

US EPA ARCHIVE DOCUMENT

**PUBLIC NOTICE OF FEDERAL PREVENTION OF SIGNIFICANT  
DETERIORATION PERMIT AND PUBLIC COMMENT PERIOD**

**Dominion Energy Brayton Point, LLC**

**Closed Cycle Cooling Water Towers and  
Unit 3 Dry Scrubber/Fabric Filter Project**

**EPA Region I Draft PSD Permit Number 052-120-MA13**

**United States Environmental Protection Agency - Region I  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023**

The United States Environmental Protection Agency-New England Office (EPA-New England) proposes to issue a Prevention of Significant Deterioration (PSD) permit to Dominion Energy Brayton Point, LLC (Dominion). Dominion currently operates the Brayton Point power station in Somerset, Massachusetts. To meet new state and federal air and water regulations, Dominion submitted a PSD permit application that proposed several changes to the existing plant. These changes include the construction and operation of two natural draft cooling water towers as part of a new closed cycle cooling water system and the installation of a new dry scrubber and fabric filter (DS/FF) emission control system on the facility's Unit# 3 boiler. EPA Region 1 is proposing to approve Dominion's application. This action is authorized pursuant to the Clean Air Act and Title 40 of the Code of Federal Regulations, section 52.21 (40 CFR § 52.21).

**PSD Program Requirements:**

EPA-New England determined that the changes proposed by Dominion would result in significant emission increases of particulate matter less than 10 microns (PM<sub>10</sub>) and 2.5 microns (PM<sub>2.5</sub>). Therefore, the PSD program applies to these two pollutants. The PSD program requires the following:

- best available control technology (BACT) to reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions and;
- an air quality analysis to ensure that the emission increase would not cause or contribute to a violation of applicable National Ambient Air Quality Standards (NAAQS) or PSD increments.

**BACT for Cooling Water Towers:** During operation, a very small fraction of the circulation water in the towers will be emitted as water droplets. These water droplets or "drift" will contain dissolved solids (e.g., salts) that could become PM<sub>2.5</sub> or PM<sub>10</sub> emissions when the water evaporates. EPA is proposing that BACT for the cooling water

towers is the use of drift eliminators that reduces the amount of water droplets emitted from the towers.

**BACT for Unit #3 Boiler:** The DS/FF system is design to control sulfur dioxide (SO<sub>2</sub>) emissions. The DS/FF system injects a fine mist of lime reagent into the Boiler #3 flue gas where it reacts with and reduces the SO<sub>2</sub> sulfur dioxide in the flue gas. The lime reagent is then collected by a fabric filter. Particulate matter emissions are controlled by both the fabric filter and existing electrostatic precipitator. EPA is proposing that BACT for the Unit # 3 boiler with a DS is the additional installation of a fabric filter to capture total PM emissions including PM<sub>2.5</sub> and PM<sub>10</sub>.

### **Air Quality Impacts:**

The air quality analysis showed that the impact from the proposed projects will remain below the applicable NAAQS and increments. The NAAQS are maximum concentration "ceilings" measured in terms of total concentration of a pollutant in the atmosphere. A PSD increment is a maximum allowable emission increase on a concentration basis that is allowed to occur above a baseline concentration for a pollutant. In addition, the air modeling analysis demonstrated that the projects will not adversely affect air quality related values in any Class I area (national parks and wilderness areas).

### **Public Comment Process:**

The public comment period for this proposed action will open on January 28, 2009. Any interested person may submit written comments on the proposed permit during the public comment period. EPA is also soliciting public comment on the methodology employed to determine ambient air quality impacts. EPA will consider all submitted comments in its final decision making process.

Persons who submit comments to EPA should state:

1. Their interest in the draft PSD permit;
2. The action they wish EPA to take, including specific references to the portions of the draft permit they believe should be changed, if any; and
3. The reasons supporting their position, stated with sufficient specificity as to allow EPA to evaluate the merits of the position.

All comments received during the comment period will be included in the administrative record and will be available to the public. The public comment period for the draft PSD permit ends on February 27, 2009. To be considered, written comments should be postmarked no later than February 27, 2009. Comments should be submitted to:

**Brendan McCahill, Environmental Engineer**  
**U.S. Environmental Protection Agency - New England**  
**1 Congress Street**  
**Suite 1100, Attn. CAP**

**Boston, MA 02114-2023**

In addition, EPA will hold a public hearing at the following time, date, and location:

**6:00 PM on March 2, 2009  
Somerset Public Library  
1464 County Road  
Somerset, MA 02726**

Directions to the public library can be found on-line at <http://somersepubliclibrary.org/> or by calling Bonnie Mendes at (508) 646-2829.

Within 30 days after the permit has been issued, any person who filed comments on the draft permit or participated in a public hearing may submit a petition to the Environmental Appeals Board (EAB) to review any condition of the permit decision. The petition shall include a statement of the reasons supporting review, including a demonstration that any issues raised were raised during the public comment period including any public hearing. Where appropriate, the petition should include a showing that the condition in question is based on:

- (1) A finding of fact or conclusion of law which is clearly erroneous, or
- (2) An exercise of discretion or an important policy consideration which the EAB should, in its discretion, review.

All data submitted by the applicant is available as part of the administrative record. The administrative record, including copies of the draft PSD permit, original and supplemental PSD applications, fact sheet, and other supporting documents may be viewed between 9:00 a.m. and 4:00 p.m., Monday through Friday, at EPA New England, 1 Congress Street, Suite 1100, Boston, MA 02114-2023 or may be obtained on-line at EPA New England's website at <http://www.epa.gov/NE/communities/nsemissions.html>.

For more information, contact Brendan McCahill at (617) 918-1652 or by e-mail at [McCahill.Brendan@EPA.GOV](mailto:McCahill.Brendan@EPA.GOV).