



American Electric Power
1 Riverside Plaza
Columbus, OH 43215
aep.com

November 1, 2017

Mr. William F. Durham, Director
West Virginia Department of Environmental Protection
Division of Air Quality
601 - 57th Street
Charleston, West Virginia 25304

**RE: 45 CSR 30 Permit Renewal Application
Plant ID# 099-00081**

Dear Director Durham,

In accordance with Condition 2.3 for the subject permit and WVDEP Division of Air Quality guidelines, enclosed are two electronic copies (on CD) and one hard copy of the Regulation 30 Permit Renewal Application for Appalachian Power Company's Ceredo Generating Station. The subject application is for the Combustion Turbine Electric Generating Facility located near Huntington, WV in Wayne County. The existing permit expires on May 7, 2018.

Please contact Mr. Les Adkins at (304) 528-7192 or myself at (614) 716-1262 if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Gregory J. Wooten". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Gregory J. Wooten
Principal Engineer, Air Quality Services
Environmental Services Division

Enclosure

Mr. William F. Durham, Director
West Virginia Department of Environmental Protection
Division of Air Quality
November 1, 2017
Page 2

Re: 45 CSR 30 Permit Renewal Application
Plant ID# 099-00081

CC without attachment (will be delivered electronically by email)

J. C. Hendricks
G. J. Wooten
P. J. Massie
L. S. Adkins
J. J. Henry

Ceredo Generating Station Title V Permit Renewal Application



BOUNDLESS ENERGY™



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Prepared for: **Appalachian Power Company, Ceredo Generating Station**
1662 Walker Branch Road
Huntington, West Virginia 25704

Prepared by: **AEP Air Quality Services Section**
1 Riverside Plaza
Columbus, Ohio 43215

Renewal Application Submittal : **October, 2017**

**Appalachian Power Company
Ceredo Generating Station**

Regulation 30 Permit Renewal Application

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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

1. Name of Applicant (As registered with the WV Secretary of State's Office): Appalachian Power Company
2. Facility Name or Location: Ceredo Generating Station, 1662 Walker Branch Road, Huntington, WV 25704
3. DAQ Plant ID No.: 0 9 9 - 0 0 0 8 1
4. Federal Employer ID No. (FEIN): 5 4 - 0 1 2 4 7 9 0
5. Permit Application Type: [X] Permit Renewal, When did operations commence? 04/12/2001, What is the expiration date of the existing permit? 05/07/2018
6. Type of Business Entity: [X] Corporation, [] Governmental Agency, [] LLC, [] Partnership, [] Limited Partnership
7. Is the Applicant the: [] Owner, [] Operator, [X] Both
8. Number of onsite employees: 5
9. Governmental Code: [X] Privately owned and operated; 0, [] County government owned and operated; 3, [] Federally owned and operated; 1, [] Municipality government owned and operated; 4, [] State government owned and operated; 2, [] District government owned and operated; 5
10. Business Confidentiality Claims: Does this application include confidential information (per 45CSR31)? [] Yes [X] No

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: 4,247.45 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
<p>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</p>		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
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 Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
<small>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.</small>		

13. Contact Information		
Responsible Official: Paul J. Massie		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: pjmassie@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: Gregory J. Wooten		Title: Principal Engineer
Company: American Electric Power		
Street or P.O. Box: 1 Riverside Plaza 22 nd Floor		
City: Columbus	State: OH	Zip: 43215-2373
Telephone Number: (614) 716-1262	Fax Number: (614) 716-1252	
E-mail address: gjwooten@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 approximately 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 (45CSR34)	<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 type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input 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.

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 R30-09900081-2013 Condition No.3.1.1
- Open Burning Exemptions** – 45 CSR §6-3.2 - Title V R30-09900081-2013 Condition No. 3.1.2
- Asbestos** – 40 CFR 61 Sections §61.145, §61.148, §61.150, §61.145(b)(3)(i) - Title V R30-09900081-2013 Condition No. 3.1.3
- Odor** – 45 CSR §4-3.1 - Title V R30-09900081-2013 Condition No. 3.1.4
- Standby Plan for Reducing Emissions** – 45 CSR §11-5.2 - Title V R30-09900081-2013 Condition No. 3.1.5
- Emission Inventory** – WV Code §22-5-4(a)(14) - Title V R30-09900081-2013 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 R30-09900081-2013 Condition No. 3.1.7
- Risk Management Plan** - 40 CFR 68 - Title V R30-09900081-2013 Condition No. 3.1.8

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 R30-09900081-2013 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 R30-09900081-2013 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 R30-09900081-2013 Condition No.3.5.(1-3)
- Certified Emissions Statements** – 45 CSR §30-8 - Title V R30-09900081-2013 Condition No.3.5.4
- Compliance Certification** – 45 CSR §30-5.3.e - Title V R30-09900081-2013 Condition No.3.5.5
- Semi-Annual Monitoring Reports** – 45 CSR §30-5.1.c.3.A Title V R30-09900081-2013 Condition No.3.5.6
- Emergencies** – 45 CSR §30-5.7.c - Title V R30-09900081-2013 Condition No.3.5.7
- Deviations** – 45 CSR §30-5.1.c.3.(B-D) - Title V R30-09900081-2013 Condition No.3.5.8
- New Applicable Requirements** – 45 CSR §30-4.3.h.1.B - Title V R30-09900081-2013 Condition No.3.5.9
- Permit Shield** – 45 CSR §30-5.6 - Title V R30-09900081-2013 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. R13-2382 Other Requirements (B)(7). Title V R30-09900081-2013 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. R13-2382 Other Requirements (B)(7). Title V R30-09900081-2013 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. R13-2382 Other Requirements (B)(7). Title V R30-09900081-2013 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 45CSR₃c10-4.1. 45CSR13 Permit No. R13-2382 Specific Requirement (A)(1-2). Title V R30-09900081-2013 Condition No. 4.1.4

