

To: File  
From: John Legg  
Date: April 14, 2016

John Legg  
4/14/16

**Subject:** R13-2382D - Class II Administrative Update  
Appalachian Power Company (Appalachian formerly Twelvepole Creek, LLC)  
Amendment Request for Ceredo Generating Station  
Plant ID - 099-00081; R13-2382D

### Timing

- Appalachian submitted permit application R13-2382D for a Class II Administrative Update on February 22, 2016.
- The company's application fee of \$300.00 was received on February 25, 2016 and that same day the writer was assigned as the reviewing engineer.
- The company's legal advertisement ran in *The Herald Dispatch*, a Huntington, WV newspaper on February 16, 2016, and the affidavit of publication was emailed to the writer on February 26, 2016.
- In an email to G.J. Wooten dated March 7, 2016, the writer deemed the company's application complete as of February 26, 2016. The final permit determination/resulting permit (R13-2382D) was scheduled to be issued on April 26, 2016.

### Discussion

Appalachian requested that permit R13-2382C be revised to eliminate the CO oxidation catalyst minimum performance requirement "of greater than or equal to 50%." This requirement occurs in three sections of R13-2382C: A.4.; B.5.; and B.15.

According to the company's cover letter for application R13-2382D: "These changes and the permitting strategy have previously been discussed with Mr. Steven R. Pursley, Engineer with the WVDEP - Division of Air Quality."

The writer contacted Steve Pursley who agreed with the proposed change to eliminate the CO oxidation catalyst minimum performance requirement of "greater than or equal to 50%." Steve provided emails related to the proposed change which have been attached to this evaluation as Attachment 1.

The changes made to previous permit R13-2382C to produce new permit R13-2382D are detailed in a comparison file which is attached to this evaluation as Attachment 2.

## Attachment 1

### Emails Related to R13-2382D

#### Emails

**To and From:** Steven R. Pursley (DAQ) and  
Gregory J. Wooten (Appalachian Power Company)

**Concerning:** The elimination of CO oxidation catalyst minimum performance requirement (of greater than or equal to 50%), while maintaining the emission limits applicable to the facility - Appalachian Power Company, Ceredo Power Plant.

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**From:** Pursley, Steven R  
**Sent:** Thursday, December 10, 2015 3:01 PM  
**To:** 'Gregory J Wooten' <[gjwooten@aep.com](mailto:gjwooten@aep.com)>  
**Subject:** RE: Ceredo Power Plant - Appalachian Power Company

Greg,

I think a class II would be appropriate.

Steve

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**From:** Gregory J Wooten [<mailto:gjwooten@aep.com>]  
**Sent:** Thursday, December 10, 2015 2:58 PM  
**To:** Pursley, Steven R <[Steven.R.Pursley@wv.gov](mailto:Steven.R.Pursley@wv.gov)>  
**Subject:** RE: Ceredo Power Plant - Appalachian Power Company

Steve,

It's been a long time coming but I think we finally have agreement here within the various organizations at AEP that we are going to move forward with requesting the permit revision at Ceredo Generating Station that we proposed back in early fall.

I am starting to work on the permit application but wanted to check with you to see if you agree this could be handled as a Class II Admin. Update under Reg 13?

There would be no new rule applicability and emissions would not increase beyond the current permitted values.

G. J. (Greg) Wooten  
AEP Air Quality Services Section  
Bus. Ph: 614-716-1262  
Bus. FAX: 614-716-1252

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**From:** Pursley, Steven R [<mailto:Steven.R.Pursley@wv.gov>]  
**Sent:** Wednesday, September 02, 2015 11:40 AM  
**To:** Gregory J Wooten  
**Cc:** McKeone, Beverly D  
**Subject:** RE: Ceredo Power Plant - Appalachian Power Company

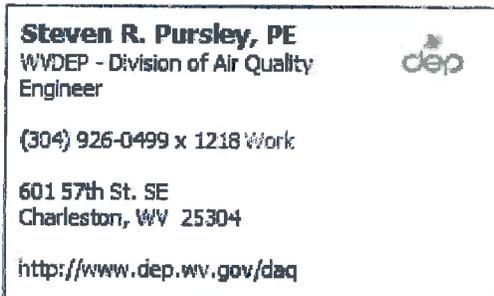
**This is an EXTERNAL email. STOP. THINK before you CLICK links or OPEN attachments.**

Greg,

We've reviewed your email, the existing permit and the file. We don't have a problem changing the "50%" language. The bigger concern is how poorly the original permit was written. Specifically, there appears to be no practical way to enforce the annual emission limits in the permit. Thankfully, that appears to have been corrected in your Title V permit. So we would propose the following:

- . Replace the language that currently says "CO oxidation catalysts, ... shall be installed, maintained, and operated so as to achieve a minimum 50.00% destruction efficiency ..." to "CO oxidation catalysts...shall be installed, maintained and operated in accordance with manufacturers recommendations" or something similar and;
  
- . Add the requirements that are currently in section 4.4.1 of the Title V permit to the R13 permit.

