Permittee provides the required notification after excess emissions are first detected and includes in the notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification that meets the criteria of this Permit Condition.

[Rule 140 § 500] [Locally Enforceable Only]

g. OTHER REPORTING:
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 this permit, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by this Permit.

For information claimed to be confidential, the Permittee shall furnish a copy of such records directly to the Administrator along with a claim of confidentiality pursuant to Permit Condition 5.

[SIP Rule 210 §302.1(h)(5)]

17. RIGHT TO ENTRY AND INSPECTION OF PREMISES:

a. The Control Officer during reasonable hours, for the purpose of enforcing and administering County or SIP Rules or the Clean Air Act, or any provision of the Arizona Revised Statutes relating to the emission or control prescribed pursuant thereto, may enter every building, premises, or other place, except the interior of structures used as private residences. Every person is guilty of a petty offense under ARS §49-488 who in any way denies, obstructs or hampers such entrance or inspection that is lawfully authorized by warrant.

b. The Permittee shall allow the Control Officer or his authorized representative, upon presentation of proper credentials and other documents as may be required by law, to:

   i. Enter upon the Permittee's premises where a source is located or emissions-related activity is conducted, or where records are required to be kept pursuant to the conditions of the permit;

   ii. Have access to and copy, at reasonable times, any records that are required to be kept pursuant to the conditions of the permit;

   iii. Inspect, at reasonable times, any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;

   iv. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

   v. Record any inspection by use of written, electronic, magnetic, and photographic media.

[SIP Rule 100 § 105] [SIP Rule 210 § 305.1(f)]

SPECIFIC CONDITIONS

Definitions: For the purpose of these conditions, the following definitions shall apply:

1. "TPY" shall be defined as "tons emitted in any rolling 12-month period, with a new 12-month period beginning on the first day of each calendar month."
2. "O&M Plan" shall be defined as the Operations and Maintenance Plan most recently approved either in writing by the Control Officer or by County Rule.
3. "Normal Operations" shall be defined as the period of operation in which all emission control systems are operating within design specifications, and the turbine control system maintains an "Emissions Compliant Mode" digital signal,
4. "Startup" for CC1A&B and CC2A&B is defined as the period between when a unit is initially started and fuel combustion is indicated until the fuel system confirms, via digital signal, "Emissions Compliant Mode" of operations has been established.
5. "Shutdown" for CC1A&B and CC2 A&B begins when the unit control system confirms, via digital system, that the unit is no longer operating in "Emissions Compliant Mode" and ends when all combustion has ceased or "Emissions Compliant Mode" has been reestablished.
6. "Startup or Shutdown Emission Limit" shall be effective for any clock hour in which startup or shutdown occurs.
7. "Startup" for CT3 – CT10 is defined as the period beginning with the ignition of fuel and ending 30 minutes later.
8. "Shutdown" for CT3 – CT10 is defined as the period beginning with the initiation of the gas turbine

shutdown sequence and lasting until fuel combustion has ceased.

9. "Natural Gas" means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions and which is provided by a supplier through a pipeline. Natural Gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet. Additionally, Natural Gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 Btu per standard cubic foot.
10. "Pipeline Natural Gas" means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline natural gas contains 0.5 grains or less of total sulfur per 100 standard cubic feet. Additionally, pipeline natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1100 Btu per standard cubic foot. (40CFR 72.2 definition)
11. "QA Operating Quarter" is a calendar quarter in which there are at least 168 clock hours during which a turbine combusts any fuel, either for part of the hour or for the entire hour.
12. "Operating Day" is a day is the 24-hour period from 0000 to 2359. Any operating day is any day in which fuel is combusted in a combustion turbine.
13. "TDS" total dissolved solids

18. ALLOWABLE EMISSION LIMITATIONS:

Unless otherwise stated, the PM_{10} emission limits include both solid (filterable) and condensable particulate matter.

The allowable emission limits of these Permit Conditions are based upon the facility as currently permitted. They do not provide for facility changes or changes in the method of operation that would otherwise trigger applicable requirements including New Source Review, Prevention of Significant Deterioration or Best Available Control Technology.

a. FACILITY-WIDE REQUIREMENTS:

i. Facility-Wide Emission Limits:

In addition to emission limits expressed elsewhere in this Permit, the Permittee shall not cause, allow, or permit emissions to exceed the hourly and rolling average limits shown in Tables 1 – 7.

Table 1
Rolling 12-month Average Limits

	Rolling 12-month Average Emission Limits (tons per year)					
Parameter	NO_X	CO	SO_2	VOC[2]	PM_{10}[1]	$PM_{2.5}$[1]
Annual Emission Limits	759.0	1995.0	22.0	95.0	413.4	413.4

Footnote 1: This value represents PM_{10} emissions. For emissions from the cooling towers, total PM_{10} and $PM_{2.5}$ are equal to 31.5% the PM value. For emissions from combustion equipment, PM equals $PM_{2.5}$ and PM_{10}. PM_{10} = $PM_{2.5}$.

Footnote 2: Facility voluntarily reduced allowable VOC Emission Limits to below Major Source thresholds.

[SIP Rule 240 § 305.1.a] [SIP Rule 241 § 302] [40 CFR § 52.21(j)]

ii. HAP Emission Limits

The Permittee shall not cause, allow or permit the emission of Federally listed Hazardous Air Pollutants (HAPs) in excess of 22.5 tons of total HAPs based on a 12-month rolling total and 9.0 tons of any single HAP based on a 12-month rolling total.

[SIP Rule 100 § 301]

iii. Particulate Matter Limits (General):

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel from any combustion equipment in excess of the amounts calculated 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 heat input in million Btu per hour.

[ARS §49-106, State Rule R18-2-719.c.1(R9-3-519.c.1)]

iv. Opacity Limits:

1) For sources with no specific opacity requirements, the Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity for a period aggregating more than three minutes in any 60-minute period.

[SIP Rule 300 § 301]

2) Compliance with the opacity requirement shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9 as modified by EPA Reference Method 203B.

[SIP Rule 300 § 501]

b. COMBINE CYCLE COMBUSTION TURBINE LIMITS (CC1A, CC1B, CC2A, and CC2B)

i. Short-term Emission Limits – Normal Operation: The maximum short-term emissions from permitted combustion turbines during normal operation, excluding periods of startup and shutdown, malfunctions, and equipment shakedown prior to commercial operations, shall not exceed the allowable emissions listed in Table 2. [Note: The regulatory basis for these emission limits are BACT requirements for NO_X, CO, VOC, and PM_{10}, and air quality modeling compliance for SO_2.]. The maximum short-term emissions of ammonia from permitted combustion turbines/duct burners shall be limited to 10 ppmvdc during normal operations, excluding periods of startup and shutdown, and malfunctions.

Table 2
Maximum Short-term Allowable Emissions During Normal Operations for Each Combined Cycle Combustion Turbine/Duct Burner

		NO_X	**NH_3**	**CO**	**VOC**	**PM_{10}[2]**	**Filterable[3] PM_{10}**	**SO_2**
Averaging Interval		3-hour	24-hour	3-hour	3-hour	3-hour	3-hour	3-hour
Mass Emission Limit (lb/hr)	w/o Duct Burner Firing	18.0	NA	45.0	5.4	19.7	13.0	1.2
	w/ Duct Burner Firing	19.0		55.0	7.0	21.0	13.8	

Secondary Emission Limit	w/o Duct Burner Firing	2.5 ppmdvc[1]	10.0 ppmvdc[1]	10 ppmvdc[1]	0.0028 lb/MMBtu	0.0101 lb/MMBtu	0.0067 lb/MMBtu	N/A
	w/ Duct Burner Firing	2.5 ppmvdc[1]		14 ppmvdc[1]	0.0032 lb/MMBtu			

Footnote 1: All ppmvdc concentrations are correct to 15% oxygen on a dry basis.
Footnote 2: PM_{10} = $PM_{2.5}$, if the Permittee is complying with the PM_{10} limit, then this is also compliance with the $PM_{2.5}$ limit.
Footnote 3: Filterable PM_{10} refers to PM measured by Test Methods 5 or 201A.

[SIP Rule 240 §305.1.a] [SIP Rule 241 §302] [40 CFR 60.333(a)] [40 CFR §52.21(j)]

ii. Short-term Emission Limits – Startup/Shutdown: The maximum hourly emissions from the combustion turbines during periods of startup and shutdown shall not exceed the values shown in Table 3.

Table 3
Maximum Emissions Per Combined Cycle Combustion Turbine During Startup/Shutdown (lb/hr)

Parameter	NO_X	CO	VOC	SO2	PM_{10}	Filterable PM_{10}
SU/SD Emission Limits	338	870	29	1.1	18.3	12.1

[SIP Rule 240] [SIP Rule 241] [40 CFR §52.21(j)]

c. SIMPLE-CYCLE COMBUSTION TURBINE (CT) EMISSION LIMITS (CT3, CT4, CT5, CT6, CT7, CT8, CT9, AND CT10)

i. The emissions for all combustion turbine units CT3 – CT10 combined may not exceed the emission limits in Table 4. for all periods of operation, including periods of startup and shutdown [Note: The regulatory basis for these emission limits are Best Available Control Technology (BACT) requirements for NO_X, PM, PM_{10}, $PM_{2.5}$, and air quality modeling compliance for CO] The emission limitations for NO_X also represent the lowest achievable emission rate (LAER).

Table 4
Emission Limits for All Simple Cycle Combustion Turbine Units CT3 – CT10 Combined.

	CO[1]	NO_X[2]	VOC[1]	PM, PM_{10}, and $PM_{2.5}$
Emission Limit	95 ton/year	59 ton/year	23 ton/year	46.4 ton/year
Averaging Period	Rolling 12-month	Rolling 12- month	Rolling 12-month	Rolling 12-month

Footnote 1: The CO and VOC emission limits are voluntary PSD and NNSR synthetic minor limit for CT3– CT10.
Footnote 2: The NO_X emission limit of 59 tons per year limits the NO_X Emission Reduction Credit (ERC) or offset requirements in a moderate ozone nonattainment area to 67.8 tons per year and in a serious ozone nonattainment area to 70.8 tons per year of ERCs for CT3 – CT10.

[SIP Rule 240 § 304.10] [SIP Rule 241] [40 CFR §52.21(j)] [49 § CFR 51.165(a)]

ii. Normal Operation Short Term Emission Limits for Each Unit CT3 – CT10.
Simple Cycle CT: The maximum short-term emissions from each combustion turbine during normal operation, excluding periods of startup and shutdown, tuning/testing mode and equipment shakedown prior to commercial operation shall not exceed the allowable emissions listed in Table 5. [Note: The regulatory basis for these emission limits are Best Available Control Technology (BACT) requirements for NO_X, PM, PM_{10}, and $PM_{2.5}$, emissions, and air quality modeling compliance for CO. The emission limitation for NO_X also represents the lowest achievable emission rate (LAER).

Table 5
Maximum Short-term Allowable Emissions During Normal Operation for Each Simple Cycle Combustion Turbine

	CO[1]	NO_X[1]	PM, PM_{10}, and $PM_{2.5}$[2]	VOC[3]
Emission Limit, lb/hour	4.2	4.0	6.0	2.6
Averaging Period	8-hour	1-hour	3-hour	24-hour

Footnote 1: Compliance with the CO and NO_X emission limits are based on the use of CEMS.

Footnote 2: Compliance with the PM, PM_{10}, and $PM_{2.5}$ emission limit is based on monitored fuel flow data and compliance emission testing using U.S. EPA Reference Methods 5 or 201or 201A for filterable PM plus Reference Method 202 for condensable PM.
Footnote 3: Compliance with the VOC emission limit is based on compliance emission testing using U.S. EPA Reference Method 18, 25A, or 320.

[SIP Rule 240 § 304.10] [SIP Rule 241] [40 CFR § 52.21(j)(3)] [49 § CFR 51.165(a)]

iii. Simple Cycle CT Startup/Shutdown Emission Limits:
The maximum short-term emissions during periods of startup, shutdown, tuning/testing, and equipment shakedown prior to commercial operation shall not exceed the allowable emissions listed in Table 6. [Note: The regulatory basis for the NO_X emission limit is Best Available Control Technology (BACT) and the lowest achievable emission rate (LAER), and air quality modeling compliance for CO.

