



September 12, 2012

Mr. John Benedict
Division Director – Air Quality
WV Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Re: Appalachian Power Co Ceredo Generating Station Title V Permit Renewal Application

Enclosed, please find two copies of the Title V Permit Renewal Application for Appalachian Power Company's Ceredo Generating Station. The current Title V Permit for Ceredo Generating Station expires April 28, 2013

If you have any questions on the technical content of this application, please contact Mike Bayes at (614) 716-1290.

Sincerely,

Patrick C. Myers
Plant Manager – Ceredo Generating Station



cc: M. D. Bayes – AQS -Columbus

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Appendix A – CAIR Permit Renewal Application



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No., 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the..., 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

11. Mailing Address		
Street or P.O. Box: 1662 Walker Branch Road		
City: Huntington	State: WV	Zip: 25704
Telephone Number: (304) 528-7190	Fax Number: (304) 528-7198	

12. Facility Location		
Street: 1662 Walker Branch Road	City: Huntington	County: Wayne
UTM Easting: 365.97 km	UTM Northing: 4247.45 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Take Route 52 exit from I-64 and travel south for a short distance. Turn left onto Airport Road until you reach Huntington Testing. Turn left to cross railroad tracks and turn immediately right onto Walker Branch Road. Turn right at first stop sign. The site is approximately 1 mile on the left		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, for what air pollutants? PM 2.5	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Kentucky Ohio	
Is facility located within 100 km of a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area¹? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Patrick C. Myers		Title: Plant Manager
Street or P.O. Box: 1662 Walker Branch Road		
City: Huntington	State: WV	Zip: 25704
Telephone Number: (304) 528-7191	Fax Number: (304) 528-7198	
E-mail address: pcmyers@aep.com		
Environmental Contact: Leslie S. Adkins		Title: Energy Production Supervisor
Street or P.O. Box: 1662 Walker Branch Road		
City: Huntington	State: WV	Zip: 25704
Telephone Number: (304) 528- 7192	Fax Number: (304) 528-7198	
E-mail address: lsadkins@aep.com		
Application Preparer: Michael D. Bayes		Title: Senior Engineer
Company: American Electric Power		
Street or P.O. Box: 1 Riverside Plaza		
City: Columbus	State: OH	Zip: 43215-2373
Telephone Number: (614) 716-1290	Fax Number: (614) 716-1252	
E-mail address: mdbayes@aep.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
6 - Natural gas fired turbines for electric generation	Electricity	221112	4911

Provide a general description of operations.

Ceredo Generating Station was constructed in 2000 and began commercial operation in April of 2001. Ceredo Generating Station consists of six GE 7001 EA natural gas fired combustion turbines. Each turbine generator is nominally rated at 85 mw and each has a design heat input of 1,215 MMbtu/hr. Each turbine is equipped with a dry low NOx combustor and a CO oxidation catalyst. The CO oxidation catalyst reduces CO emissions by 50%. A single fuel gas heater operates concurrently with the gas turbines. The heater is natural gas fired and has a heat input capacity of 17.0 MMbtu/hr.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input checked="" type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input checked="" type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input checked="" type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input checked="" type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input checked="" type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input checked="" type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations
List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.
<input type="checkbox"/> Permit Shield

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

Open Burning – 45CSR §6-3.1 - Title V R30-09900081-2008 Condition No.3.1.1

Open Burning Exemptions – 45 CSR §6-3.2 - Title V R30-09900081-2008 Condition No. 3.1.2

Asbestos – 40 CFR 61 Sections §61.145, §61.148, §61.150, §61.145(b)(3)(i) - Title V R30-09900081-2008 Condition No. 3.1.3

Odor – 45 CSR §4-3.1 - Title V R30-09900081-2008 Condition No. 3.1.4

Standby Plan for Reducing Emissions – 45 CSR §11-5.2 - Title V R30-09900081-2008 Condition No. 3.1.5

Emission Inventory – WV Code §22-5-4(a)(14) - Title V R30-09900081-2008 Condition No. 3.1.6

Ozone Depleting Substances – 40 CFR 82 Subpart F (40 CFR 82 Sections 82.154, 82.156, 82.158, 82.161) - Title V R30-09900081-2008 Condition No. 3.1.7

Risk Management Plan - 40 CFR 68 - Title V R30-09900081-2008 Condition No. 3.1.8

NO_x Budget Trading Program – 45 CSR §§26-6.1.b, 26-20.1, 26-23.2, 26-24.1
Title V R30-09900081-2008 Condition No.3.1.9

CAIR NO_x Annual Trading Program – 45 CSR 39 - Title V R30-09900081-2008 Condition No.3.1.10

CAIR NO_x Ozone Season Trading Program – 45 CSR 40 Title V R30-09900081-2008 Condition No.3.1.11

CAIR SO₂ Trading Program – 45 CSR 41 Title V R30-09900081-2008 Condition No.3.1.12

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Stack Testing – 45 CSR 13 and WV Code 22-5-4(a)(15) - Title V R30-09900081-2008 Condition No.3.3.1

Recordkeeping Requirements – 45 CSR §§30-5.1.c.2.A, 30-5.1.c.2.B, 30-5.1.c - Title V R30-09900081-2008 Conditions No.3.4.(1-3)

Reporting Requirements – 45 CSR §§ 30-4.4, 30-5.1.c.3.D, 30-5.1.c.3.E - Title V R30-09900081-2008 Condition No.3.5.(1-3)

Certified Emissions Statements – 45 CSR §30-8 - Title V R30-09900081-2008 Condition No.3.5.4

Compliance Certification – 45 CSR §30-5.3.e - Title V R30-09900081-2008 Condition No.3.5.5

Semi-Annual Monitoring Reports – 45 CSR §30-5.1.c.3.A Title V R30-09900081-2008 Condition No.3.5.6

Emergencies – 45 CSR §30-5.7.c - Title V R30-09900081-2008 Condition No.3.5.7

Deviations – 45 CSR §§30-5.1.c.3.(B-D) - Title V R30-09900081-2008 Condition No.3.5.8

New Applicable Requirements – 45 CSR §30-4.3.h.1.B - Title V R30-09900081-2008 Condition No.3.5.9

Permit Shield – 45 CSR §30-5.6 - Title V R30-09900081-2008 Condition No.3.7.1

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

Sulfur content of the fuel combusted in the turbines shall be less than 0.8 percent by weight. 40 C.F.R. § 60.333(b). 45CSR13 Permit No. R13-2382C Other Requirements (B)(7). Title V R30-09900081-2008 Condition No. 4.1.1

Nitrogen Oxides emissions from the turbine stacks shall not exceed 100 parts per million by volume on a dry basis at 15% oxygen. 40 C.F.R. § 60.332(a)(1)., 45CSR13 Permit No. R13-2382C Other Requirements (B)(7). Title V R30-09900081-2008 Condition No. 4.1.2

At all times, including periods of startup, shutdown, and malfunction, the turbines and associated CO oxidation catalysts shall be, to the extent practicable, maintained and operated in a manner consistent with good air pollution practice for minimizing emissions. 40 C.F.R. § 60.11(d), 45CSR13 Permit No. R13-2382C Other Requirements (B)(7). Title V R30-09900081-2008 Condition No. 4.1.3

Emissions from the turbine stacks shall not exceed the following limits except during periods of startup and shutdown. Compliance with the annual emission limits shall be demonstrated using a 12 month rolling average.

Pollutant	lbs/hr (each stack)	tons/year (total for all stacks)
NOx	40	245.3
Sulfur Dioxide	5	5.0
PM-10	17	83.3
VOCs	4	13.6
CO	47	240.2
CO (without CO catalyst)	94	240.2
HAPs	1.0	7.4

Compliance with this streamlined 80₂ limit assures compliance with 45CSR₅c10-4.1. 45CSR13 Permit No. R13-2382C Specific Requirement (A)(1-2). Title V R30-09900081-2008 Condition No. 4.1.4

Combustion turbines shall not combust more than 12×10^9 scf/yr of fuel cumulatively on a rolling 12 month basis unless Continuous Emission Monitors (CEM's) for NOx are installed and operating. 45CSR13 - Permit No. R13-2382C Specific Requirement (A)(3), Title V R30-09900081-2008 Condition No. 4.1.5

CO oxidation catalysts, identified in permit application R13-2382A as 1C, 2C, 3C, 4C, 5C, and 6C, shall be installed, maintained, and operated so as to achieve a minimum 50.00% destruction efficiency in the control of Carbon Monoxide emissions from the turbines. The CO oxidation catalysts shall be utilized at all times except in the case of failure of the catalyst. In the event of failure of the catalyst, the permittee shall notify the Division of Air Quality within 24 hours. In no case shall the facility operate without the use of CO oxidation catalysts for more than 2,688 turbine-hours per year based on a rolling yearly total. Additionally, in no case shall the emission limitations set forth in 4.1.4 be exceeded except for hourly CO emissions which shall not exceed 94 lbs/hr during periods of catalyst failure. 45CSR13 - Permit No. R13-2382C Specific Requirement (A)(4), Title V R30-09900081-2008 Condition No. 4.1.6

The sulfur content of the gas being fired shall not exceed 1.32 grains/100 scf. [45CSR13 - Permit No. R13-2382C Specific Requirement (A)(5), Title V R30-09900081-2008 Condition No. 4.1.7

Combined hours of operation for the six turbines shall not exceed 15,150 hours per year unless Continuous Emission Monitors (CEM's) for NOx are installed and operating. Compliance with this limit shall be determined using a 12 month rolling average. 45CSR13 - Permit No. R13-2382 C Specific Requirement (A)(6), Title V R30-09900081-2008 Condition No. 4.1.8

Permit Shield

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

The gas turbines are Phase II Acid Rain affected units under 45CSR33, as defined by 40 C.F.R § 72.6, and as such are required to meet the requirements of 40 C.F.R. Parts 72, 73, 74, 75, 76, 77 and 78. These requirements include, but are not limited to:

Hold an Acid Rain permit (Acid Rain Permit is included in Appendix B);

- a. Hold allowances, as of the allowance transfer deadline, in the unit's compliance sub-account of not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit;
- b. Comply with the applicable Acid Rain emissions for sulfur dioxide;
- c. Comply with the applicable Acid Rain emissions for nitrogen oxides;
- e. Comply with the monitoring requirements of 40 C.F.R. Part 75 and section 407 of the Clean Air Act of 1990 and regulations implementing section 407 of the Act;
- . Submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 C.F.R. Part 72, Subpart T and 40 C.F.R. Part 75.

