# ADEQ
# OPERATING
# AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No. : 1936-AOP-R2
Renewal #1
IS ISSUED TO:
KGen Hot Spring, LLC
696 Black Branch Road
Malvern, AR 72104
Hot Spring County
AFIN: 30-00229

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

AND

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Mike Porta
Interim Chief, Air Division

Date

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List of Acronyms and Abbreviations

| | |
|---|---|
| A.C.A. | Arkansas Code Annotated |
| AFIN | ADEQ Facility Identification Number |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| HAP | Hazardous Air Pollutant |
| lb/hr | Pound Per Hour |
| MVAC | Motor Vehicle Air Conditioner |
| No. | Number |
| $NO_x$ | Nitrogen Oxide |
| PM | Particulate Matter |
| $PM_{10}$ | Particulate Matter Smaller Than Ten Microns |
| SNAP | Significant New Alternatives Program (SNAP) |
| $SO_2$ | Sulfur Dioxide |
| SSM | Startup, Shutdown, and Malfunction Plan |
| Tpy | Tons Per Year |
| UTM | Universal Transverse Mercator |
| VOC | Volatile Organic Compound |

## SECTION I: FACILITY INFORMATION

| | |
|---|---|
| PERMITTEE: | KGen Hot Spring, LLC |
| AFIN: | 30-00229 |
| PERMIT NUMBER: | 1936-AOP-R2 |
| FACILITY ADDRESS: | 696 Black Branch Road<br>Malvern, AR 72104 |
| MAILING ADDRESS: | 696 Black Branch Road<br>Malvern, Arkansas 72014 |
| COUNTY: | Hot Spring |
| CONTACT POSITION: | Dorina Morcan |
| TELEPHONE NUMBER: | 501-609-4604 |
| REVIEWING ENGINEER: | Bryan Leamons |
| UTM North South (Y): | 3795.0 |
| UTM East West (X): | 512.2 |

## SECTION II: INTRODUCTION

### Summary of Permit Activity

KGen Hot Spring is a 1240-MW gas turbine/ steam turbine combined-cycle electric power plant in Hot Spring County. The facility is located on a 100-acre plot approximately one mile off of Highway 67 due west of Malvern, Arkansas.

This permit action serves to complete the renewal requirements of Arkansas Regulation 26 and 40 CFR Part 70. This permit action also serves as an extension to the approved BACT analysis and permit to construct and operate Turbine/ Duct Burner Units 3 and 4, Auxiliary Boiler 2, and Cooling Tower 2 (SN-03, SN-04, SN-06, and SN-19 through 30). The extension is valid for 18 months from the issue date of this permit. See Plantwide Condition 2. A summary of the BACT analysis for these sources can be found in the permit history. No modifications are occurring with this permit action.

40 CFR Part 64, Compliance Assurance Monitoring (CAM) is addressed for applicable units. There are no CAM affected units at the facility at this time. The combustion turbines/ duct burners are subject to Federal Acid Rain Requirements and are therefore exempted. The Auxiliary Boilers utilize low $NO_x$ burner design and the cooling towers utilize drift eliminating baffle design for minimizing emissions. Equipment found on the Auxiliary Boilers and Cooling Towers are passive emissions reducing devices and are not considered "add-on" pollution control devices for the purposes of CAM. These units are therefore not subject to CAM.

### Process Description

SN-01 through SN-04

Hot Spring Energy Facility is permitted to operate four GE Model 7FA Combustion Turbines (CTs). From each of the four CTs, hot combustion exhaust gasses flow across duct burners for additional heat and on to Heat Recovery Steam Generators (HRSGs) that collect the heat to produce high, intermediate, and low-pressure steam. The CTs and the duct burners employ low-$NO_x$ combustion technology and Selective Catalytic Reduction (SCR) as controls for $NO_x$ (nitrogen oxides). Natural gas is the only permitted fuel at these units.

SN-05 and SN-06

Additional steam is produced by two auxiliary boilers. This steam is used for startup/ shutdown purposes and will not increase power output for the facility. The boilers have a maximum heat input capacity of 44.1 MM Btu/hr each. Low $NO_x$ combustion control technology is installed on the boiler units. Natural gas is the only permitted fuel for the boilers.

SN-07 through SN-30

Two mechanical draft cooling towers make up SN-07 through SN-30. (Each cell is considered a separate source in this case.) Cooling Tower 1 encompasses SN-07 through SN-18 and Cooling Tower 2 makes up SN-19 through SN-30. Particulate Matter ($PM/PM_{10}$) is the only pollutant from these sources. A drift eliminator is employed for particulate control.

SN-32 and SN-33

Hot Spring Energy Facility operates two 600 kW diesel-powered emergency generators. Emergency diesel generators do not operate more than 500 hours per year each.

Insignificant sources

Insignificant sources at the facility include, but are not limited to, the following:

- 1 - 400 bhp diesel fire water pump
- 1 - Oil/Water Separator for wastewater purposes
- Diesel Storage Tanks
- Sulfuric Acid Storage Tank

All fuel burning insignificant activities are operated only in emergency situations except for routine testing purposes. See Section VII of this permit, *Insignificant Activities,* for complete information regarding these emission points.

## Regulations

The following table contains the regulations applicable to this permit.

| Regulations |
|---|
| *Arkansas Air Pollution Control Code*, Regulation 18, effective February 15, 1999 |
| *Regulations of the Arkansas Plan of Implementation for Air Pollution Control*, Regulation 19, effective December 19, 2004 |
| *Regulations of the Arkansas Operating Air Permit Program*, Regulation 26, effective September 26, 2002 |
| New Source Performance Standards (NSPS):<br><br>40 CFR Part 60, Subpart GG, Standards *of Performance for Stationary Gas Turbines*;<br>40 CFR Part 60, Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units*;<br>40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial - Commercial - Institutional Steam Generating Units*; |
| Federal Acid Rain Program - 40 CFR Part 75, *Continuous Emission Monitoring* |

## Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

| EMISSION SUMMARY | | | | |
|---|---|---|---|---|
| Source Number | Description | Pollutant | Emission Rates | |
| | | | lb/hr | tpy |
| Total Allowable Emissions | | PM | 123.2 | 524.2 |
| | | $PM_{10}$ | 115.2 | 489.6 |
| | | $SO_2$ | 54.4 | 214.8 |
| | | VOC | 81.2 | 328.2 |
| | | CO | 506.0 | 1928.0 |
| | | $NO_x$ | 162.8 | 539.2 |
| | | $NH_3$** | 269.2 | 590.4 |
| | | lead*** | 0.06 | 0.06 |
| | | HAPs: | | |
| | | 1,3-butadiene* | 0.04 | 0.04 |
| | | acetaldehyde* | 0.32 | 1.28 |
| | | acrolein* | 0.08 | 0.20 |
| | | benzene* | 0.14 | 0.42 |
| | | ethylbenzene* | 0.28 | 1.00 |
| | | formaldehyde* | 2.10 | 8.38 |
| | | hexane* | 0.34 | 1.34 |
| | | propylene oxide* | 0.24 | 0.92 |
| | | toluene* | 1.06 | 4.10 |
| | | xylene* | 0.52 | 2.00 |
| | | POM* | 0.04 | 0.08 |
| | | arsenic*** | 0.06 | 0.06 |
| | | cadmium*** | 0.06 | 0.06 |
| | | chromium*** | 0.06 | 0.06 |
| | | mercury*** | 0.06 | 0.06 |