Table 6
Maximum Short-term Allowable Emissions During Periods of Startup and Shutdown for Each Simple Cycle Combustion Turbine

	NO_X[1]	CO[1]	VOC[2]
Emission Limit, lb/hour	36.2	100.0	2.7
Averaging Period	1-hour	1-hour	1-hour

Footnote 1: Compliance with the NO_X and CO emission limit is based on the use of NO_X and CO CEMS.

Footnote 2: Compliance with the VOC emission limit is based on documentation of the manufacturer's stated VOC emission rate during periods of startup and shutdown.

[SIP Rule 240 § 304.10] [SIP Rule 241] [40 CFR §52.21(j)(3)] [49 § CFR 51.165(a)]

iv. Additional Emission Limits for Each Combustion Turbine Units CT3 – CT10.

1) Simple Cycle CT: Each combustion turbine is subject to the emission limits in Table 7. [Note: The regulatory basis for these emission limits are Best Available Control Technology (BACT) requirements for NOx, PM, PM_{10}, $PM_{2.5}$, and greenhouse gas (GHG) emissions (expressed as CO_2). The emission limitations for NOx also represent the lowest achievable emission rate (LAER).

Table 7
Additional Emission Limits for Each Simple Cycle Combustion Turbine

	CO[1,3]	NO_X[1,3]	PM, PM_{10}, and $PM_{2.5}$[2,4]	CO_2[2,5]	Ammonia (NH_3)
Emission Limit	4.0 ppmdv at 15% O_2	2.3 ppmdv at 15% O_2 (BACT/LAER)	6.0 lb/hour (BACT)	1,450 lb CO_2 per MWh (BACT)	10.0 ppmdv at 15% O_2

Averaging Period	8-hour	1-hour	3-hour	12- month	24-hour

Footnote 1: The CO and NO_X concentration limits apply during normal operation excluding periods of startup and shutdown and equipment shakedown prior to commercial operation.

Footnote 2: The emission limits for PM, PM_{10}, $PM_{2.5}$, and CO_2 emissions apply during all periods of operation, including normal operation and periods of startup and shutdown.

Footnote 3: Compliance with the CO and NO_X emission limits is based on the use of CEMS.

Footnote 4: Compliance with the PM, PM_{10}, and $PM_{2.5}$ emission limit is based on monitored fuel flow data and compliance emission testing using Reference Methods 5 or 201 or 201A for filterable PM plus Reference Method 202 for condensable PM.

Footnote 5: The CO_2 emission limit is based on the gross electric output of each CT.

Footnote 6: The NH3 concentration limit applies during normal operation excluding periods of startup and shutdown and equipment shakedown prior to commercial operation.

Footnote 7: Compliance with the NH3 emission limit is based on compliance emission testing listed in Table 8.

[SIP Rule 240 § 304.10] [SIP Rule 241] [40 CFR §52.21(j)(3)] [49 § CFR 51.165(a)]

d. EMISSION OFFSETS REQUIRED:

i. The Permittee shall offset the potential NOx emissions from the eight simple cycle combustion turbines by using NO_x Emission Reduction Credits that meet the provisions contained in 40 CFR 51.165(a)(3)(ii)(A) through (D) and 40 CFR 51.165(a)(3)(ii)(G). The credits must be certified by the Control Officer. All such emission reductions claimed as offset credits must be verified prior to commencing operation of the turbine expansion project.

1) The amount of NOx emission reduction credits required to be used as offsets depends on the non-attainment designation of the area on the date of the issuance of this Permit (P0011682):

a) For an area designated as moderate non-attainment for ozone: 67.8 tons of NOx emission reduction credits must be used to offset NOx emissions from the turbine expansion project.

b) For an area designated as serious non-attainment for ozone: 70.8 tons of NOx emission reduction credits must be used to offset NOx emissions from the turbine expansion project.

[40 CFR §§ 51.165(a)(3)(ii), 51.165(a)(9)(ii)] [Rule 240 §§ 304.2 and 304.4]

ii. The Permittee shall provide verification that the credit generating modification that is being used to offset NO_X emissions for the turbine expansion project has been completed before the startup of the simple cycle combustion turbines CT3 – CT10.

[SIP Rule 240 § 304.2] [Rule 204 § 307.2]

e. 40 CFR PART 60 SUBPART KKKK EMISSION LIMITATIONS (CC1A, CC1B, CC2A, CC2B, and CT3 – CT10):

i. The Permittee shall comply with all applicable requirements of 40 CFR 60 Subpart KKKK for the stationary combustion turbines, heat recovery generators, and duct burners.

[40 CFR § 60.4305(b)]

ii. Sulfur Dioxide (SO_2) Emission Limits:

1) The Permittee shall not emit into the ambient air any gasses which contain SO_2 in excess of 0.90 pounds per megawatt-hour gross output, or

2) The Permittee shall not burn any fuel which contains total potential sulfur emissions in excess of 0.060 lbSO_2/MMBtu heat input.

[40 CFR § 60.4330(a)]

iii. Nitrogen Oxides (NO_X) Emission Limits:

1) CC1A, CC1B, CC2A, and CC2B: The NO_X emissions during normal operations shall not exceed 15 ppm at 15% O_2 or 0.43 lb/MWHr (30-day rolling average) and 96 ppm at 15% O_2 or 4.7 lb/MWHr (30-day rolling average) during start-up and shutdown operations. A "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm measured by the continuous emission monitoring equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30 unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating hours.

2) Use the calculated hourly average emission rates to assess excess emissions on a 30 unit operating day rolling average basis as described in Permit Conditions 18.e.iii and 18.e.iii.a)
[40 CFR §§ 60.4320(a), 60.4350(h), 60.4380(b) and Table 1 to Subpart KKKK of Part 60]

3) CT3 – CT10: The NO_X emissions during normal operations shall not exceed 25 ppm at 15 percent O_2 or 1.2 lb/MWh (4-hour rolling average).

a) 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.

b) Use the calculated hourly average emission rates to assess excess emissions on a 4-hour unit rolling average basis as described in Permit Condition 1.a.i.1)a) and 18.a.ii.3)i).

4) CT3-CT10: The NO_X emissions when operating at less than 75 percent of peak load or when operating at temperatures less than 0°F shall not exceed 96 ppm at 15 percent O_2 or 4.7 lb/MWh.
[40 CFR §§ 60.4320(a), 60.4350(h), 60.4380(b) and Table 1 to Subpart KKKK of Part 60]

5) All Combustion Turbines: The Permittee shall install, certify, maintain and operate a continuous emissions monitoring system (CEMS) consisting of a NO_x monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NO_X emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu).

[40 CFR §§ 60.4335(b)(1)]

6) The NO_X CEMS shall be installed and certified according to appendix A of 40 CFR Part 75. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

[40 CFR 60.4345(a)]

f. RULE 322 EMISSION LIMITS (CC1A, CC1B, CC2A, CC2B, CT3 – CT10)

i. Opacity: The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity, for any six (6) minute averaging period.

[SIP Rule 322 § 304.1]

ii. NO_X: Stationary Gas Turbines and Combined Cycle Turbine Systems: The Permittee shall not cause to be discharged into the atmosphere nitrogen oxides in excess of 42 ppmvd corrected to 15% oxygen

calculated as nitrogen dioxide when burning natural gas.

[SIP Rule 322 § 306]

iii. CO: The Permittee shall not cause to be discharged into the atmosphere carbon monoxide (CO) measured in excess of 400 ppmvd corrected to 15% oxygen for stationary gas turbines, and corrected to 3% oxygen for steam generating units.

[SIP Rule 322 § 307]

g. The permittee may demonstrate compliance with the numerical emission limits in Rule 322 Sections 306 and 307 with an annual performance test or CEMS. If the equipment has CEMS and the permittee elects to demonstrate compliance with an annual performance test, the Control Officer may request CEMS data to determine compliance with the averaging periods in Rule 322 Section 503.6.

[SIP Rule 322 § 503.4, 503.5] [SIP Rule 241]

i. Exemption: Any electric generating unit operating at or below 10 percent calendar year annual capacity factor, and meet the following requirements, is exempt from the NO_X and CO limitations specified in subsections [18.f.ii and 18.f.iii] of this Permit Condition:

1) Submit a RACT (reasonably available control technology) analysis to the Control Officer and the Administrator demonstrating conventional commercially available control technology is not technically and/or economically feasible and obtain approval from the Control Officer and Administrator to operate under the exemption.

a) For equipment for which a RACT analysis was submitted prior to June 23, 2021, upon Control Officer approval, equipment may begin to operate under the exemption until the Administrator approves or denies operation under the exemption. If the Administrator denies approval to operate under the exemption, the equipment will become subject to the emission limits in Rule 322 §§306 and 307.

b) For equipment for which a RACT analysis is submitted on or after June 23, 2021, equipment may begin to operate under the exemption upon approval from the Control Officer and the Administrator.

2) All equipment operated under this exemption shall have an annual heat input limit associated with that equipment that corresponds to the 10 percent calendar year annual capacity factor. The annual heat input limit shall be calculated by multiplying the equipment's maximum heat input rate (MMBtu per hour) by 876 hours.

3) Compliance with the heat input limit shall be demonstrated by multiplying the higher heating value (MMBtu/mass or MMBtu/volume of gas) by the fuel use (mass or volume of gas).

[SIP Rule 322 § 104.4]

h. 40 CFR PART 60 SUBPART TTTTa EMISSION LIMITATIONS (CT3-CT10)

i. For each combustion turbine Units CT3 – CT10, the applicable CO_2 emission standard is between 50 to 69 kg CO_2/GJ (120 to 160 lb CO_2/MMBtu) of heat input as determined by the procedures in § 40 CFR § 60.5525a.

[40 CFR § 60.5520a] [40 CFR 60 Subpart TTTTa, Table 1]

ii. Each simple-cycle combustion turbine Units CT3 – CT10 is classified as a "low load combustion turbine" and shall not supply more than 20 percent of its potential electric output as net-electric sales on both a 12-operating month and a 3-year rolling average basis.

[40 CFR § 60.5580a]

iii. Each simple-cycle turbine (units CT3- CT10) shall only burn fuels with a consistent chemical composition (*i.e.,* uniform fuels) that result in a consistent emission rate of 69 kilograms per gigajoule (kg/GJ) (160 lb CO_2/MMBtu) or less. Uniform fuels under this subpart include natural gas. The Permittee is required to maintain purchase records for natural gas. These units are not subject to any other monitoring or reporting requirements under this subpart.

[40 CFR § 60.5520(d)(1)]

19. OPERATIONAL LIMITATIONS AND REQUIREMENTS:

a. FACILITY-WIDE OPERATIONAL REQUIREMENTS:

i. The Permittee shall combust only pipeline natural gas as defined in 40 CFR 72.2. The total sulfur content of any Natural Gas sample shall not exceed 0.75 grains of sulfur per 100 standard cubic feet, or 0.5 grain per 100 standard cubic feet as calculated on a calendar year average. This fuel qualifies as uniform fuel pursuant to 40 CFR 60 Subpart TTTTa.

[SIP Rule 241 § 302] [40 CFR § 52.21(j)] [40 CFR 80.510 (b)] [SIP RULE 322 § 301] [40 CFR § 60.5520a]

ii. The Permittee shall not emit gaseous or odorous air contaminants from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

[Rule 320 § 300] [Locally Enforceable Only]

iii. Materials including, but not limited to, solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizer and manure shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory.

[Rule 320 § 302] [Locally Enforceable Only]

iv. Where a stack, vent or other outlet is at such a level that air contaminants are discharged to adjoining property, the Control Officer may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet to a degree that will adequately dilute, reduce or eliminate the discharge of air contaminants to adjoining property.

[Rule 320 § 303] [Locally Enforceable Only]

v. CT3-CT10: Natural Gas Piping Systems.

1) The Permittee shall establish and implement a leak detection and repair (LDAR) program for the natural gas piping systems serving CT3 – CT10.

2) The program shall be maintained onsite and submitted in writing through the AQD Online Portal within 45 days of the equipment startup. If the AQD Online Portal is not accessible, the Permittee may use alternative means of submittal (such as certified mail, facsimile, email, or hand delivery). The Permittee shall revise the LDAR plan on an as-needed basis or at the direction of the Control Officer.

3) The LDAR program shall include the use of visible, audible or olfactory (AVO) or instrumental leak detection methods.

4) The permittee shall repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair.

5) Changes to the program shall be made by submitting a revised program along with a cover letter identifying all changes and the reason for such changes. The Permittee may implement the changes addressed in the revised program after it submits the revision to

the Control Officer. Unless disapproved in writing by the Control Officer, the Permittee shall continue to operate in accordance with the revised program.

