

GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment

Air Quality Division



**FACT SHEET AND STATEMENT OF BASIS
FOR PROPOSED PERMITTING ACTION
UNDER 20 DCMR 300 (TITLE V-OPERATING PERMIT PROGRAM)**

This “Fact Sheet and Statement of Basis” has been prepared pursuant to 20 DCMR 303.1(c) and 40 CFR 70.7(a)(5).

PERMIT NO. 026-R1

APPLICANT AND PERMITTEE:

Potomac Power Resources LLC
1300 N 17th Street, Suite 1600
Arlington, VA 22209

FACILITY LOCATION:

Pepco Benning Road Generating Station
3400 Benning Road, NE
Washington, D.C. 20019

FACILITY DESCRIPTION:

Potomac Electric Power Company’s (PEPCO’s) Benning Road Generating Station is an electric energy generating, transmitting and distributing facility covered under Standard Industrial Classification (SIC) Code 4911. Benning Road Generating Station is located in the northeast quadrant of the District of Columbia, at 34th Street and Benning Road, N.E. This facility includes emission units that are capable of operating twenty-four (24) hours per day, seven (7) days per week, and fifty-two (52) weeks per year. However, the facility operates as a peaking plant, which means that it operates only when there is a need for additional power supply to the regional electric grid operated by the PJM Interconnection. The plant, which is more than 35 years old, usually operates only for a few hours during the peak periods of highest electricity demand throughout the year.

The units consist of steam-electric generating boilers, emergency standby generators, paint spray booth, cooling towers, and underground storage tanks. The cooling towers and underground



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storage tanks are considered insignificant emission sources, although subject to the normal record-keeping and reporting requirements of the Title V operating permit program. Besides the generating units, the Benning Road facility houses a service center for Pepco maintenance crews and vehicles, and a large substation.

EMISSIONS SUMMARY:

Plantwide Emissions Summary (tons per year)	
Pollutant	Potential Emissions
Sulfur Dioxide (SO ₂)	12782.15
Oxides of Nitrogen (NO _x)	4912.30
Particulate Matter (total)	1726.16
Volatile Organic Compounds (VOCs)	154.20
Carbon Monoxide (CO)	1014.50
Nickel Compounds	17.21
Chlorides	70.68
Formaldehyde	6.72
Total Hazardous Air Pollutants (HAPs)	102.46

BASIS OF 20 DCMR CHAPTER 3 (TITLE V) APPLICABILITY:

PEPCO's Benning Road Generating Station has the potential to emit 12,782 tons per year (TPY) of sulfur dioxide (SO₂), 4,912 TPY of nitrogen oxides (NO_x), 1,726 TPY of particulate matter (PM), 154 TPY of volatile organic compounds (VOC), and 1014 TPY of carbon monoxide. These values exceed the major source thresholds in the District of 25 TPY of NO_x or VOC, and/or 100 TPY of any other criteria pollutant. As such, pursuant to 20 DCMR 300.1(a), the source is subject to Chapter 3 and must obtain an operating permit in accordance with that regulation and Title V of the federal Clean Air Act.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The conditions contained in the Title V operating permit are based on underlying requirements of 20 DCMR as well as various federal regulations promulgated pursuant to the federal Clean Air Act. The regulations that are the basis of each condition are cited in the permit, except that conditions added to make another condition, with a direct underlying regulation, enforceable as a practical matter may, in some cases, not have a specific citation. These latter, un-cited conditions generally consist of monitoring, record keeping, and reporting requirements authorized under 20

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DCMR 500.1.

The permit has been developed to incorporate the requirements of all applicable requirements as defined in 20 DCMR 399.1 along with additional conditions necessary to make all such requirements enforceable as a practical matter.

Any condition of the draft Title V Permit that is enforceable by the District but is not federally-enforceable is identified in the Title V permit as such with an asterisk.

REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations:

Federal and District Enforceable:

20 DCMR Chapter 1 - General Rules

20 DCMR Chapter 2 - General and Non-Attainment Area Permits

20 DCMR Chapter 3 - Operating Permits and Acid Rain Programs

20 DCMR 306 - Acid Rain Program.

20 DCMR 500 - Records and reports

20 DCMR 501 - Monitoring devices

20 DCMR 502 - Sampling, tests, and measurements.

20 DCMR 600 - Fuel burning. particulate emission.

20 DCMR 604 - Open Burning

20 DCMR 605 - Control of Fugitive Dust

20 DCMR 606 - Visible Emissions

20 DCMR 704 & 705 - Stage I and Stage II Vapor Recovery System (VRS)

20 DCMR 750 -Architectural, and Industrial Maintenance Coating - Standards

20 DCMR 800 - Control of Asbestos.

20 DCMR 801 - Sulfur contents of fuel oils

20 DCMR 803 - Sulfur Process Emissions

20 DCMR 805 - Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen

40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 63, Subpart CCCCC - National emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities (Area Source MACT)

40 CFR 63, Subpart ZZZZ - National emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (NESHAP for RICE)

40 CFR 51.300(b)(i) - Subpart P – Protection of Visibility

40 CFR 61.12 - Credible Evidence

40 CFR Part 72 - Acid Rain Program

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40 CFR Part 73 - Acid rain allowance system.

40 CFR Part 75 - Acid rain continuous emission monitoring regulation.

40 CFR 82, Subpart G - Protection of Stratospheric Ozone (Federally enforceable only except through Title V) (*Note: AQD did not make a positive determination that this regulation was applicable to the facility, but included it as a standard requirement in the permit.*)

40 CFR 82, Subpart H - Halon Emissions Reduction (Federally enforceable only except through Title V) (*Note: AQD did not make a positive determination that this regulation was applicable to the facility, but included it as a standard requirement in the permit.*)

District Enforceable Only:

20 DCMR 402 - Chemical Accident Prevention

20 DCMR 900 - Engine idling.

20 DCMR 901 - Vehicular exhaust emissions.

20 DCMR 902 - Lead Content of Gasoline.

20 DCMR 903 - Odorous or other nuisance air pollutants.

Area Source Maximum Achievable Control Technology (MACT) Standards:

40 CFR 63, Subpart CCCCCC was determined to be applicable as a result of the following conditions:

- 1) The facility has gasoline dispensing facilities, including associated gasoline storage tanks with a throughput of less than 10,000 gallons per month.
- 2) The facility is an area source within a stationary source.

The applicant provided information confirming that the monthly throughput for the six (6) nozzle gasoline dispensing facility is 8900 gallons of gasoline per month. This falls within the applicability of 40 CFR 63.11116.

Major Source Maximum Achievable Control Technology (MACT) Standards:

Subpart ZZZZ of 40 CFR 63 regulate/monitor Hazardous Air Pollutants (HAPs) such as acetaldehyde, acrolein, benzene, toluene, xylene, cadmium, chromium, lead, etc, through surrogate compounds such as formaldehyde, Carbon Monoxide (CO) and/or Volatile Organic Compounds (VOC).

A facility that emits or has the potential to emit 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs, is consider a Major Source. Any source that is not a Major Source is an Area Source. Because this facility has the potential to emit more than 10 tons/year of a single HAP (nickel compounds) as well as an aggregate of more than 25 tons of total HAPs, it is considered a Major Source. Thus, Subpart ZZZZ for a Major Source is applicable to the existing SI and CI engines at this facility.

