

7 January 2016

Mr. Jackson Despres
President
Smithfield Peat Company, Inc.
295 Washington Highway
Smithfield, RI 02917

Dear Mr. Despres:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of fuel burning equipment at your facility located at 295 Washington Highway, Smithfield.

Enclosed is a revised minor source permit issued pursuant to our review of your application (Approval Nos. 1718, 1720, 1857 and 2301).

The permit conditions and emission limitations in this permit also incorporate and include those in Approval Nos. 1718 and 1720 issued on 26 September 2002 for the installation of a CBI Wood Grinder and a CBI Magnum Mulcher; and Approval No. 1857 issued on 10 June 2005 for the installation of a CAT engine-generator to power a crushing plant. Hereinafter the design, construction, and operation of all the equipment addressed in these approvals shall be subject to the permit conditions and emission limitations contained in this minor source permit.

If there are any questions regarding this permit, please contact me at 401-222-2808, extension 7415 or by email at stephen.stamand@dem.ri.gov.

Sincerely,

Stephen G. St. Amand
Air Quality Specialist
Office of Air Resources

cc: Smithfield Building Official

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

SMITHFIELD PEAT COMPANY, INC.

APPROVAL NOs. 1718, 1720, 1857 and 2301

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Smithfield Peat Company, Inc.

For the following:

Installation of an Caterpillar engine-generator set, Model C15 diesel engine, 500 kW, 736 BHP

The engine-generator set shall be fired with ultra-low sulfur diesel fuel oil.

Located at: *295 Washington Highway, Smithfield*

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Smithfield Peat Company, Inc.* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

**Douglas L. McVay, Chief
Office of Air Resources**

Date of Issuance

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

Permit Conditions and Emission Limitations

SMITHFIELD PEAT COMPANY, INC.

APPROVAL NOS. 1718, 1720, 1857 & 2301
(Revised January 2016)

A. Emission Limitations

1. Unit 1 (CBI Wood Grinder, Approval No. 1718)

a. Nitrogen oxides (as Nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the 750 HP engine shall not exceed 6.86 grams/bhp-hr unless the rate of emissions is less than 11.34 lbs/hr.

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the 750 HP engine shall not exceed 8.5 grams/bhp-hr unless the rate of emissions is less than 14.1 lbs/hr.

c. Total Non-methane Hydrocarbons (NMHC)

The emission rate of total non-methane hydrocarbons discharged to the atmosphere from the 750 HP engine shall not exceed 0.97 grams/bhp-hr unless the rate of emissions is less than 1.6 lbs/hr.

d. Sulfur Dioxide (SO₂)

(1) The sulfur content of all diesel fuel burned in the engine shall not exceed 15 ppm by weight.

(2) The emission rate of sulfur dioxide discharged to the atmosphere from the engine shall not exceed 0.01 lbs/hr.

e. Particulate Matter (PM)

The emission rate of particulate matter discharged to the atmosphere from the 750 HP engine shall not exceed 0.40 grams/bhp-hr unless the rate of emissions is less than 0.67 lbs/hr.

2. Unit 2 (CBI Magnum Mulcher, Approval No. 1720)

a. Nitrogen oxides (as Nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the 1000 HP engine shall not exceed 6.86 grams/bhp-hr unless the rate of emissions is less than 15.12 lbs/hr.

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the 1000 HP engine shall not exceed 8.5 grams/bhp-hr unless the rate of emissions is less than 18.74 lbs/hr.

c. Total Non-methane Hydrocarbons (NMHC)

The emission rate of total non-methane hydrocarbons discharged to the atmosphere from the 1000 HP engine shall not exceed 0.97 grams/bhp-hr unless the rate of emissions is less than 2.14 lbs/hr.

d. Sulfur Dioxide (SO₂)

(1) The sulfur content of all diesel fuel burned in the engine shall not exceed 15 ppm by weight.