Let me know what you think.



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**From:** Gregory J Wooten [<mailto:gjwooten@aep.com>]  
**Sent:** Thursday, August 20, 2015 11:48 AM  
**To:** Pursley, Steven R  
**Cc:** McKeone, Beverly D  
**Subject:** RE: Ceredo Power Plant - Appalachian Power Company

Not a problem, that sounds good. I just wanted to be able to respond to our engineering folks.

G. J. (Greg) Wooten  
AEP Air Quality Services Section  
Bus. Ph: 614-716-1262  
Bus. FAX: 614-716-1252

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**From:** Pursley, Steven R [<mailto:Steven.R.Pursley@wv.gov>]  
**Sent:** Thursday, August 20, 2015 11:46 AM  
**To:** Gregory J Wooten  
**Cc:** McKeone, Beverly D  
**Subject:** RE: Ceredo Power Plant - Appalachian Power Company

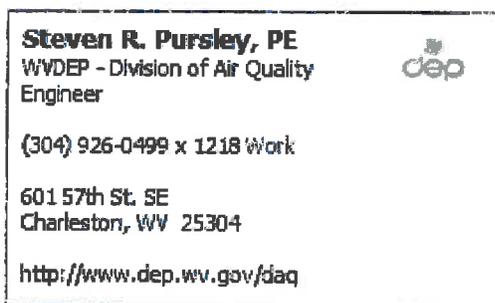
**This is an EXTERNAL email. STOP. THINK before you CLICK links or OPEN attachments.**

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Greg,

Bev asked me to review the request and to be completely honest it just slipped my mind. I will review it and have my recommendations to her early next week.

Sorry



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**From:** Gregory J Wooten [<mailto:gjwooten@aep.com>]  
**Sent:** Thursday, August 20, 2015 11:42 AM  
**To:** McKeone, Beverly D; Pursley, Steven R  
**Subject:** FW: Ceredo Power Plant - Appalachian Power Company

Bev and Steve,

Was just wondering if either of you have had a chance to consider the permit revision options for Ceredo Power Plant that I described in the attached email? Our engineering folks are asking me when I met hear back from your office.

G. J. (Greg) Wooten  
AEP Air Quality Services Section  
Bus. Ph: 614-716-1262  
Bus. FAX: 614-716-1252

**From:** Gregory J Wooten  
**Sent:** Wednesday, July 22, 2015 3:37 PM  
**To:** 'Beverly.D.Mckeone@Wv.Gov'  
**Cc:** Pursley, Steven R ([Steven.R.Pursley@wv.gov](mailto:Steven.R.Pursley@wv.gov))  
**Subject:** Ceredo Power Plant - Appalachian Power Company

Bev,

As we discussed Friday afternoon (July 17), I wanted to send you and Steve an email that explained the situation we are considering at APCO's Ceredo Power Plant and a couple alternatives that have been discussed internally at AEP as possible solutions. I'm trying to develop a workable solution that I can propose to our engineering department.

Ceredo is a natural gas fired simple cycle combustion turbine electric power generating facility. The facility consists of six combustion turbine/generators that each exhaust through separate stacks. Each combustion turbine is served by a CO oxidation catalyst (50% destruction efficiency). The CO oxidation catalyst is the only post combustion pollution control equipment utilized with the combustion turbines. The facility was permitted with federally enforceable limitations that allowed the facility to be permitted as a minor NSR source rather than PSD.

We are required to test 3 of the 6 units every 5 years to demonstrate the NOx and CO emissions, as well as the CO destruction efficiency. Generally the uncontrolled CO emissions are very low. This can potentially present a problem when demonstrating destruction efficiency. When the uncontrolled CO concentrations are in the single digits, it doesn't take much testing error to throw the calculated destruction efficiency off. For example if CO concentrations were 9 ppm, then a controlled concentration of 4.05 would result in a removal efficiency of 55%. However, a controlled concentration of 4.55 (only 0.5 ppm higher concentration) would result in a failed demonstration (49.4%). For this reason, and because we have generally had a significant margin of compliance with the hourly limit, we would like to find an alternative that provides some relief from the 50% destruction efficiency requirement.

