

## Dominion Chesterfield Energy Reliability Center

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### Overview

*This fact sheet contains information on the Chesterfield Energy Reliability Center and Prevention of Significant Deterioration (PSD) permit for a facility Dominion proposes to add to the land area of the Chesterfield Power Station.*

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### What is the history of Chesterfield Power Station?

- Since 1944, a coal-fired power plant has operated at the Chesterfield Power Station site
- From March 2019 – March 2023, coal units 3-6 were shutdown; coal is no longer burned at the site

### What DEQ Air permits are already involved with the Chesterfield Power Station?

- Title V permit (all applicable requirements for major source)
- Minor new source review (NSR) permit for Coal Combustion Residuals (CCR) management
- State operating permit
  - The two smaller combustion turbines that burn natural gas or oil (420 MW of power)
  - The permit requirements for the coal-fired boilers and associated equipment have been rescinded

### What is the reason behind the Chesterfield Energy Reliability Center (CERC) proposal?

- Dominion's stated purpose for the CERC is "to support the clean energy transition while optimizing reliability and economics for power customers"
- This project would add four 250 MW turbines (combined 1000 MW) which would only be used if electricity demand is predicted to be more than the electricity produced by the current capacity of baseload and renewable energy sources in Virginia. Multiple turbines are proposed in case one or two are down for repair or maintenance.
- This project would add seven 3500 kW black start engine generators whose purpose is to provide electricity to control panels and to restart a turbine(s) during a total grid shut down. The generators would only run until power to the grid is restored. Seven generators are needed to provide redundancy for cases where one or two of the generators failed to operate or were offline for repair or maintenance.

### What DEQ permit is being considered for this additional facility?

- Dominion has applied for a Prevention of Significant Deterioration (PSD) air permit from DEQ.

### What is a PSD permit and what will it do here?

- A PSD permit is required from DEQ for new major sources or major modifications at existing pollutant sources where the source area meets the National Ambient Air Quality Standards (NAAQS), so places where there is good air quality
  - This is determined through DEQ air quality monitors that measure the actual amount of pollution in the air
  - The permits DEQ write are based on regulations and contain many enforceable restrictions to ensure the emissions will be as low as required
  - A PSD permit is needed for CERC because the proposed operations include larger turbines which might emit over 100 tons of pollutants in a year
    - The permit allows each turbine to operate for approximately 3,240 hours per year, but that does not mean any turbine will operate that long
    - The permit allows fuel oil to be burned for reliability purposes when necessary
    - Each turbine is expected to operate infrequently, depending on the need to generate electricity
    - Note: PJM decides how much power is needed, when it is needed, and the fuel that will be needed. PJM is a regional power transmission organization that ensures the reliable and efficient transmission of electricity throughout a multi-state region.

**What is the Air Permit Process, specifically what's been the process for CERC?**

- Permits are required for new facilities or projects (new or expanded construction) at existing facilities
- A facility submits a permit application for a permit to construct and operate a new unit or add a new project
  - DEQ reviews the local government certification form and site suitability form
  - DEQ reviews the application for regulatory compliance
    - Type and quantity of pollutants to be emitted
    - Applicable federal and state regulations
    - Best Available Control Technology (BACT) by comparing the proposed controls for this facility with similar facilities operating that have similar emission limits
    - Dominion will be required to conduct testing, monitoring, reporting, and inspecting (all conducted by Dominion and reviewed by DEQ)

**What are the anticipated air emissions and pollution controls?**

- The turbines will burn natural gas or fuel oil which will produce nitrogen oxides, carbon monoxide, and volatile organic compound emissions – to be controlled with air pollution controls. Other emissions will be controlled by good combustion practices
- The black start generators will be certified by EPA to meet Tier II emission standards – only operated in emergencies
- Fuel gas heater - only operates on cold days when the natural gas going to the turbines needs to be warmed before it is burned
- Fuel oil tanks - stores oil for the turbines and generators (does not evaporate easily so will have low emissions)
- Circuit breakers - prevent damage to generators and transformers in case of a power surge. The insulating gas inside is sealed and monitored by a pressure gauge
- Unintended natural gas releases from pipeline fittings or during pipeline maintenance work. The facility must have a written operating plan to monitor, detect, and repair any leaks

**What are the next steps for public involvement in this permit process?**

- A PSD permit requires a 60-day public comment period and a public hearing. The public comment period begins on August 8, 2025
- A public notice will appear in the Richmond Times-Dispatch and on the DEQ website
- All proposed draft documents will be available for review on DEQ's website (see QR code below)
- A public hearing is scheduled for September 8 (see public notice for details)
- The 60-day public comment period will end on October 8
- At the end of the public comment period, DEQ will prepare responses to all comments received during the public comment period
- DEQ will schedule a response-to-public-comment hearing

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