| EMISSION SUMMARY | | | | |
|---|---|---|---|---|
| Source Number | Description | Pollutant | Emission Rates | |
| | | | lb/hr | tpy |
| 01 | Unit 1 | PM | 27.8 | 120.5 |
| | | $PM_{10}$ | 27.8 | 120.5 |
| | | $SO_2$ | 13.3 | 53.4 |
| | | VOC | 19.0 | 81.5 |
| | | CO | 115.6 | 478.3 |
| | | $NO_x$ | 31.9 | 130.6 |
| | | $NH_3$ | 67.3 | 147.6 |
| | | lead | 0.01 | 0.01 |
| | | HAPs: | | |
| | | 1,3-butadiene | 0.01 | 0.01 |
| | | acetaldehyde | 0.08 | 0.32 |
| | | acrolein | 0.02 | 0.05 |
| | | benzene | 0.03 | 0.10 |
| | | ethylbenzene | 0.07 | 0.25 |
| | | formaldehyde | 0.52 | 2.09 |
| | | hexane | 0.08 | 0.33 |
| | | propylene oxide | 0.06 | 0.23 |
| | | toluene | 0.26 | 1.02 |
| | | xylene | 0.13 | 0.50 |
| | | POM | 0.01 | 0.02 |
| | | arsenic | 0.01 | 0.01 |
| | | cadmium | 0.01 | 0.01 |
| | | chromium | 0.01 | 0.01 |
| | | mercury | 0.01 | 0.01 |

| EMISSION SUMMARY | | | | |
|---|---|---|---|---|
| Source Number | Description | Pollutant | Emission Rates | |
| | | | lb/hr | tpy |
| 02 | Unit 2 | PM | 27.8 | 120.5 |
| | | $PM_{10}$ | 27.8 | 120.5 |
| | | $SO_2$ | 13.3 | 53.4 |
| | | VOC | 19.0 | 81.5 |
| | | CO | 115.6 | 478.3 |
| | | $NO_x$ | 31.9 | 130.6 |
| | | $NH_3$ | 67.3 | 147.6 |
| | | lead | 0.01 | 0.01 |
| | | HAPs: | | |
| | | 1,3-butadiene | 0.01 | 0.01 |
| | | acetaldehyde | 0.08 | 0.32 |
| | | acrolein | 0.02 | 0.05 |
| | | benzene | 0.03 | 0.10 |
| | | ethylbenzene | 0.07 | 0.25 |
| | | formaldehyde | 0.52 | 2.09 |
| | | hexane | 0.08 | 0.33 |
| | | propylene oxide | 0.06 | 0.23 |
| | | toluene | 0.26 | 1.02 |
| | | xylene | 0.13 | 0.50 |
| | | POM | 0.01 | 0.02 |
| | | arsenic | 0.01 | 0.01 |
| | | cadmium | 0.01 | 0.01 |
| | | chromium | 0.01 | 0.01 |
| | | mercury | 0.01 | 0.01 |

| EMISSION SUMMARY | | | | |
|---|---|---|---|---|
| Source Number | Description | Pollutant | Emission Rates | |
| | | | lb/hr | tpy |
| 03 | Unit 3 | PM | 27.8 | 120.5 |
| | | $PM_{10}$ | 27.8 | 120.5 |
| | | $SO_2$ | 13.3 | 53.4 |
| | | VOC | 19.0 | 81.5 |
| | | CO | 115.6 | 478.3 |
| | | $NO_x$ | 31.9 | 130.6 |
| | | $NH_3$ | 67.3 | 147.6 |
| | | lead | 0.01 | 0.01 |
| | | HAPs: | | |
| | | 1,3-butadiene | 0.01 | 0.01 |
| | | acetaldehyde | 0.08 | 0.32 |
| | | acrolein | 0.02 | 0.05 |
| | | benzene | 0.03 | 0.10 |
| | | ethylbenzene | 0.07 | 0.25 |
| | | formaldehyde | 0.52 | 2.09 |
| | | hexane | 0.08 | 0.33 |
| | | propylene oxide | 0.06 | 0.23 |
| | | toluene | 0.26 | 1.02 |
| | | xylene | 0.13 | 0.50 |
| | | POM | 0.01 | 0.02 |
| | | arsenic | 0.01 | 0.01 |
| | | cadmium | 0.01 | 0.01 |
| | | chromium | 0.01 | 0.01 |
| | | mercury | 0.01 | 0.01 |

| EMISSION SUMMARY | | | | |
|---|---|---|---|---|
| Source Number | Description | Pollutant | Emission Rates | |
| | | | lb/hr | tpy |
| 04 | Unit 4 | PM | 27.8 | 120.5 |
| | | $PM_{10}$ | 27.8 | 120.5 |
| | | $SO_2$ | 13.3 | 53.4 |
| | | VOC | 19.0 | 81.5 |
| | | CO | 115.6 | 478.3 |
| | | $NO_x$ | 31.9 | 130.6 |
| | | $NH_3$ | 67.3 | 147.6 |
| | | lead | 0.01 | 0.01 |
| | | HAPs: | | |
| | | 1,3-butadiene | 0.01 | 0.01 |
| | | acetaldehyde | 0.08 | 0.32 |
| | | acrolein | 0.02 | 0.05 |
| | | benzene | 0.03 | 0.10 |
| | | ethylbenzene | 0.07 | 0.25 |
| | | formaldehyde | 0.52 | 2.09 |
| | | hexane | 0.08 | 0.33 |
| | | propylene oxide | 0.06 | 0.23 |
| | | toluene | 0.26 | 1.02 |
| | | xylene | 0.13 | 0.50 |
| | | POM | 0.01 | 0.02 |
| | | arsenic | 0.01 | 0.01 |
| | | cadmium | 0.01 | 0.01 |
| | | chromium | 0.01 | 0.01 |
| | | mercury | 0.01 | 0.01 |
| 05 | Boiler 1 | PM | 0.5 | 0.5 |
| | | $PM_{10}$ | 0.5 | 0.5 |
| | | $SO_2$ | 0.3 | 0.3 |
| | | VOC | 0.8 | 0.8 |
| | | CO | 6.7 | 6.7 |
| | | $NO_x$ | 5.3 | 5.3 |
| | | lead | 0.01 | 0.01 |
| | | HAPs | | |
| | | benzene | 0.01 | 0.01 |
| | | formaldehyde | 0.01 | 0.01 |
| | | hexane | 0.01 | 0.01 |
| | | toluene | 0.01 | 0.01 |
| | | arsenic | 0.01 | 0.01 |
| | | cadmium | 0.01 | 0.01 |
| | | chromium | 0.01 | 0.01 |
| | | mercury | 0.01 | 0.01 |

