

**PUBLIC MEETING  
ALIGNED DATA CENTERS (MD) PROPCO, LLC  
FREDERICK, MD DATA CENTER CAMPUS  
DECEMBER 11, 2024**



Suna Yi Sariscak, Manager  
Air Quality Permits Program  
Air and Radiation Administration



# Background

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On July 1, 2024, Aligned Data Centers (MD) PropCo, LLC submitted an air quality permit to construct application for a proposed data center facility including the installation of the following air pollution emitting equipment:

One-hundred and sixty-eight (168) emergency generators each rated at 3,000-kilowatts, and each equipped with a diesel fired engine controlled by a Selective Catalytic Reduction (SCR) emissions control system.

Four (4) emergency generators each rated at 1,000-kilowatts, and each equipped with a diesel fired engine.



# Public Comment Process

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Emergency generators are subject to federal New Source Performance Standards (NSPS) under the Code of Federal Regulations, 40 CFR, Part 60.

In accordance with Maryland law, the Department must provide an electronic notice of the permit application and allow the public to comment on any permit application for an air pollution source subject to NSPS.

On October 16, 2024, the Department held a meeting to present the application to the public.

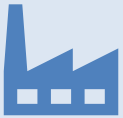


# Preliminary Determination

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Following the public application meeting, the Department conducted the technical review of the application.



The review included verifying the estimated emissions from the project, determining applicable federal and State air quality regulations and requirements, and evaluating other data center air quality permits from other states.



On November 25, 2024, the Department released a draft air quality permit to construct for public review and comment.



# Elements of the Permit to Construct

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- Summary of Covered Installations and Processes
- General Provisions
- Applicable Air Quality Requirements
- Construction and Operating Conditions
- Monitoring and Testing
- Compliance Demonstration
- Record Keeping and Reporting



# Applicable Air Quality Requirements

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The emergency generators must meet federal NSPS engine requirements.

Each engine must be certified to meet emergency emissions standards and must be constructed, operated, and maintained according to manufacturer specifications.

The generators can only be operated for testing, maintenance, and emergency purposes and must only use ultra low sulfur diesel fuel.



# Premises Wide Limits

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Premises wide emissions of oxides of nitrogen (NO<sub>x</sub>) must be less than 25 tons per rolling 12-month period in order to be considered a minor source of emissions.

To comply with the premises wide limit on NO<sub>x</sub> emissions, the Permittee must use NO<sub>x</sub> control devices and limit fuel use and operation of the engines for testing and maintenance.

Complying with the NO<sub>x</sub> limit reduces the potential emissions of all other regulated pollutants to less than major source levels.



# Control Device Requirements

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The 168 emergency generators rated at 3,000-kilowatts will each be equipped with Selective Catalytic Reduction (SCR) emission control system to reduce the NO<sub>x</sub> emissions from each engine.

The Permittee must continuously monitor SCR performance indicators such as the differential pressure, the catalyst bed temperature, the urea dosing rate, and NO<sub>x</sub> concentrations before and after the catalyst.

Urea concentration must be either measured monthly or replaced every 12 months.





# Testing Requirements

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The Permittee is required to perform stack emissions tests the first 14 emergency generators equipped with SCR control devices within 180 days of start up of each generator.

Subsequent stack emissions tests for additional generators will be included in the Permittee's Air Quality State Permit to Operate.



# Record Keeping Requirements

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Records of all fuel usage and sulfur content, operating hours, emissions control system operating parameters measured, and urea concentration or replacement information.



Records of all manufacturer and vendor literature, maintenance performed, EPA Certificates of Conformity, and stack emissions test results.



Records of premises wide emissions of all pollutants in tons per month and tons per rolling 12-month period.



# Reporting Requirements

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- Semiannual reports of emissions, fuel consumption, and operating hours.
- Reports of all occurrences when emissions, fuel consumption, and/or operating hours are greater than the limits specified in the permit.
- Annual Emission Certification Reports



# Air Quality State Permit to Operate

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The permit to construct includes temporary operating permit for 180 days from the operation date of the first emergency generator. The temporary period will be used to demonstrate initial compliance.

The Permittee shall apply for a five-year, renewable State Permit to Operate after demonstrating initial compliance.



# How to Submit Written Comments

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- Written comments may be sent via e-mail to Ms. Shannon Heafey at [shannon.heafey@maryland.gov](mailto:shannon.heafey@maryland.gov)
- Written comments may be submitted through December 30, 2024