(2) The emission rate of sulfur dioxide discharged to the atmosphere from the engine shall not exceed 0.011 lbs/hr.

e. Particulate Matter (PM)

The emission rate of particulate matter discharged to the atmosphere from the 1000 HP engine shall not exceed 0.40 grams/bhp-hr unless the rate of emissions is less than 0.88 lbs/hr.

3. Unit 3 (Engine-Generator set, Approval No. 1857)

a. Nitrogen oxides (as Nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the 1109 HP engine shall not exceed 7.21 grams/bhp-hr unless the rate of emissions is less than 17.63 lbs/hr.

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the 1109 HP engine shall not exceed 1.32 grams/bhp-hr unless the rate of emissions is less than 3.23 lbs/hr.

c. Total Non-methane Hydrocarbons (NMHC)

The emission rate of total non-methane hydrocarbons discharged to the atmosphere from the 1109 HP engine shall not exceed 0.25 grams/bhp-hr unless the rate of emissions is less than 0.61 lbs/hr.

d. Sulfur Dioxide (SO₂)

(1) The sulfur content of all diesel fuel burned in the engine shall not exceed 15 ppm by weight.

(2) The emission rate of sulfur dioxide discharged to the atmosphere from the engine shall not exceed 0.012 lbs/hr.

e. Particulate Matter (PM)

The emission rate of particulate matter discharged to the atmosphere from the 1109 HP engine shall not exceed 0.212 grams/bhp-hr unless the rate of emissions is less than 0.52 lbs/hr.

4. Unit 4 (Engine-Generator set, Approval No. 2301)

a. Nitrogen oxides (as Nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the 736 HP engine shall not exceed 3.27 grams/bhp-hr unless the rate of emissions is less than 5.27 lbs/hr.

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the 736 HP engine shall not exceed 0.59 grams/bhp-hr unless the rate of emissions is less than 0.94 lbs/hr.

c. Total Non-methane Hydrocarbons (NMHC)

The emission rate of total non-methane hydrocarbons discharged to the atmosphere from the 736 HP engine shall not exceed 0.04 grams/bhp-hr unless the rate of emissions is less than 0.14 lbs/hr.

d. Sulfur Dioxide (SO₂)

(1) The sulfur content of all diesel fuel burned in the engine shall not exceed 15 ppm by weight.

(2) The emission rate of sulfur dioxide discharged to the atmosphere from the engine shall not exceed 0.008 lbs/hr.

e. Particulate Matter (PM)

The emission rate of particulate matter discharged to the atmosphere from the 736 HP engine shall not exceed 0.06 grams/bhp-hr unless the rate of emissions is less than 0.09 lbs/hr.

5. Facility-wide

a. Nitrogen oxides (NO_x)

The total quantity of NO_x emissions discharged to the atmosphere from the entire facility shall not exceed 98,000 pounds in any consecutive 12-month period.

b. Opacity

Visible emissions from each engine shall not exceed 10% opacity except for a period or periods aggregating no more than three minutes in any one hour. This visible emission limitation shall not apply during startup of an engine. Engine startup shall be defined as the first ten minutes of firing following the initiation of firing.

B. Operating Requirements

1. The owner/operator shall limit the combined quantity of diesel fuel combusted at the facility, including the engines that power Units 1, 2, 3, and 4 to 294,000 gallons or less for any consecutive 12-month period.
2. The maximum firing rate for the 736 HP engine shall not exceed 35.7 gallons per hour.
3. The maximum firing rate for the 750 HP engine shall not exceed 39 gallons per hour.
4. The maximum firing rate for the 1000 HP engine shall not exceed 52 gallons per hour.
5. The maximum firing rate for the 1109 HP engine shall not exceed 54.5 gallons per hour.

C. Continuous Monitoring

1. Each engine shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time.
2. Each engine shall be equipped with a non-resettable fuel flow meter to indicate, in cumulative gallons, the total gallons of fuel consumed in each engine.