[45CSR33, 40 C.F.R. Parts 72, 73, 74, 75, 76, 77, 78.], Title V R30-09900081-2008 Condition No. 4.1.9

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

The owners and operators of this facility shall comply with monitoring requirements as found in 40 C.F.R. 75. In lieu of continuous emission monitoring, the facility will demonstrate compliance with S02, NOx, and CO emissions from the gas turbines following the procedures outlined in 40 C.F.R. 75. 40 C.F.R. § 72.9(b)(1). Title V R30-09900081-2008 Condition No. 4.2.1

I In order to demonstrate compliance with the sulfur content limits of sections 4.1.1. and 4.1.7. along with the NOx emission limit of 4.1.2., the sulfur content and nitrogen content of the fuel being fired in the turbines shall be monitored per the following custom schedule approved by the Administrator:

1) Monitoring of fuel nitrogen content is not required while pipeline quality natural gas is the only fuel being fired in gas turbines.

2) Monitoring of fuel sulfur content:

a. Sulfur monitoring of the natural gas shall be performed once per ozone season using one of the approved ASTM methods or an approved alternative method. The reference methods are ASTM D1072-80, ASTM 3031-80, ASTM 3246-81, ASTM 4084-82 (referenced in 60.335(b)(2)) and the approved alternate method ASTM 6667-01.

b. Should any sulfur analysis required in section 4.2.1(2)(a) indicate a noncompliance with 40 CFR 60.333, the owner/operator shall notify the EPA Regional Office Air Division and the WV DEP of such excess emissions and the custom schedule shall be re-examined by the EPA. Sulfur analysis shall be conducted weekly during the interim period while this custom schedule is being re-examined.

3) If there is a change in fuel supply, the owner or operator must notify the EPA and the WV DEP of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

4) Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available to the Director or his duly authorized representative upon request. Where appropriate the owner or operator of a fuel burning units(s) may maintain such records in electronic form.

5) Because all six (6) turbines will share a common fuel supply, only one fuel gas sample need be collected and analyzed for all six turbines for compliance with Subpart GG.

[40 C.F.R. § 60.334(b), 45CSR13, R13-2382, C.7. , R30-09900081-2008 Condition No. 4.2.2, May 11, 2001 letter from EPA' Judith Katz "Re: Request for Custom Fuel Monitoring Schedule under Subpart GG of NSPS" and September 19, 2002 letter from EPA' Conniesue B. Oldham]

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

The following parameters are to be monitored for purposes of demonstrating compliance with the Acid Rain Program requirements and the emission limits found in section 4.1.4.

- Inlet Guide Vane Position in degrees
- Exhaust Temperature in °F
- ~~Compressor Discharge Temperature~~ °F **Combustion Reference Temperature**
- ~~Compressor Discharge Pressure~~ in psia **Fuel Gas Split Set Point**
- Q_v - Pipeline Natural Gas (PNG) Fuel Flow in scf/hr
- GCV - Fuel heat content (Btu/100scf)
- Online/Offline Signal
- Megawatt Load

40 CFR Part 75, Appendix D,E, G and 45 CSR 30-5.1.c, Title V R30-09900081-2008 Condition No. 4.2.3

CAM monitoring requirement. The permittee shall calibrate, maintain, and operate a temperature monitoring system with recorder consisting of 18 thermocouples to determine “calculated Turbine Exhaust Temperature Median Corrected by Average” at each Turbine Exhaust Diffuser. The thermocouples used in the monitoring system are to be accurate within plus or minus one (1) percent in degrees Fahrenheit per the thermocouple manufacturers published performance criteria. Sixteen of the eighteen thermocouples must be in operation at all times. The turbine will automatically shut down if three thermocouples are reading improperly. 45CSR§30-5.1.c. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2), Title V R30-09900081-2008 Condition No. 4.2.4

CAM monitoring requirement. Compliance with the CO hourly emission limits set forth in Requirement 4.1.4. will be demonstrated if the “calculated Turbine Exhaust Temperature Median Corrected by Average” generated by the control system as per Requirement 4.2.4. is maintained at or above a minimum of 865 degree F during normal operations (not including periods of system startup, shutdown or maintenance). An excursion shall be defined as: if during normal operation, the 1-hour average of the “calculated Turbine Exhaust Temperature Median Corrected by Average” drops below 865°F. Excursions trigger an alarm, an inspection, evaluation and corrective action. The monitoring system shall collect the Turbine Exhaust Temperature, and record a 1-hour average of that temperature during the normal operating periods. [45CSR§30-12.7. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)], Title V R30-09900081-2008 Condition No. 4.2.5

In lieu of CEMs, emission compliance tests of the Ceredo combustion turbines are due prior to the earlier of 3000 hours of operation of **an individual unit** or the 5-year anniversary and renewal of this operating permit. Stack testing will be conducted on each three representative combustion turbines to determine NOx and CO emissions, and CO oxidation catalyst performance. The QA/QC information in section 6.6.2 must be recorded during testing. The results of the testing shall be used to demonstrate compliance with the NOx emissions limits of 4.1.2. and 4.1.4 as well as the minimum destruction efficiency limit for the CO oxidation catalysts in section 4.1.6..

40 C.F.R. 75, 45CSR13 Permit No. R13-2382C Specific Requirement (B)(15), Title V R30-09900081-2008 Condition No. 4.3.1

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Compliance with the mass emission limits of section 4.1.4 shall be demonstrated by performing the following calculations every month for the parameters monitored in 4.2.3. Each of the mass emissions will then be averaged on a hourly monthly basis, and recorded, and will then be used to create the monthly and 12-month rolling average emission reports

Heat Input Calculation

$$HI = (Q_v * GCV) / 10^6$$

Where HI = heat input in mmBtu/hr
 Q_v = volumetric fuel flow in 100scf/hr
 GCV = Btu/100scf

NO_x Emission Rate

$$NO\ PPH = NO, * HI$$

Where $NO, .PPH$ = NO_x emissions in lbs/hr
 $NO,$ = NO, emissions in lbs/mmBtu as calculated according to the requirements of 4.2.1.
 HI = heat input in mmBtu/hr

During Startup: 21.6 minutes after flame-on is detected, add 14.6 lb to the total.

SO₂ Emission Rate

$$M\ SO_2 = HI * ER\ SO,$$

Where $M\ SO_2$ = mass emission for SO₂ in lbs/hr
 $ER\ SO_2$ = default emission rate for SO₂ (0.0006 lb/mmBtu for natural gas) HI = heat input in mmBtu/hr

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

PM10 Emission Rate

Use the following rules to track the PM₁₀ mass emissions

1. PM₁₀ Emissions upstream of the CO catalyst will be 10 lbs/hr at all times.
2. The mass emission rates from SO₂ oxidation to H₂SO₄ is calculated by multiplying the SO₂ emission by the ratio of the molecular weights: SO₂ (lbs/hr) * (98/64).
3. PM₁₀ emissions are calculated as the sum of the upstream PM₁₀ emissions (1) and the resulting emissions from SO₂ oxidation to H₂SO₄ (2).

VOC Emission Rate

VOC emissions are tracked in one of the two following ways:

1. For compressor inlet temperatures greater than or equal to 59°F multiply the heat input (mmBtu/hr) by 0.002 lb/mmBtu.
2. For compressor inlet temperatures less than 59°F multiply the heat input (mmBtu/hr) by 0.003 lb/mmBtu.

CO Emission Rate

1. For compressor inlet temperatures greater than or equal to 59°F OR when the turbines reach base load, multiply the heat input (mmBtu/hr) by 0.027 lb/mmBtu.
2. For compressor inlet temperatures greater than or equal to 59°F OR when the turbines reach base load, multiply the heat input (mmBtu/hr) by 0.054 lb/mmBtu when operating without the CO catalyst.
3. For compressor inlet temperatures less than 59°F AND the turbines are at less than base load, multiply the heat input (mmBtu/hr) by 0.048 lb/mmBtu.
4. For compressor inlet temperatures less than 59°F AND the turbines are at less than base load, multiply the heat input (mmBtu/hr) by 0.096 lb/mmBtu when operating without the CO catalyst.
5. For each startup (defined as 21.6 minutes after flame-on is detected), add 25.5 lb to the total and add 51.0 lb to the total when operating without a catalyst.

