

Public Meeting

concerning

TransGas Development Systems, LLC

Adams Fork Harless Data Center Energy Campus (R13-3714)

Adams Fork Data Center Energy Campus (R13-3715)

September 18, 2025

WVDEP - Division of Air Quality
Public Meeting



Presentation Outline

- General Permitting Process
- TransGas Ammonia Plant/Data Centers
- TransGas Review Summary
- Project Overview
- Summary
- Contact Information

National Air Quality Strategy:

Permitting in Context

Clean Air Act: EPA Mandate to Protect Public Health and Welfare

Science

National Ambient Air Quality Standards (NAAQS)

State & Federal Rulemaking

State (SIP) and Federal Air Quality Rules

New Source Permitting Process

Specific Facility Requirements (NSR Air Permit)

Inspections

Compliance with Permit and Air Quality Rules

NAAQS

NAAQS: National Ambient Air Quality Standards

- *Primary Standards*
 - Protect Public Health
- *Secondary Standards*
 - Protect Public Welfare
- Criteria Pollutants: Carbon Monoxide (CO), Lead, Nitrogen Oxides (NO_x), Ozone (O₃), Particulate Matter (PM₁₀ and PM_{2.5}) and Sulfur Dioxide (SO₂)
- Hazardous Air Pollutants (HAPs) do not have any national standards
 - Regulated under 40 CFR 61 and 63 (NESHAP and MACT programs)
- Counties designated as meeting (attainment) or not meeting (non-attainment) these standards

Mingo County (& all of WV) classified as in attainment with each of the above standards

Permitting Programs

- **New Source Review Permits**
 - Minor Source Program (45CSR13)
 - Major Source in Attainment Areas (45CSR14)
 - “Prevention of Significant Deterioration” (PSD)
 - Major Source in Non-Attainment Areas (45CSR19)
- **Post-Construction Operating Permit Program**
 - Title V Process
 - Major Source (Permit) vs. Minor Source (No Permit)
 - 45CSR30

Minor Source Permitting Program

- Applicable to new “minor sources” of air pollution
 - Definition of major/minor is dependent on source type and location
 - Facility is not a “listed source”: 250 tons/year threshold (per pollutant – not GHGs)
 - Administered under West Virginia Legislative Rule 45CSR13
- 45CSR13 Permitting Process: What it does do:
 - Determine/enforce compliance with state/federal air quality rules and regulations
 - Review and verify potential to emit of the facility is reasonable
 - Develop requirements to enforce compliance with facility’s proposed air emissions
 - Provide framework of public notification/participation
- 45CSR13 Permitting Process: What it does not do:
 - Not designed to prevent industrial development
 - Require a full Environmental Impact Statement (EIS) or require a cumulative impact analysis that includes nearby sources
 - Address Greenhouse Gases (GHGs)
 - Take into consideration any other important but non-air quality benefits/impacts such as jobs, property values, traffic, zoning, national energy issues, economics of project, infrastructure, archaeology, etc.

WVDAQ Documents

- **Engineering Evaluation/Fact Sheet**
 - Rationale document for Preliminary Determination
- **Draft Permit**
 - Includes operating restrictions, emission limitations and monitoring, recordkeeping and reporting requirements
 - Enforces the PTE upon which Preliminary Determination was made

TransGas Ammonia Plant

- Proposed to take feedstock Natural Gas → Hydrogen → Ammonia
- Received 31 comments (including from Sierra Club) a response to comment document, other documents available on our ApplicationEnhancer Database
- Held a virtual public meeting on February 21, 2024
- Permit (R13-3622) was issued on March 26, 2024
- Superceded first TransGas permit (R13-2791) issued for proposed coal-to-liquids in 2009 and never built
- Has not started construction
- No information that this facility will have any connection to data centers
- DAQ will not be responding to any comments concerning that facility

Data Centers

- What is a Data Center?

- A building that houses computers/servers used for cloud storage, AI applications, company applications, etc.
- If you have a smart phone or do anything online you interact with a data center daily
- Must not lose power or critical data will be lost (e.g., banking, medical data, etc.)