D. Fuel Oil Testing

1. Compliance with the diesel fuel sulfur limits may be determined based on a certification from the fuel supplier. Fuel supplier certifications shall include the following information:
 - a. The name of the fuel supplier;
 - b. The sulfur content of the fuel from which the shipment came or the shipment itself;
 - c. The location of the fuel when the sample was drawn for analysis to determine the sulfur content of the fuel, specifically including whether the fuel was sampled as delivered to Smithfield Peat Company, Inc. or whether the sample was drawn from fuel in storage at the fuel supplier's facility or another location;
 - d. The method used to determine the sulfur content of the fuel.
2. As an alternative to fuel supplier certification, the owner/operator may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the fuel in the initial tank(s) of fuel to be fired in the engines and after each new shipment of fuel is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted.
3. Each fuel supplier certification or each fuel oil analysis must demonstrate that the fuel oil contains 0.0015 percent sulfur by weight or less (15 ppm).

E. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 15 days after the first of each month, determine and record the hours of operation for each engine and fuel use for the entire facility for the previous 12 months. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources or its authorized representative and EPA upon request.
2. The owner/operator shall, on a monthly basis, no later than 15 days after the first of each month, determine the total fuel used by the engines during the previous 12 months.
3. The owner/operator shall notify the Office of Air Resources, in writing within 30 days, whenever the combined quantity of diesel fuel oil combusted at the facility exceeds 294,000 gallons for any consecutive 12-month period.
4. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.

5. The owner/operator shall maintain copies of all fuel supplier certifications or fuel analyses and these copies shall be made accessible for review by the Office of Air Resources or its authorized representative and EPA. These records shall include a certified statement, signed by the owner/operator of the facility, that the records represent all of the fuel combusted at the facility
6. The owner/operator shall notify the Office of Air Resources, in writing, of any planned physical or operational change to any equipment that would:
 - a. Change the representation of the facility in the application.
 - b. Alter the applicability of any state or federal air pollution rules or regulations.
 - c. Result in the violation of any terms or conditions of this permit.
 - d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

7. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:
 - a. The name and location of the facility;
 - b. The subject source(s) that caused the noncompliance with the permit term;
 - c. The time and date of first observation of the incident of noncompliance;
 - d. The cause and expected duration of the incident of noncompliance;
 - e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate.
 - f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.

8. All records required as a condition of this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

F. Fugitive Dust

1. No visible fugitive emissions shall leave the property from the grinders, associated sources and service roads within the facility. Compliance with the standard of no visible fugitive emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using 40 CFR 60, Appendix A, Test Method 22.
2. Opacity of visible emissions from the grinders shall not exceed 15 percent (6-minute average) as determined using 40 CFR 60, Appendix A, Test Method 9.
3. Service roads within the facility shall be maintained and controlled in such a manner as to minimize the potential for the generation of fugitive dust emissions.
4. All open storage areas and/or piles of material which may produce fugitive dust shall be covered, watered down, or implement other precautions, as necessary, to prevent generation of dust.
5. Adequate precautions shall be taken to prevent fugitive dust emissions from the storage, handling or transporting of material capable of releasing dust.

G. Other Permit Conditions

1. To the extent consistent with the requirements of this approval and applicable Federal and State laws, the facility shall be designed, constructed and operated in accordance with the representation of the facility in the permit application dated 2 April 2, 2002 for Units 1 and 2, December 8, 2004 for Unit 3, and July 27, 2015 for unit 4.
2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.
3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this permit have been achieved. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.

4. The owner/operator is subject to the requirements of 40 CFR 60, Subpart A (General Provisions) and Subpart IIII (Standards of Performance for Stationary Compression Internal Combustion Engines). Compliance with all applicable provisions therein is required.
5. Approval No. 1719, issued by the Office of Air Resources on 26 September 2002 for the installation of an 800 HP Caterpillar Model 3412C diesel engine, is revoked. This revocation will become effective with the issuance of this approval. This unit shall be permanently removed from service.
6. Approval No. 1721, issued by the Office of Air Resources on 26 September 2002 for the installation of a 600 kW Caterpillar engine-generator set, is revoked. This revocation will become effective with the issuance of Approval No. 1857 on 10 June 2005. This unit shall be permanently removed from service.

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