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

HAPs Emission Rate

Multiply the heat input (HI) rate determined above by each of the emission factors (lbs/mmBtu) in the table below to track all of the HAP components.

1,3-Butadiene	4.3 x 10 ⁻⁷
Acetaldehyde	7.8 x 10 ⁻⁵
Acrolein	7.7 x 10 ⁻⁶
Benzene	1.4 x 10 ⁻⁴
Ethylbenzene	2.4 x 10 ⁻⁵
Formaldehyde	2.9 x 10 ⁻⁵
Naphthalene	1.4 x 10 ⁻⁴
NDMA (N-nitrosodimethylamine)	2.3 x 10 ⁻⁷
NMOR (N-nitrosomorpholine)	2.3 x 10 ⁻⁷
PAH's (Polycyclic Aromatic Hydrocarbons)	1.8 x 10 ⁻⁴
Propylene Oxide	2.8 x 10 ⁻⁵
Toluene	1.3 x 10 ⁻⁴
Xylene	2.6 x 10 ⁻⁵
Arsenic	4.8 x 10 ⁻⁸
Cadmium	8.2 x 10 ⁻⁷
Chromium-VI	1.3 x 10 ⁻⁶
Lead	1.6 x 10 ⁻⁵
Manganese	1.6 x 10 ⁻⁶
Mercury	4.3 x 10 ⁻⁷

[45CSR§30-5.1.c.], Title V R30-09900081-2008 Condition No. 4.4.1

For the purposes of determining compliance with the maximum fuel combustion limits set forth in 4.1.5., the applicant shall maintain certified daily records, utilizing the form identified as Attachment A (Appendix D of this permit). Such records shall be retained on-site by the permittee for at least five (5) years. Certified records shall be made available to the Director or his or her duly authorized representative upon request. 45CSR13 - Permit No. R13-2382 C Specific Requirement (B)(11). Title V R30-09900081-2008 Condition No. 4.4.2

For the purposes of determining compliance with maximum hours of operation for the natural gas turbines set forth in 4.1.8., the applicant shall maintain certified daily records, utilizing the form identified as Attachment B (Appendix D of this permit). Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his or her duly authorized representative upon request. 45CSR13 - Permit No. R13-2382 C Specific Requirement (B)(12). Title V R30-09900081-2008 Condition No. 4.4.3

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

For the purposes of determining compliance with the maximum hours that the facility may operate the turbines without the use of the CO oxidation catalysts specified in 4.1.6., the permittee shall maintain certified daily records, utilizing the form identified as Attachment C (Appendix D of this permit). Such records shall be retained by the permittee for at least five (5) years. Certified records shall be made available to the Director or his or her duly authorized representative upon request. 45CSR13 - Permit No. R13-2382 C Specific Requirement (B)(16). Title V R30-09900081-2008 Condition No. 4.4.4

General Recordkeeping Requirements for 40 C.F.R. Part 64 (CAM)

(1) The “calculated Turbine Exhaust Temperature Median Corrected by Average” determined per Requirement 4.2.5. shall be recorded hourly.

(2) The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(3) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

45CSR§30-5.1.c., 40 C.F.R. §64.9(b), Title V R30-09900081-2008 Condition No. 4.4.5

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the Director in accordance with permit condition 3.5.6.

(2) A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

40 C.F.R. §64.9(a), Title V R30-09900081-2008 Condition No. 4.5.1

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R33-55276-2015-03	12/21/2010	
R13-2382C	02/13/2009	
R30-09900081-2008	04/28/2008	
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22. Inactive Permits/Obsolete Permit Conditions

Permit Number	Date of Issuance	Permit Condition Number
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year] Total All Stacks	
Criteria Pollutants	Potential Emissions ¹
Carbon Monoxide (CO) with Catalyst	240.2
Carbon Monoxide (CO) without Catalyst	240.2
Nitrogen Oxides (NO _x)	245.3
Lead (Pb)	Included in Total HAP's
Particulate Matter (PM _{2.5}) ²	N/A
Particulate Matter (PM ₁₀) ³	83.3
Total Particulate Matter (TSP) ²	N/A
Sulfur Dioxide (SO ₂)	5.0
Volatile Organic Compounds (VOC)	13.6
Hazardous Air Pollutants ²	Potential Emissions
Total HAP's	7.4
Listed below are the individual HAP's included in total HAP's and their emission rates in lbs/mmbtu for the combustion turbines	lbs/mmbtu
1,3 Butadiene	4.3 x 10 ⁻⁷
Acetaldehyde	4.0 x 10 ⁻⁵
Acrolein	6.4 x 10 ⁻⁶
Benzene	1.2 x 10 ⁻⁵
Ethylbenzene	3.2 x 10 ⁻⁵
Formaldehyde	7.1 x 10 ⁻⁴
Naphthalene	1.3 x 10 ⁻⁶
NDMA (N-nitrosodimethylamine)	2.3 x 10 ⁻⁷
NMOR (N-nitrosomorpholine)	2.3 x 10 ⁻⁷
PAH's (Polycyclic Aromatic Hydrocarbons)	2.2 x 10 ⁻⁶
Propylene Oxide	2.8 x 10 ⁻⁵
Toluene	1.3 x 10 ⁻⁴
Xylene	6.4 x 10 ⁻⁵

Section 3: Facility-Wide Emissions (cont)

Arsenic	4.8 x 10 ⁻⁸
Cadmium	8.2 x 10 ⁻⁷
Chromium VI	1.3 x 10 ⁻⁶
Lead	1.6 x 10 ⁻⁵
Manganese	1.6 x 10 ⁻⁶
Mercury	4.3 x 10 ⁻⁷
Regulated Pollutants other than Criteria and HAP	Potential Emissions
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

1. Per 45 CSR §30-2.31, please note that the potential to emit of any given pollutant was based on the facility operating for 15250 hours per year at maximum of 12x10⁹ scf of fuel per twelve month rolling average. The facility has taken an enforceable limit in order to remain under the 250 tpy PSD threshold for any single pollutant.

Section 3: Facility-Wide Emissions

Listed below are the individual HAP's included in total HAP's and their emission rates in lbs/mmscf for the fuel gas heater¹	lbs/mmscf
2 -Methylnaphthalene	0.000024
3- Methylehloranthrene	0.0000018
7,12-DimethvIbenz(a)anthracene	0.000016
Acenaphthene	0.0000018
Acenaphthylene	0.0000018
Anthracene	0.0000024
Benz(a)anthracene	0.0000018
Benzene	0.0021
Benzo(a)pyrene	0.0000012
Benzo(b)fluoranthene	0.0000018
Benzo(g,h,i)perylene	0.0000012
Benzo(k)fluoranthene	0.0000018
Chrysene	0.0000018
Dibenzo(a,h)anthracene	0.0000012
Dichlorobenzene	0.0012
Fluoranthene	0.0000030
Formaldehyde	0.075
Hexane	1.8
Indeno(1,2,3 -cd)pyrene	0.0000018
Naphthalene	0.00061
Phenanthrene	0.000017
Pyrene	0.000005
Toluene	0.0034
Arsenic	0.0002
Beryllium	0.000012
Cadmium	0.0011

Chromium	0.0014
Cobalt	0.000084
Lead	0.00050
Manganese	0.00038
Mercury	0.00026
Nickel	0.0021
Selenium	0.00024

1. Emission rates obtained from AP-42

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	<p>19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO₂, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input checked="" type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input checked="" type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input checked="" type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input checked="" type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant

24. Insignificant Activities (Check all that apply)	
	owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input checked="" type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input checked="" type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Patrick C. Myers

Title: Plant Manager

Responsible official's signature:

Signature: 

Signature Date: 9/12/12

(Must be signed and dated in blue ink)