| EMISSION SUMMARY | | | | |
|---|---|---|---|---|
| Source Number | Description | Pollutant | Emission Rates | |
| | | | lb/hr | tpy |
| 06 | Boiler 2 | PM | 0.5 | 0.5 |
| | | $PM_{10}$ | 0.5 | 0.5 |
| | | $SO_2$ | 0.3 | 0.3 |
| | | VOC | 0.8 | 0.8 |
| | | CO | 6.7 | 6.7 |
| | | $NO_x$ | 5.3 | 5.3 |
| | | lead | 0.01 | 0.01 |
| | | HAPs | | |
| | | benzene | 0.01 | 0.01 |
| | | formaldehyde | 0.01 | 0.01 |
| | | hexane | 0.01 | 0.01 |
| | | toluene | 0.01 | 0.01 |
| | | arsenic | 0.01 | 0.01 |
| | | cadmium | 0.01 | 0.01 |
| | | chromium | 0.01 | 0.01 |
| | | mercury | 0.01 | 0.01 |
| 07-18 | Cooling Tower 1 | PM | 4.7 | 20.3 |
| | | $PM_{10}$ | 0.7 | 3.0 |
| 19-30 | Cooling Tower 2 | PM | 4.7 | 20.3 |
| | | $PM_{10}$ | 0.7 | 3.0 |
| 32 | 600 kW Generator | PM | 0.8 | 0.3 |
| | | $PM_{10}$ | 0.8 | 0.3 |
| | | $SO_2$ | 0.3 | 0.3 |
| | | VOC | 1.8 | 0.3 |
| | | CO | 15.1 | 0.7 |
| | | $NO_x$ | 12.3 | 3.1 |
| 33 | 600 kW Generator | PM | 0.8 | 0.3 |
| | | $PM_{10}$ | 0.8 | 0.3 |
| | | $SO_2$ | 0.3 | 0.3 |
| | | VOC | 1.8 | 0.3 |
| | | CO | 15.1 | 0.7 |
| | | $NO_x$ | 12.3 | 3.1 |

*Certain HAPs are included in the VOC totals.
**Ammonia is an air contaminant and is not a VOC or HAP.
***Metallic compounds are a subset of the $PM/PM_{10}$ totals.

## SECTION III: PERMIT HISTORY

Permit #1936-AOP-R0, issued on December 29, 2000, is the initial permit for this facility. It allowed the facility to construct and operate four natural gas-fired combustion turbines, with duct burners, and two auxiliary boilers. Other supporting equipment was also permitted. This supporting equipment includes cooling towers, emergency use generators, and insignificant activities such as a wastewater treatment oil-water separator and a fire-water pump engine.

The facility was subject to PSD review as part of the initial Title V permitting process. This review required the application of Best Available Control Technology (BACT) and an air quality analysis of facility emissions sources to ensure compliance with NAAQS and to assess increment consumption.

The facility is a fossil-fuel fired steam-generating electric utility with heat input greater than 250 MM Btu/hr. These facilities are specifically listed on the PSD 28-list of named source categories and is therefore considered a major source because it emits one or more regulated pollutants in quantities greater than 100 tpy.

The following table compares PSD Significant Emission Rates to the initially permitted facility emissions. The facility underwent full review for each of these pollutants.

| Pollutant | PSD Significant Emission Increase (tpy) | Emissions Increase (tpy) |
|---|---|---|
| $PM_{10}$ | 15 | 490.0 |
| $SO_2$ | 40 | 215.3 |
| Ozone | 40 tpy of VOC | 328.6 tpy of VOC |
| CO | 100 | 1929.3 |
| $NO_2$ | 40 tpy of $NO_x$ | 545.6 tpy of $NO_x$ |

Summary of BACT Determination

The following table summarized each BACT determination and limits made for this facility: Detailed BACT analyses may be found in the 1936-AOP-R0.

| Pollutant | CT/HRSG | Cooling Tower | Auxiliary Boiler | Diesel fired Generators |
|---|---|---|---|---|
| $NO_x$ | Dry low-$NO_x$ and SCR (3.5 ppmvd @ 15% $O_2$ 24 hour average) | NA | Good operating practice (0.12 lb/MM Btu) | Good operating practice (14 gram/bhp-hr) |
| CO | Good operating practice (21 ppmvd @ 15% $O_2$ 24 hour average) | NA | Good operating practice (0.15 lb/MM Btu) | Good operating practice (3 gram/bhp-hr) |

| Pollutant | CT/HRSG | Cooling Tower | Auxiliary Boiler | Diesel fired Generators |
|---|---|---|---|---|
| VOC | Good operating practice (9.4 ppmvw) | NA | Good operating practice (0.016 lb/MM Btu) | Good operating practice (1.1 gram/bhp-hr) |
| $PM_{10}$ | Good operating practice (27.8 lb/hr per turbine duct burner combination) | Drift eliminator (0.7 lb/hr for each 12-cell tower) | Good operating practice (0.01 lb/MM Btu) | Good operating practice (1.77 lb/hr) |
| $SO_2$ | fuel S limit (≤2 grains S/100 dscf ) | NA | fuel S limit (≤2 grains/100 dscf) | fuel S limit (0.05% S by weight) |

Each BACT determination and corresponding emission rates/ level is consistent with that of similar units found in the RBLC and is consistent with other similar permitted sources in Arkansas.

Permit 1936-AOP-R1 was issued on February 10, 2003. This permitting action included the following three items approved by a minor-modification:

- Relocation of various stacks due to plant layout shift during construction and updates to applicable dispersion modeling contained in the PSD Air Quality Analysis;
- Increase in the maximum annual operating rates of the Auxiliary Boilers (SN-05 and SN-06) and an update to the PSD Air Quality Analysis;
- Clarification of Specific Condition 12 to state the allowable averaging period for VOC.

Also, a modification was incorporated into the permit action that established specific language regarding startup and shutdown of Units 1 through 4 (SN-01 through SN-04).

## SECTION IV: SPECIFIC CONDITIONS

SN-01 through 04
Units 1 through 4: CT/HRSG/Duct Burner Exhausts

Hot Spring Energy Facility operates four GE 7FA 170 MW low-$NO_x$ combustion turbines. With duct burner firing, each CT/HRSG/duct burner has a total heat input capacity of 2,507 MM Btu/hr always using natural gas, and always operating with SCR. The duct burner consumes approximately 500 MM Btu/hr of the total heat input capacity at each unit.

Specific Conditions

Particulate Matter and Opacity

1. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance with this condition will be demonstrated by the testing requirements of Specific Condition 5. [§19.501 and §19.901 et seq. of the *Regulations of the Arkansas Plan of Implementation for Air Pollution Control* (Regulation 19) effective December 19, 2004 and 40 CFR Part 52, Subpart E]

   The hourly emission rates set forth in the following table were based on a worst-case scenario.

| Pollutant | lb/hr | Averaging Period |
|---|---|---|
| PM | 27.8 | Per EPA Reference Method 5 |
| $PM_{10}$ | 27.8 | Per EPA Reference Method 5 |

2. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. [§19.501, §19.901, 40 CFR 52, Subpart E]

   Initial compliance with the annual emission rates set forth in the following table has been demonstrated by the initial performance test of the CT/HRSG/duct burner stacks for PM/$PM_{10}$. Continuing compliance with the annual emission rates shall be demonstrated by permitting these sources at maximum annual rates and any required stack testing. Maximum annual emission rates are based on an average ambient temperature and continuous annual duct-burner firing.

| Pollutant | tons per consecutive 12 months |
|---|---|
| PM | 120.5 |
| $PM_{10}$ | 120.5 |

3. The permittee shall comply with the following BACT determinations for each CT/HRSG/duct burner exhaust. Compliance with the emission levels set forth in the following table shall be demonstrated by the performance testing requirements of Specific Condition 5. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | | |
|---|---|---|---|
| PM | good combustion practices and clean fuels | 27.8 lb/hr | 3-hr avg. |
| $PM_{10}$ | good combustion practices and clean fuels | 27.8 lb/hr | 3-hr avg. |