Combustion turbines shall not combust more than 12 x 10⁹ 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. R13-2382 Specific Requirement (A)(3), Title V R30-09900081-2013 Condition No. 4.1.5

CO oxidation catalysts 1C, 2C, 3C, 4C, 5C, and 6C, shall be installed, maintained, and operated in a manner consistent with good air pollution control practices for minimizing emissions to comply with CO emission limitations set forth in Section 4.1.4. 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. R13-2382 Specific Requirement (A)(4), Title V R30-09900081-2013 Condition No. 4.1.6

The sulfur content of the gas being fired shall not exceed 1.32 grains/100 scf. [45CSR13 - Permit No. R13-2382 Specific Requirement (A)(5), Title V R30-09900081-2013 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 Specific Requirement (A)(6), Title V R30-09900081-2013 Condition No. 4.1.8

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 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 R30-09900081-2013 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**.

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 SO₂, NO_x, 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 R30-09900081-2013 Condition No. 4.2.1

In order to demonstrate compliance with the sulfur content limits of sections 4.1.1. and 4.1.7. along with the NO_x 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. , R30-09900081-2013 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
- Combustion Reference Temperature
- 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 R30-09900081-2013 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 R30-09900081-2013 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 R30-09900081-2013 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. 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.

40 C.F.R. 75, 45CSR13 Permit No. R13-2382 Specific Requirement (B)(15), Title V R30-09900081-2013 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 an 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

$$NO_{PPH} = NO_x * HI$$

Where NO_x PPH = NO_x emissions in lbs/hr

NO_x = NO_x 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

$$MSO_2 = HI * ER_{SO_2}$$

Where MSO₂ = mass emission for SO₂ in lbs/hr

ER_{SO₂} = 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 ration 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 R30-09900081-2013 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 Specific Requirement (B)(11). Title V R30-09900081-2013 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 Specific Requirement (B)(12). Title V R30-09900081-2013 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 Specific Requirement (B)(16). Title V R30-09900081-2013 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 R30-09900081-2013 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 R30-09900081-2013 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.

22. Inactive Permits/Obsolete Permit Conditions

Permit Number	Date of Issuance	Permit Condition Number
	MM/DD/YYYY	
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
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 HAPs
Particulate Matter (PM _{2.5}) ²	N/A
Particulate Matter (PM ₁₀) ²	83.3
Total Particulate Matter (TSP)	N/A
Sulfur Dioxide (SO ₂)	5.0
Volatile Organic Compounds (VOC)	13.6
Hazardous Air Pollutants ²	Potential Emissions
Total HAPs	7.4
Listed below are the individual HAPs included in total Haps 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
Arsenic	4.8 x 10 ⁻⁸

Cadmium	8.2×10^{-7}
Chromium VI	1.3×10^{-6}
Lead	1.6×10^{-5}
Manganese	1.6×10^{-6}
Mercury	4.3×10^{-7}
<p>¹Per 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.</p> <p>²PM_{2.5} and PM₁₀ are components of TSP.</p> <p>³For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.</p>	

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"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , 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. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____ _____ _____ _____ _____

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.

24. Insignificant Activities (Check all that apply)	
<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 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: Paul J. Massie	Title: Plant Manager
----------------------	----------------------

Responsible official's signature:

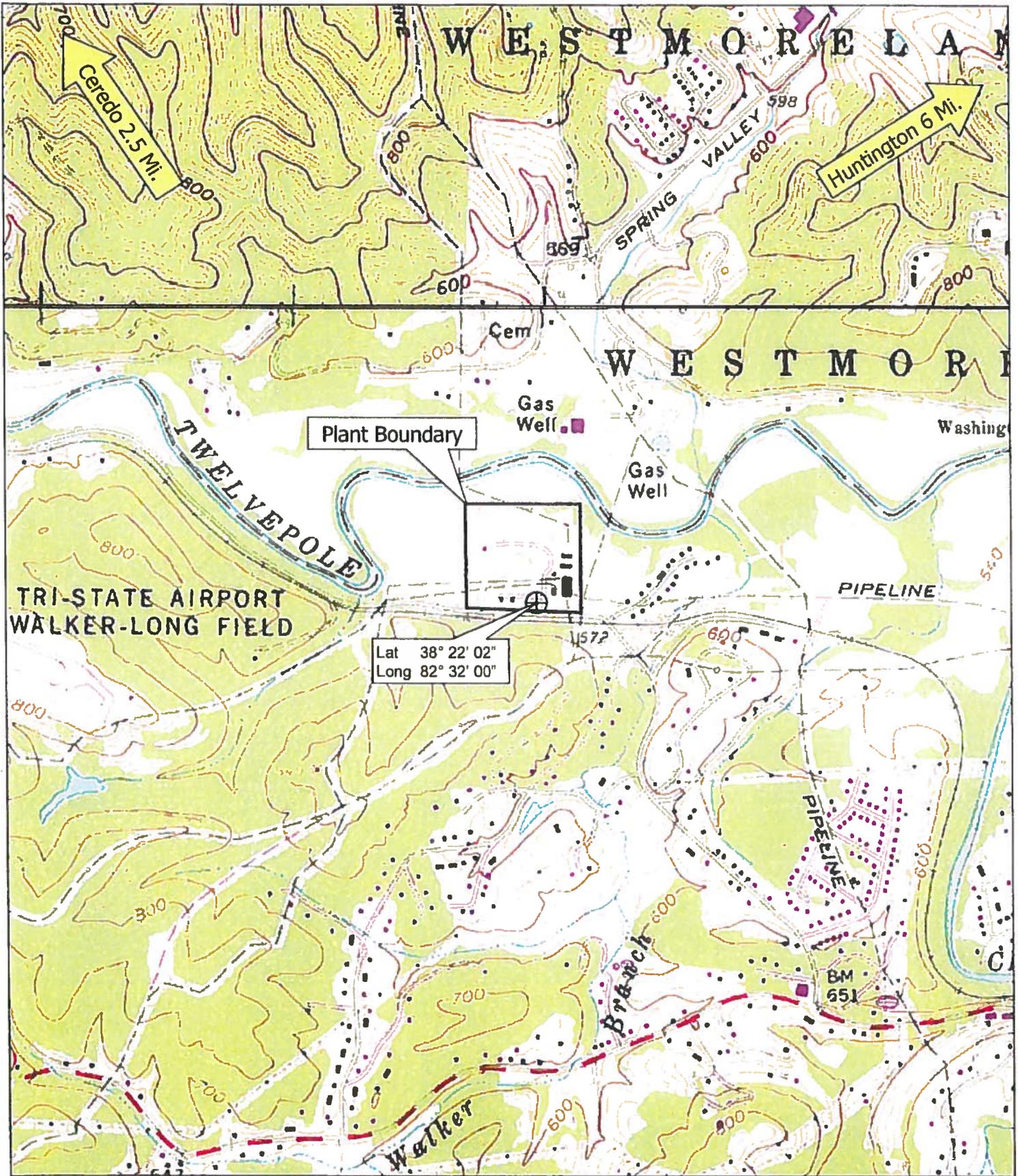
Signature: Paul J. Massie Signature Date: 10/27/2017
(Must be signed and dated in blue ink)