The first alternative that was discussed was simply modifying the permit to remove the requirements associated with achieving 50% CO destruction efficiency with the oxidation catalyst. AEP was prepared to maintain compliance with the existing short term and long term CO emission limits in the permit ( 47 lb/hr per stack, 240.2 tons/year all stacks combined), utilizing a combination of combustion tuning and the oxidation catalyst, without specifying a destruction efficiency. I compared this to our electrostatic precipitators or SO2 scrubbers on our coal fired boilers where we have a particulate and SO2 limits to meet, but the permit does not require that we achieve a specific control efficiency for the control equipment. We rely on a combination of coal quality, combustion efficiency and the control equipment removal efficiency to achieve compliance with the particulate and SO2 permit limits on the coal fired facilities.

In the case of the gas fired combustion turbines at Ceredo Plant, the primary permit change would be that a 50% destruction efficiency would no longer be specified. The quinquennial testing required in R13-2382, B.15 and in the Title V permit (R30-09900081-2013, 4.3.1) would simply be used to show compliance with NOx and CO stack emissions relative to the permit limits, but not demonstrate a destruction efficiency for the oxidation catalyst. Bev, you seemed to be uncomfortable with this approach and I understood you to suggest that an acceptable alternative may be one in which we would simply commit in a permit modification to meeting the existing CO limits by tuning alone (without any catalyst).

We have discussed this second alternative internally after my discussion with you last Friday. We believe that we can achieve compliance with the hourly and annual emission limitations without the use of the oxidation catalyst. That is, we believe we can maintain the combustion turbine tuning such that we will meet the 47 lb/hr CO emission limit upstream of the CO oxidation catalyst. We are however hesitant to actually physically remove the catalyst. We are concerned that removal of the catalyst could be construed as a change in the method of operation from an NSR standpoint. For example, facility wide CO emissions were approximately 33 tons in 2014, utilizing the oxidation catalyst. If the units operated at the same capacity factor but without the oxidation catalyst, we would see a little more than a 33 ton increase in CO. With the recent retirement of several coal fired facilities and the low natural gas prices, it is not out of the question that the Ceredo units will be called upon to operate more often. We would be concerned with the possibility of hitting the 100ton per year major modification threshold in such a situation. In order to alleviate this concern, we would plan to leave the CO catalyst in place and operate

with it in the gas stream. However, we would propose that the facility demonstrate every five years on 3 of 6 combustion turbines that the CO emission limit (47 lb/hr) limit can be achieved without use of the CO oxidation catalyst (i.e. test upstream of the catalyst). If for some reason, testing indicated that the 47 lb/hr limit was not being achieved upstream of the catalyst, then AEP would be agreeable to scheduling as soon as practicable (not to exceed 90 days), a stack test downstream of the CO oxidation catalyst to demonstrate that the actual stack emissions are being maintained lower than the permitted emission limits. Under this arrangement., the 50% destruction requirements could be removed from the permit and every five years, we could demonstrate that the units are achieving compliance with the permit emission limits on an uncontrolled basis (with the opportunity to test downstream of the catalyst in the rare situation that the uncontrolled emission rate was tested above the permit limit).

We're simply trying to come up with some alternative to the 50% destruction efficiency requirement, considering the possibility that inherent error in stack testing could present problems with demonstrating compliance at such low CO concentrations and the fact that our margin of compliance is quite significant.

Please consider the alternatives described and let me know if you believe either of these are acceptable, or, if you or Steve have another alternative that may be acceptable, please let me know. We would likely plan to submit a permit modification application by the end of September if a solution can be agreed upon.

Thank you for your consideration, we look forward to hearing from you.

G. J. (Greg) Wooten  
AEP Air Quality Services Section  
Bus. Ph: 614-716-1262  
Bus. FAX: 614-716-1252

## Attachment 2

### Compare File Detailing the Differences

#### Between New Permit R13-2382D and Previous R13-2382C

##### WordPerfect Document Compare Summary

Original document: Q:\AIR\_QUALITY\J\_LEGG\Appalachian Power Company\R13-2382D\099-00081\_PERM\_13-2382C.wpd

Revised document: Q:\AIR\_QUALITY\J\_LEGG\Appalachian Power Company\R13-2382D\099-00081\_PERM\_13-2382D.wpd

Deletions are shown with the following attributes and color:

~~Strikeout~~, Blue RGB(0,0,255).

Deleted text is shown as full text.

Insertions are shown with the following attributes and color:

Double Underline, Redline, Red RGB(255,0,0).

The document was marked with 48 Deletions, 55 Insertions, 0 Moves.



west virginia department of environmental protection

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

~~Joe Manchin, III~~ Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.wvdep.org

**PERMIT TO ADMINISTRATIVELY UPDATE**  
**~~A-510 MW SIMPLE CYCLE PEAKING~~ N 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 R13-2382~~B~~C which was approved on ~~June 30~~ February 13, 200~~3~~9.