4. The permittee shall not cause to be discharged to the atmosphere from SN-01 through SN-04 stack gases which exhibit greater than 5% opacity averaged over a six minute period. Compliance with this opacity limit shall be demonstrated by the use of natural gas as the only permitted fuel. [§18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

5. The permittee shall test two of the four CT/HRSG/duct burner exhausts every five years to demonstrate compliance with the limits specified in Specific Conditions 1 and 3. PM testing shall be conducted using EPA Reference Method 5 and 202. The permittee may report all emissions measured using EPA Reference Method 5 and 202 as $PM_{10}$ or the permittee may conduct separate $PM_{10}$ testing using EPA Reference Method 201A and 202. Testing shall be performed in combined cycle mode at greater than or equal to 90% of the maximum operating load. The permittee shall perform, at minimum, a stack test on two of the four CT/HRSG/duct burner exhaust stacks. Testing shall otherwise be performed in accordance with Plantwide Condition 3. If Units 3 and 4 are constructed, initial testing shall be completed in accordance with Plantwide Condition 3 for SN-03 and SN-04 also. [§19.702, §19.901, and 40 CFR 52 Subpart E]

Sulfur Dioxide

6. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance with this condition will be demonstrated by the monitoring requirements of Specific Condition 9. [§19.501, §19.901, and 40 CFR 52, Subpart E]

   The hourly emission rates set forth in the following table were based on a worst-case scenario.

| Pollutant | lb/hr | Averaging Period |
|---|---|---|
| $SO_2$ | 13.3 | 24-hr |

7. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance shall be demonstrated by compliance with Specific Condition 9. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | tons per consecutive twelve months |
|---|---|
| $SO_2$ | 53.4 |

8. The permittee shall comply with the following BACT determinations for each CT/HRSG/duct burner exhaust. Compliance with the emission levels set forth in the following table shall be demonstrated by the requirements of Specific Condition 9. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | |
|---|---|---|
| $SO_2$ | low sulfur fuels | ≤2 grains S/100 dscf |

9. The monitoring requirements relative to $SO_2$ emissions from the CT/HRSG/duct burner exhausts shall be as follows:

   a. The permittee shall only combust natural gas as defined in 40 CFR §60.331(u). This requirement relieves the previous requirements for NSPS Subpart GG fuel sulfur content monitoring.
   b. The permittee shall conduct $SO_2$ emissions monitoring procedures in accordance with Appendix D of 40 CFR Part 75. These procedures shall include monitoring the fuel sulfur content of the fuel rounded to the nearest 0.1 grains per 100 SCF. As an alternative, procedures may include measuring pipeline natural gas fuel flow rate using an in-line fuel flow meter, determining the gross calorific value of the pipeline natural gas at least once per month, and using the default emission rate of 0.0006 pounds of $SO_2$ per million Btu of heat input.
   c. The permittee shall maintain records which demonstrate compliance with 9.a & 9.b. Records shall be submitted in accordance with General Provision 7.

   [§19.703 and §19.901 et seq. of Regulation 19, NSPS Subpart GG, 40 CFR Part 75 Subpart B, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Volatile Organic Compounds

10. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance shall be demonstrated by performance tests required by Specific Condition 13. [§19.501, §19.901, and 40 CFR 52, Subpart E]

The hourly emission rates set forth in the following table were based on a worst-case scenario.

| Pollutant | lb/hr | Averaging Period |
|---|---|---|
| VOC | 19.0 | 3-hour |

11. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. [§19.501, §19.901, and 40 CFR 52, Subpart E]

Initial compliance with the annual emission rates set forth in the following table has been demonstrated by the initial performance testing on two of the four CT/HRSG/duct burner stacks for VOC. Continuing compliance with the annual emission rates shall be demonstrated by permitting these sources at maximum annual rates and any performance testing requirements. Maximum annual emission rates are based on an average ambient temperature and continuous annual duct-burner firing.

| Pollutant | tons per consecutive twelve months |
|---|---|
| VOC | 81.5 |

12. The permittee shall comply with the following BACT determinations for each CT/HRSG/duct burner exhaust. Compliance with the emission levels set forth in the following table shall be demonstrated by performance testing of two of the four combustion turbine/heat recovery steam generating unit stacks for VOC. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | | Averaging Period |
|---|---|---|---|
| VOC | good combustion practices and clean fuels | 9.4 ppmvw | 3-hour |

13. The permittee shall test two of the four CT/HRSG/duct burner exhausts every five years to demonstrate compliance with the limits specified in Specific Conditions 10 and 12. Testing shall be performed in accordance with Plantwide Condition 3 and EPA Reference Method 25A as found in 40 CFR Part 60 Appendix A. Testing shall be performed in combined cycle mode at greater than or equal to 90% of the maximum operating load. The permittee shall perform, at minimum, a stack test on two of the four CT/HRSG/duct burner exhaust stacks. If Units 3 and 4 are constructed, initial testing shall be completed in accordance with Plantwide Condition 3 for SN-03 and SN-04 also. [§19.702, §19.901, and 40 CFR 52 Subpart E]

Carbon Monoxide

14. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Initial compliance has been demonstrated by initial performance testing. Ongoing compliance shall be demonstrated by the CO CEMS required by Specific Condition 18 and any testing requirements. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | lb/hr | Averaging Period |
|---|---|---|
| CO | 115.6 | 24-hour |

15. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance shall be demonstrated by compliance with Specific Condition 14. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | tons per consecutive twelve months |
|---|---|
| CO | 478.3 |

16. The permittee shall comply with the following BACT determinations for each CT/HRSG/duct burner exhaust. Initial compliance has been demonstrated by initial performance testing requirements. Ongoing compliance shall be demonstrated by collection of CEMS data as required by Specific Condition 18 and any testing requirements. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | |
|---|---|---|
| CO | good combustion practices and clean fuels | 21 ppmvd @ 15%$O_2$ 24 hour average |

17. If Units 3 and 4 are constructed, the permittee shall perform an initial stack test of SN-03 and SN-04 to demonstrate compliance with the limits specified in Specific Conditions 14 and 16. Testing shall be performed in accordance with Plantwide Condition 3 and EPA Reference Method 10 as found in 40 CFR Part 60 Appendix A. Testing shall be performed in combined cycle mode at greater than or equal to 90% of the maximum operating load. [§19.702, §19.901, and 40 CFR 52 Subpart E]

18. The permittee shall install, maintain, and operate a CO CEMS on each CT/HRSG/duct burner exhaust stack. The CEMS shall comply with the ADEQ CEMS Conditions. A copy is provided in Appendix A. The CEMS data may be used by the Department for enforcement purposes. The CEMS shall be used to demonstrate compliance with the CO mass emission limits specified in Specific Conditions 14, 15, and 16. [§19.703, §19.901,

40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Nitrogen Oxides

19. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Initial compliance has been demonstrated by initial performance testing requirements. Ongoing compliance shall be demonstrated by the $NO_x$ CEMS required by Specific Condition 23 and any testing requirements. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | lb/hr | Averaging Period |
|---|---|---|
| $NO_x$ | 31.9 | 24-hour |

20. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance shall be demonstrated by compliance with Specific Condition 19. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | tons per consecutive twelve months |
|---|---|
| $NO_x$ | 130.6 |