[40 CFR § 52.21(j)(3)] [SIP Rule 240]

b. OPERATIONAL REQUIREMENTS FOR THE COMBUSTION TURBINE SYSTEMS:

i. CC1A, CC1B, CC2A, and CC2B: The startup/shutdown operations at each combined cycle combustion turbine shall be limited to no more than 10 hours of SU/SD per day and 1277.5 hours of SU/SD per year of operation.

ii. CT3- CT10: The total number of combined startup and shutdown (SU/SD) events for all Units CT3 – CT10 may not exceed 4,320 SU/SD events in any rolling 12-month period.

[SIP Rule 240] [SIP Rule 241 § 302]

iii. CT3-CT10: The permittee shall limit the total heat input to each simple-cycle combustion turbine (CT3 – CT10) to no more than 783,900 MMBtu in any rolling 12-month period.

[40 CFR §§ 60.5520a, 60.5580a] [40 CFR 60 Subpart TTTTa, Table 1]

iv. CT3-CT10: Sulfur Hexafluoride (SF_6) Containing Circuit Breakers
[Note: The regulatory basis for these control requirements is the Best Available Control Technology (BACT) for greenhouse gas (GHG) emissions.]

1) The Permittee shall install and maintain SF_6 containing circuit breakers that are designed to achieve a maximum annual leak rate of no more than 0.5% by weight.

2) The new circuit breakers shall be equipped with an SF_6 leak detection system. The leak detection system shall be operated, calibrated, and maintained in accordance with the manufacturer's specifications.

[40 CFR § 52.21(j)(3)] [SIP Rule 240]

v. Permittee shall operate and maintain the stationary combustion turbines, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

[40 CFR § 60.4333] [SIP Rule 322 § 302]

vi. The Permittee shall use operational practices recommended by the manufacturer to ensure good combustion practices.

[SIP Rule 322 § 302]

c. OPERATIONAL REQUIREMENTS FOR THE DUCT BURNERS:
The Permittee shall not operate the duct burners for more than 8,000 total hours, for all four combined, per calendar year.

[SIP Rule 241 § 302] [40 CFR § 52.21(j)]

d. OPERATIONAL REQUIREMENTS FOR THE COOLING TOWERS:
The cooling tower shall at all times be equipped and maintained with high efficiency drift eliminators certified by the cooling tower vendor to achieve 0.0005 or less percent drift. The total dissolved solids (TDS) content of the cooling water in the cooling tower shall not contain more than 28,000 ppm TDS.

[SIP Rule 241 § 302] [40 CFR §52.21(j)] [SIP Rule 322 § 303]

e. OPERATIONAL REQUIREMENTS FOR THE EMISSION CONTROL SYSTEMS (ECS):

i. The Permittee shall install, operate, and maintain a Selective Catalytic Reduction (SCR) system for the control of NO_X emissions as part of each Simple-Cycle Turbine and Combined Cycle System.

ii. The Permittee shall install, operate, and maintain a water injection system for the control of NO_X emissions on each simple-cycle combustion turbine, Units CT3- CT10.

iii. The Permittee shall install, operate, and maintain an oxidation catalyst system for the control of CO and VOC emissions on each Simple-Cycle Turbine, Units CT3-CT10

[SIP Rule 241 § 302] [40 CFR § 52.21(j)]

iv. The Permittee submit for approval an O&M plan for each SCR and oxidation catalyst system for units CT3 – CT10 within 45 days of the date of certification of the CEMS. The O&M plan shall include:

1) The manufacturer name and model designation for each ECS and each ECS monitoring device;

2) Operating parameters that will be monitored to demonstrate continued operation of the ECS in the manner the ECS was operated during the most recent performance test;

3) The manufacturer's recommended maintenance procedures and frequencies or, if the manufacturer's recommended maintenance procedures are not available, a maintenance plan based on good engineering practices to reduce emissions.

v. The Permittee shall maintain an approved Operations and Maintenance (O&M) plan for each SCR system and oxidation catalyst required by these Permit Conditions onsite. The plans shall be in a format acceptable to the Department and shall specify the procedures used to maintain the SCR and oxidation catalyst systems.

vi. The Permittee shall at all times comply with the currently approved version of the O&M Plan.

vii. Changes to an existing O&M Plan shall be made by submitting a complete, revised O&M Plan along with a cover letter identifying all changes and the reason for such changes. The Permittee may implement the changes addressed in the revised O&M plan after it submits the revision to the Control Officer through the AQD Online Portal (IMPACT). Unless disapproved in writing by the Control Officer, the Permittee shall continue to operate in accordance with the revised O&M plan.

viii. The SCR control system shall be designed so it will not inject ammonia into the SCR system when the inlet temperature to the catalyst is less than the Minimum Catalyst Temperature (to be established as part of the Operation and Maintenance (O&M) Plans).

[SIP Rule 322 § 308]

f. OPERATIONAL REQUIREMENTS FOR THE CONTINUOUS EMISSION MONITORING SYSTEMS:
Required monitoring systems shall meet or exceed all applicable design, installation, operational, quality assurance, and other applicable requirements of 40 CFR Part 60 and 40 CFR Part 75. The NO_X and O_2 CEMS shall be operated, and quality assured per 40 CFR Part 75 and the CO CEMS shall be operated and quality assured per 40 CFR Part 60. The Permittee may also operate, and quality assure the NO_X and O_2 CEMS per 40 CFR Part 60 to demonstrate compliance with the permitted emission limits.

i. 40 CFR PART 60 REQUIREMENTS FOR CO CEMS

1) The Permittee shall install, operate, calibrate, certify, and maintain a CO CEMS for each of the combustion turbine exhaust stacks to continuously measure the CO content of the exhaust stream in accordance with the following requirements:

2) The Permittee shall meet the requirements of 40 CFR Part 60 for the CEMS, including but not limited to the following:

a) Each CO CEMS must be operated in accordance with the requirements of Performance Specification (PS) 4a for CO of 40 CFR 60, Appendix B; and

b) Each CO CEMS must meet the requirements of 40 CFR 60 Appendix F, Quality Assurance Procedures.

[40 CFR § 60.13]

3) Permittee shall install, calibrate, operate, maintain, certify, and quality assure CEMS with an automated data acquisition and handling system for measuring and recording emissions of the relevant pollutant for each turbine exhaust. Pollutant emissions shall be recorded in ppmvd, and pounds per hour. The CEMS shall be capable of monitoring concentrations and mass emissions during normal operation and during periods of startup, shutdown, tuning and testing. Hourly average emissions (lb/hr) and rolling 12-month emission rate for each relevant pollutant (tons) shall be continuously recorded.

[SIP Rule 240] [SIP Rule 241]

4) The CEMS shall meet or exceed all applicable design, installation, operational, quality assurance, and all other applicable requirements of this permit.

[SIP Rule 240] [SIP Rule 241]

5) The Permittee shall ensure that the CEMS are in operation and monitoring turbine emissions at all times that the turbines combust any fuel except during periods of calibration, quality assurance, preventive maintenance, repair, back-ups of data from the data acquisition and handling system, or recertification. Malfunctions shall be recorded and reported as required by 40 CFR 60.

[40 CFR § 60.13(e)]

6) The Permittee shall ensure that the design, installation, operation, maintenance, O&M Plan, Quality Assurance Plan (QAP), and on-site spare parts inventory are sufficient to ensure that the CEMS meet the data capture requirements of this permit and 40 CFR Part 60.

[40 CFR § 60.13(b)]

7) As specified in 40 CFR §60.13(e)(2) during each full combustion turbine operating hour, the CO CEMS must be capable of completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute interval, to validate an hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.

[40 CFR § 60.13(e)(2)]

8) Monitor Malfunction, Downtime, and Percent Monitor Availability:

a) Malfunctions of the CO CEMS shall be recorded and reported as required under 40 CFR Part 60 and under the recordkeeping and reporting requirements of this permit. The duration of monitor downtime and the duration of CEMS measurement range exceedances are to be minimized at all times and especially during startup, shutdown, tuning, and testing events.

[40 CFR § 60.7(b)]

b) A period of monitor downtime shall be any turbine operating hour in which sufficient data are not obtained to validate the hour.

[40 CFR § 60.13(e)]

9) All excess emissions shall be converted into units of the pollutant emission limits included in this permit. After conversion into units of the limit, the data may be rounded to the same number of significant digits as used in the applicable limit.

[40 CFR § 60.13(h)(3)]

a) The Permittee is allowed 90 days following issuance of this permit to comply with any new monitoring requirement(s). During the 90-day transition period, Permittee shall continue to

comply with the monitoring requirements of the previous permit until each corresponding new requirement is met. Permittee shall notify the Control Officer in writing by mail when all new monitoring requirements have been met.

[SIP Rule 240] [SIP Rule 241]

10) O&M Plans and QAPs for CEMS subject to 40 CFR 60:

a) Permittee shall maintain a County-approved O&M Plan(s) for the CO CEMS required by this permit.

b) Permittee shall maintain County-approved QAP(s) for the CEMS required by this permit. The Permittee shall make available for inspection, the approved QAP for the CEMS. The QAPs shall be in a format acceptable to the Control Officer and shall specify quality assurance procedures needed to ensure that the data provided by the CEMS is accurate. The QAPs shall address quality assurance and quality control procedures required by this permit.

c) A combined O&M Plan and QAP for the CEMS may be submitted.

d) The Permittee shall at all times comply with the currently approved version of the O&M Plan and QAP.

[40 CFR 60 Appendix F] [SIP Rule 322 § 308]

11) The QAP required by this permit shall address the applicable requirements of 40 CFR 60 Appendix F, including:

a) Calibration of the CEMS as required in 40 CFR Appendix F,

b) Calibration Drift determination and adjustment of the CEMS,

c) Preventive maintenance of CEMS (including spare parts inventory),

d) Data recording and calculations,

e) Semiannual Reporting as required by 40 CFR 60 Appendix F, Section 7

f) Accuracy audit procedures including sampling and analysis methods, and

g) Program of corrective action for malfunctioning CEMS.

[40 CFR 60 Subpart A and Appendix F]

12) As described in Section 5.2 of 40 CFR 60, Appendix F, whenever excessive inaccuracies occur for two consecutive quarters, the Permittee must revise the current QAP or CEMS O&M Plan procedures or modify or replace the CEMS to correct the deficiency causing the excessive inaccuracies.

[40 CFR 60 Subpart A and Appendix F]

13) As per 40 CFR 60.13(d)(1), Permittee shall automatically check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily for the CEMS. Such checks are only required if fuel was combusted in the associated emission unit during that day. The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24- hour span drift exceeds two times the limit of the applicable performance specification in appendix B of 40 CFR 60. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified.

[40 CFR § 60.13(d)(1)]

14) One-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of CEMS breakdown, repair, calibration

checks, and zero and span adjustments shall not be included in the data averages computed under this Permit Condition. Hourly average values during hours containing calibration or QA periods shall be computed from two or more data points over each 1-hour period.

[40 CFR § 60.13(h)]

15) The Permittee shall maintain the CEMS by conducting the following:

a) Calibration Drift Assessment: Conducted at least once daily and following the procedures specified in 40 CFR Part 60 Appendix F, Section 4. Such checks are only required if fuel was combusted in the associated emission unit during that day

[40 CFR 60 Subpart A and Appendix F]

b) Data Accuracy Assessment: Each CEMS must undergo an accuracy audit according to the requirements of 40 CFR 60 Appendix F, Section 5, at least once per calendar quarter. Successive audits are to occur no closer than 2 months. The data accuracy assessment shall include:

i) RATA conducted once per four quarters; and

ii) Cylinder Gas Audit conducted in three of four quarters but in no more than three quarters in succession.

[40 CFR 60 Subpart A and Appendix F]

16) Calculations for CEMS data accuracy included in 40 CFR 60 Appendix F Section 6 shall be used as applicable for data accuracy assessment.