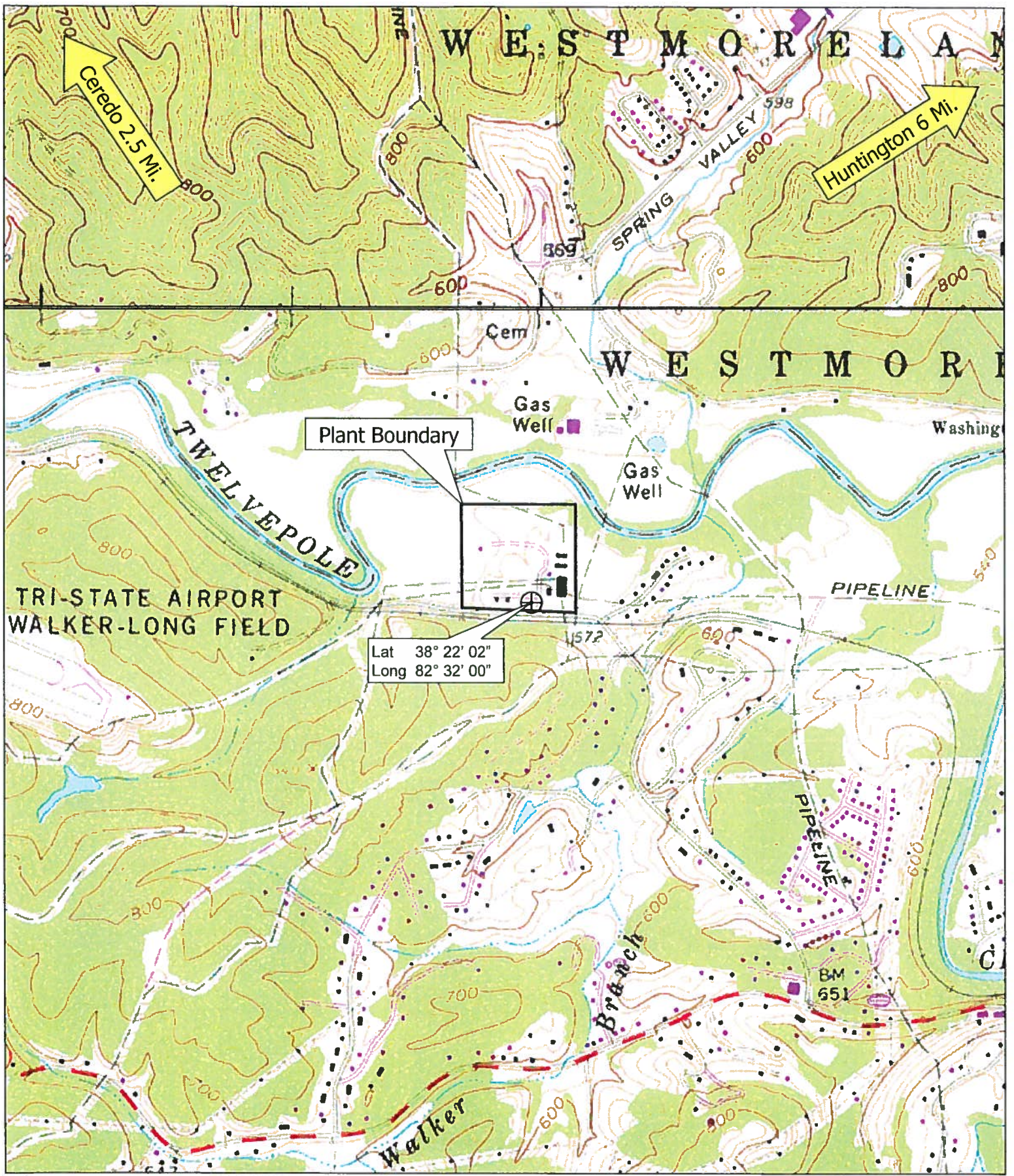
Note: Please check all applicable attachments included with this permit application:

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/dag, requested by phone (304) 926-0475, and/or obtained through the mail.

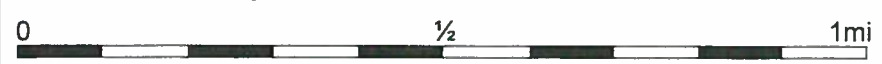
Attachment A

Area Map



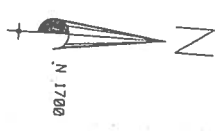
Burnaugh, WV Quadrangle
USGS Topographic Map
Ceredo, WV – Wayne County

Appalachian Power Company
Ceredo Generation Station
Plant Location Map

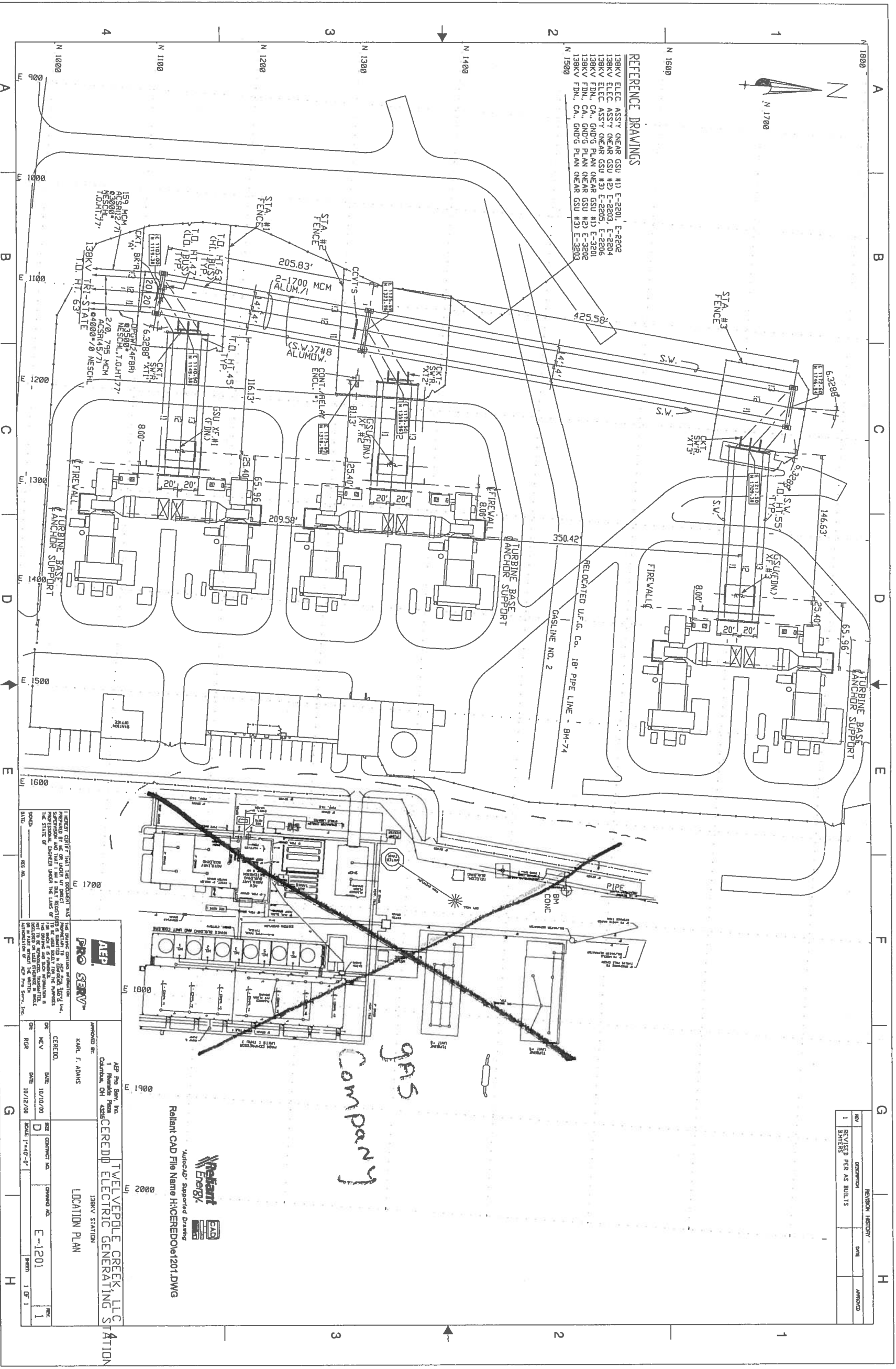


Attachment B

Plot Plan



REFERENCE DRAWINGS
138KV ELEC. ASSY' GEAR GSU #13 E-2201, E-2202
138KV ELEC. ASSY' GEAR GSU #12 E-2203, E-2204
138KV ELEC. ASSY' GEAR GSU #11 E-2205, E-2206
138KV ELEC. ASSY' GEAR GSU #10 E-2207, E-2208
138KV ELEC. ASSY' GEAR GSU #9 E-2209, E-2210
138KV ELEC. ASSY' GEAR GSU #8 E-2211, E-2212
138KV ELEC. ASSY' GEAR GSU #7 E-2213, E-2214
138KV ELEC. ASSY' GEAR GSU #6 E-2215, E-2216
138KV ELEC. ASSY' GEAR GSU #5 E-2217, E-2218
138KV ELEC. ASSY' GEAR GSU #4 E-2219, E-2220
138KV ELEC. ASSY' GEAR GSU #3 E-2221, E-2222
138KV ELEC. ASSY' GEAR GSU #2 E-2223, E-2224
138KV ELEC. ASSY' GEAR GSU #1 E-2225, E-2226
138KV ELEC. ASSY' GEAR GSU #0 E-2227, E-2228
138KV ELEC. ASSY' GEAR GSU #00 E-2229, E-2230
138KV ELEC. ASSY' GEAR GSU #01 E-2231, E-2232
138KV ELEC. ASSY' GEAR GSU #02 E-2233, E-2234
138KV ELEC. ASSY' GEAR GSU #03 E-2235, E-2236
138KV ELEC. ASSY' GEAR GSU #04 E-2237, E-2238
138KV ELEC. ASSY' GEAR GSU #05 E-2239, E-2240
138KV ELEC. ASSY' GEAR GSU #06 E-2241, E-2242
138KV ELEC. ASSY' GEAR GSU #07 E-2243, E-2244
138KV ELEC. ASSY' GEAR GSU #08 E-2245, E-2246
138KV ELEC. ASSY' GEAR GSU #09 E-2247, E-2248
138KV ELEC. ASSY' GEAR GSU #10 E-2249, E-2250



NO.	DESCRIPTION	DATE	APPROVED
1	REVISED PER AS BUILTS		

Reliant Energy
AutoCAD Supported Drawing
Reliant CAD File Name H:\CEREDO\1201.DWG

PRO SERV
APPROVED BY: KARL F. ADAMS
DATE: 10/12/00
SCALE: 1"=40'-0"