- Note: Please check all applicable attachments included with this permit application:**
- ATTACHMENT A: Area Map
 - ATTACHMENT B: Plot Plan(s)
 - ATTACHMENT C: Process Flow Diagram(s)
 - ATTACHMENT D: Equipment Table
 - ATTACHMENT E: Emission Unit Form(s)
 - ATTACHMENT F: Schedule of Compliance Form(s)
 - ATTACHMENT G: Air Pollution Control Device Form(s)
 - 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



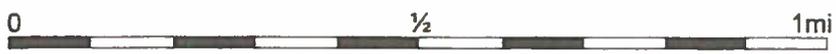
Plant Boundary

Lat 38° 22' 02"
Long 82° 32' 00"



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

Appalachian Power Company
 Ceredo Generation Station
 Plant Location Map



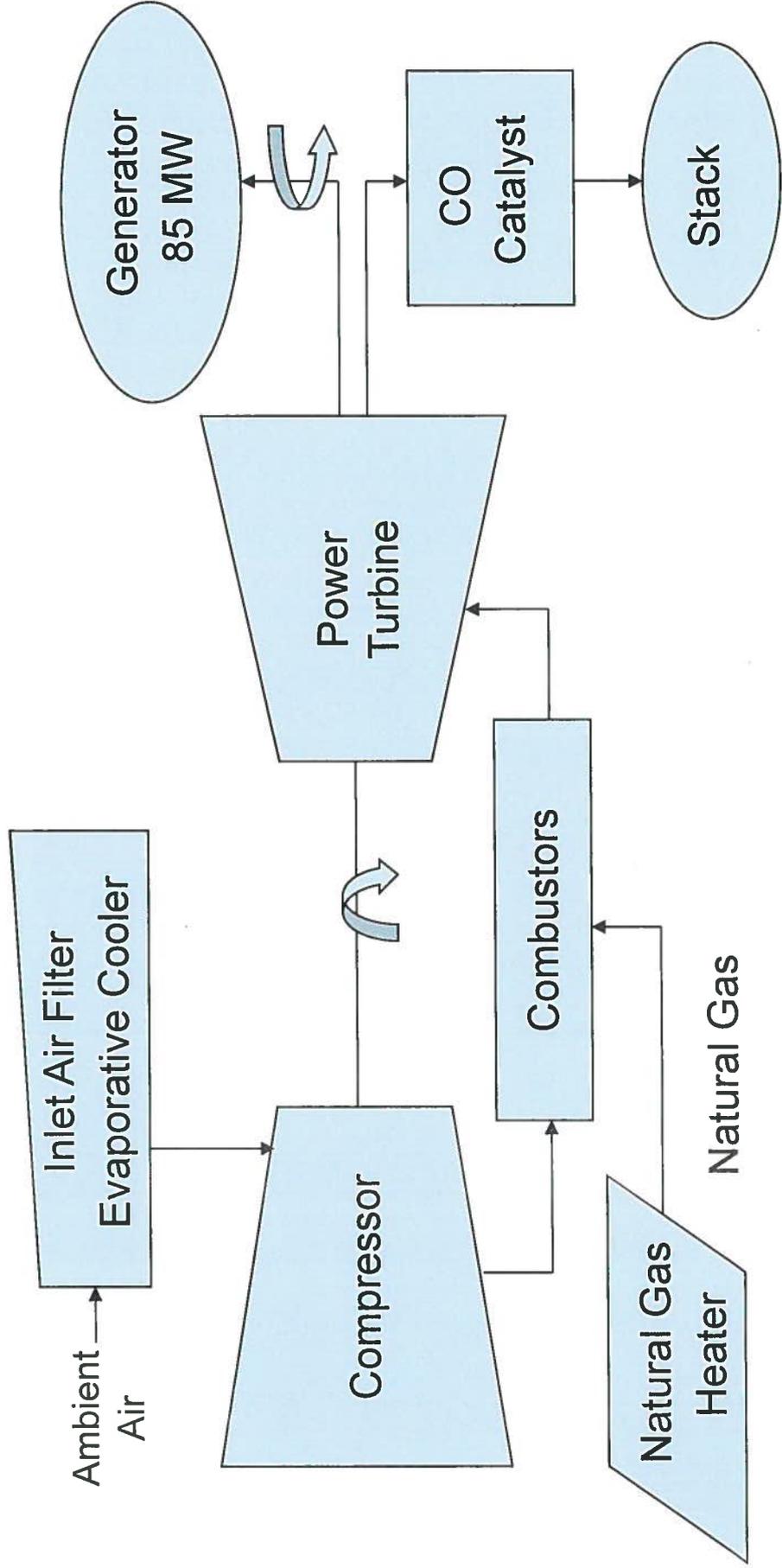
Attachment B

Plot Plan

Attachment C

Process Flow Diagram

CEREDO GENERATING STATION PROCESS FLOW DIAGRAM



Attachment D
Equipment Table

Attachment E
Emission Unit Forms

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i>			
Emission unit ID number: 1E	Emission unit name: Gas Turbine 1E	List any control devices associated with this emission unit: CO destruction catalyst	
<p>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.</p> <p>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.</p>			
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	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
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	
<p>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</p>			
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

Emissions Data		
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 Specific Requirement (A)(1-2) Title V R30-09900081-2013 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 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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			
<i>Emission Unit Description</i>			
Emission unit ID number: 2E	Emission unit name: Gas Turbine 2E	List any control devices associated with this emission unit: CO destruction catalyst	
<p>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.</p> <p>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.</p>			
Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297576	
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	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
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	
<p>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</p>			
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

Emissions Data		
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 Specific Requirement (A)(1-2) Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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			
<i>Emission Unit Description</i>			
Emission unit ID number: 3E	Emission unit name: Gas Turbine 3E	List any control devices associated with this emission unit: CO destruction catalyst	
<p>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.</p> <p>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.</p>			
Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297577	
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	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
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	
<p>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</p>			
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

Emissions Data		
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 Specific Requirement (A)(1-2) Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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			
<i>Emission Unit Description</i>			
Emission unit ID number: 4E	Emission unit name: Gas Turbine 4E	List any control devices associated with this emission unit: CO destruction catalyst	
<p>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.</p> <p>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.</p>			
Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297578	
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	
<i>Fuel Usage Data (fill out all applicable fields)</i>			
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	
<p>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</p>			
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

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Emissions Data		
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 Specific Requirement (A)(1-2) Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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			
<i>Emission Unit Description</i>			