[40 CFR 60 Subpart A and Appendix F]

ii. 40 CFR PART 75 REQUIREMENTS FOR NO_X AND DILUENT (O_2 or CO_2) CEMS AND CO_2 CEMS

1) Permittee shall install, maintain, calibrate, certify, and operate a CEMS for each of the combustion turbine exhaust stacks to continuously measure the NO_X and O_2 or CO_2 content of the exhaust stream in accordance with the following requirements:

a) Monitoring Provisions of 40 CFR 75 Subpart B, including the General Operating Requirements of 40 CFR §75.10, and the Specific Provisions for Monitoring NO_X Emission Rates of 40 CFR §75.12,

b) Operation and Maintenance requirements of 40 CFR 75 Subpart C,

c) Missing data substitution procedures of 40 CFR 75 Subpart D,

d) Alternative monitoring system requirements of 40 CFR Subpart E (as applicable),

e) Recordkeeping requirements of 40 CFR 75 Subpart F,

f) Reporting requirements of 40 CFR 75 Subpart G,

g) 40 CFR 75, Appendix A, “Specifications and Test Procedures”,

h) 40 CFR 75, Appendix B, “Quality Assurance and Quality Control Procedures” including, at a minimum:

i) Daily assessments under Section 2.1. These assessments are only required on days when fuel was combusted in the associated equipment. A start-up grace period may apply when a unit begins to operate after a period of non- operation. To qualify for a start-up grace period for a daily assessment, there are two requirements:

(1) The unit must have resumed operation after being in outage for 1 or more hours

(i.e., the unit must be in a start-up condition) as evidenced by a change in unit operating time from zero in one clock hour to an operating time greater than zero in the next clock hour.

(2) For the monitoring system to be used to validate data during the grace period, the previous daily assessment of the same kind must have been passed on-line within 26 clock hours prior to the last hour in which the unit operated before the outage. In addition, the monitoring system must be in-control with respect to quarterly and semi-annual or annual assessments.

If both of the above conditions are met, then a start-up grace period of up to 8 clock hours applies, beginning with the first hour of unit operation following the outage. During the start-up grace period, data generated by the monitoring system are considered quality-assured. For each monitoring system, a start-up grace period for a calibration error test or flow interference check ends when either: (1) a daily assessment of the same kind (i.e., calibration error test or flow interference check) is performed; or (2) 8 clock hours have elapsed (starting with the first hour of unit operation following the outage), whichever occurs first.

ii) Quarterly assessments under Section 2.2,

iii) Semiannual and annual assessments under Section 2.3,

iv) Recertification, Quality Assurance, Relative Accuracy Test Audit Frequency, and Bias Adjustment Factors (special considerations) under Section 2.4,

v) Other audits as required under Section 2.5,

i) 40 CFR 75, Appendix C, “Missing Data Estimation Procedures”, and

j) 40 CFR 75, Appendix F, “Conversion Procedures.”

[40 CFR Part 75]

2) Permittee shall install, calibrate, operate, maintain, certify, and quality assure NO_X CEMS with an automated data acquisition and handling system for measuring and recording emissions of NO_X and diluent (O_2 or CO_2) for each turbine exhaust. NO_X emissions shall be recorded in parts per million by volume dry (ppmvd), pounds per megawatt hour (only if not utilizing the rolling four-hour NO_X concentration corrected to 15% O_2), pounds per million Btu (lb/MMBtu), and pounds per hour (lb/hr). Diluent O_2 or CO_2 shall be recorded in percent by volume. The CEMS shall be capable of monitoring concentrations and mass emissions during normal operation and during periods of startup, shutdown, tuning and testing. Hourly average NO_X emissions (lb/hr and ppmvd), rolling four-hour NO_X concentration (ppmvd) corrected to 15% O_2 shall be continuously recorded.

[40 CFR § 75.10(a)(2), (d)(1)] [40 CFR § 60.4380(b)(1)]

3) The CEMS shall meet or exceed all applicable design, installation, operational, quality assurance, and all other applicable requirements of this permit.

[40 CFR § 75.10(b)]

4) The fuel flow monitor shall meet or exceed specifications contained in Section 2.1.5.1 of Appendix D to Part 75.

5) The Permittee shall ensure that the CEMS are in operation and monitoring turbine emissions at all times that the turbines combust any fuel except during periods of calibration, quality assurance, preventive maintenance, repair, back-ups of data from the data acquisition and handling system, or recertification. Malfunctions shall be recorded

and reported as required by 40 CFR Part 75.

[40 CFR § 75.10(d)]

6) The Permittee shall ensure that the design, installation, operation, maintenance, O&M Plan, Quality Assurance Plan (QAP) (see Permit Condition 19.f.i.10), and on-site spare parts inventory are sufficient to ensure that the CEMS meet the data capture requirements of this permit and 40 CFR Part 75.

[40 CFR § 75.10]

7) As specified in 40 CFR §75.10(d)(1) during each full combustion turbine operating hour, the NO_X CEMS must be capable of completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute interval, to validate an hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.

[40 CFR § 75.10(d)(1)]

8) Monitor Malfunction, Downtime, and Percent Monitor Availability:

a) Malfunctions of the NO_X CEMS shall be recorded and reported as required under 40 CFR Part 75 and under the recordkeeping and reporting requirements of this permit. The duration of monitor downtime and the duration of CEMS measurement range exceedances are to be minimized at all times and especially during startup, shutdown, tuning, and testing events.

[40 CFR § 75.32]

b) A period of monitor downtime shall be any turbine operating hour in which sufficient data are not obtained to validate the hour for NOx concentration or oxygen (diluent) or both.

[40 CFR § 75.10(d)(3)]

c) For the NO_X CEMS, the Permittee shall determine NO_X percent monitor data availability according to 40 CFR §75.32.

[40 CFR § 75.57(d)(8)] [40 CFR § 75.32]

9) All excess emissions shall be converted into units of the NO_X limits included in this permit. After conversion into units of the limit, the data may be rounded to the same number of significant digits as used in the applicable limit.

[40 CFR Part 75, Appendix F]

10) The Permittee is allowed 90 days following issuance of this permit to comply with any new monitoring requirement(s). During the 90-day transition period, Permittee shall continue to comply with the monitoring requirements of the previous permit until each corresponding new requirement is met. Permittee shall notify the Control Officer in writing by mail when all new monitoring requirements have been met.

[SIP Rule 240] [SIP Rule 241]

11) O&M Plans and Quality Assurance Plans (QAPs) for NO_X CEMS:

a) Permittee shall maintain County-approved O&M Plan(s) for the NO_X CEMS required by this permit.

b) Permittee shall maintain County-approved QAP(s) for the NO_X CEMS required by this permit. The Permittee shall make available for inspection, the approved QAP for the CEMS. The QAPs shall be in a format acceptable to the Control Officer and shall specify quality

assurance procedures needed to ensure that the data provided by the CEMS is accurate. The QAPs shall address quality assurance and quality control procedures required by this permit and 40 CFR 75 Subpart C and Appendix B.

12) A combined O&M Plan and QAP for the CEMS may be submitted.

13) The Permittee shall at all times comply with the currently approved version of the O&M Plan and QAP.

14) Additional quality assurance requirements are addressed under the specific monitoring and recordkeeping requirements for the NO_X CEMS.

15) The Permittee shall develop and implement maintenance checklists to ensure proper operation and accuracy of the NO_X CEMS. The checklists shall be established as part of the O&M Plan and/or QAP.

16) The Permittee shall ensure that all calibration gases (including zero gases) are certified and current at all times, and that they meet the specifications of 40 CFR Part 75, as applicable, including the certification requirements of 40 CFR §75.20.

17) The Permittee shall perform a calibration error test on the NO_X CEMS after any maintenance activity that could affect the system calibration.

18) Permittee shall re-certify the NO_X CEMS as required by and within the time periods required by 40 CFR 75.20(b). According to 40 CFR §75.20(b), such re-certification is required whenever the Permittee makes a replacement, modification, or change in the certified CEMS that may significantly affect the ability of the system to accurately measure or record the NO_X emission rate or concentration, or to meet the requirements of §75.21 of 40 CFR 75 Appendix B. Furthermore, whenever the Permittee makes a replacement, modification, or change to the flue gas handling system or the turbine operation that may significantly change the flow or concentration profile, the Permittee shall recertify the monitoring system according to the procedures in 40 CFR §75.20(b).

[40 CFR 75 Subparts A, B, C, Appendix A, Appendix B] [SIP Rule 322 § 308]

19) To demonstrate compliance with the CO_2 BACT emission limit, the permittee shall:

a) Install, calibrate, operate, maintain, certify, and quality assure a CO_2 CEMS with an automated data acquisition and handling system for measuring and recording emissions of CO_2 in accordance with 40 CFR Part 75 for each turbine exhaust.

b) Monitor the monthly gross electrical power output for each CT, in megawatt-hours.

c) Calculate the operating month CO_2 emission rate, expressed in pounds of CO_2 per megawatt-hour of gross electric output, as follows:

$$ER_i = \frac{CO_{2,i}}{EO_i}$$

Where:

ER_i = CO_2 emissions per gross electric output, pounds per megawatt-hour, for CT i,

$CO_{2,i}$ = Total CO_2 mass emissions for the month for CT i, pounds,

EO_i = Total gross electrical power output for the month for CT i, megawatt-hours.

[SIP Rule 240] [SIP Rule 241]

g. OPERATIONAL REQUIREMENTS FOR GASOLINE STORAGE TANK WITH MONTHLY THROUGHPUT LESS THAN 10,000 GALLONS PER MONTH:

i. Operating Limitation:

1) The Permittee shall limit the delivery of gasoline to a monthly throughput of less than 10,000 gallons per month and less than 58,000 gallons per any twelve consecutive month time period.

2) The Permittee shall dispense no resold gasoline at the facility.

[40 CFR §§ 63.11111(b), 63.11132]

ii. General Duties to Minimize Emissions:

At all times, the Permittee shall operate and maintain each gasoline storage tank, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Control Officer which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR § 63.11115(a)]

h. OPERATIONAL REQUIREMENTS FOR THE EMERGENCY FIRE PUMP ENGINE:

i. General Compliance Requirements:

The Permittee shall operate and maintain all reciprocating internal combustion (IC) engines and associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Control Officer which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR § 63.6605]

ii. Operational Limitations:

The Permittee shall limit the operation of the emergency engine(s) to no more than 100 hours each per calendar year for the purposes of maintenance checks and readiness testing. The permittee shall limit the total hours of operation of the emergency engine to no more than 500 hours per calendar year including the 100 hours limited above.

[Rule 324 §§ 104.5, 206, 205] [SIP Rule 324 §§1 04.5, 205, 206] [40 CFR 63.6640(f)(2)]

iii. The emergency engines shall not be used for peak shaving. The emergency engine(s) shall only be used for the following purposes:

1) For power when normal power service fails from the serving utility or if onsite electrical transmission or onsite power generation equipment fails;

2) Reliability-related activities such as engine readiness, calibration, or maintenance or to prevent the occurrence of an unsafe condition during electrical system maintenance as long as the total number of hours of the operation does not exceed 100 hours per calendar year per engine as evidenced by an installed non-resettable hour meter;

3) Emergency pumping of water resulting from a flood, fire, lightning strikes, police action or for any other essential public services which affect the public health and safety;

4) To operate standby emergency water pumps for fire control that activate when sensors

detect low water pressure.

[Rule 324 § 104] [SIP Rule 324 § 104] [40 CFR § 63.6640(f)(1) - (2)]

iv. Fuel Requirements:
The Permittee shall not use any fuel that contains more than 0.0015% sulfur by weight, alone or in combination with other fuels.

[Rule 324 §301.1]

v. Opacity:

1) The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.

2) Compliance with visible emissions shall be determined using the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A.

[SIP Rule 324 §§ 303, 503.8]

vi. Maintenance Requirements: The Permittee shall comply with either the requirements specified in subsection 1) or 2) below:

1) Comply with the following requirements in subsections a) – c) along with maintaining the engine in accordance with the manufacturer's written instructions or in accordance with the maintenance schedule provided by the manufacturer's authorized service provider:

a) Change oil and filter or perform an Oil Analysis Program every 500 hours of operation or annually, whichever comes first. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows:

i) Total Base Number is less than 30 percent of the Total Base Number of the oil when new;

ii) Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new;

iii) Percent water content (by volume) is greater than 0.5.

iv) If all of these limits in i) through iv) are met, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil before continuing to use the engine. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and

c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[Rule 324 § 302] [40 CFR § 63.6603(a); Table 2d(4)]

2) Conduct preventative maintenance according to the following schedule, including all of the following tuning procedures, if the engine is so equipped, and if such procedures are appropriate to the type of engine:

a) Complete the following maintenance procedures every 300 hours of operation or once every 12 consecutive months, whichever comes first:

i) Clean the inlet air filter (if so equipped);

ii) Change oil filter; and

iii) Change the lubricating oil or conduct an oil analysis in accordance with subsection permit conditions 1)a)i) -1)a)iv) above.

b) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[Rule 324 § 302] [40 CFR § 63.6603(a); Table 2d(4)]

3) During periods of startup the Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

[40 CFR § 63.6625(h)]

4) If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the maintenance operations above on the schedule required by this Condition or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. The Permittee shall report any failure to perform the management practice on the schedule required to the Control Officer and the Federal, State or local law under which the risk was deemed unacceptable.