TWELVEPOLE CREEK, LLC
ELECTRIC GENERATING STATION
LOCATION PLAN

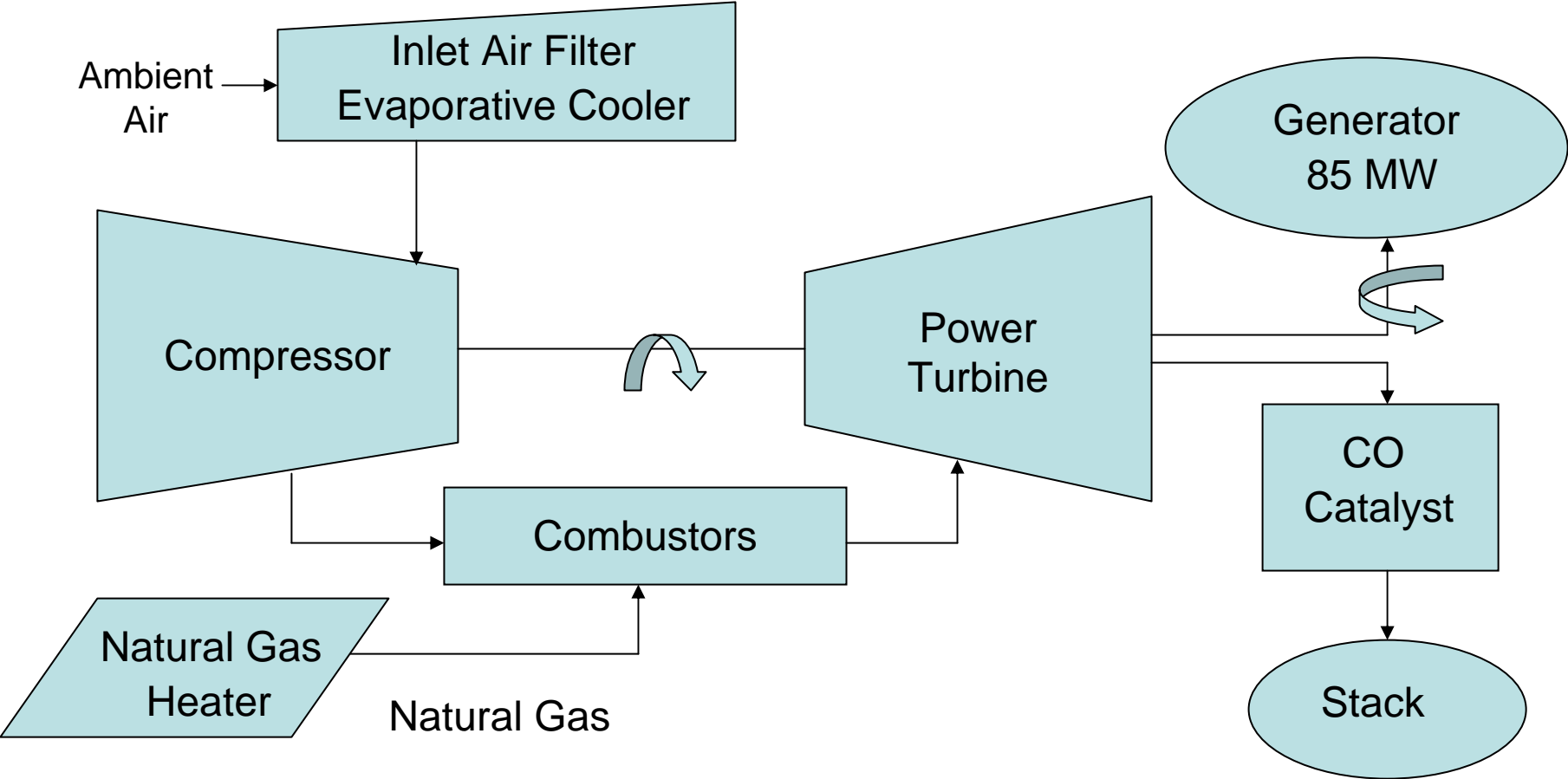
DATE: 10/10/00
DRAWING NO.: E-1201
SHEET: 1 OF 1

gas
Company

Attachment C

Process Flow Diagram

CEREDO GENERATING STATION PROCESS FLOW DIAGRAM



Attachment D

Equipment Table

ATTACHMENT D - Emission Units Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Unit ID ¹	Emission Point ID ¹	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ¹
1E	1S	Combustion Turbine, General Electric Model MS 7001 EA/PG7121(EA)	2000	1215 mmbtu/hr	CO Catalyst 1C
2E	2S	Combustion Turbine, General Electric Model MS 7001 EA/PG7121(EA)	2000	1215 mmbtu/hr	CO Catalyst 2C
3E	3S	Combustion Turbine, General Electric Model MS 7001 EA/PG7121(EA)	2000	1215 mmbtu/hr	CO Catalyst 3C
4E	4S	Combustion Turbine, General Electric Model MS 7001 EA/PG7121(EA)	2000	1215 mmbtu/hr	CO Catalyst 4C
5E	5S	Combustion Turbine, General Electric Model MS 7001 EA/PG7121(EA)	2000	1215 mmbtu/hr	CO Catalyst 5C
6E	6S	Combustion Turbine, General Electric Model MS 7001 EA/PG7121(EA)	2000	1215 mmbtu/hr	CO Catalyst 6C
7E	7S	Fuel Gas Heater, Heatec, Inc. Model H100-315	2000	17.0 mmbtu/hr	None

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

Attachment E

Emission Unit Forms

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 1E	Emission unit name: Gas Turbine 1E	List any control devices associated with this emission unit: CO destruction catalyst
---------------------------------------	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 There are 6 identical gas turbines in this Group identified as emission units 1E, 2E, 3E, 4E, 5E and 6E, which vent to stacks 1S, 2S, 3S, 4S, 5S, and 6S, respectively. The turbines are natural gas-fired, exclusively. Data presented in this application are for each gas turbine unless otherwise noted. The maximum heat input and output of the turbines depends on ambient temperature, and is a maximum at the lowest ambient temperatures. At ISO conditions (ambient temperature of 59 degrees Fahrenheit), each turbine has a nominal output of 85 MW and maximum heat input of approximately 974 million Btu/hr HHV (880 MMBtu/hr LHV) at 100% load.

Operation is limited by a permit condition/enforceable limit, not to exceed 12×10^9 scf/rolling 12 months of fuel and 15,150 hours/rolling 12 months for gas turbines 1E – 6E combined unless Continuous Emission Monitors (CEM's) for NOx are installed and operating.

Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297575
----------------------------	-------------------------------------	---------------------------------

Construction date: 07/07/2000	Installation date: 04/07/2001	Modification date(s): N/A
---	---	-------------------------------------

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1215 mmbtu/hr

Maximum Hourly Throughput: 1215 mmbtu/hr	Maximum Annual Throughput: See above	Maximum Operating Schedule: See Above
--	--	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 1215 mmbtu/hr	Type and Btu/hr rating of burners: N/A
---	--

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Pipeline Natural Gas – 12×10^9 scf/yr (total from emission units 1E-6E)
 Secondary Fuel - None

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Natural Gas	.0006 lb/mmbtu	N/A	1040

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	94 w/o catalyst 47 with catalyst	See General Form Tons per year on facility wide basis
Nitrogen Oxides (NO _x)	40	See General Form Tons per year on facility wide basis
Lead (Pb)	Included in Total HAPS	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	11.0	See General Form Tons per year on facility wide basis
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	5.0	See General Form Tons per year on facility wide basis
Volatile Organic Compounds (VOC)	4.0	See General Form Tons per year on facility wide basis
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total Haps	1.0	See General Form Tons per year on facility wide basis
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	N/A	
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See General Form. Potential to Emit Tons per year on Facility Wide Basis</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Pollutant	lbs/hr
NOx	40
SO2	5
PM10	17
VOC's	4
CO	47
CO W/O Catalyst	94
HAPs	1.0

Compliance with SO2 limit assures compliance with 45CSR §10-4.1

45CSR13 – Permit No. R13-2382-C Specific Requirement (A)(1-2) Title V R30-09900081-2008 Condition No.4.1.4

Sulfur content of fuel combusted in the turbine must be less than 0.8% by weight.

40 CFR §60.333(b) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.1

Nitrogen Oxides emissions from the turbine stack shall not exceed 100 ppm by volume on a dry basis at 15% O2.

40 CFR §60.332(a)(1) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.2

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See General Form for monitoring, recordkeeping, and reporting requirements.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 2E	Emission unit name: Gas Turbine 2E	List any control devices associated with this emission unit: CO destruction catalyst
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 There are 6 identical gas turbines in this Group identified as emission units 1E, 2E, 3E, 4E, 5E and 6E, which vent to stacks 1S, 2S, 3S, 4S, 5S, and 6S, respectively. The turbines are natural gas-fired, exclusively. Data presented in this application are for each gas turbine unless otherwise noted. The maximum heat input and output of the turbines depends on ambient temperature, and is a maximum at the lowest ambient temperatures. At ISO conditions (ambient temperature of 59 degrees Fahrenheit), each turbine has a nominal output of 85 MW and maximum heat input of approximately 974 million Btu/hr HHV (880 MMBtu/hr LHV) at 100% load.