Emission unit ID number: 5E	Emission unit name: Gas Turbine 5E	List any control devices associated with this emission unit: CO destruction catalyst	
<p>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.</p> <p>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.</p>			
Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297579	
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	
<p>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</p>			
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

Emissions Data		
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 Specific Requirement (A)(1-2) Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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	
<p>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.</p> <p>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.</p>			
Manufacturer: GE	Model number: GE MS7001EA	Serial number: 297580	
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	
<p>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</p>			
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

Emissions Data		
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 Specific Requirement (A)(1-2) Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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 Other Requirements (B)(7) - Title V R30-09900081-2013 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.

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ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i>			
Emission unit ID number: 7E	Emission unit name: Fuel gas Heater	List any control devices associated with this emission unit: None	
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	
Construction date: 03/20/2001	Installation date: 04/07/2001	Modification date(s): N/A	
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		
<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>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 x 10⁶ scf of fuel cumulatively per 12 month rolling average.</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.

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. R13-2382 Other Requirements (B)(2). Title V R30-09900081-2013 Condition No. 5.1.1

Particulate matter emissions shall not exceed 1.28 lbs/hr. 45CSR§2-4.1.b., 45CSR13 Permit No. R13-2382 Other Requirements (B)(2). Title V R30-09900081-2013 Condition No. 5.1.2

Sulfur dioxide emissions shall not exceed 45.50 lbs/hr. 45CSR§10-3.3.f., 45CSR13 Permit No. R13-2382 Other Requirements (B)(3). Title V R30-09900081-2013 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. R13-2382 Specific Requirement (A)(7). Title V R30-09900081-2013 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 units(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 R30-09900081-2013 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. R13-2382 Specific Requirement (B)(11). Title V R30-09900081-2013 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 R30-09900081-2013 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 R30-09900081-2013 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 F
Schedule of Compliance Forms
(Not Applicable)

Attachment G
Air Pollution Control Device Form

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: 1C-6C	List all emission units associated with this control device. 1E-6E	
Manufacturer: Engelhard Camet	Model number: N/A	Installation date: 04/07 /2001
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%	appox. 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? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 by demonstrating compliance with CO lb/hr and ppm limitations.		

Attachment H

Compliance Assurance Monitoring (CAM) Form

(Application Form Not Applicable – No PSEUs for which a CAM plan has not yet been approved)

Attachment I
Existing Applicable Permits



DEC 22 2015

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DEC 22 2015

west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304 926 0475 • FAX: 304 926 0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
dep.wv.gov

December 15, 2015

Certified Mail

91 7199 9991 7034 1378 6355

Mr. John M. McManus
Designated Representative
American Electric Power Company
1 Riverside Plaza
Columbus, OH 43215

**Re: Title IV Phase II Acid Rain Permit
R33-55276-2020-4**

Dear Mr. McManus:

Please find enclosed the Phase II Acid Rain Permit for the Ceredo Generating Station. The permit was signed on December 14, 2015 and is effective January 1, 2016 to December 31, 2020.