[40 CFR § 63.6603(a); Table 2d(4)]

vii. Work and Management Practices:

The Permittee shall comply with one of the following work/management practices:

1) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

2) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR § 63.6640(a); Table 6(9)]

viii. Monitoring:

The Permittee shall not operate the emergency engine(s) unless its cumulative, non-resettable runtime meter is installed and working properly. If the non-resettable meter is found to be malfunctioning, operation of the engine will cease until corrective action(s) can be implemented or the function of the meter is restored.

[40 CFR § 63.6625(f)]

ix. New Source Performance Standards:

If the Permittee modifies or reconstructs a stationary compression ignition (CI) internal combustion engine after July 11, 2005, that engine shall comply with all applicable requirements of 40 CFR 60, Subpart IIII.

[40 CFR 60.4200(a)(3)]

20. MONITORING AND RECORDKEEPING REQUIREMENTS:

a. MONITORING AND RECORDKEEPING FACILITY-WIDE REQUIREMENTS:

i. The CEMS, at a minimum, shall consist of a NO_X concentration monitor, a CO concentration monitor, and an O_2 or CO_2 diluent gas monitor in accordance with the applicable provisions of 40 CFR Part 75

and 40 CFR Part 60, Appendices B and F.

[40 CFR 60.4345(a)] [40 CFR Part 75.10 and 60.13]

ii. NO_X emissions for normal operations, startup and shutdown emissions shall be measured using the continuous emission monitoring system (CEMS) applied to each of the emission units in accordance with 40 CFR Part 75 and 40 CFR Part 60, Subpart KKKK.

[SIP Rule 240]

iii. CO emissions for normal operations and startup/shutdown shall be measured using a CEMS that has been installed, certified, and operated in accordance with 40 CFR Part 60. Either a single dual-range CO analyzer or two CO analyzers calibrated for different concentration ranges may be used.

[SIP Rule 240]

iv. In the event that the CO analyzer measuring startup/shutdown emissions is not operational or cannot reliably document emissions, startup/shutdown CO emissions shall be determined by monitoring the total elapsed time in hours during the startup/shutdown sequence and multiplying by the emission rates listed in Table 3. Alternatively, the missing CO emissions can also be determined by applying 40 CFR Part 75 substitution methodology as applicable or can also be determined by applying reasonable substitution methodology as applicable.

[SIP Rule 240]

v. The Permittee shall monitor, calculate, and maintain a record of the annual CO emissions, in tons per year on a calendar year basis for a period of 10 years, ending March 2, 2030.

vi. The Permittee shall monitor sulfur content of the natural gas at least once every calendar year, consistent with the requirements of 40 CFR Part 75, Appendix D, Section 2.3.1.4.

If at any time a fuel sulfur analysis indicates noncompliance with the sulfur limit in this permit, the Permittee shall notify the Administrator and the Control Officer of such excess emission within one week of the analysis and shall follow the procedures in 40 CFR Part 75 Appendix D, Section 2.3.1.4 for additional monitoring.

If there is a change in the fuel supplier, the Control Officer shall be immediately notified and the Permittee shall document that the natural gas meets the requirements of this permit with a purchase contract, tariff sheet, or pipeline transportation contract. If one of these documents cannot be produced, the Permittee shall document the sulfur content by testing within 60 days of such change in fuel supplier in accordance with the requirements of 40 CFR Part 75, Appendix D.

[SIP Rule 240] [SIP Rule 241]

vii. The Permittee shall identify all relevant HAP emitted from all HAP emitting sources. Emissions of each HAP from the combustion of each fuel type shall be quantified. Compliance with HAP emission limits shall be demonstrated through monitored fuel firing rates and one of the following:

1) The use of HAP emission factors directly determined through performance testing; or

2) The appropriate emission factor from the EPA's AP 42, Fifth Edition, Volume I Chapter 3: Stationary Internal Combustion Sources or online emission factor repository, retrieval, and development tool (WebFIRE). If an emission factor for an identified HAP is not available in AP-42 or WebFIRE, the Permittee shall notify that Department in writing. The notification shall include the name of the HAP and any proposed emission factor and its source

3) Emissions of hexane from natural gas turbines and the diesel fire pump shall be calculated using the appropriate emission factor from the California Air Toxics Emission Factor database (CATEF) or the use of HAP emission factors directly determined through performance testing.

[SIP Rule 100]

viii. The Permittee shall maintain a written copy of the LDAR program onsite at all times consistent with Permit Condition 19.a.v. The program shall include logs of any leaks detected, including the date the leak was discovered, correction of taken if any and the date that the leak was repaired.

ix. The Permittee shall obtain and record the Gross Caloric Value of the natural gas used in the Combustion Turbine(s) in accordance with 40 CFR Part 75 Appendix D, whenever 40 CFR Part 75 Appendix D is used to report SO_2 emissions.

[Rule 371] [40 CFR 75 Appendix D]

x. The Permittee shall weekly conduct a facility walk-through and observe visible emissions from all simple-cycle and combined cycle CT/HRSG stacks and any other device capable of emitting any air contaminant other than condensed water containing no more than analytical trace amounts of other chemical elements or compounds. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information.

[SIP Rules 300 & 210] [SIP Rule 30]

xi. If visible emissions are observed from any device capable of emitting any air contaminant other than condensed water and the facility has never had an opacity violation in the 12 months preceding the observation; the Permittee shall obtain an opacity reading conducted in accordance with EPA Reference Method 9 as modified by EPA Reference Method 203B by a certified visible emissions (VE) reader. This reading shall be taken within 3 days of the observance of visible emissions and taken weekly thereafter during each week that the unit is in operation until there are no visible emissions. If the problem is corrected before three days has passed, and no emissions are visible, the Permittee shall not be required to conduct the certified reading. The Permittee shall log the visual observations, including the date and time when that reading was taken, results of the reading, name of the person who took the reading and any other related information. If an opacity violation has occurred at the facility in the 12 months preceding the observation of visible emissions, the required certified reading shall be taken within 24 hours of the observation of visible emissions.

[SIP Rule 240] [SIP Rule 241]

xii. If any complaints of odors detected off-site are received by the County or APS, the Permittee shall maintain an odor log as follows: The log shall contain a description of the complaint, date and time that the complaint was received, and if given, name and/or phone number of the complainant. The logbook shall describe what actions were performed to investigate the complaint, the results of the investigation, and any corrective actions that were taken.

[Rule 320] [SIP Rule 241]

xiii. A file shall be maintained of all measurements including continuous monitoring system evaluations, all continuous monitoring system or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices as required by 40 CFR Part 60 or Part 75. The records shall be recorded in a permanent form suitable for inspection. The file shall be maintained for at least five years following the date of such measurement, maintenance, report, or record.

[Rule 360] [40 CFR 60.7]

xiv. Particulate Matter Compliance Determination: The Permittee shall monitor for compliance with the particulate matter emissions limits of the permit by taking a visual emission observation of the stack emissions from each combustion turbine during each week of operation that the equipment was used more than 10 hours. If emissions are visible, the Permittee shall obtain an opacity reading. This reading shall be taken within 3 days of the visible emissions and taken thereafter weekly until there are no visible emissions. If the condition causing the visible emissions is eliminated before three days have passed, and no emissions are visible, the Permittee shall not be required to conduct the certified

reading. If the reading exceeds 15 percent opacity, the Control Officer may require emissions testing by other EPA approved Reference Method such as Reference Methods 5 or 201A to demonstrate compliance with the particulate matter emission limits of these Permit Conditions.

For the purposes of these Permit Conditions, a certified visible emissions reader shall mean an individual who, at the time the reading is taken, is certified according to the County Rule Appendix C Section 3.4 of the County Rules.

[SIP Rule 241]

xv. The 12-month rolling total emissions shall be calculated monthly by the end of the following month by summing the emissions from all emitting sources over the most recent 12 calendar months. The Permittee shall keep this emission record on-site for inspection or submittal upon request.

[SIP Rule 241 §§ 304, 305, 308]

b. MONITORING AND RECORDKEEPING FOR THE COMBUSTION TURBINES:

i. Units CC1A, CC1B, CC2A and CC2B: The Permittee shall hourly monitor and record the hours of operation and operating mode (SU/SD, normal, and/or duct burner firing) of each Combustion Turbine; the Combustion Turbine(s) exhaust temperature prior to entering the Selective Catalytic Reduction System; the amount of natural gas combusted in each of the Combustion Turbines and each of the Duct Burners, and the electrical energy output of each Combined Cycle System. The Permittee shall monthly calculate the twelve-month total hours of operation in each mode for each Combustion Turbine.

[SIP Rule 241]

ii. All combustion turbines: PM, PM_{10}, $PM_{2.5}$, and VOC emissions during normal operations and startup/shutdowns from each combustion turbine shall be calculated using monitored fuel flow and emission factors from the most recent MCAQD validated performance test for each unit, unless an alternative emission factor can be demonstrated to the satisfaction of the Control Officer and the Administrator to be more representative of emissions.

iii. All combustion turbines: SO_2 emissions from each Unit shall be calculated from fuel flow data and natural gas sulfur content in accordance with 40 CFR Part 75, Appendix D.

[SIP Rule 240] [SIP Rule 241]

iv. Units CT3 – CT10: The Permittee shall monitor and record the following for each Unit CT3 – CT10 on an hourly basis:

1) Hours of operation and operating mode (startup, shutdown, or normal),
2) The type of fuel combusted,
3) Amount of natural gas combusted, thousand standard cubic feet per hour (MSCF/hr)
4) Heat input, million Btu per hour (MMBtu/hr),
5) Net electric output, megawatt hours (MWh),
6) Carbon monoxide (CO) emissions, pounds per hour,
7) Nitrogen oxides (NO_X) emissions, pounds per hour,
8) Particulate matter, PM_{10}, and $PM_{2.5}$ emissions, pounds per hour,
9) Volatile organic compound (VOC) emissions, pounds per hour, and
10) Exhaust temperature prior to entering the SCR systems and the oxidation catalyst systems, °F.

[SIP Rule 240] [SIP Rule 241] [SIP Rule 322] [40 CFR § 60.4330(a)] [40 CFR §§ 60.5520a, 60.5580a]

v. The Permittee shall calculate and record the following for each Unit CT3 – CT10 on a monthly basis and also on a 12-month rolling average basis, where the 12-month rolling average shall be calculated using the data from the most recent 12 calendar months:

1) Hours of normal operation, hours per month,

2) Total number of combined startup/shutdown (SU/SD) events, events per month,

3) Heat input, MMBtu per month,

4) Actual electric output as net-electric sales in megawatt hours per month (MWh/month),

5) Percent of the potential electric output as net-electric sales, percent (%)

6) Carbon monoxide (CO) emissions, tons per month,

7) Nitrogen oxides (NO_X) emissions, tons per month,

8) Particulate matter, PM_{10}, and $PM_{2.5}$ emissions, tons per month, and

9) Volatile organic compound (VOC) emissions, tons per month.

[SIP Rule 240] [SIP Rule 241] [SIP Rule 322] [40 CFR § 60.5525a(a)(1)]

vi. The Permittee shall calculate and record the following for all eight (8) combustion turbine Units CT3 – CT10 combined on a monthly basis and also on a 12-month rolling average basis, where the 12-month rolling average shall be calculated using the data from the most recent 12 calendar months:

1) Total number of combined startup/shutdown (SU/SD) events, events per month,

2) Carbon monoxide (CO) emissions, tons per month,

3) Nitrogen oxides (NO_X) emissions, tons per month,

4) Particulate matter, PM_{10}, and $PM_{2.5}$ emissions, tons per month, and

5) Volatile organic compound (VOC) emissions, tons per month.

[SIP Rule 240] [SIP Rule 241]

vii. The Permittee shall maintain fuel purchase records for the fuel burned in Units CT3 – CT10.

[40 CFR § 60.5520a]

viii. The permittee shall maintain records of all SF_6 circuit breaker leak detection system calibrations on site and make these records available to the Control Officer upon request.

ix. The permittee shall maintain records of the date that any leak is detected in a circuit breaker and the leak amount in weight percent.

x. The permittee shall maintain records of the date and the amount of SF_6 added to each circuit breaker.