21. The permittee shall comply with the following BACT determinations for each CT/HRSG/duct burner exhaust. Initial compliance has been determined by initial testing requirements. Ongoing compliance shall be demonstrated by the operation of $NO_x$ CEMS required by Specific Condition 23 and any testing requirements. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | |
|---|---|---|
| $NO_x$ | low-$NO_x$ combustion/ SCR | 3.5 ppmvd @ 15%$O_2$ |

22. If Units 3 and 4 are constructed, the permittee shall perform an initial stack test of SN-03 and SN-04 to demonstrate compliance with the limits specified in Specific Conditions 19 and 21. Testing shall be performed in accordance with Plantwide Condition 3 and EPA Reference Method 7E as found in 40 CFR Part 60 Appendix A. Testing shall be performed in combined cycle mode at greater than or equal to 90% of the maximum operating load. [§19.702, §19.901, and 40 CFR 52 Subpart E]

23. The permittee shall install, maintain, and operate a $NO_x$ CEMS on each CT/HRSG/duct burner exhaust stack. The CEMS shall comply with the ADEQ CEMS Conditions. A copy is provided in Appendix A. The CEMS data may be used by the Department for enforcement purposes. The CEMS shall be used to demonstrate compliance with

Specific Conditions 19, 20, and 21. [§19.703, §19.901, 40 CFR Part 52 Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Lead

24. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance shall be demonstrated by the use of natural gas. [§19.501, §19.901, and 40 CFR 52, Subpart E]

The hourly emission rates in the following table are based on the worst case scenario.

| Pollutant | lb/hr | Averaging Period |
|---|---|---|
| Pb | 0.01 | 24-hour |

25. The permittee shall not exceed the emission rates set forth in the following table at each CT/HRSG/duct burner exhaust. Compliance is demonstrated through the use of natural gas. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | tons per consecutive twelve months |
|---|---|
| Pb | 0.01 |

Non-criteria Pollutants

26. The permittee shall not exceed lb/hr emission rates listed in the following table for each CT/ HRSG/ duct burner exhaust. Initial compliance has been determined by initial testing requirements. Ongoing compliance with emission rates shall be demonstrated by the exclusive use of pipeline quality natural gas and any required testing. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

| Pollutant | lb/hr | Averaging Period |
|---|---|---|
| $NH_3$ | 33.7/ 67.3 | daily/ 3 hour |
| | | |
| HAPs | | |
| 1,3-butadiene | 0.01 | |
| acetaldehyde | 0.08 | |
| acrolein | 0.02 | |
| benzene | 0.03 | |
| ethylbenzene | 0.07 | |
| formaldehyde | 0.52 | |
| hexane | 0.08 | |
| propylene oxide | 0.06 | |
| toluene | 0.26 | |
| xylene | 0.13 | |
| POM | 0.01 | |
| arsenic | 0.01 | |
| cadmium | 0.01 | |
| chromium | 0.01 | |
| mercury | 0.01 | |

27. The permittee shall not exceed ton per year emission rates listed in the following table for each CT/ HRSG/ duct burner exhaust. Compliance shall be determined by the exclusive use of pipeline quality natural gas. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

| Pollutant | tons per consecutive twelve months |
|---|---|
| $NH_3$ | 147.6 |
| HAPs | |
| 1,3-butadiene | 0.01 |
| acetaldehyde | 0.32 |
| acrolein | 0.05 |
| benzene | 0.10 |
| ethylbenzene | 0.25 |
| formaldehyde | 2.09 |
| hexane | 0.33 |
| propylene oxide | 0.23 |
| toluene | 1.02 |
| xylene | 0.50 |
| POM | 0.02 |
| arsenic | 0.01 |
| cadmium | 0.01 |
| chromium | 0.01 |
| mercury | 0.01 |

28. The permittee shall test for ammonia ($NH_3$) at all existing units every five years to assure compliance with Specific Condition 26 ammonia emission rates. The permittee shall use Department approved methodology. Testing on the CT/HRSG/duct burners shall be performed in combined cycle at greater than or equal to 90% maximum load. Testing shall otherwise be performed in accordance with Plantwide Condition 3. If Units 3 and 4 are constructed, initial testing shall be required on SN-03 and SN-04 in accordance with Plantwide Condition 3. [§18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

29. Reserved.

Throughput Limits

30. Each CT/HRSG/duct burner unit may only fire pipeline quality natural gas. [§18.1004, §19.705, §19.901, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

New Source Performance Standards

31. Each combustion turbine/heat recovery steam generating unit is subject to and shall comply with applicable provisions of 40 CFR Part 60 Subpart A - *General Provisions* and 40 CFR Part 60 Subpart GG - *Standards of Performance for Stationary Gas Turbines* (Included in Appendix B). Applicable provisions of Subpart GG include, but are not limited to, the following:

    a. The permittee shall not exceed a $NO_X$ emission level of 75 ppmvd at 15% oxygen on a dry basis. Compliance shall be demonstrated by compliance with Specific Condition 21. [40 CFR §60.332(a)(1)]
    b. The permittee shall not burn any fuel which contains sulfur in excess of 0.8 percent by weight. Compliance with this condition shall be demonstrated by compliance with Specific Condition 9.a. [40 CFR §60.333(b)]
    c. Initial compliance testing for $NO_X$ and $SO_2$ is required within 180 days after start-up of SN-03 and SN-04. Compliance with the $SO_2$ requirements will be demonstrated by compliance with Specific Condition 9.a. [40 CFR §60.335 and §60.8]

        The $NO_X$ performance testing shall be conducted in accordance with test methods in 40 CFR §60.335 and 40 CFR Part 60 Appendix A or alternative approved methods. Compliance with these $NO_x$ performance testing requirements may be waived with EPA's approval of the use of CEMS required by Specific Condition 23 to demonstrate compliance with the $NO_x$ standard.

32. The Duct Burners in the CT/HRSG system (SN-01 through 04) are subject. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart A - General Provisions and Subpart Da - *Standards of Performance for Electric Utility Steam*

*Generating Units*. A copy of Subpart Da is provided in Appendix C. Applicable provisions of Subpart Da include, but are not limited to the following: [§19.304, and 40 CFR Part 60, Subpart Da]

a. No gases shall be discharged into the atmosphere which contain particulate matter in excess of 0.03 lb/million Btu heat input. [§60.42Da(a)]
b. No gases shall be discharged into the atmosphere which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour or not more than 27 percent opacity. Combustion of natural gas shall demonstrate compliance. [§60.42Da(b)]
c. No gases shall be discharged into the atmosphere which contain sulfur dioxide in excess of 0.20 lb/million Btu heat input based on a 30-day rolling average. Compliance shall be demonstrated by requirements of Specific Condition 9.a and 9.b. [§60.43Da(b) and (g)]
d. No gases shall be discharged into the atmosphere which contain nitrogen oxides in excess of 1.6 lb/megawatt-hour gross energy output based on a 30-day rolling average. The nitrogen oxides emission rate from the duct burner component of the combined cycle system shall be calculated by subtracting the nitrogen oxides emission rate measured for the unfired duct burner case from the nitrogen oxides emission rate measured for the fired duct burner case. [§60.44Da(d)(1)]
e. The particulate matter and nitrogen oxide emission standards apply at all times except during periods of startup, shutdown, or malfunction. [§60.48Da(c)]
f. Compliance with the sulfur dioxide and nitrogen oxide emission limitations is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30-day average emission rate for both sulfur dioxide and nitrogen oxides are calculated to show compliance with the standards. [§60.48Da(e)]
g. Nitrogen oxide emissions shall be calculated by multiplying the average hourly $NO_x$ concentration by the average hourly flow rate and divided by the average hourly gross heat rate or other method approved by the administrator. (See Appendix F.) [§60.48Da(i)]
h. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system for $NO_x$, and record the output of the system. If CEMS are installed to meet the requirements of part 75 and are continuing to meet the requirements of part 75, that CEMS may be used to meet this condition, except that the permittee shall also meet the requirements of §60.51Da. [§60.49Da(c)]
i. The permittee shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored. [§60.49Da(d)]
j. Initial compliance testing for $PM/PM_{10}$, opacity, and $NO_x$ (at 100% boiler load) is required within 180 days after startup (for SN-03 and SN-04). Testing shall be conducted in accordance with the test methods in 40 CFR Part 60 Appendix A or alternative approved methods. [40 CFR Part 60, Subpart Da]