If you have any questions, please contact me at (304) 926-0499 ext. 1215.

Sincerely,

Frederick T. Ipene
Permit Engineer

Enclosures



west virginia department of environmental protection
Division of Air Quality

Phase II Acid Rain Permit

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Plant Name: Ceredo Generating Station		Permit #: R33-55276-2020-4
Affected Unit(s): 1E, 2E, 3E, 4E, 5E, 6E		
Operator: American Electric Power Company		ORIS Code: 55276
Effective Date	From: January 1, 2016	To: December 31, 2020

Contents:

1. Statement of Basis.
2. SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
3. Comments, notes and justifications regarding permit decisions and changes made to permit application forms during the review process, and any additional requirements or conditions.
4. The permit application forms submitted for this source, as corrected by the West Virginia Division of Air Quality. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with W. Va. Code §22-5-4(a)(16) and Titles IV and V of the Clean Air Act, the West Virginia Department of Environmental Protection, Division of Air Quality issues this permit pursuant to 45CSR33 and 45CSR30.

Permit Approval

William F. Durham, Director
Division of Air Quality

12-14-2015
Date

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West Virginia Department of Environmental Protection • Division of Air Quality

Plant Name: Ceredo Generating Station	Permit #: R33-55276-2020-4
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2. SO₂ Allocations for each affected unit

Unit No. 1E	SO ₂ Allowances				
	Year				
	2016	2017	2018	2019	2020
Table 2 allowances, as adjusted by 40 CFR Part 73	N/A*	N/A*	N/A*	N/A*	N/A*
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A

* This unit was not eligible for an initial allocation of SO₂ allowances under 40 CFR Part 73, but may acquire such allowances from other sources. This unit is still obligated to hold SO₂ allowances as required under and in accordance with 40 CFR §72.9(c)(1). Allocations and transfers to, as well as deductions from, a unit's allowance account do not necessitate a revision to this permit (see 40 CFR §72.84).

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

West Virginia Department of Environmental Protection • Division of Air Quality

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Plant Name: Ceredo Generating Station	Permit #: R33-55276-2020-4
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2. SO₂ Allocations for each affected unit

Unit No. 2E					
SO₂ Allowances	Year				
	2016	2017	2018	2019	2020
Table 2 allowances, as adjusted by 40 CFR Part 73	N/A*	N/A*	N/A*	N/A*	N/A*
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A

* This unit was not eligible for an initial allocation of SO₂ allowances under 40 CFR Part 73, but may acquire such allowances from other sources. This unit is still obligated to hold SO₂ allowances as required under and in accordance with 40 CFR §72.9(c)(1). Allocations and transfers to, as well as deductions from, a unit's allowance account do not necessitate a revision to this permit (see 40 CFR §72.84).

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

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West Virginia Department of Environmental Protection • Division of Air Quality

Plant Name: Ceredo Generating Station	Permit #: R33-55276-2020-4
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2. SO₂ Allocations for each affected unit

Unit No. 3E					
SO₂ Allowances	Year				
	2016	2017	2018	2019	2020
Table 2 allowances, as adjusted by 40 CFR Part 73	N/A*	N/A*	N/A*	N/A*	N/A*
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A

* This unit was not eligible for an initial allocation of SO₂ allowances under 40 CFR Part 73, but may acquire such allowances from other sources. This unit is still obligated to hold SO₂ allowances as required under and in accordance with 40 CFR §72.9(c)(1). Allocations and transfers to, as well as deductions from, a unit's allowance account do not necessitate a revision to this permit (see 40 CFR §72.84).

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

Plant Name: Ceredo Generating Station	Permit #: R33-55276-2020-4
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2. SO₂ Allocations for each affected unit

Unit No. 4E					
SO ₂ Allowances	Year				
	2016	2017	2018	2019	2020
Table 2 allowances, as adjusted by 40 CFR Part 73	N/A*	N/A*	N/A*	N/A*	N/A*
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A

* This unit was not eligible for an initial allocation of SO₂ allowances under 40 CFR Part 73, but may acquire such allowances from other sources. This unit is still obligated to hold SO₂ allowances as required under and in accordance with 40 CFR §72.9(c)(1). Allocations and transfers to, as well as deductions from, a unit's allowance account do not necessitate a revision to this permit (see 40 CFR §72.84).

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

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West Virginia Department of Environmental Protection • Division of Air Quality

Plant Name: Ceredo Generating Station	Permit #: R33-55276-2020-4
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2. SO₂ Allocations for each affected unit

Unit No. 5E					
SO₂ Allowances	Year				
	2016	2017	2018	2019	2020
Table 2 allowances, as adjusted by 40 CFR Part 73	N/A*	N/A*	N/A*	N/A*	N/A*
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A

* This unit was not eligible for an initial allocation of SO₂ allowances under 40 CFR Part 73, but may acquire such allowances from other sources. This unit is still obligated to hold SO₂ allowances as required under and in accordance with 40 CFR §72.9(c)(1). Allocations and transfers to, as well as deductions from, a unit's allowance account do not necessitate a revision to this permit (see 40 CFR §72.84).

3. **Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:**

None.

4. **Permit application forms:**

Attached.

West Virginia Department of Environmental Protection • Division of Air Quality

Plant Name: Ceredo Generating Station	Permit #: R33-55276-2020-4
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2. SO₂ Allocations for each affected unit

Unit No. 6E					
SO₂ Allowances	Year				
	2016	2017	2018	2019	2020
Table 2 allowances, as adjusted by 40 CFR Part 73	N/A*	N/A*	N/A*	N/A*	N/A*
Repowering plan allowances	N/A	N/A	N/A	N/A	N/A

* This unit was not eligible for an initial allocation of SO₂ allowances under 40 CFR Part 73, but may acquire such allowances from other sources. This unit is still obligated to hold SO₂ allowances as required under and in accordance with 40 CFR §72.9(c)(1). Allocations and transfers to, as well as deductions from, a unit's allowance account do not necessitate a revision to this permit (see 40 CFR §72.84).

