West Virginia Department of Environmental Protection Division of Air Quality





# For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-07300005-2019** (2 of 2) Application Received: **April 13, 2018** Plant Identification Number: **03-54-073-00004** Permittee: **Allegheny Energy Supply Company, LLC** Facility Name: **Willow Island Power Station** Mailing Address: **800 Cabin Hill Drive, Greensburg, Pa 15601** 

Physical Location: UTM Coordinates: Directions: Willow Island, Pleasants County, West Virginia
474.13 km Easting • 4357.36 km Northing • Zone 17
From Charleston take Interstate 77 North to Exit 179. Travel north on
State Route 2 approximately 7 miles to Willow Island. Facility is located on the left in Willow Island, Pleasants County.

### **Facility Description**

The Willow Island Power Station is a fossil fuel fired electric generation facility with a 55 (net) MW unit and a 188 (net) MW unit and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of a 619 mmBtu/hr coal-fired boiler, a 1605 mmBtu/hr coal-fired boiler, two 19.89 mmBtu/hr oil/natural gas-fired auxiliary boilers, one 4.22 mmBtu/hr diesel-fired emergency generator, one (1) 340 hp diesel-fired fire pump, and various supporting operations such as coal handling, ash handling and various tanks with insignificant emissions. The facility has the potential to operate seven (7) days per week, twenty-four (24) hours per day and fifty-two (52) weeks per year

## **Emissions Summary**

Plantwide	Emissions	Summary	[Tons]	per Yearl	
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<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	2017 Actual Emissions*
Carbon Monoxide (CO)	209	0
Nitrogen Oxides (NO <sub>X</sub> )	8,237	0
Particulate Matter (PM <sub>2.5</sub> )	148	0
Particulate Matter (PM <sub>10</sub> )	306	0
Total Particulate Matter (TSP)	572	0
Sulfur Dioxide (SO <sub>2</sub> )	26,336	0
Volatile Organic Compounds (VOC)	40	0

 $PM_{10}$  is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2017 Actual Emissions*
Hydrochloric Acid (HCl)	2,500	0
Hydrogen Fluoride (HF)	44	0
Formaldehyde	0.60	0

Some of the above HAPs may be counted as PM or VOCs.

\* The Willow Island Station has not operated since 2012.

### **Title V Program Applicability Basis**

This facility has the potential to emit 26,336 tons per year of  $SO_2$ , 8,237 tons per year of  $NO_x$ , 306 tons per year of  $PM_{10}$ , 209 tons per year of CO, and 2,545 tons per year of HAPS. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Allegheny Energy Supply Company, LLC's Willow Island Power Station is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

### Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	
45CSR2	To Prevent And Control Particulate Air Pollution From
	Combustion Of Fuel In Indirect Heat Exchangers
45CSR6	Control Of Air Pollution From Combustion Of Refuse
45CSR10	Control of Sulfur Dioxide Emissions from Indirect Heat
	Exchangers.
45CSR11	Prevention Of Air Pollution Emergency Episodes

45CSR13	Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For	
	Evaluation	
45CSR30	Requirements For Operating Permits	
45CSR33	Acid Rain Provisions And Permits	
45CSR34	Emission Standards For Hazardous Air Pollutants	
40 CFR Part 61, Subpart M	National Emission Standard For Asbestos	
40 CFR Part 64	Compliance Assurance Monitoring	
40 CFR Part 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process	
	Heaters	
40 CFR Part 63 Subpart UUUUU	National Emission Standards for Hazardous Air Pollutants:	
	Coal- and Oil-Fired Electric Utility Steam Generating Units	
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for	
	Stationary Reciprocating Internal Combustion Engines	
40 CFR Part 72	Permits Regulation	
40 CFR Part 73	Sulfur Dioxide Allowance System	
40 CFR Part 74	Sulfur Dioxide Opt-ins	
40 CFR Part 75	Continuous Emissions Monitoring	
40 CFR Part 76	Acid Rain Nitrogen Oxides Emission Reduction Program	
40 CFR Part 77	Excess Emissions	
40 CFR Part 78	Appeals Procedure (for Acid Rain Program)	
40 CFR Part 82, Subpart F	Ozone depleting substances	
40 C.F.R. Part 97, Subpart AAAAA	TR NO <sub>X</sub> Annual Trading Program	
40 C.F.R. Part 97, Subpart EEEEE	TR NO <sub>X</sub> Ozone Season Trading Program	
40 C.F.R. Part 97, Subpart CCCCC	TR SO <sub>2</sub> Group 1 Trading Program	
WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.	

State Only: 45CSR4

To Prevent And Control The Discharge Of Air Pollutants Into The Open Air Which Causes Or Contributes To An Objectionable Odor Or Odors

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 CFR Part 60 (NSPS), 40 CFR Part 61 (NESHAPs), and 40 CFR Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

# **Active Permits/Consent Orders**

Permit or	Date of	Permit Determinations or Amendments That
Consent Order Number	Issuance	Affect the Permit ( <i>if any</i> )
R13-1099	May 9, 1989	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