[40 CFR §52.21(j)] [SIP Rule 240]

xi. For Units CT3 – CT10 the Permittee shall maintain monitoring and maintenance records specified in the O&M plan for the SCR system and oxidation catalyst required by Permit Condition 19.e.

xii. For all combustion turbines: Good combustion practices shall be demonstrated by following the requirements of either subsection 1) or 2) below:

1) Maintaining the manufacturer's recommended maintenance practices onsite and available to the Control Officer upon request, by maintaining records of all maintenance activities conducted on the turbines, and by conducting performance tests as described in Section 503 of Rule 322 or;

2) For stationary gas turbines with a CEMS able to demonstrate compliance with the

following emission limits, good combustion practices may be demonstrated through continuous compliance with these limits:

NO_X limit: 42 ppmvd corrected to 15% oxygen calculated as NO_2

CO limit: 400 ppmvd corrected to 15% oxygen.

3) For Units CT3- CT10 equipped with water injection the Permittee shall maintain continuous records of the water to fuel ratio unless the CEMS is used to demonstrate compliance with the NO_X and CO emission limits listed in subsection 2).

[SIP Rule 322 §§ 302, 306.1.c, 307 and 501.6]

xiii. The Permittee shall maintain records of the 12-month rolling total emissions, as required by Permit Condition 20.a.xiv to demonstrate compliance with limits specified in Permit Conditions 18.a.i and 18.c.i.

[Rule 100 § 501] [SIP Rule 100 § 501] [SIP Rule 241]

c. MONITORING AND RECORDKEEPING FOR THE COOLING TOWERS:

i. The Permittee shall visually inspect the drift eliminator according to the following schedule, as applicable depending on the configuration of the drift eliminator:

1) Monthly, if the drift eliminator can be viewed safely and if the inspection does not require a person to walk into the cooling tower; or

2) No less than once per year during a regularly scheduled outage when the cooling tower is not operating, if the drift eliminator cannot be safely inspected while the cooling tower is operating.

ii. Monthly gravimetric testing reports for TDS in cooling water in the cooling tower shall be recorded for six months in succession and thereafter quarterly reports shall be recorded. Results of the monthly or yearly visual inspection of the drift eliminator shall also be recorded. If the drift eliminator cannot be visually inspected monthly, then documentation of the physical configuration of the drift eliminator shall be submitted to the Control Officer to demonstrate that the drift eliminator cannot be inspected monthly.

iii. The Permittee shall submit design drift rate verification from the manufacturer of the drift eliminator used in the cooling towers to the Control Officer if proof of the design drift rate is requested by the Control Officer.

[SIP Rule 322 § 303.3, 501.2, 503.4]

iv. The Permittee shall maintain Records of the 12-month rolling total emissions, as required by Permit Condition 20.a.xiv to demonstrate compliance with limits specified in Permit Condition 18.a.i.

[SIP Rule 100 § 501] [SIP Rule 240]

d. RECORDKEEPING FOR THE EMERGENCY FIRE PUMP ENGINE:

The Permittee shall maintain the following records for each engine for a period of at least five years from the date of the records and make them available to the Control Officer upon request:

i. A list of all stationary engines that includes all of the following information for each stationary engine: combustion type (compression-ignition, or lean-burn spark-ignition, or rich-burn spark-ignition); manufacturer; model designation, rated bhp, serial number, and the location of each engine at the facility. If the equipment list associated with the current permit includes all of the required information for each stationary engine, this requirement may be fulfilled by keeping a complete copy of the current permit, including the equipment list, in a readily accessible location at the facility where the engines are located.

[Rule 324 § 502.1] [SIP Rule 324 § 502.1]

ii. To demonstrate the required work and management practices of Permit Condition 19.h.vi are being met, the Permittee shall maintain records which must include, at a minimum. The following:

1) Oil and filter change dates or oil analysis results and corresponding hours on the hour meter;

2) Inspection and replacement dates for air cleaners, hoses, and belts; and

3) Records of other emission-related repairs and maintenance performed.

[40 CFR § 63.6655(e)(2)] [40 CFR § 63.6660]

iii. Monthly rolling twelve-month total of hours of operation, including:

1) Monthly and annual hours of operation for reliability related activities such as engine readiness, calibration, or maintenance, or to prevent the occurrence of an unsafe condition during electrical system maintenance; and

2) The number of operating hours for emergency use and an explanation for the use of the engine if it is used as an emergency engine.

[Rule 324 §§ 501.5,502.2] [SIP Rule 324 §§ 501.3,502.1] [40 CFR § 63.6655(f)]

iv. For the emergency fire pump engine, the Permittee shall maintain an onsite copy of the manufacturer's written instructions, or procedures developed by the Permittee in accordance with these Permit Conditions and make it available to MCAQD upon request.

[40 CFR §§ 63.6655(e), 63.6660] [Rule 324 § 502.5]

e. MONITORING AND RECORDKEEPING FOR GASOLINE DISPENSING:

i. Recordkeeping Requirements: The Permittee shall maintain the following records for a period of at least five years from the date of such record:

1) Record the amount of gasoline delivered each month by the end of the following month.

[40 CFR 63.11111(e)]

21. REPORTING REQUIREMENTS:

a. SEMIANNUAL MONITORING REPORT AND COMPLIANCE CERTIFICATION: The Permittee shall file the first semiannual Compliance Certification and report of all required monitoring no later than April 30 and shall report the monitoring and compliance status of the source during the period between October 1 and March 31 of each year. The second report shall be submitted no later than October 31 and shall report the monitoring and compliance status of the source during the period between April 1 and September 30 of each year. The Compliance Certification and report of all required monitoring shall be separate documents, with each document requiring a signed certification statement by the Responsible Official. The semiannual Compliance Certification and report of all required monitoring shall be sent to the Compliance Division with attention to: Compliance Division Manager and shall contain the information required by Permit Condition 20.b of this permit and the following information at a minimum:

i. Summary of the compliance status with respect to each condition contained in this permit. This shall include, but is not limited to a description of the basis for the summary conclusions with respect to each permit condition;

ii. Description of and an explanation for any deviations from any permit condition at any time;

iii. A summary of hours of operation for each combustion turbine and duct burner;

iv. A summary of the opacity readings including the test method used and the observed opacity;

v. A summary of the odor complaint log if any complaints were received during the reporting period, or

a statement that no complaints were received;

vi. Fuel supplier certification regarding sulfur content for all fuel oil delivered during the reporting period;

vii. Records required in Permit Condition 20.b.ii - 20.b.xi for simple cycle units CT3-CT10.

[SIP Rule 210 § 305.1] [40 CFR 60.7 and 60.19]

viii. Summary of the monthly and 12-month rolling total records of the gasoline delivered.

ix. The dates, run time, and time emergency engines are run.

[SIP Rule 240] [SIP Rule 241]

b. The Permittee shall file a written notice with the Control Officer as described in 40 CFR 60.4, 40 CFR 60.7, 40 CFR 60.19, and 40 CFR 60.49b(a) as follows:

i. A notification of the date construction (or reconstruction as defined under § 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

ii. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

iii. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under 40 CFR 60.14(e). This notice shall be postmarked within 60 days or as soon as commenced and shall include information describing the precise nature of the change, present and proposed emissions control systems, productive capacity of the facility before and after the change, and the expected completion date of the change; and

iv. In accordance with 40 CFR 60.4, the notifications required by this Permit Condition shall be sent in duplicate to the Director, Air and Waste Management Division, Region IX of the United States Environmental Protection Agency (USEPA). A copy of the notifications shall be sent to the Control Officer.

[Rule 360 § 301] [40 CFR 60.4(a), (b), (D)] [40 CFR 60.7(a), (b), (f)] [40 CFR 60.14(e)] [40CFR 60.19] [40 CFR 60.49b(a)]

c. The Permittee shall electronically report to EPA the data and information as required by 40 CFR Part 75.64 on a quarterly basis. Quarterly submittals shall include facility data, unit emission data, monitoring data, control equipment data, monitoring plans and quality assurance data and results.

[40 CFR 75] [Rule 371]

d. REPORTING REQUIREMENTS SUBPART KKKK:
For all simple- cycle and combine cycle combustion units required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, the Permittee must submit reports of excess emissions and monitor downtime must be submitted in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. Paragraphs §60.4380 describe how excess emissions are defined for Subpart KKKK

[40 CFR § 60.4375]

e. REPORTING REQUIREMENTS PART 60 SUBPART A:
The Permittee shall submit a report to the Control Officer and Administrator within 60 days after the end of each year during which records must be generated as specified in Permit Condition 20.a.v setting out the annual CO emissions from units CC1A, CC1B, CC2A, and CC2B during the calendar year that preceded submission of the report.

[40 CFR § 52.21(r)(6)(iv)]

22. TESTING REQUIREMENTS:

a. TESTING REQUIREMENTS

i. Initial Testing: The Permittee shall conduct performance tests on the simple cycle combustion turbine Units CT3 – CT10 within 60 days of achieving the capability to operate at the maximum production rate of each unit.

1) Testing shall measure emissions of nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter of aerodynamic diameter ≤ 10 microns (PM_{10}), particulate matter of aerodynamic diameter ≤ 2.5 microns ($PM_{2.5}$), volatile organic compounds (VOC), and ammonia (NH_3) from the exhaust of each unit. Per 40 CFR §60.4405, the CEMS RATA tests may be used as the initial performance test for NO_X and CO.

2) Testing shall be conducted to evaluate whether that actual emission rates are at or below emission limits for normal operation specified in Permit Conditions 18.c.ii and 18.c.iv.

3) The testing deadline may be extended by the Control Officer for good cause, but in no case shall the testing deadline extend beyond 180 days after the initial startup of the units.

ii. Future Testing: Following completion of the initial compliant performance tests, the Permittee shall conduct future testing in accordance with subsection iii and table 8 below.

[SIP Rule 241] [Rule 270]

iii. All Combustion Turbines: The Permittee shall measure emission concentrations and emission rates (as applicable) to determine compliance with the emission limits of these permit conditions by conducting performance tests as specified in Table 8.

Table 8
Combustion Turbine Performance Test Requirements

Pollutant	Units to be Tested	Test Method	Testing Frequency[2]
NO_X	CC1A, CC1B, CC2A, CC2B, CT3, CT4, CT5, CT6, CT7, CT8, CT9, CT10	RATAs in accordance with 40 CFR Part 75, Appendix B	CEMS: From 40 CFR Part 75: RATAs shall occur during every fourth consecutive QA operating quarter or during every 8th consecutive calendar quarter, whichever occurs first.
CO	CC1A, CC1B, CC2A, CC2B, CT3, CT4, CT5, CT6, CT7, CT8, CT9, CT10	RATAs in accordance with 40 CFR Part 60, Appendix F	CEMS: From 40 CFR Part 60: RATAs shall be conducted at least once every four calendar quarters except in the case where the turbine is off-line (does not operate) in the fourth calendar quarter since the quarter of the previous RATA. In that case, the RATA shall be performed in the quarter in which the unit recommences operation. Also, cylinder gas audits are not to be required for calendar quarters in which the turbine does not operate.

PM_{10}	CC1A, CC1B, CC2A, CC2B	EPA Test Methods 201A[1] and 202	Annually, between 9 and 14 months from the date of the last PM_{10} test. If the PM_{10} emission result from the performance test is less than or equal to 75 percent of the PM_{10} emission limit for the turbine, the frequency of subsequent performance tests may be reduced to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the PM_{10} emission limit for the turbine, annual performance tests shall be resumed.
PM10	CT3, CT4, CT5, CT6, CT7, CT8, CT9, CT10	EPA Test Methods 201A[1] and 202	Annually, between 9 and 14 months from the date of the last PM10 test. Annual PM10 tests shall be performed on at least 2 CTs. The same CT may not be tested in consecutive years and all 8 CTs shall be tested at least once every 4 years. The higher emission rate from the 2 annual PM10 performance tests shall be applied to all 8 CTs until a new emission rate is established by the next annual performance tests
VOC	CC1A, CC1B, CC2A, CC2B	EPA Test Methods 25A and 18 or EPA Test Method 320	Annually, between 9 and 14 months from the date of the last VOC test. If the VOC emission result from the performance test is less than or equal to 75 percent of the VOC emission limit for the turbine, the frequency of subsequent performance tests may be reduced to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the VOC emission limit for the turbine, annual performance tests shall be resumed.
VOC	CT3, CT4, CT5, CT6, CT7, CT8, CT9, CT10	EPA Test Methods 25A and 18 or EPA Test Method 320	Annually, between 9 and 14 months from the date of the last VOC test. Annual VOC tests shall be performed on at least 2 CTs. The same CT may not be tested in consecutive years and all 8 CTs shall be tested at least once every 4 years. The higher emission rate from the 2 annual VOC performance tests shall be applied to all 8 CTs until a new emission rate is established by the next annual performance tests
Ammonia	CC1A, CC1B, CC2A, CC2B, CT3, CT4, CT5, CT6, CT7, CT8, CT9, CT10	EPA Conditional Test Method CTM-027 or Bay Area Air Quality Management District Source Test Procedure ST- 1B or EPA Method 320	Tests shall be performed every three years (within 34 to 38 months of the previous test). In addition, an ammonia test shall occur within 90 operating days following complete SCR system catalyst replacement.