Operation is limited by a permit condition, not to exceed 12×10^9 scf/rolling 12 months of fuel or 15,150 hours/rolling 12 months for gas turbines 1E – 6E combined unless Continuous Emission Monitors (CEM's) for NOx are installed and operating.

Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297576
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Construction date: 07/07/2000	Installation date: 04/07/2001	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1215 mmbtu/hr

Maximum Hourly Throughput: 1215 mmbtu/hr	Maximum Annual Throughput: See above	Maximum Operating Schedule: See Above
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 1215 mmbtu/hr	Type and Btu/hr rating of burners: N/A
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Pipeline Natural Gas – 12×10^9 scf/yr (total from emission units 1E-6E)
 Secondary Fuel - None

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Natural Gas	.0006 lb/mmbtu	N/A	1040

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	94 w/o catalyst 47 with catalyst	See General Form Tons per year on facility wide basis
Nitrogen Oxides (NO _x)	40	See General Form Tons per year on facility wide basis
Lead (Pb)	Included in Total HAPS	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	11.0	See General Form Tons per year on facility wide basis
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	5.0	See General Form Tons per year on facility wide basis
Volatile Organic Compounds (VOC)	4.0	See General Form Tons per year on facility wide basis
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total Haps	1.0	See General Form Tons per year on facility wide basis
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	N/A	
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See General Form. Potential to Emit Tons per year on Facility Wide Basis</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Pollutant	lbs/hr
NOx	40
SO2	5
PM10	17
VOC's	4
CO	47
CO W/O Catalyst	94
HAPs	1.0

Compliance with SO2 limit assures compliance with 45CSR §10-4.1

45CSR13 – Permit No. R13-2382-C Specific Requirement (A)(1-2) Title V R30-09900081-2008 Condition No.4.1.4

Sulfur content of fuel combusted in the turbine must be less than 0.8% by weight.

40 CFR §60.333(b) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.1

Nitrogen Oxides emissions from the turbine stack shall not exceed 100 ppm by volume on a dry basis at 15% O2.

40 CFR §60.332(a)(1) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.2

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See General Form for monitoring, recordkeeping, and reporting requirements.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 3E	Emission unit name: Gas Turbine 3E	List any control devices associated with this emission unit: CO destruction catalyst
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 There are 6 identical gas turbines in this Group identified as emission units 1E, 2E, 3E, 4E, 5E and 6E, which vent to stacks 1S, 2S, 3S, 4S, 5S, and 6S, respectively. The turbines are natural gas-fired, exclusively. Data presented in this application are for each gas turbine unless otherwise noted. The maximum heat input and output of the turbines depends on ambient temperature, and is a maximum at the lowest ambient temperatures. At ISO conditions (ambient temperature of 59 degrees Fahrenheit), each turbine has a nominal output of 85 MW and maximum heat input of approximately 974 million Btu/hr HHV (880 MMBtu/hr LHV) at 100% load.

Operation is limited by a permit condition, not to exceed 12×10^9 scf/rolling 12 months of fuel or 15,150 hours/rolling 12 months for gas turbines 1E – 6E combined unless Continuous Emission Monitors (CEM's) for NOx are installed and operating.

Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297577
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Construction date: 07/07/2000	Installation date: 04/07/2001	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1215 mmbtu/hr

Maximum Hourly Throughput: 1215 mmbtu/hr	Maximum Annual Throughput: See above	Maximum Operating Schedule: See Above
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 1215 mmbtu/hr	Type and Btu/hr rating of burners: N/A
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Pipeline Natural Gas – 12×10^9 scf/yr (total from emission units 1E-6E)
 Secondary Fuel - None

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Natural Gas	.0006 lb/mmbtu	N/A	1040

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	94 w/o catalyst 47 with catalyst	See General Form Tons per year on facility wide basis
Nitrogen Oxides (NO _x)	40	See General Form Tons per year on facility wide basis
Lead (Pb)	Included in Total HAPS	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	11.0	See General Form Tons per year on facility wide basis
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	5.0	See General Form Tons per year on facility wide basis
Volatile Organic Compounds (VOC)	4.0	See General Form Tons per year on facility wide basis
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total Haps	1.0	See General Form Tons per year on facility wide basis
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	N/A	
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See General Form. Potential to Emit Tons per year on Facility Wide Basis</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Pollutant	lbs/hr
NOx	40
SO2	5
PM10	17
VOC's	4
CO	47
CO W/O Catalyst	94
HAPs	1.0

Compliance with SO2 limit assures compliance with 45CSR §10-4.1

45CSR13 – Permit No. R13-2382-C Specific Requirement (A)(1-2) Title V R30-09900081-2008 Condition No.4.1.4

Sulfur content of fuel combusted in the turbine must be less than 0.8% by weight.

40 CFR §60.333(b) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.1

Nitrogen Oxides emissions from the turbine stack shall not exceed 100 ppm by volume on a dry basis at 15% O2.

40 CFR §60.332(a)(1) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.2

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See General Form for monitoring, recordkeeping, and reporting requirements.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 4E	Emission unit name: Gas Turbine 4E	List any control devices associated with this emission unit: CO destruction catalyst
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 There are 6 identical gas turbines in this Group identified as emission units 1E, 2E, 3E, 4E, 5E and 6E, which vent to stacks 1S, 2S, 3S, 4S, 5S, and 6S, respectively. The turbines are natural gas-fired, exclusively. Data presented in this application are for each gas turbine unless otherwise noted. The maximum heat input and output of the turbines depends on ambient temperature, and is a maximum at the lowest ambient temperatures. At ISO conditions (ambient temperature of 59 degrees Fahrenheit), each turbine has a nominal output of 85 MW and maximum heat input of approximately 974 million Btu/hr HHV (880 MMBtu/hr LHV) at 100% load.

Operation is limited by a permit condition, not to exceed 12×10^9 scf/rolling 12 months of fuel or 15,150 hours/rolling 12 months for gas turbines 1E – 6E combined unless Continuous Emission Monitors (CEM's) for NOx are installed and operating.

Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297578
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Construction date: 07/07/2000	Installation date: 04/07/2001	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1215 mmbtu/hr

Maximum Hourly Throughput: 1215 mmbtu/hr	Maximum Annual Throughput: See above	Maximum Operating Schedule: See Above
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 1215 mmbtu/hr	Type and Btu/hr rating of burners: N/A
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Pipeline Natural Gas – 12×10^9 scf/yr (total from emission units 1E-6E)
 Secondary Fuel - None

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Natural Gas	.0006 lb/mmbtu	N/A	1040

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	94 w/o catalyst 47 with catalyst	See General Form Tons per year on facility wide basis
Nitrogen Oxides (NO _x)	40	See General Form Tons per year on facility wide basis
Lead (Pb)	Included in Total HAPS	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	11.0	See General Form Tons per year on facility wide basis
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	5.0	See General Form Tons per year on facility wide basis
Volatile Organic Compounds (VOC)	4.0	See General Form Tons per year on facility wide basis
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total Haps	1.0	See General Form Tons per year on facility wide basis
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	N/A	
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See General Form. Potential to Emit Tons per year on Facility Wide Basis</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Pollutant	lbs/hr
NOx	40
SO2	5
PM10	17
VOC's	4
CO	47
CO W/O Catalyst	94
HAPs	1.0

Compliance with SO2 limit assures compliance with 45CSR §10-4.1
45CSR13 – Permit No. R13-2382-C Specific Requirement (A)(1-2) Title V R30-09900081-2008 Condition No.4.1.4

Sulfur content of fuel combusted in the turbine must be less than 0.8% by weight.
40 CFR §60.333(b) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.1

Nitrogen Oxides emissions from the turbine stack shall not exceed 100 ppm by volume on a dry basis at 15% O2.
40 CFR §60.332(a)(1) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.2

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See General Form for monitoring, recordkeeping, and reporting requirements.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 5E	Emission unit name: Gas Turbine 5E	List any control devices associated with this emission unit: CO destruction catalyst
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 There are 6 identical gas turbines in this Group identified as emission units 1E, 2E, 3E, 4E, 5E and 6E, which vent to stacks 1S, 2S, 3S, 4S, 5S, and 6S, respectively. The turbines are natural gas-fired, exclusively. Data presented in this application are for each gas turbine unless otherwise noted. The maximum heat input and output of the turbines depends on ambient temperature, and is a maximum at the lowest ambient temperatures. At ISO conditions (ambient temperature of 59 degrees Fahrenheit), each turbine has a nominal output of 85 MW and maximum heat input of approximately 974 million Btu/hr HHV (880 MMBtu/hr LHV) at 100% load.

Operation is limited by a permit condition, not to exceed 12×10^9 scf/rolling 12 months of fuel or 15,150 hours/rolling 12 months for gas turbines 1E – 6E combined unless Continuous Emission Monitors (CEM's) for NOx are installed and operating.

Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297579
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Construction date: 07/07/2000	Installation date: 04/07/2001	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1215 mmbtu/hr

Maximum Hourly Throughput: 1215 mmbtu/hr	Maximum Annual Throughput: See above	Maximum Operating Schedule: See Above
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 1215 mmbtu/hr	Type and Btu/hr rating of burners: N/A
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Pipeline Natural Gas – 12×10^9 scf/yr (total from emission units 1E-6E)
 Secondary Fuel - None

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Natural Gas	.0006 lb/mmbtu	N/A	1040

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	94 w/o catalyst 47 with catalyst	See General Form Tons per year on facility wide basis
Nitrogen Oxides (NO _x)	40	See General Form Tons per year on facility wide basis
Lead (Pb)	Included in Total HAPS	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	11.0	See General Form Tons per year on facility wide basis
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	5.0	See General Form Tons per year on facility wide basis
Volatile Organic Compounds (VOC)	4.0	See General Form Tons per year on facility wide basis
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total Haps	1.0	See General Form Tons per year on facility wide basis
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	N/A	
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See General Form. Potential to Emit Tons per year on Facility Wide Basis</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Pollutant	lbs/hr
NOx	40
SO2	5
PM10	17
VOC's	4
CO	47
CO W/O Catalyst	94
HAPs	1.0

Compliance with SO2 limit assures compliance with 45CSR §10-4.1
45CSR13 – Permit No. R13-2382-C Specific Requirement (A)(1-2) Title V R30-09900081-2008 Condition No.4.1.4

Sulfur content of fuel combusted in the turbine must be less than 0.8% by weight.
40 CFR §60.333(b) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.1

Nitrogen Oxides emissions from the turbine stack shall not exceed 100 ppm by volume on a dry basis at 15% O2.
40 CFR §60.332(a)(1) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.2

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See General Form for monitoring, recordkeeping, and reporting requirements.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 6E	Emission unit name: Gas Turbine 6E	List any control devices associated with this emission unit: CO destruction catalyst
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 There are 6 identical gas turbines in this Group identified as emission units 1E, 2E, 3E, 4E, 5E and 6E, which vent to stacks 1S, 2S, 3S, 4S, 5S, and 6S, respectively. The turbines are natural gas-fired, exclusively. Data presented in this application are for each gas turbine unless otherwise noted. The maximum heat input and output of the turbines depends on ambient temperature, and is a maximum at the lowest ambient temperatures. At ISO conditions (ambient temperature of 59 degrees Fahrenheit), each turbine has a nominal output of 85 MW and maximum heat input of approximately 974 million Btu/hr HHV (880 MMBtu/hr LHV) at 100% load.

Operation is limited by a permit condition, not to exceed 12×10^9 scf/rolling 12 months of fuel or 15,150 hours/rolling 12 months for gas turbines 1E – 6E combined unless Continuous Emission Monitors (CEM's) for NOx are installed and operating.

Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297580
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Construction date: 07/07/2000	Installation date: 04/07/2001	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1215 mmbtu/hr

Maximum Hourly Throughput: 1215 mmbtu/hr	Maximum Annual Throughput: See above	Maximum Operating Schedule: See Above
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 1215 mmbtu/hr	Type and Btu/hr rating of burners: N/A
---	--

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 Pipeline Natural Gas – 12×10^9 scf/yr (total from emission units 1E-6E)
 Secondary Fuel - None

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Natural Gas	.0006 lb/mmbtu	N/A	1040

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	94 w/o catalyst 47 with catalyst	See General Form Tons per year on facility wide basis
Nitrogen Oxides (NO _x)	40	See General Form Tons per year on facility wide basis
Lead (Pb)	Included in Total HAPS	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	17.0	See General Form Tons per year on facility wide basis
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	5.0	See General Form Tons per year on facility wide basis
Volatile Organic Compounds (VOC)	4.0	See General Form Tons per year on facility wide basis
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total Haps	1.0	See General Form Tons per year on facility wide basis
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
	N/A	
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>See General Form. Potential to Emit Tons per year on Facility Wide Basis</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or **construction permit** with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Pollutant	lbs/hr
NOx	40
SO2	5
PM10	17
VOC's	4
CO	47
CO W/O Catalyst	94
HAPs	1.0

Compliance with SO2 limit assures compliance with 45CSR §10-4.1
45CSR13 – Permit No. R13-2382-C Specific Requirement (A)(1-2) Title V R30-09900081-2008 Condition No.4.1.4

Sulfur content of fuel combusted in the turbine must be less than 0.8% by weight.
40 CFR §60.333(b) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.1

Nitrogen Oxides emissions from the turbine stack shall not exceed 100 ppm by volume on a dry basis at 15% O2.
40 CFR §60.332(a)(1) - Permit No. R13-2382-C Other Requirements (B)(7) - Title V R30-09900081-2008 Condition No.4.1.2

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See General Form for monitoring, recordkeeping, and reporting requirements.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 7E	Emission unit name: Fuel gas Heater	List any control devices associated with this emission unit: None
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Emission unit 7S is a fuel gas heater. The fuel gas heater is used to heat the natural gas fuel for the gas turbines. The fuel gas heater is natural gas-fired, exclusively.

Manufacturer: Heatec, Inc	Model number: H100-315	Serial number: H100-315
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Construction date: 03/20/2001	Installation date: 04/07/2001	Modification date(s): N/A
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): 0.017 mmscf/hr

Maximum Hourly Throughput: .017 mmscf/hr	Maximum Annual Throughput: 49.8 mmscf	Maximum Operating Schedule: 8760 hours/year
--	---	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 17.00 mmbtu/hr	Type and Btu/hr rating of burners: N/A
--	--

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Primary - Pipeline natural gas - 0.017 mmscf/hr 49.8 mmscf/yr
Secondary - None

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Pipeline Natural Gas	.0006 lbs/mmbtu	N/A	1040

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.53	.96
Nitrogen Oxides (NO _x)	1.31	2.38
Lead (Pb)	Included in Total HAP's	N/A
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	.11	0.20
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)	0.05	.09
Volatile Organic Compounds (VOC)	0.36	0.65
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Total HAP's	.011	.05
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
N/A		

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Manufacturer's design factors were used in the potential to emit calculations except for Total HAP's where AP-42 factors were used. Potential to emit calculations were based on the enforceable limit of a maximum of 49.8×10^6 scf of fuel cumulatively per 12 month rolling average.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

Emissions of smoke and/or particulate matter shall not exceed 10% opacity based on a six minute block average. 45CSR§2-3.1., 45CSR13 Permit No. R13-2382C Other Requirements (B)(2). Title V R30-09900081-2008 Condition No. 5.1.1

Particulate matter emissions shall not exceed 1.28 lbs/hr. 45CSR§2-4.1.b., 45CSR13 Permit No. R13-2382C Other Requirements (B)(2). Title V R30-09900081-2008 Condition No. 5.1.2

Sulfur dioxide emissions shall not exceed 45.50 lbs/hr. 45CSR§10-3.3.f., 45CSR13 Permit No. R13-2382C Other Requirements (B)(3). Title V R30-09900081-2008 Condition No. 5.1.3

The fuel gas heater located on-site shall not combust more than 49.8×10^6 scf/yr of fuel cumulatively on a rolling 12 month basis. 45CSR§13 - Permit No. R13-2382C Specific Requirement (A)(7). Title V R30-09900081-2008 Condition No. 5.1.4

____ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Compliance with the particulate matter and sulfur dioxide emission limits along with the fuel usage limit shall be demonstrated by maintaining daily records of the operating schedule and the quantity of fuel consumed in the fuel gas heater in a manner to be established by the Director. Sulfur content of the fuel will be monitored once a year during the ozone season in the form of fuel sulfur content certification from the fuel supplier. Such records are to be maintained on-site for a period of two years following the date of such record and made available to the Director or his duly authorized representative upon request. Where appropriate the owner or operator of a fuel burning unit(s) may maintain such records in electronic form. 45CSR§2-8.3.c; 45CSR§2-8.3.d; 40 C.F.R. § 60.48c(g); and 40 C.F.R. § 60.48c(i). Title V R30-09900081-2008 Condition No. 5.4.1

For the purposes of determining compliance with the maximum fuel combustion limits, the facility shall maintain certified daily records, utilizing the form identified as Attachment A from permit R13-2382B. The form includes columns for the amount of natural gas used in the fuel gas heater and combustion turbines. 45CSR§13 - Permit No. R13-2382C Specific Requirement (B)(11). Title V R30-09900081-2008 Condition No. 5.4.2

The permittee shall report to the Director any malfunction of a fuel burning unit (fuel gas heater) which results in any excess particulate matter emission rate or excess opacity.

- a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director
 - 1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period;
 - 2. Excess opacity does not exceed 40%
- b. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information.
 - 1. A detailed explanation of the factors involved or causes of the malfunction

2. The date and time of during (with starting and ending times) of the period of excess emissions
3. An estimate of the mass of excess emissions discharged during the malfunction
4. The maximum opacity measured or observed during the malfunction
5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction
6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation

45CSR§2-9.3. Title V R30-09900081-2008 Condition No. 5.5.1

The reporting period is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. 40 C.F.R. § 60.48c(j), Title V R30-09900081-2008 Condition No. 5.5.2

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

Attachment G

Air Pollution Control Device Forms

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 1C-6C	List all emission units associated with this control device. 1E-6E
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Manufacturer: Engelhard Camet	Model number: N/A	Installation date: 04/07 /2001
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Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input checked="" type="checkbox"/> Other <u>Oxidation Catalyst</u>
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
CO	100%	50%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Inlet Gas Velocity 91-127 ft/sec

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H** CAM Plan was submitted and approved in 2007 and is part of the current Title V Permit.

If No, **Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Testing is performed on 3 of the six combustion turbines every 5 years or 3000 hours of operation of an individual unit to ensure the catalyst is performing properly.