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

None.

4. Permit application forms:

Attached.

Ceredo Generating Station Plant Code 55276

Permit Requirements

STEP 3

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall:
 - (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;
- (2) The owners and operators of each affected source and each affected unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (ii) Have an Acid Rain Permit.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Ceredo Generating Station Plant Code 55276

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
- (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each affected unit 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 prior to the end of 5 years, in writing by the Administrator or permitting authority:
- (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; 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 changing the designated representative;

Ceredo Generating Station	Plant Code 55276
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Recordkeeping and Reporting Requirements, Cont'd.

STEP 3, Cont'd.

- (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 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 Acid Rain Program; and,
 - (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
- (6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Ceredo Generating Station Plant Code 55276
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Effect on Other Authorities, Cont'd.

STEP 3, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

STEP 4
Read the certification statement, sign, and date.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected 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.

Name John M. McManus	
Signature 	Date March 18, 2015



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475 • FAX: (304) 926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

April 14, 2016

CERTIFIED MAIL
91 7199 9991 7035 6665 8806

Mr. Patrick C. Myers
Plant Manager
Appalachian Power Company
1662 Walker Branch Road
Huntington, WV 25704

Re: Appalachian Power Company
Ceredo Generating Station
Permit No. R13-2382D
Plant ID No. 099-00081

Dear Mr. Myers:

Your application for a permit as required by Section 5 of 45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permit, General Permit, and Procedures for Evaluation" has been approved. The enclosed permit R13-2382D is hereby issued pursuant to Subsection 5.7 of 45CSR13. Please be aware of the notification requirements in the permit which pertain to commencement of construction, modification, or relocation activities; startup of operations; and suspension of operations.

The source is subject to 45CSR30. The permittee has the duty to update the facility's Title V [45CSR30] permit application to reflect the changes permitted herein.

In accordance with 45CSR30 - Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

Promoting a healthy environment.

Should you have any questions or comments, please contact me at (304) 926-0499, extension 1257.

Sincerely,

A handwritten signature in blue ink that reads "John Legg". The signature is stylized with a large, looping "J" and "L".

John Legg
Permit Writer

cc: Gregory J. Wooten

Enclosures



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west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone 304/926-0475 • FAX: 304/926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

**PERMIT TO ADMINISTRATIVELY UPDATE
AN ELECTRIC GENERATING STATION**

IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL LAW (W. Va. Code §§22-5-1 et seq.), AND REGULATIONS PROMULGATED THEREUNDER, THE FOLLOWING PERMITTEE IS AUTHORIZED TO CONSTRUCT, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, THE SOURCE DESCRIBED BELOW.

This permit will supersede and replace Permit R13-2382C which was approved on February 13, 2009.

Name of Permittee: Appalachian Power Company
Name of Facility: Ceredo Generating Station
Permit No.: R13-2382D
Plant ID No.: 099-00081
Effective Date of Permit: April 14, 2016
Permit Writer: John Legg
Facility Mailing Address: 1662 Walker Branch Road
Huntington, WV 25704
County: Wayne
Nearest City or Town: Ceredo, WV
UTM Coordinates: Easting: 365.97 km Northing: 4,247.45 km Zone: 17
Directions to Exact Location: 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 across the railroad tracks and then turn immediately to the right on Walkers Branch Road. Turn right at the first stop sign. The facility is approximately 1 mile, on the left.
Type of Facility or Modification: Class II Administrative Update to eliminate the CO oxidation catalyst minimum performance requirement [for each of the six (6) gas turbines of $\geq 50\%$], while maintaining the emission limits applicable to the facility.

THE SOURCE IS SUBJECT TO 45CSR30. CHANGES AUTHORIZED BY THIS PERMIT MUST ALSO BE INCORPORATED INTO THE FACILITY'S TITLE V OPERATING PERMIT. COMMENCEMENT OF THE OPERATIONS AUTHORIZED BY THIS PERMIT SHALL BE DETERMINED BY THE APPROPRIATE TIMING LIMITATIONS ASSOCIATED WITH TITLE V PERMIT REVISIONS PER 45CSR30.

Promoting a healthy environment.

IN ACCORDANCE WITH THE PERMIT APPLICATION AND ITS AMENDMENTS, THIS PERMIT IS LIMITED AS FOLLOWS:

A. SPECIFIC REQUIREMENTS

- Hourly emissions from each of the six General Electric Model MS 7101EA / PG7121 (EA) Combustion Turbines (1S-6S) shall not exceed the following (except during periods of startup and shutdown and when the turbines are operated without the CO catalyst):

Pollutant	lbs/hr
Oxides of Nitrogen	40
Sulfur Dioxide	5
PM-10	17*
Volatile Organic Compounds	4
Carbon Monoxide (with CO catalyst operating)	47
Carbon Monoxide (without CO catalyst operating)	94
Hazardous Air Pollutants	1.0

*EPA Method 5, front and back half catch.

- Combined yearly emissions from the six General Electric Model MS 7001EA / PG7121(EA) Combustion Turbines (1S-6S) shall not exceed the following:

Pollutant	TPY
Oxides of Nitrogen	245.3
Sulfur Dioxide	5.0
PM-10	83.3
Volatile Organic Compounds	13.6
Carbon Monoxide	240.2
Hazardous Air Pollutants	7.4

- Combustion Turbines (1S - 6S) 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 NO_x are installed and operating.