[1] For PM_{10} testing, EPA Test Method 5 may be substituted for EPA Test Method 201A if the Permittee agrees to assume that all particulates are PM_{10}.

[2] Testing times may be changed with the permission of the Control Officer.

[SIP Rule 200 § 309] [Rule 270] [40 CFR § 60.8] [40 CFR § 60.335(a) and (b)] [40 CFR Part 60, Appendix F]

b. TESTING CRITERIA:
Performance tests shall be conducted and data reduced in accordance with the test methods and procedures specified in the Test Methods section of this permit condition unless otherwise specified by the Control Officer and/or Administrator. The Control Officer and/or Administrator may specify or approve minor changes in methodology to a reference method, approve the use of an equivalent test method, approve the use of an alternative method that has been determined to be acceptable for demonstrating compliance, or waive the requirement for performance tests because the Permittee has demonstrated by other means that the source is in compliance with the standard. For NSPS facilities, only EPA has the authority to waive initial testing requirements.

[Rule 270 § 402] [SIP Rule 241 § 305]

c. TEST METHODS:
Sampling sites and velocity traverse points shall be selected in accordance with EPA Test Method 1or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4. These methods must be performed, as applicable, during each test run.

[Rule 270 § 301.1] [SIP Rule 241 § 305]

d. OPERATING CONDITIONS:
Performance tests shall be conducted under representative operating conditions and all equipment shall be operated during testing in accordance with the most recently approved O&M Plan or according to its operations manual if no O&M Plan is required. The Permittee shall make available to the Control Officer any records necessary to determine appropriate conditions for performance tests. Operations during periods of startup, shutdown, and equipment malfunction shall not constitute representative conditions for performance tests unless otherwise specified in the applicable standard or permit conditions.

[Rule 270 § 302] [Locally Enforceable Only]

Combined Cycle Systems CC1A, CC1B, CC2A, and CC2B: The Permittee shall conduct the performance tests on each combined cycle system when operating either at full load available on the day of testing or at an alternative load level established and approved as part of the test protocol. Full load available on the day of testing includes operation of the combined cycle system with duct burners operating and any other means of increasing generator output (evaporative coolers, chillers, etc.) unless atmospheric conditions preclude their use. RATA tests shall be conducted at one of the two most frequently used load levels as determined under 40 CFR Part 75, Appendix A, Section 6.5.2.1(d).

[SIP Rule 210 § 302] [Rule 270] [40 CFR Part 75, Appendix A]

e. MONITORING REQUIREMENTS:
This condition does not apply to RATA testing. The Permittee shall record all process and control equipment information that are necessary to document operating conditions during the test and explain why the conditions represent normal operation. Operational parameters shall be monitored and recorded at least once every 30 minutes during each of the required test runs and documented in the test report. The operational parameters monitored shall be capable of indicating that the equipment is operating within the permitted limits, both during and after the performance tests.

[Rule 270 § 301.1] [SIP Rule 241 § 305]

i. Combustion Turbines:

1) For the simple cycle combustion units CT3 – CT10: The Permittee shall record the combustion turbine generator output, NO_X concentration, CO concentration, the water to fuel ratio, SCR inlet NO_X concentration, combustion turbine fuel flow rate, SCR inlet temperature and ammonia injection rate, if applicable, during the performance test.

2) For combustion turbines CC1A, CC1B, CC2A, and CC2B: The Permittee shall record the

combustion turbine generator output, steam turbine generator output, NO_X concentration, CO concentration, SCR inlet NO_X concentration, combustion turbine fuel flow rate, duct burner fuel flow rate, SCR inlet temperature and ammonia injection rate, if applicable, during the performance test; and

[SIP Rule 210 §302] [County Rule 270]

3) For all combustion units: The Permittee shall record and report with the final test report the CO concentration collected by the CO CEMS during the VOC performancetest.

[Rule 270 § 403] [40 CFR § 60.8(c)] [40 CFR § 64.4(c)]

f. TEST PROTOCOL SUBMITTAL:
The Permittee shall submit a separate test protocol for each performance test to the AQD Online Portal (IMPACT). for review and approval at least 30 days prior to each performance test. The test protocol shall be prepared in accordance with the most recent version of the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County." A completed copy of the Department's "Test Protocol Submittal Form" shall accompany each test protocol. If IMPACT is not accessible, the Permittee may submit the application through alternative means (such as certified mail, facsimile, email, or hand delivery).

[Rule 270 § 301.1] [SIP Rule 241 § 305]

g. NOTICE OF TESTING:
The Permittee shall notify the Department in writing at least two weeks in advance of the actual date and time of each performance test so that the Department may have a representative attend.

[Rule 270 § 404] [Locally Enforceable Only]

h. TESTING FACILITIES:
The Permittee shall install any and all sample ports or platforms necessary to conduct the performance tests, provide safe access to any platforms, and provide the necessary utilities for testing equipment.

[Rule 270 § 405] [SIP Rule 42] [40 CFR § 60.8(e)]

i. MINIMUM TESTING REQUIREMENTS:
This condition does not apply to RATA testing. Each performance test shall consist of three separate test runs with each test run being at least one hour in duration unless otherwise specified in the applicable standard or in this permit. The same test methods shall be used simultaneously for both the inlet and outlet measurements, if applicable, or justification for any necessary exceptions shall be provided in the test protocol. Emissions rates, concentrations, grain loadings, and/or efficiencies shall be determined as the arithmetic average of the values determined for each individual test run. Performance tests may only be stopped for good cause, which includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of a performance test without good cause after the first test run has commenced shall constitute a failure of the performance test.

[Rule 270 § 406] [40 CFR § 60.8(f)]

i. All Combustion Turbines CC1A, CC1B, CC2A, CC2B, and CT3-CT10:

1) The sampling time and sample volume for each PM_{10} test run shall be at least 120 minutes and 1.70 dscm (60 dscf); and

[40 CFR § 60.48a (b)]

2) If compliance with the ammonia limit included in these permit conditions is not demonstrated using the results of three one-hour minimum test runs, the performance test shall be repeated with each of the three test runs being at least eight hours in duration.

[SIP Rule 200 § 309]

j. TEST REPORT SUBMITTAL:
The Permittee shall complete and submit a separate test report for each performance test to the AQD Online Portal (IMPACT). within 45 days after the completion of testing. The test report shall be prepared in accordance with the most recent version of the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County." A completed copy of the Department's "Test Report Submittal Form" shall accompany each test report. If IMPACT is not accessible, the Permittee may submit the application through alternative means (such as certified mail, facsimile, email, or hand delivery).

[Rule 270 § 301.1] [SIP Rule 210 § 302.1] [SIP Rule 241 § 305]

k. COMPLIANCE WITH EMISSION LIMITS:
Compliance with allowable emission limits and standards shall be determined by the performance tests specified in this permit. If test results do not demonstrate compliance with the requirements of these permit conditions, the Permittee shall make the necessary repairs and/or adjustments to the equipment and demonstrate compliance through retesting. This will not nullify the fact that test results did not demonstrate compliance with the requirements of the permit conditions or nullify any violations that may result from this noncompliance. In addition to compliance demonstrations, approved test results shall be used for annual emissions inventory purposes if the Permittee is required to complete an emissions inventory survey.

[Rule 270 § 407] [Locally Enforceable Only]

l. CORRESPONDENCE:
All test extension requests, test protocols, test date notifications, and test reports required by this permit shall be submitted to the to the AQD Online Portal (IMPACT). If IMPACT is not accessible, the Permittee may submit the application through alternative means (such as certified mail, facsimile, email, or hand delivery).

[Rule 270 § 301.1] [SIP Rule 241 § 305]

m. AUTHORITY:
The above testing requirements represent the minimum level of testing to monitor for compliance with the emission limits in this permit. Nothing in this section shall prevent the Control Officer from requiring additional performance testing as deemed necessary to ensure permit compliance and protection of the public health and welfare.

[SIP Rule 200 § 309] [Rule 270 § 402.5]

n. SULFUR CONTENT PERFORMANCE TESTING:
the Permittee shall conduct performance tests for SO_2 emissions on an annual basis on each combustion turbine (no more than 14 calendar months following the previous performance test). Each performance test for SO_2 emissions shall be conducted using one of the following three methodologies;

i. Determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample would be collected following ASTM D5287 (incorporated by reference, see §60.17) for natural gas or ASTM D4177 (incorporated by reference, see §60.17) for oil. Alternatively, for oil, you may follow the procedures for manual pipeline sampling in section 14 of ASTM D4057 (incorporated by reference, see §60.17). The fuel analyses of this section may be performed either by you, a service contractor retained by you, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17).

ii. Measure the SO_2 concentration (in parts per million (ppm)), using EPA Methods 6, 6C, 8, or 20 in appendix A of this part. In addition, the American Society of Mechanical Engineers (ASME) standard, ASME PTC 19-10-1981-Part 10, "Flue and Exhaust Gas Analyses," manual methods for sulfur dioxide (incorporated by reference, see §60.17) can be used instead of EPA Methods 6 or 20.

iii. Measure the SO_2 and diluent gas concentrations, using either EPA Methods 6, 6C, or 8 and 3A, or 20 in appendix A of this part. In addition, you may use the manual methods for sulfur dioxide ASME PTC 19-10-1981-Part 10 (incorporated by reference, see §60.17). Concurrently measure the heat input to the unit, using a fuel flowmeter (or flowmeters), and measure the electrical and thermal output of the unit. Use EPA Method 19 in appendix A of this part to calculate the SO_2 emission rate in lb/MMBtu.

[40 CFR § 60.4415]

iv. To be exempted from fuel sulfur Performance Testing in Permit Conditions 22.n.i through 22.n.iii.

1) The Permittee shall demonstrate that the potential sulfur emissions expressed as SO_2 are less than 0.060 lb/MMBtu for continental US areas. The demonstration can be made by providing information from a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet. Because the combustion turbines combust only pipeline quality natural gas with a typical SO_2 emission rate of 0.0006 lb/MMBtu, this is the method that the Permittee proposes to meet the Subpart KKKK SO_2 monitoring requirements, or

2) Demonstrate representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. At a minimum, the amount of fuel sampling data specified in sections 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75.

[40 CFR §§ 60.4360,60.4365]

23. OTHER REQUIREMENTS:

a. PERMIT SHIELD:

Compliance with the conditions of this Title V permit shall be deemed compliance with any applicable requirement as of the date of this Title V permit issuance, provided that such applicable requirements are included and expressly identified in this Title V permit. The permit shield shall not extend to minor permit revisions or to changes that do not require a permit revision.

[SIP Rule 210 §§ 407, 403.6, and 405.7]

b. ACID RAIN PERMIT:

i. The Acid Rain Phase II Revised Permit Application and Certificate of Representation signed by the Designated Representative on November 4, 2024, and submitted to the Control Officer, shall constitute the Permittee's Acid Rain Permit;

ii. The Permittee shall comply with the Acid Rain Permit, 40 CFR Parts 72, 73, 75, and 77 and the applicable Acid Rain emission limitations for sulfur dioxide.

iii. The relevant Conditions of this Permit and the Acid Rain Permit, including but not limited to, the Allowable Emission Limits, Operation Requirements, Monitoring/Recordkeeping Requirements, Reporting Requirements, and Testing Requirements shall constitute the Compliance Plan required by 40 CFR Part 72 Subpart D;

iv. The Permittee shall hold SO_2 Allowances as of the allowance transfer deadline in each combustion turbine compliance subaccount not less than the total annual actual emissions of SO_2 for the previous calendar year from each combustion turbine as required by the Acid Rain Program; and

v. The SO_2 Allowance Allocations and NO_X Requirements for each combustion turbine are as follows:

Table 9
Acid Rain Requirements

Affected Units	Pollutant	Years 2000 - 2009	Years 2010 and Beyond
CC1A, CC1B, CC2A,CC2B, and CT3- CT10	SO_2	NA[1]	NA[1]
CC1A, CC1B, CC2A, CC2B, and CT3- CT10	NO_X	These units are not subject to a NO_X limit under 40 CFR Part 76	

[1]NA means no allocations are available since these are new units.