Appendix A

CAIR Permit Renewal Application



CAIR Permit Application

For sources subject to the Clean Air Interstate Rule Trading Programs under 45CSR39, 45CSR40 and 45CSR41, the West Virginia Department of Environmental Protection, Division of Air Quality has prepared this CAIR Permit Application. Please refer to sections 21 and 22 of 45CSR39, 45CSR40 and 45CSR41, as applicable.

This submission is: New Revised

STEP 1
Identify the source by plant name, and ORIS or facility code

Plant Name Ceredo Generating Station	West Virginia ID Number 099-00081 ORIS/Facility Code 55276
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STEP 2
Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)

Unit ID#	NO _x Annual	NO _x Ozone Season	SO ₂ Annual
01	X	X	X
02	X	X	X
03	X	X	X
04	X	X	X
05	X	X	X
06	X	X	X

STEP 3
Read the standard requirements and the certification, enter the name of the CAIR designated representative, and sign and date

Standard Requirements

(a) Permit Requirements.

(1) The CAIR designated representative of each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) required to have a Title V operating permit and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) required to have a Title V operating permit at the source shall:

(i) Submit to the Secretary a complete CAIR permit application under 45CSR§39-22, 45CSR§40-22 and 45CSR§41 -22 (as applicable) in accordance with the deadlines specified in 45CSR§39-21, 45CSR§40-21 and 45CSR§41-21 (as applicable); and

(ii) Submit in a timely manner any supplemental information that the Secretary determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) required to have a Title V operating permit and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) required to have a Title V operating permit at the source shall have a CAIR permit issued by the Secretary under sections 20 through 24 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in sections 80 through 88 of 45CSR39, 45CSR40 and 45CSR41, the owners and operators of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) that is not otherwise required to have a Title V operating permit and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) that is not otherwise required to have a Title V operating permit are not required to submit a CAIR permit application and to have a CAIR permit, under sections 20 through 24 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) for such CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) and such CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable).

Plant Name **Ceredo Generating Station**STEP 3,
continued**(b) Monitoring, reporting and recordkeeping requirements.**

(1) The owners and operators and the CAIR designated representative, of each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) at the source shall comply with the monitoring, reporting and recordkeeping requirements of sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable).

(2) The emissions measurements recorded and reported in accordance with sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) shall be used to determine compliance by each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) with the CAIR NO_x Annual emissions limitation, CAIR NO_x Ozone Season emissions limitation and CAIR SO₂ emissions limitation (as applicable) under 45CSR§39-6.3, 45CSR§40-6.3 and 45CSR§41-6.3 (as applicable).

(c) Nitrogen oxides annual emissions requirements.

(1) As of the allowance transfer deadline for the 2009 control period and each control period thereafter, the owners and operators of each CAIR NO_x Annual source and each CAIR NO_x Annual unit at the source shall hold, in the source's compliance account, CAIR NO_x Annual allowances available for compliance deductions for the control period under 45CSR§39-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO_x Annual units at the source, as determined in accordance with sections 70 through 75 of 45CSR39.

(2) A CAIR NO_x Annual unit shall be subject to the requirements under 45CSR§39-6.3.a for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR39, and for each control period thereafter.

(3) A CAIR NO_x Annual allowance shall not be deducted, for compliance with the requirements under 45CSR§39-6.3.a, for the control period in a calendar year before the year for which the CAIR NO_x Annual allowance was allocated.

(4) CAIR NO_x Annual allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR39.

(5) A CAIR NO_x Annual allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Annual Trading Program. No provision of the CAIR NO_x Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§39-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Annual allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 40 through 62, and 80 through 88 of 45CSR39, every allocation, transfer, or deduction of a CAIR NO_x Annual allowance to or from a CAIR NO_x Annual source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) Nitrogen oxides ozone season emissions requirements.

(1) As of the allowance transfer deadline for the 2009 ozone season and each ozone season thereafter, the owners and operators of each CAIR NO_x Ozone Season source and each CAIR NO_x Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO_x Ozone Season allowances available for compliance deductions for the ozone season under 45CSR§40-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the ozone season from all CAIR NO_x Ozone Season units at the source, as determined in accordance with sections 70 through 75 of 45CSR40.

(2) A CAIR NO_x Ozone Season unit shall be subject to the requirements under 45CSR§40-6.3.a for the ozone season starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, 70.2.c or 70.2.g of 45CSR40 and for each ozone season thereafter.

(3) A CAIR NO_x Ozone Season allowance shall not be deducted, for compliance with the requirements under 45CSR§40-6.3.a, for an ozone season in a calendar year before the year for which the CAIR NO_x Ozone Season allowance was allocated.

(4) CAIR NO_x Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR NO_x Ozone Season Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR40.

(5) A CAIR NO_x Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR NO_x Ozone Season Trading Program. No provision of the CAIR NO_x Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§40-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR NO_x Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subdivision 43.3, sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR40, every allocation, transfer, or deduction of a CAIR NO_x Ozone Season allowance to or from a CAIR NO_x Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

(e) Sulfur dioxide annual emission requirements.

(1) As of the allowance transfer deadline for the 2010 control period and each control period thereafter, the owners and operators of each CAIR SO₂ source and each CAIR SO₂ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR SO₂ allowances available for compliance deductions for the control period, as determined in accordance with subsections 54.1 and 54.2 of 45CSR§41 in an amount not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source, as determined in accordance with sections 70 through 75 of 45CSR41.

(2) A CAIR SO₂ unit shall be subject to the requirements under 45CSR§41 -6.3.a for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR41 and for each control period thereafter.

(3) A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under 45CSR§41 -6.3.a, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.

(4) CAIR SO₂ allowances shall be held in, deducted from, or transferred into or among CAIR SO₂ Allowance Tracking System accounts in accordance with sections 51 through 62, and 80 through 88 of 45CSR41.

(5) A CAIR SO₂ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR SO₂ Trading Program. No provision of the CAIR SO₂ Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§41 -5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR SO₂ allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR41, every allocation, transfer, or deduction of a CAIR SO₂ allowance to or from a CAIR SO₂ source's compliance account is incorporated automatically in any CAIR permit of the source.

Plant Name **Ceredo Generating Station**

**STEP 3,
continued**

(f) Excess emissions requirements.

(1) If a CAIR NO_x Annual source emits nitrogen oxides during any control period in excess of the CAIR NO_x Annual emissions limitation, then:

(i) The owners and operators of the source and each CAIR NO_x Annual unit at the source shall surrender the CAIR NO_x Annual allowances required for deduction under 45CSR§39-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR39, the Clean Air Act, and West Virginia Code §22-5-1 et seq.

(2) If a CAIR NO_x Ozone Season source emits nitrogen oxides during any ozone season in excess of the CAIR NO_x Ozone Season emissions limitation, then:

(i) The owners and operators of the source and each CAIR NO_x Ozone Season unit at the source shall surrender the CAIR NO_x Ozone Season allowances required for deduction under 45CSR§40-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR40, the Clean Air Act, and West Virginia Code §22-5-1 et seq.

(3) If a CAIR SO₂ source emits sulfur dioxide during any control period in excess of the CAIR SO₂ emissions limitation, then:

(i) The owners and operators of the source and each CAIR SO₂ unit at the source shall surrender the CAIR SO₂ allowances required for deduction under 45CSR§41 -54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR41, the Clean Air Act, and West Virginia Code §22-5-1 et seq.

(g) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Secretary or the Administrator.

(i) The certificate of representation under 45CSR§39-1 3, 45CSR§40-1 3 and 45CSR§41 -13 (as applicable) for the CAIR designated representative for the source and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 45CSR§39-1 3, 45CSR§40-1 3 and 45CSR§41 -13 (as applicable) changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable), provided that to the extent that sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO₂ Trading Program (as applicable).

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO₂ Trading Program (as applicable) or to demonstrate compliance with the requirements of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO₂ Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) and each CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) at the source shall submit the reports required under the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO₂ Trading Program (as applicable) including those under sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable).

(h) Liability.

(1) Each CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) and each NO_x unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) shall meet the requirements of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO₂ Trading Program (as applicable).

(2) Any provision of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program or CAIR SO₂ Trading Program (as applicable) that applies to a CAIR NO_x Annual source, CAIR NO_x Ozone Season source or CAIR SO₂ source (as applicable) or the CAIR designated representative of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source or CAIR SO₂ source (as applicable) shall also apply to the owners and operators of such source and of the CAIR NO_x Annual units, CAIR NO_x Ozone Season units or CAIR SO₂ units (as applicable) at the source.

(3) Any provision of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program or CAIR SO₂ Trading Program (as applicable) that applies to a CAIR NO_x Annual unit, CAIR SO₂ unit or CAIR NO_x Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit or CAIR SO₂ unit (as applicable) shall also apply to the owners and operators of such unit.

(i) Effect on Other Authorities.

No provision of the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program and CAIR SO₂ Trading Program (as applicable), a CAIR permit application, a CAIR permit, or an exemption under 45CSR§39-5, 45CSR§40-5, or 45CSR§41 -5 (as applicable) shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO_x Annual source, CAIR NO_x Ozone Season source and CAIR SO₂ source (as applicable) or CAIR NO_x Annual unit, CAIR NO_x Ozone Season unit and CAIR SO₂ unit (as applicable) from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

Plant Name **Ceredo Generating Station**

**STEP 3,
continued**

Certification

I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

CAIR Designated Representative **John M. McManus**

Signature



Date

9/5/12