4. CO oxidation catalysts 1C, 2C, 3C, 4C, 5C, and 6C shall be installed, maintained, and operated in a manner consistent with good air pollution control practices for minimizing emissions to comply with CO emission limitations set forth in Specific Requirements A.1 and A.2. 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 Specific Requirements A.1. and A.2 be exceeded except for hourly CO emissions which shall not exceed 94 lbs/hr during periods of catalyst failure.
5. The sulfur content of the gas being fired shall not exceed 1.32 grains/100 scf.
6. Combined hours of operation for the six (6) turbines shall not exceed 15,150 hours per year unless Continuous Emission Monitors (CEM's) for NO_x are installed and operating. Compliance with this limit shall be determined using a 12 month rolling average.
7. The fuel gas heater located on-site shall not combust more than 49.8 x 10⁶ scf/yr of fuel cumulatively on a rolling 12 month basis.

B. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of 45CSR2, 45CSR10, 45CSR13, 45CSR16, 45CSR30 and 40 CFR 60, Subparts Dc and GG, provided that the permittee shall comply with any more stringent requirements as may be set forth under Specific Requirements, Section (A) of this permit. Legislative Rule 45CSR16 incorporates therein 40 CFR 60.
2. The pertinent sections of 45CSR2 applicable to this facility include, but are not limited to, the following:

§45-2-3.1

No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than (10) percent opacity based on a six minute block average.

§45-2-4.1

No person shall cause, suffer, allow, or permit the discharge of particulate matter into the open air from all fuel burning units located at one plant, measured in terms of pounds per hour in excess of the amount determined as follows:

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§45-2-4.1.b

For Type 'b' fuel burning units, the product of 0.09 and the total design heat inputs for such units in million B.T.U.'s per hour, provided however that no more than six hundred (600) pounds per hour of particulate matter shall be discharged into the open air from all such units.

§45-2-5.1

No person shall cause, suffer, allow, or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter.

3. The pertinent sections of 45CSR10 applicable to this facility include, but are not limited to, the following:

§45-10-3.3.

No person shall cause, suffer, allow, or permit the discharge of sulfur dioxide into the open air from all stacks located at one plant, measured in terms of pounds per hour, in excess of the amount determined as follows:

§45-10-3.3.f.

For Type 'b' and Type 'c' fuel burning units, the product of 3.2 and the total design heat inputs for such units discharging through those stacks in million BTU's per hour.

4. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

§45-13-6.1

At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Secretary may specify shall be conducted to determine compliance.

§45-13-10.2

The Secretary may suspend or revoke a permit if, after six (6) months from the date of issuance, the holder of the permit cannot provide the Secretary, at the Secretary's request, with written proof of a good faith effort that construction, modification, or relocation, if applicable, has commenced. Such proof shall be provided not later than thirty (30) days after the

Secretary's request. If construction or modification of a stationary source is discontinued for a period of eighteen (18) months or longer, the Secretary may suspend or revoke the permit.

§45-13-10.3

The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. Upon notice of the Secretary's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the Secretary in accordance with the provisions of W.Va Code § 22-5-5 to show cause why the permit should not be suspended, modified or revoked.

5. The permittee shall conduct stack tests on each gas turbine to determine compliance with the emissions rates for NO_x and CO found at Paragraph (A)(1) of this permit in accordance with EPA test methods described in 40 CFR 60, Appendix A. Compliance testing of each gas turbine shall be conducted at 100% of full load, within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of the facility. Specifically, NO_x emissions shall be determined utilizing Method 20, and CO emissions shall be determined utilizing EPA Method 10. The results reported to the Director of the Division of Air Quality, WV Division of Environmental Protection within 45 days after the date of completion of stack test.
6. The permittee shall submit a stack test protocol detailing the testing procedure, including, but not limited to, sampling methods and procedures, quality assurance procedures, and sampling location. The test protocol shall be received by the Director no less than 30 days prior to the planned date of stack testing. The Director shall be notified at least 15 days in advance of the planned date and time during which the test will be conducted.
7. The operations of the new affected facilities under this permit are subject to requirements of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. Pertinent sections applying to these operations include, but are not limited to:

§60.7(a)

Any owner or operator subject to the provisions of this part shall furnish written notification as follows :

§60.7(a)(1)

A notification of the date construction is commenced postmarked no later than 30 days after such date.

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§60.7(a)(3)

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

§60.8(a)

Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the act, the owner or operator of such facility shall conduct performance test(s) and furnish a written report of the results of such performance test(s).

§60.11(d)

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

§60.332(a)

On and after the date of the performance test required by §60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c) and (d) of this section shall comply with the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

§60.332(a)(1)

No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 * (14.4/Y) + F$$

where:

STD = allowable NO_x emissions (percent volume at 15 percent oxygen and on a dry basis)

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not to exceed 14.4 kilojoules per watt hour.

F = NO_x emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of this section.

§60.332(b)

Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.

§60.333

On and after the date on which the performance test required to be conducted by §60.8 is completed, every owner or operator subject of the provision of this subpart shall comply with one or the other of the following conditions:

- (a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.
- (b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight.

§60.334(b)

The owner or operator of any stationary gas turbine subject to the provisions of this subpart shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

- (2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with paragraph (b) of this section.
8. The operations of the gas fuel heater are subject to the requirements of 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Pertinent sections applying to these operations include, but are not limited to the following:

§60.48c(a)

The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

§60.48c(a)(1)

The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

§60.48c(g)

The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each operating day.

§60.48c(l)

All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

§60.48c(j)

The reporting period for the reports required under this subpart 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.