[40 CFR 72, 73, 75]

24. RULE 310: FUGITIVE DUST FROM DUST-GENERATING OPERATING OPERATIONS

a. Applicability:

i. The provisions of this Permit Section apply to all dust-generating operations except for those dust-generating operations listed in the Condition below. Any person engaged in a dust- generating operation subject to this Permit Section shall be subject to the standards and/or requirements of this Permit Section before, after, and while conducting such dust-generating operation, including during weekends, after work hours, and on holidays.

ii. For the purpose of Rule 310, any control measure that is implemented must achieve the applicable standard(s) described in Rule 310, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in Rule 310.

iii. Regardless of whether a dust-generating operation is in compliance with an approved Dust Control Plan or there is no approved Dust Control Plan, the owner and/or operator of a dust- generating operation shall be subject to all requirements of Rule 310 at all times.

iv. Failure to comply with the provisions of these requirements, as applicable, and/or of an approved Dust Control Plan, shall constitute a violation.

[SIP Rule 310 §§ 102, 301]

b. Exemptions:

i. The provisions of this Permit Section shall not apply to the following activities:

ii. Emergency activities that may disturb the soil conducted by any utility or government agency in order to prevent public injury or to restore critical utilities to functional status.

iii. Establishing of initial landscapes without the use of mechanized equipment or conducting landscape maintenance without the use of mechanized equipment. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading or trenching performed to establish initial landscapes or to redesign existing landscapes.

[SIP Rule 310 § 103]

c. Co-location:
The Permittee shall not co-locate any crushing & screening, hot mix asphalt plant and/or concrete batch facilities with the equipment covered by this permit as documented in the equipment list. Co-located sources are those located on contiguous or adjacent properties, which are under common control of the Permittee.

[Rule 100 § 200.28][SIP Rule 100 § 200.27][SIP Rule 241]

d. Dust Control Plan Requirements:

i. The Permittee shall comply with the most recently approved DCP.

ii. The Permittee shall comply with the requirements of the Dust Control Plan and the provisions of MCAQD Rule 310 Sections 301 – 310 at all times.

[SIP Rule 310 §§ 301-310, 409]

e. Visible Emission Requirements for Dust-Generating Operations:

i. The Permittee shall not cause or allow visible fugitive dust emissions to exceed 20% opacity.

ii. The Permittee shall not cause or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined by using EPA Reference Method 22. This requirement does not apply to dust-generating operations conducted within 25 feet of the property line.

[SIP Rule 310 § 303.1]

f. Exemptions from Dust-Generating Operation Opacity Limitation Requirement:

i. If wind conditions cause fugitive dust emissions to exceed the opacity requirements in this permit, despite implementation of the Dust Control Plan, an owner and/or operator shall:

1) Ensure that all control measures and requirements of the Dust Control Plan are implemented and the subject violations cannot be prevented by better application, operation, or maintenance of these measures and requirements.

2) Cease dust-generating operations and stabilize any disturbed surface area consistent with the Stabilization Requirements of these conditions.

3) Compile records consistent with the recordkeeping requirements of these Permit Conditions and document the control measure and other Dust Control Plan requirements implemented.

ii. Emergency Maintenance of Flood Control Channels and Water Retention Basins: The opacity limit shall not apply to emergency maintenance of flood control channels and water retention basins, provided that control measures are implemented.

[SIP Rule 310 § 303.2]

g. Stabilization Requirements for Dust-Generating Operations:

i. Unpaved Parking Lot: The owner and/or operator of any unpaved parking lot shall not allow visible fugitive dust emissions to exceed 20% opacity and shall not allow silt loading equal to or greater than 0.33 oz/ft. However, if silt loading is equal to or greater than 0.33 oz/ft, then the owner and/or operator shall not allow the silt content to exceed 8%. An unpaved parking lot includes any area that is not paved and that is used for parking, maneuvering, material handling, or storing motor vehicles and equipment.

[SIP Rule 310 §§ 232, 304.1]

ii. Unpaved Haul/Access Road: An unpaved haul/access road includes any on-site road or equipment path that is not paved and is used by commercial, industrial, institutional, and/or governmental traffic.

1) The owner and/or operator of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall not allow visible fugitive dust emissions to exceed 20% opacity and shall not allow silt loading equal to or greater than 0.33 oz/ft^2. However, if silt loading is equal to or greater than 0.33 oz/ft^2, then the owner and/or operator shall not allow the silt content to exceed 6%.

2) The owner and/or operator of any unpaved haul/access road (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall, as an

alternative to meeting the stabilization requirements for an unpaved haul/access road in Subsection [g.ii.1)] of this Condition, limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this subsection of this Permit, the owner and/or operator must include, in a Dust Control Plan, the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

[SIP Rule 310 § 304.2]

iii. Disturbed Surface Area: The owner and/or operator of any disturbed surface area on which no activity is occurring (including at a work site that is under construction or a work site that is temporarily or permanently inactive) shall meet at least one of the standards described below, as applicable. Should such a disturbed surface area contain more than one type of stabilization characteristic, such as soil, vegetation, or other characteristic, which is visibly distinguishable, then the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, in accordance with the appropriate test methods described in Section 501.2(c) of Rule 310 and in Appendix C (Fugitive Dust Test Methods) of MCAQD rules. The owner and/or operator of such disturbed surface area on which no activity is occurring shall be considered in violation of Rule 310 if the area is not maintained in a manner that meets at least one of the standards listed below, as applicable. An area is considered to be a disturbed surface area until the activity that caused the disturbance has beencompleted and the disturbed surface area meets the standards described in this subsection.

1) Maintain a soil crust;

2) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

3) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;

4) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;

5) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;

6) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or

7) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator.

[SIP Rule 310 § 304.3]

iv. Soil Moisture: If water is the chosen control measure in an approved Dust Control Plan, the owner and/or operator of a dust-generating operation shall operate a water application system on-site (e.g., water truck, water hose) while conducting any earthmoving operations on disturbed surface areas 1 acre or larger, unless a soil crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.

[SIP Rule 310 § 307]

h. Dust Control Training Classes for Dust-Generating Operations:

i. At least once every three years, the following people shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer.

1) Water truck drivers.

2) Water-pull drivers.

3) The site superintendent or other designated on-site representative of the permit holder.

ii. Any certification issued to a person having successfully completed a Basic Dust Control Training Class conducted or approved by the Control Officer may be suspended or revoked for cause, including, but not limited to, inappropriate ethical activities or conduct associated with the dust control program.

[SIP Rule 310 § 309.1]

i. Dust Control Plan Revisions

i. If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any dust-generating operation still exceed the standards of this Permit, the Control Officer shall issue a written notice to the owner and/or operator of the dust-generating operation explaining such determination. The owner and/or operator of a dust-generating operation shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that such owner and/or operator is preparing revisions to the approved Dust Control Plan, such owner and/or operator must still comply with all requirements of this Permit.

[SIP Rule 310 § 403.1]

ii. The Permittee shall request a Dust Control Plan revision with a submittal in the manner and form prescribed by the Control Officer if:

1) The acreage of a project changes;

2) The permit holder changes;

3) The name(s), address(es), or phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust-generating operation change; and

4) If the activities related to the purposes for which the Dust Control permit was obtained change.

[SIP Rule 310 § 403.2]

j. Recordkeeping:
The Permittee shall maintain the following records for the time period specified in Subsection l and make them available to the Control Officer upon request:

i. The Permittee shall keep a written record of self-inspection on each day dust-generating operations are conducted. Self-inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage, and dust suppressant application. Such written record shall also include the following information:

1) Method, frequency, and intensity of application or implementation of the control measures;

2) Method, frequency, and amount of water application to the site;

3) Street sweeping frequency;

4) Types of surface treatments applied to and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps;

5) Types and results of test methods conducted;

6) If contingency control measures are implemented, actual application or implementation of contingency control measures and why contingency control measures were implemented;

7) List of subcontractors' names and registration numbers updated when changes are made; and

8) Names of employee(s) who successfully completed dust control training class(es), date of the class(es) that such employee(s) successfully completed, and name of the agency/representative who conducted such class(es).

ii. Upon verbal or written request by the Control Officer, the log or the records and supporting documentation shall be provided as soon as possible but no later than 48 hours after the request, excluding weekends. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

[SIP Rule 310 §§ 502.3] [SIP Rule 310 § 502.1]

k. Records Retention: The Permittee shall retain records required by this rule for at least five years from the date such records are established.

[SIP Rule 100 § 504] [SIP Rule 310 § 503]

APPENDIX A – EQUIPMENTLIST

Redhawk Generating Facility

	Manufacturer	Serial Number	Model	Rated Capacity	Installed	Operational	Controls	CEMS	PNG
Unit 1									
Combustion Turbine 1A	General Electric	297583	7FA	175 mw	4/1/02	4/25/02	SCR	x	x
Combustion Turbine 1B	General Electric	297584	7FA	175 mw	4/1/02	4/14/02	SCR	x	x
Steam Turbine	Alstom Corp.	GM0215 2	DKYZZ3 - 2N34B	204 mw	4/1/02	4/14/02	N/A		
HRSG 1A Duct Burners	Forney	N/A	N/A	144 mmBtu/hr (LHV) 160 mmBtu/hr (HHV)	4/1/02	4/25/02	SCR		x
HRSG 1B Duct Burners	Forney	N/A	N/A	144 mmBtu/hr (LHV) 160 mmBtu/hr (HHV)	4/1/02	4/14/02	SCR		x
Unit 2									
Combustion Turbine 2A	General Electric	297640	7FA	175 mw	5/1/02	5/15/02	SCR	x	x
Combustion Turbine 2B	General Electric	297641	7FA	175 mw	5/1/02	5/23/02	SCR	x	x
Steam Turbine	Alstom Corp.	GM0215 3	DKYZZ3 - 2N34B	204 mw	5/1/02	5/15/02	N/A		
HRSG 2A Duct Burners	Forney	N/A	N/A	144 mmBtu/hr (LHV) 160 mmBtu/hr (HHV)	5/1/02	5/15/02	SCR		x
HRSG 2B Duct Burners	Forney	N/A	N/A	144 mmBtu/hr (LHV) 160 mmBtu/hr (HHV)	5/1/02	5/23/02	SCR		x
Simple Cycle Combustion Turbine CT3	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water injection/SCR/ Ox Cat	x	x
Simple Cycle Combustion Turbine CT4	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water injection/SCR/ Ox Cat	x	x
Simple Cycle Combustion Turbine CT5	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water injection/SCR/ Ox Cat	x	x
Simple Cycle Combustion Turbine CT6	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water injection/SCR/ Ox Cat	x	x
Simple Cycle Combustion Turbine CT7	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water injection/SCR/ Ox Cat	x	x
Simple Cycle Combustion Turbine CT8	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water	x	x

							injection/SCR/ Ox Cat		
Simple Cycle Combustion Turbine CT9	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water injection/SCR/ Ox Cat	x	x
Simple Cycle Combustion Turbine CT10	General Electric	TBD	LM6000PC	49.6 mw (471 mmBtu/hr)	TBD	TBD	Water injection/SCR/ Ox Cat	x	x
Natural Gas Piping System	TBD	TBD	TBD	TBD	TBD	TBD	N/A		
Sulfur Hexafluoride Circuit Breakers	TBD	TBD	TBD	TBD	TBD	TBD	N/A		
Cooling Tower 1	Psychrometric Sys.	N/A	CSD-484839-9I-36	160,000 gpm	4/1/02	4/1/02	DE		
Cooling Tower 2	Psychrometric Sys.	N/A	CSD-484839-9I-36	160,000 gpm	4/1/02	4/1/02	DE		
Chiller Cooling Tower	Baltimore Aircoil.	N/A	S3E-1424-14S-5	12,365 gpm	TBD	TBD	DE		
Emergency Diesel Fire Pump	Cummins		FIREPUMP 6BTA5.9F1	208 hp	4/1/2002	4/1/02			
Aboveground Gasoline Storage Tank	Convault			250 gallons	10/2003				