33. The following notifications to the Department are required for SN-01 and SN-02: (a) date of construction commenced postmarked no later than 30 days after such date, (b) anticipated date of initial startup between 30-60 days prior to such date, (c) actual date of initial startup postmarked within 15 days after such date, and (d) CEMS, opacity, and emissions performance testing 30 days prior to testing. [§19.304 and 40 CFR §60.7(a)]

Acid Rain Program

34. The affected units (SN-01 through SN-04) are subject to and shall comply with applicable provisions of the Acid Rain Program (40 CFR Parts 72, 73, and 75).

35. The submission of the $NO_X$, $SO_2$, and $O_2$ or $CO_2$ monitoring plan is required at least 45 days prior to the CEMS certification testing. Notice of CEMS certification testing is required at least 45 days prior to the CEMS certification testing. A copy of 40 CFR Part 75 is included in Appendix E. [40 CFR Part 75 (Appendix A)- Continuous Emission Monitoring Subpart G]

36. A monitoring plan is required to be submitted for $NO_X$, $SO_2$, and $O_2$ or $CO_2$ monitoring. [40 CFR Part 75 - Continuous Emission Monitoring Subpart G]

37. The initial $NO_X$, and $O_2$ or $CO_2$ CEMS certification testing is to occur no later than 90 days after the unit commences commercial operation except the testing must occur prior to the date this unit is declared commercial in accordance with DOE Form EIA-860. [40 CFR Part 75 Subpart A]

38. The permittee shall ensure that the continuous emissions monitoring systems are in operation and monitoring all unit emissions at all times, except during periods of calibration, quality assurance, preventative maintenance or repair. [40 CFR §75.10]

Startup and Shutdown Provisions

39. For the purposes of this permit, "upset condition" reports as required by §19.601 of Regulation 19 shall not be required for periods of startup excess emissions from SN-01, SN-02, SN-03, and SN-04 unless such periods of excess startup emissions exceed a four hour period or are in violation after initial attainment of the Mode 6 operating condition (whichever is less). Reports shall not be required during a one hour period preceding shutdown. This shall only apply for "upset conditions" which directly result from the start-up and/or shut down of one or all of the combustion turbine units (SN-01 SN-02, SN-03 and SN-04). All other "upset conditions" must be reported as required by Regulation 19. Additionally, the following conditions must be met during start up and shut down periods. [§19.601 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

a. All CEM systems for SN-01, SN-02, SN-03, and SN-04 must be operating during start up and shut down. The emissions recorded during these periods shall count toward the annual ton per year permit limits.

b. The permittee shall maintain a log or equivalent electronic data storage which shall indicate the date, start time, and duration of each start up and shut down procedure. "Start up" shall be defined as the period of time beginning with the first fire within the combustion turbine firing chamber until the unit(s) are operating at steady state as defined by the combustion turbine manufacturer (i.e. Mode 6) or a maximum of four hours. "Shut down" shall be defined as the period of time up to one hour beginning with the initiation of the shut down procedure and ending when emissions are no longer detected from the source. This log or equivalent electronic data storage shall be made available to Department personnel upon request.

c. Opacity is not included. If any occurrences should ever occur, “upset condition” reporting is required.

d. Operating mode, specifically whether or not a particular unit is in Mode 6, shall be able to be identified at any time from the control area for that unit and shall be available for inspection by ADEQ representatives at any time.

e. Requirements of ADEQ CEMS Condition (II) (F) are not applicable to this permit. However, the facility shall still comply with the 40 CFR 60.7 requirements to maintain 95% CEMS uptime during non startup/ shutdown periods and 99% compliance demonstration during these periods along with the required reporting requirements.

SN-05 and 06: Auxiliary Boiler 1 and 2

The facility operates two 44.1 MM Btu/hr, 1000 hp auxiliary boilers for additional steam production. The steam is used to maintain steam flow and operating temperatures during down periods and to help minimize startup time of the primary units. The boilers operate no more than 5,000 hours per year each, natural gas-fired only. They will not be used to augment the power generation of the CTs or provide additional steam for the steam turbines. The boilers employ low-$NO_x$ combustion technology as control for $NO_x$ with no add-on devices.

Specific Conditions

40. The permittee shall not exceed the emission rates set forth in the following table at each Auxiliary Boiler. Compliance with this condition will be demonstrated by compliance with Specific Condition 44 and 45. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | lb/hr | tpy |
|---|---|---|
| PM | 0.5 | 0.5 |
| $PM_{10}$ | 0.5 | 0.5 |
| $SO_2$ | 0.3 | 0.3 |
| VOC | 0.8 | 0.8 |
| CO | 6.7 | 6.7 |
| $NO_X$ | 5.3 | 5.3 |
| lead | 0.01 | 0.01 |

41. The permittee shall not exceed the emission rates set forth in the following table at each Auxiliary Boiler. Compliance with this condition will be demonstrated by compliance with Specific Condition 44 and 45. The HAP emissions listed for this source were based upon published emission factors at the time of permit issuance. Any change in these emission factors will not constitute a violation of the HAP emission rates listed below. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

| Pollutant | lb/hr | tpy |
|---|---|---|
| benzene | 0.01 | 0.01 |
| formaldehyde | 0.01 | 0.01 |
| hexane | 0.01 | 0.01 |
| toluene | 0.01 | 0.01 |
| arsenic | 0.01 | 0.01 |
| cadmium | 0.01 | 0.01 |
| chromium | 0.01 | 0.01 |
| mercury | 0.01 | 0.01 |

42. The permittee shall not cause to be discharged to the atmosphere from SN-05 through SN-06 stack gases which exhibit greater than 5% opacity averaged over a six minute period. Compliance with this opacity limit shall be demonstrated by the use of natural gas. [§18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

43. The permittee shall comply with all applicable provisions of 40 CFR Part 60, Subpart A - General Provisions and Subpart Dc - *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*. A copy of Subpart Dc is provided in Appendix D. Applicable provisions of Subpart Dc include, but are not limited to, the following: [§19.304 and 40 CFR 60, Subpart Dc]

    a. The owner or operator shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup. This notification shall include: [§60.48(c)(a)]
        i. The design heat input capacity of the boiler and identification of fuels to be combusted in the affected facility.
        ii. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired.
    b. Records of the amounts of fuel combusted each month must be kept for SN-05 and SN-06. These records shall be kept on site for two years following the date of such records. [§60.48(c)(g) and (i)]

44. The boilers (SN-05 and SN-06) may only fire pipeline quality natural gas. [§18.1004, §19.705, §19.901, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