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New Source Performance Standards (NSPS)

The NSPSs were determined to not be applicable as a result of the following evaluations:

- 1) Units A-15 and A-16 have heat input and age criteria that make them not subject to the NSPS. Units A-15 and A-16, each has a capacity of 3,110 million Btu per hour and 3,173 million Btu per hour, respectively, which exceeds the size threshold of 250 million Btu per hour, under 40 CFR 60, Subpart D. However, the units were constructed in 1965 and 1969, respectively. These dates are earlier than August 17, 1971, the applicability date for Subpart D. Thus the units meet the size test, but fail the age test, and are therefore not subject to NSPS.
- 2) Units Aux-1 and Aux-2 have heat input and age criteria that make them not subject to the NSPS. Units Aux-1 and Aux-2, each has a capacity of 202 million Btu per hour, which lies between 100 and 250 million Btu per hour, under 40 CFR 60, Subpart Db. The units completed construction on 12/11/1974. These dates are earlier than June 19, 1984, the applicability deadline for Subpart Db. Though the units pass the size test, they fail the age test, and are therefore not subject to NSPS.

Greenhouse Gas Eligibility Consideration

This facility is subject to the reporting rule, because the Acid Rain Program requires Units 15 and 16 to monitor and report to EPA CO₂ emissions year-round according to 40 CFR part 75. The facility must report under subpart D, the annual mass emissions of CO₂, CH₄, and N₂O per the requirements of subpart D.

For the emission units not subject to Acid Rain Program, but required to monitor and report to EPA CO₂ emissions year round per 40 CFR part 75, the facility must report under subpart C of Part 98, the emissions of CO₂, CH₄, and N₂O using the requirements of subpart C of Part 98.

Additionally, for each stationary fuel combustion unit that does not generate electricity, the facility must report under subpart C of Part 98, the emissions of CO₂, CH₄, and N₂O using the requirements of subpart C of Part 98 (Mandatory Greenhouse Gas Reporting).

However, since the Greenhouse Gas Mandatory Reporting Rule is not considered an “applicable requirement” under Title V, its requirements have not been included in the permit.

With regard to the PSD program, no change has been made to the facility that would trigger the PSD program under the Greenhouse Gas Tailoring Rule.

There are no other applicable requirements relating to greenhouse gases at this time.

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Protection of Visibility (Regional Haze Requirements)

Under regional haze requirements, the facility would be required to install, and have operational, the Best Available Retrofit Technology (BART) on Units A-15 and A-16 by December 17, 2012.

The facility plans to shut down those units (as well as most of the other units at the facility) before that date. As a result, in order to avoid that requirement, the facility has agreed to a requirement to shut down the equipment before that date. Additionally, Units Aux-1 and Aux-2 will shut down by that same date as they will be no longer needed. These requirements have been established in Conditions III(a)(2)(D) and III(d)(2)(D) of the permit as well as related monitoring, record keeping, and reporting conditions. Due to the addition of these requirements, the facility will avoid the applicability of 40 CFR 51, Subpart P BART requirements.

Chapter 2 Permits:

No new Chapter 2 permits have been issued to the facility since the last Title V permit was issued. AQD has, however, taken the opportunity of the Title V permit renewal to update permit requirements pursuant to Chapter 2 authority in the updated permit.

COMMENT PERIOD:

Beginning Date: September 9, 2011

Ending Date: October 11, 2011

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

Stephen S. Ours, P.E.
Chief, Permitting and Enforcement
District Department of the Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington, DC 20002

PROCEDURE FOR REQUESTING PUBLIC HEARING:

During 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 a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The District shall grant such a request if it is deemed appropriate. The venue, date, and time for any public hearing shall be announced in the District Register and a daily newspaper.

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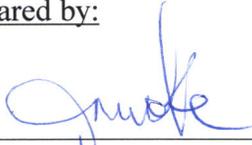
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POINT OF CONTACT FOR INQUIRIES:

John C. Nwoke
Environmental Engineer
District Department of the Environment
Air Quality Division
1200 First Street, NE, 5th Floor
Washington, D.C. 20002
(202) 724-7778

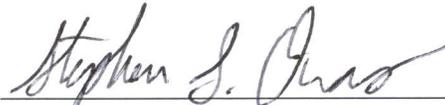
REVIEWS:

Prepared by:



John C. Nwoke
Environmental Engineer

Approved by:



Stephen S. Ours, P.E.
Chief, Permitting and Enforcement

SSO:JCN

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