# **Determinations and Justifications**

- This is a renewal of the Title V permit which was issued on October 17, 2013 and modified on August 23, 2016 and August 27, 2018. Substantial changes to the most recent version of the Title V Permit consist of the following:
  - 1) Title V Boilerplate changes
    - Conditions 3.5.3., 3.5.5. and 3.5.6. These conditions were revised to require electronic submittal of the Title V compliance certifications (annual and semi-annual), self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols to the WV DAQ.
  - 2) Condition 3.1.9. This condition contained the requirements of 45CSR39 (CAIR NO<sub>x</sub> Annual Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the "Cross-State Air Pollution Rule (CSAPR) Trading Program" of 40 CFR §97.406. The requirements of CSAPR have been added in Appendix A of the permit.
  - 3) Condition 3.1.10. This condition contained requirements of 45CSR40 (CAIR NO<sub>x</sub> Ozone Season Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the "Cross-State Air Pollution Rule (CSAPR)Trading Program" of 40 CFR §97.806. The requirements of the Transport Rule have been added in Appendix A of the permit.
  - 4) Condition 3.1.11. This condition contained requirements of 45CSR41 (CAIR SO<sub>2</sub> Trading Program). Since CAIR has been replaced with the Cross-State Air Pollution Rule (CSAPR) trading program, the CAIR requirements have been removed from the permit. This condition now contains requirements for the "Cross-State Air Pollution Rule (CSAPR) Trading Program" of 40 CFR §97.606. The requirements of the Transport Rule have been added in Appendix A of the permit.

### 5) Section 4.0.

- Condition 4.1.13.a. "(Acid Rain Permit is included in Appendix D)" has been added to this condition and the Acid Rain Permit has been added in Appendix D.
- Condition 4.1.23. Units W1 and W2 have not operated since 2012. Therefore, the requirements of 40 CFR 63 Subpart UUUUU (MATS) have not been added to the permit. The placeholder language of this condition has been retained and the following paragraph has been added.

"Units W1 and W2 have not operated since 2012. In the event of a re-start of any of these units, including any modification to the type of fuel combusted, each affected source must be in compliance with all applicable state and federal rules and permitting requirements, including those of 40 CFR 63, Subpart UUUUU."

Condition 4.1.24. – The auxiliary boilers have not been operated since 2012. Therefore, the requirements of 40 CFR 63 Subpart DDDDD (MACT) have not been added to the permit. The

placeholder language of this condition has been retained and the following paragraph has been added.

"Auxiliary boilers Aux Blr W3A and Aux Blr W3B have not operated since 2012. In the event of a re-start of any of these units, including any modification to the type of fuel combusted, each affected source must be in compliance with all applicable state and federal rules and permitting requirements, including those of 40 CFR 63, Subpart DDDDD."

- 6) APPENDIX A The CAIR requirements have been replaced with the Cross-State Air Pollution Rule Requirements.
- 7) APPENDIX B The contact information for the Rule 2 Monitoring Plan has been updated at the request of Allegheny Energy Supply Company through comments submitted on the Pre-Draft/Proposed Permit. Language pertaining to this change has been added to the first page of the plan. The 45CSR2 Monitoring Plan has not been revised and therefore no other changes were made to the plan.
- 8) **APPENDIX D** This appendix which contains the Acid Rain Permit, has been added to the renewal permit.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR§10-8	The auxiliary boilers for Willow Island Station burn natural gas and/or distillate oil and are exempt pursuant to 45CSR§10-10.3.
45CSR5	Pursuant to 45CSR5, if 45CSR2 is applicable to the facility, then the facility is exempt from 45CSR5. 45CSR2 is applicable to the facility.
45CSR17	Pursuant to 45CSR17, if 45CSR2 is applicable to the facility, then the facility is exempt from 45CSR17. 45CSR2 is applicable to the facility.
40 CFR Part 60 Subpart D	Willow Island Main Boilers were constructed prior to August 17, 1971.
40 CFR Part 60 Subpart Dc	Willow Island Auxiliary Boilers commenced construction prior to June 9, 1989.
40 CFR Part 60 Subpart K	Willow Island station does not have any tanks storing petroleum liquids (as defined in 40 CFR §60.111) that were constructed after March 8, 1974 and prior to May 19, 1978 and exceed 40,000 gallons in capacity.
40 CFR Part 60 Subpart Ka	Willow Island station does not have any tanks storing petroleum liquids (as defined in 40 CFR §60.111a) that were constructed after May 18, 1978 and exceed 40,000 gallons in capacity.

40 CFR Part 60 Subpart Kb	Willow Island station does not have any tanks that were constructed after July 23, 1984 that (a) exceed 75m <sup>3</sup> (19,813 gal) in capacity and store volatile organic liquids (as defined in 40 CFR §60.111b) with a maximum true vapor pressure greater than 15.0 kPa (2.18 psia) or (b) exceed 151m <sup>3</sup> (39,864 gal) in capacity and store a volatile organic liquids with a maximum true vapor pressure greater than 3.5 kPa (0.51 psia)
40 C.F.R Part 60, Subpart OOO	Limestone equipment was in operation prior to August 31, 1983.

### **Request for Variances or Alternatives**

None.

#### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

## **Comment Period**

Beginning Date:	February 20, 2019
Ending Date:	March 22, 2019

#### **Point of Contact**

All written comments should be addressed to the following individual and office:

Frederick Tipane West Virginia Department of Environmental Protection Division of Air Quality 601 57<sup>th</sup> Street SE Charleston, WV 25304 Phone: 304/926-0499 ext. 1215 • Fax: 304/926-0478 frederick.tipane@wv.gov

## **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

#### **Response to Comments (Statement of Basis)**

During the "Draft/Proposed" period, the address for US EPA reporting changed. Therefore, the address for US EPA in condition 3.5.3. has been updated with the new address.