- 10. All notifications and reports required pursuant to 40 CFR 60 under §60.7 shall be forwarded to:

Director WVDEP Division of Air Quality 601 57 th Street, SE Charleston, WV 25304-2345	and Associate Director Office of Air Enforcement & Compliance Assistance (3AP20) US Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029
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- 11. For the purposes of determining compliance with the maximum fuel combustion limits set forth in Specific Requirements A.3 and A.7, the applicant shall maintain certified daily records, utilizing the form identified as Attachment A. 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.
- 12. For the purposes of determining compliance with maximum hours of operation limits set forth in Specific Requirements A.6, the applicant shall maintain certified daily records, utilizing the form identified as Attachment B. 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.

13. If NO_x CEM's are installed on the gas turbines, they shall be installed, operated, and maintained in accordance with the requirements of 40 CFR 75; once they are operational and have been calibrated, the applicant shall notify WVDEP that this has been done, and the fuel usage and operational restrictions set forth in Specific Requirements A.3 and A.6 will no longer apply. The NO_x CEM's will assure compliance with the NO_x emission limits set forth in Specific Requirements A.1 and A.2.
14. If NO_x CEM's are not installed, NO_x emissions from each gas turbine will be determined and tracked in accordance with 40 CFR 75.
15. If CO CEM's are not installed, CO emissions will be determined prior to the earlier of 3,000 unit hours or the 5-year anniversary and renewal of the facility's operating permit under 40 CFR 72, utilizing EPA Method 10, an analyzer complying with EPA Method 10, or EPA Conditional Test Method 30 (GRI Method).
16. For the purposes of determining compliance with Specific Requirement A.4, the permittee shall maintain certified daily records, utilizing the form identified as Attachment C. 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.

C. GENERAL REQUIREMENTS

1. In accordance with 45CSR30 - "Operating Permit Program", the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first filing a Certified Emissions Statement (CES) and paying the appropriate fee. Such Certified Emissions Statement (CES) shall be filed and the appropriate fee paid annually. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Director or his/her duly authorized representative.
2. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.
3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-2382, R13-2382A, R13-2382B, R13-2382C, R13-2382D and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.

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4. At such reasonable time(s) as the Director may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Director may specify or approve and shall be filed in a manner acceptable to the Director. The Director, or his/her duly authorized representative, may at his option witness or conduct such test. Should the Director exercise his option to conduct such test(s), the permittee shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. For any tests to be conducted by the permittee, a test protocol shall be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Director. The Director shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.
5. In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by this permit, the permittee shall notify the Director, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.
6. The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.
7. The permittee shall notify the Director, in writing, within fifteen (15) calendar days of the commencement of the construction, modification, or relocation activities authorized under this permit.
8. The permittee shall notify the Director, in writing, at least fifteen (15) calendar days prior to actual startup of the operations authorized under this permit.
9. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
10. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
11. At such time(s) as the Director may designate, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division

of Air Quality. After the initial submittal, the Director may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.

ISSUED BY: 
WILLIAM F. DURHAM, DIRECTOR
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

DATE SIGNED: 4-14-2016

Attachment A - Natural Gas Usage *
 Appalachian Power Company, Ceredo Generating Station
 Plant ID No.: 099-00081; Permit No.: R13-2382D

Day	Month Year		Initials ⁽¹⁾
	Amount of Natural Gas (scf) Used in		
	Fuel Gas Heater	Combustion Turbines	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
Total			

(1) At the conclusion of filling in the required information each entry must be initialed by the individual entering in the information.

Rolling Yearly Total _____ scf (turbines)

Rolling Yearly Total _____ scf (heater)

*The Certification of Data Accuracy statement on the reverse side of this form must be completed and signed by a responsible official with fifteen (15) days after the end of the calendar month. This record shall be maintained on site for a period of five(5) years for the date of certification. It shall be made available, upon request, to the Chief or his/her authorized representative.

Attachment B - Turbine Engine Usage *
 Appalachian Power Company, Ceredo Generating Station
 Plant ID No.: 099-00081; Permit No.: R13-2382D

	Month	Year
Day	Number of Hours of Turbine Usage (all 6 Turbines Combined)	
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
Total		

(1) At the conclusion of filling in the required information each entry must be initialed by the individual entering in the information.

Total Hours for the Month _____ Hours (turbines)

Rolling Yearly Total _____ Hours (turbines)

*The Certification of Data Accuracy statement on the reverse side of this form must be completed and signed by a responsible official with fifteen (15) days after the end of the calendar month. This record shall be maintained on site for a period of five(5) years for the date of certification. It shall be made available, upon request, to the Chief or his/her authorized representative.

Attachment C - Combustion Turbine Usage Without CO Catalyst *
 Appalachian Power Company, Ceredo Generating Station
 Plant ID No.: 099-00081; Permit No.: R13-2382D

Month _____ Year _____

Day	Hours Each Turbine was Used Without a CO Catalyst (HR)						Initials ⁽¹⁾
	Turbine #1	Turbine #2	Turbine #3	Turbine #4	Turbine #5	Turbine #6	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
Total							

(1) At the conclusion of filling in the required information each entry must be initialed by the individual entering in the information.

Total Hours for the Month _____ hours (turbines)

Rolling Yearly Total _____ hours (turbines)

*The Certification of Data Accuracy statement on the reverse side of this form must be completed and signed by a responsible official with fifteen (15) days after the end of the calendar month. This record shall be maintained on site for a period of five (5) years for the date of certification. It shall be made available, upon request, to the Chief or his/her authorized representative.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

-
- ¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:
- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
 - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
 - d. The designated representative delegated with such authority and approved in advance by the Director.