45. Operation of the auxiliary boilers shall be limited to 2,000 hours each per twelve consecutive months. [§18.1004, §19.705, §19.901, 40 CFR 52 Subpart E, A.C.A., and 40 CFR §70.6]

46. The permittee shall maintain monthly records to demonstrate compliance with limits set in Specific Condition 45. Records shall contain a twelve month rolling total and shall be kept in accordance with General Provision 7. [§19.705 and 40 CFR Part 52, Subpart E]

47. The permittee shall comply with the following BACT determinations for each auxiliary boiler exhaust. Initial compliance has been demonstrated by the performance test for $NO_x$. Ongoing compliance with the emission levels set forth in the following table and compliance with Specific Condition 44 and any required testing. Compliance with the fuel sulfur limit shall be demonstrated by requirements of Specific Condition 9. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | |
|---|---|---|
| $PM_{10}$ | Good Operating Practice | 0.01 lb/MM Btu |

| Pollutant | BACT Determination | |
|---|---|---|
| CO | Good Operating Practice | 0.15 lb/MM Btu |
| VOC | Good Operating Practice | 0.016 lb/MM Btu |
| $NO_x$ | Good Operating Practice Low-$NO_x$ combustion/ SCR | 0.12 lb/MM Btu |
| $SO_2$ | fuel S limit | ≤2 gr/dscf |

48. If Boiler 2 is constructed, the permittee shall perform an initial stack test on the stack, SN-06, to demonstrate compliance with the $NO_x$ limit specified in Specific Condition 47. Testing shall be performed in accordance with Plantwide Condition 3 and EPA Reference Method 7E as found in 40 CFR Part 60 Appendix A at greater than or equal to 90% of the maximum operating load. [§19.702, §19.901, and 40 CFR 52 Subpart E]

SN-07 through 30: Cooling Towers 1 and 2

As part of Hot Spring Energy Facility's CT inlet air chilling system, two 12-cell forced convection cooling towers are used. Tower 1 is designated by SN-07 through SN-18 and Tower 2 is SN-19 through 30. The towers use a drift eliminator capable of reducing drift to 0.005% drift of total recirculated water. Drift elimination is inherent to the design and not considered add-on pollution control for the purposes of CAM.

Specific Conditions

49. The permittee shall not exceed the emission rates set forth in the following table at each 12-cell tower. Compliance with this condition will be demonstrated by compliance with Specific Condition 53. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | lb/hr | tpy |
|---|---|---|
| $PM_{10}$ | 0.7 | 3.0 |

50. The permittee shall not exceed the emission rates set forth in the following table at each 12-cell tower. Compliance with this condition will be demonstrated by Specific Condition 53. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

| Pollutant | lb/hr | tpy |
|---|---|---|
| PM | 4.7 | 20.3 |

51. The permittee shall comply with the following BACT determination at each 12-cell tower. Compliance with the emission levels set forth in the following table shall be demonstrated by Specific Condition 53. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | |
|---|---|---|
| $PM_{10}$ | Good Operating Practice | 0.7 lb/hr |

52. The permittee shall not cause to be discharged to the atmosphere from SN-07 through SN-30 exhausts which exhibit greater than 20% opacity. Compliance with this opacity limit shall be demonstrated by compliance with Specific Condition 53. [§19.503 40 CFR 52 Subpart E]

53. The permittee shall not exceed in the circulated cooling water a total suspended particle level of 1280 ppmw. [§18.1004, §19.705, 40 CFR 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

54. The permittee shall perform monthly testing or other monitoring approved by the Department that demonstrates compliance with Specific Condition 53. The permittee shall submit the test records to the Department in accordance with General Provision 7. [§18.1004, §19.705, 40 CFR 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-32 and 33: Emergency Generators

The facility operates two 600 kW emergency generators. These generators operate no more than 500 hours per 12 consecutive months and use No. 2 fuel oil only.

Specific Conditions

55. The permittee shall not exceed the emission rates set forth in the following table at each Emergency Generator. Compliance with this condition will be demonstrated by Specific Condition 60. [§19.501, §19.901, and 40 CFR 52, Subpart E]

| Pollutant | lb/hr | tpy |
|---|---|---|
| $PM_{10}$ | 1.8 | 0.5 |
| $SO_2$ | 1.7 | 0.5 |
| VOC | 2.0 | 0.5 |
| CO | 5.4 | 1.4 |
| $NO_X$ | 25.0 | 6.3 |

56. The permittee shall not exceed the emission rates set forth in the following table at each Emergency Generator. Compliance with this condition will be demonstrated by Specific Condition 60. [§18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

| Pollutant | lb/hr | tpy |
|---|---|---|
| PM | 1.8 | 0.5 |

57. The permittee shall not cause to be discharged to the atmosphere from SN-32 or SN-33 stack gases which exhibit greater than 20% opacity. Compliance with this opacity limit shall be demonstrated by the use of No. 2 diesel fuel only. [§19.503 40 CFR 52 Subpart E]

58. The permittee shall comply with the following BACT determinations for each Emergency Generator exhaust. [§19.901 and 40 CFR 52, Subpart E]

| Pollutant | BACT Determination | |
|---|---|---|
| $PM_{10}$ | Good Operating Practice | 1.77 lb/hr |
| $SO_2$ | Low S fuel | $\leq$0.05% by weight |
| VOC | Good Operating Practice | 1.1 gram/bhp-hr |

| Pollutant | BACT Determination | |
|---|---|---|
| CO | Good Operating Practice | 3 gram/bhp-hr |
| $NO_x$ | Good Operating Practice | 14 gram/bhp-hr |

59. The permittee must demonstrate compliance with the diesel fuel bound sulfur BACT determination of Specific Condition 58 with certifications from the supplier that each shipment of diesel is ≤0.05% by weight or is red-dyed (low sulfur DOT grade diesel). Records must be submitted to the Department in accordance with General Provision 7. [§19.705 and 40 CFR 52, Subpart E]

60. The permittee shall not operate in excess of 500 hours per 12 consecutive months at each Emergency Generator. [§18.1004, §19.705, 40 CFR 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

61. The permittee shall maintain records to demonstrate compliance with Specific Condition 60. Records shall be submitted in accordance with General Provision 7. [§18.1004, §19.705, 40 CFR 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

## SECTION V: COMPLIANCE PLAN AND SCHEDULE

KGen Hot Spring, LLC will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

## SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. In the case of permitted Turbine/ Duct Burner Units 3 and 4, Auxiliary Boiler 2, and Cooling Tower 2 (SN-03, SN-04, SN-06, and SN-19 through 30), extension to commence construction is granted for a period of 18 months following the issue date of this permit. [Regulation 19, §19.410(B) and 40 CFR Part 52, Subpart E]

3. The permittee must test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee shall submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19, §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

4. The permittee must provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

    a. Sampling ports adequate for applicable test methods;
    b. Safe sampling platforms;
    c. Safe access to sampling platforms; and
    d. Utilities for sampling and testing equipment.

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Regulation 19, §19.303 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation 26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Acid Rain (Title IV)

7. The Director prohibits the permittee to cause any emissions exceeding any allowances the source lawfully holds under Title IV of the Act or the regulations promulgated under the Act. No permit revision is required for increases in emissions allowed by allowances acquired pursuant to the acid rain program, if such increases do not require a permit revision under any other applicable requirement. This permit establishes no limit on the number of allowances held by the permittee. However, the source may not use allowances as a defense for noncompliance with any other applicable requirement of this permit or the Act. The permittee will account for any such allowance according to the procedures established in regulations promulgated under Title IV of the Act. [Regulation 26, §26.701 and 40 CFR 70.6(a)(4)]

Title VI Provisions

8. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 82, Subpart E]

    a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.
    b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
    c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.
    d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

9. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]

    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
    b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
    c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
    d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC like appliance” as defined at §82.152)
    e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

10. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

11. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.

12. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G.

## SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application received June 27, 2005.

| Description | Category |
|---|---|
| Fire water pump engine | A-12 |
| Oil-water separator for wastewater treatment | A-13 |
| 300 gallon diesel tank | A-3 |
| 2 - 1,050 gallon diesel tanks | A-3 |
| 30,000 gallon sulfuric acid tank | A-13 |
| 40,000 gallon ammonia storage tank | A-13 |

## SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 CFR 70.6(b)(2)]

2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective September 26, 2002]

3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 26, §26.406]

4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, et seq. (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 CFR 70.6(a)(1)(ii) and Regulation 26, §26.701(A)(2)]

5. The permittee must maintain the following records of monitoring information as required by this permit. [40 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §26.701(C)(2)]

    a. The date, place as defined in this permit, and time of sampling or measurements;
    b. The date(s) analyses performed;
    c. The company or entity performing the analyses;
    d. The analytical techniques or methods used;
    e. The results of such analyses; and
    f. The operating conditions existing at the time of sampling or measurement.

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) 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 for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR 70.6(a)(3)(ii)(B) and Regulation 26, §26.701(C)(2)(b)]

7. The permittee must submit reports of all required monitoring every six (6) months. If permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26, §26.2 must certify all required reports. The permittee will send the reports to the address below: [40 C.F.R. 70.6(a)(3)(iii)(A) and Regulation 26, §26.701(C)(3)(a)]

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
Post Office Box 8913
Little Rock, AR 72219

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.

a. For all upset conditions (as defined in Regulation19, § 19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report my be made by telephone and shall include:

i. The facility name and location
ii. The process unit or emission source deviating from the permit limit,
iii. The permit limit, including the identification of pollutants, from which deviation occurs,
iv. The date and time the deviation started,
v. The duration of the deviation,
vi. The average emissions during the deviation,
vii. The probable cause of such deviations,
viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The

permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Regulation 19, §19.601 and §19.602, Regulation 26, §26.701(C)(3)(b), and 40 CFR 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26, §26.701(E), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation 26, §26.701(F)(1)]

11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and Regulation 26, §26.701(F)(2)]

12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation 26, §26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26, §26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director

along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26, §26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 26, §26.701(G)]

16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 CFR 70.6(a)(8) and Regulation 26, §26.701(H)]

17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation 26, §26.701(I)(1)]

18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26, §26.702(A) and (B)]

19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26, §26.703(A)]

20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26, §26.703(B)]

    a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
    b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
    d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually within 30 days following the last day of the anniversary month of the initial Title V permit. The permittee must also

submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 26, §26.703(E)(3)]

a. The identification of each term or condition of the permit that is the basis of the certification;
b. The compliance status;
c. Whether compliance was continuous or intermittent;
d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit;
e. and Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.

22. Nothing in this permit will alter or affect the following: [Regulation 26, §26.704(C)]

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act or,
d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.

23. This permit authorizes only those pollutant emitting activities addressed in this permit. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

# APPENDIX A

ADEQ CEMS Conditions

APPENDIX B

40 CFR 60, Subpart GG

# APPENDIX C

40 CFR 60, Subpart Da

# APPENDIX D

40 CFR 60, Subpart Dc

APPENDIX E

40 CFR Part 75

# APPENDIX F

Alternative Approval for Compliance
with 40 CFR 60, Subpart Da

Mr. Emmett Poindexter
Manager, Environmental Services
Duke Energy
5400 Westheimer Court
Suite 4G-38
Houston, TX 77056

Dear Mr. Poindexter:

This letter responds to your June 19, 2000 request for approval of an alternative method of determining compliance with 40 CFR Part 60, Section 60.44a(d)(1) for the Arlington Valley Energy Project (AVEP) in Maricopa County, Arizona. Specifically, you proposed to use a continuous monitoring system (CMS) to monitor fuel input rate (+/-2 percent), measure Gross Calorific Value (GCV) of the natural gas burned, and using the F-Factor approach described in Method 19 together with data from a Part 75 certified NOx CMS and the gross electrical output of the combined unit, to demonstrate compliance with the output based standard of 40 CFR Part 60, Section 60.44a(d)(1). The details of such monitoring, record keeping and reporting will be detailed in an Emissions Monitoring Compliance Plan for the AVEP facility to be submitted and approved by the Administrator as required under 40 CFR Part 75. Pursuant to 40 CFR Part 60, Section 60.13(i), the U.S. Environmental Protection Agency (EPA) hereby approves your request. The following discussion provides our rationale for this approval.

Maricopa County determined that 40 CFR Part 60, Subpart GG will apply to AVEP's gas turbines and Subpart Da will apply to the duct burners in the Heat Recovery Steam Generator (HRSG) upon construction of this plant. You have indicated that your duct burner operates as part of a combined cycle power generation system and the duct burner cannot operate independently of the turbine. The combined effluent is exhausted through a common selective catalytic reduction (SCR) NOx control system and stack which makes it impractical to isolate the emissions emitted to the atmosphere from the duct burner from those of the host combustion turbine. The thermal energy produced from the duct burner also combines with thermal energy from the turbine to produce electricity in a common steam turbine/generator. In this case, an alternative method of determining compliance is appropriate.

You have indicated that there is a proposed federally enforceable NOx permit limit of 3 ppmvd @ 15 percent $O_2$ for the combined cycle system which is more stringent than the Subpart Da emission limit. Assuming that you will comply with the 3 ppmvd @ 15 percent $O_2$ limit, this

is equivalent to about 6 percent of the emission limitation of Subpart Da. This provides an ample margin of safety to compensate for the assumption that we have to make that the thermal efficiency of the turbine and duct burner are the same.

If you have questions about this letter, contact Terry Harrison at US EPA, Emission Measurement Center, MD-19, Research Triangle Park, NC, 27711 or E-Mail address harrison.terry@epa.gov

Sincerely,

J. David Mobley, Acting Director
Emissions, Monitoring & Analysis Division

cc: Director, Air Division (Region 9)
Steve Frey (Region 9)
Ms. Elena Gorelik, Maricopa County ESD
Mr. Max Shilstone, Duke Energy
Sara Head, ENSR

bcc: Sims Roy (MD 13)
Jim Eddinger (MD 13)
Chris Oh, OC, OECA, (MC 2223A)

OAQPS/EMAD/SMTG/RTHARRISON/lac/541-5233/08/25/00/MD-19
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Addresses:
Mr. Emmett Poindexter
Manager, Environmental Services
Duke Energy
5400 Westheimer Court
Suite 4G-38
Houston, TX 77056

Duke Energy's Maricopa contact:
Mr. Max Shilstone
Duke Energy Maricopa
40 North Central Avenue
Phoenix, Arizona 85004-4429

Ms. Elena Gorelik
Permit Engineer
Maricopa County Environmental Services Department
1001 North Central Avenue
Phoenix, Arizona 85004

Ms. Sara Head
ENSR
1220 Avenida Acaso
Camarillo, CA 93012

# APPENDIX G

## Acid Rain Application