Name of Permittee: Appalachian Power Company

Name of Facility: Ceredo Generating Station

Permit No.: R13-2382~~B~~D

Plant ID No.: 099-00081

Effective Date of Permit: ~~February~~ April 13, 200~~9~~16

Permit Writer: John Legg

Facility Mailing Address: ~~Twelvepole Creek, LLC~~  
~~Ceredo Generating Station~~  
1662 Walker Branch Road  
Huntington, WV 25704

County: Wayne

Nearest City or Town: Ceredo, WV

UTM Coordinates: Easting: 365.97 km      Northing: ~~4247~~ 4,247.45 km  
Zone: 17

Directions to Exact Location: Take ~~the~~ Route 52 exit ~~off~~ from I-64 and travel south for a ~~very~~ short distance. Turn left onto Airport Road until you reach ~~the Pilgrim Glass Plant~~ Huntington Testing. ~~Then turn~~ Turn left ~~to cross~~ across the railroad tracks and then turn immediately ~~to the~~ to the right on Walkers Branch Road. ~~Travel~~ Turn right at the first stop sign. The facility is approximately 1.7 miles ~~and the site is~~ miile, on the left.

Name of Permittee: Appalachian Power Company

Type of Facility or Modification: Class III Administrative Update to made the permit reflect current Title V requirements regarding the use of the applicable section of 40 CFR Part 75, i.e., the words "Appendix E" were omitted from the end of the statement given in Section B-14. 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. THE PERMITTEE HAS THE DUTY TO UPDATE THE FACILITY'S TITLE V (45CSR30) PERMIT APPLICATION WHICH WILL BE DUE WITHIN TWELVE (12) MONTHS AFTER THE DATE OF THE CHANGES AUTHORIZED BY THIS PERMIT MUST ALSO BE INCORPORATED INTO THE FACILITY'S TITLE V OPERATING PERMIT. COMMENCEMENT OF THE OPERATION OR ACTIVITY (ACTIVITIES) OPERATIONS AUTHORIZED BY THIS PERMIT SHALL BE DETERMINED BY THE APPROPRIATE TIMING LIMITATIONS ASSOCIATED WITH TITLE V PERMIT REVISIONS PER 45CSR30.

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~~-6S) shall not combust more than  $12 \times 10^9$  scf/yr of fuel cumulatively on a rolling 12 month basis unless Continuous Emission Monitors (CEM's) for NO<sub>x</sub> are installed and operating.

4. CO oxidation catalysts, ~~identified in permit application R13-2382A as 1C, 2C, 3C, 4C, 5C, and 6C;~~ shall be installed, maintained, and operated ~~so as to achieve a minimum 50.00% destruction efficiency in the control of Carbon Monoxide emissions from the turbines~~ 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<sub>x</sub> 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 10<sup>6</sup> 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:

§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. ~~Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:~~

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<sub>x</sub> 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<sub>x</sub> emissions shall be determined utilizing Method 20, and CO emissions ~~and oxidative catalyst performance (greater than or equal to 50%)~~ 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.

§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:

$$\text{STD} = 0.0075 * (14.4/Y) + F$$

where:

STD = allowable NO<sub>x</sub> 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<sub>x</sub> 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 ~~i~~ 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(i)

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~~

Associate Director  
and

Office of Air Enforcement  
and ~~Permits Review~~  
&  
Compliance Assistance

Director

(3AP123AP20)

WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street, SE  
Charleston, WV 25304-2345

US Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

11. For the purposes of determining compliance with the maximum fuel combustion limits set forth in Specific Requirements A.3 and A.87, 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.

R13-2382D  
Appalachian Power Company  
Ceredo Generating System

12. For the purposes of determining compliance with maximum hours of operation limits set forth in Specific Requirements A.6 ~~and A.7~~, 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<sub>x</sub> 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<sub>x</sub> CEM's will assure compliance with the NO<sub>x</sub> emission limits set forth in Specific Requirements A.1 and A.2.
14. If NO<sub>x</sub> CEM's are not installed, NO<sub>x</sub> 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 ~~and oxidative catalyst performance (greater than or equal to 50%)~~ 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.
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: \_\_\_\_\_  
\_\_\_\_\_ JOHN A WILLIAM F. BENEDICT DURHAM, DIRECTOR  
\_\_\_\_\_ WV DEPARTMENT OF ENVIRONMENTAL PROTECTION  
\_\_\_\_\_ DIVISION OF AIR QUALITY

DATE SIGNED: \_\_\_\_\_

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

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

(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**

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

(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.

Signature<sup>1</sup>

(please use blue ink) Responsible Official or Authorized Representative \_\_\_\_\_ Date \_\_\_\_\_

Name and Title

(please print or type) Name \_\_\_\_\_ Title \_\_\_\_\_

Telephone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

<sup>1</sup> 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.