- Data Center & Air Emissions

- Computers do not produce air emissions
- Traditional on-grid Data Centers have huge amount back-up generation; emissions are relatively low only from maintenance/testing (emergency use not part of a permit)
- In a microgrid, power produced locally directly tied to the Data Centers (may still have other backup options)
- Emissions come from power generation facility
- With backup capabilities way oversized.
- HB2014 has no effect on review of an air quality permit for a data center

DAQ Review Summary

- TransGas submitted both permit applications on March 26, 2025
- Revised permit applications were submitted on May 14, 2025
- Applications submitted as a minor source (45CSR13)
- TransGas Legal Advertisements: April 9, 2025
 - No air quality related comments or public meeting requests received
- DAQ Public Advertisements: July 9, 2025
 - Preliminary Review Complete: Draft Permit/Fact Sheet Available
 - Preliminary Determination
 - 30-Day Comment Period
 - Public meeting requests received
- DAQ held virtual public meeting on August 18, 2025
- Additional request for in-person meeting

TransGas Project Overview

- 2 Locations
- Facilities are identical (different locations)
- R13-3714 – near Holden located in Mingo County on Mine Road adjacent to Mohawk Industries
- R13-3715 – Wharncliffe in Mingo County on the site of the Twisted Gun Golf Course
- Off-grid Power Generation Facilities
 - Purpose of facilities is to provide power to future adjacent data center operations
 - 117 engines with the ability to operate on natural gas or diesel fuel
 - Each engine is 28,194 hp and will have a maximum power output of 21 MW
 - Aggregate power output – 2,457 MW

TransGas Project Overview *(cont.)*

- Engines utilize control device systems to control emissions from NO_x, CO, VOC, PM, and SO₂
- All individual pollutant emissions below PSD thresholds
- TransGas will be required to obtain Title V Operating Permits for each location
- Detailed information in the permit application and Engineering Evaluation/Fact Sheet

Air Pollution Control Technology

- Engines utilize control device systems to control emissions from NO_x, CO, VOC, PM, and SO₂
- The technology consists of 2 main systems
 - The dry system is on the high-pressure side of the engine (before the turbocharger)
 - The wet system is on the low-pressure side of the engine, which is downstream of the turbocharger

Air Pollution Control Technology *(cont.)*

- The dry system utilizes an oxidation catalyst and selective catalytic reduction (SCR)
- The catalytic reduction of CO has a reduction efficiency of over 99%
- The same system also oxidizes VOC emissions with a reduction efficiency of 99%
- The de-NO_x unit is a urea-based SCR technology with a reduction efficiency of 90%
- Dry system also utilizes the oxidation system of the de-NO_x and de-CO system to reduce particulate matter emissions

Air Pollution Control Technology *(cont.)*

- The wet system consists of 4 stages which further reduces NO_x by 90.9% and SO₂ by 70%
- Stage 1 is designed for the removal of sulfur dioxide carried over by the exhaust gases
- Stages 2 and 3 are designed for the removal of nitrogen oxides. These stages are based on an oxidation-reduction mechanism that converts nitrogen oxides into gaseous nitrogen (N₂), which achieves the reduced concentration at the stack
- Stage 4 serves as the finishing step and control unit which completes the process

Air Pollution Control Technology *(cont.)*

Mode	NO _x Reduction (%)	CO Reduction (%)	VOC Reduction (%)	PM Reduction (%)	SO ₂ Reduction (%)
Speed Up	0	0	0	0	95.0
Fuel Changeover	0	0	0	0	99.0
Generator Switched On	0	0	0	0	99.0
Load Up Cold Control	25.0	25.0	25.0	0	99.0
Normal Operation	99.0	99.0	99.0	25.0	99.0
Compensation Mode	99.0	95.0	99.0	25.0	99.0
Ramp Down	99.0	94.0	99.0	25.0	99.0
Min Load	70.0	50.0	70.0	0	70.0
Spin Out	40.0	35.0	40.0	0	40.0
Emergency	98.0	91.0	99.0	25.0	99.0

Summary

- TransGas is proposing to build 2 off-grid power generating facilities to provide power to future adjacent data centers in Mingo County
- DAQ has made a preliminary determination that the proposed construction will meet all applicable state rules and federal air quality regulations
- Engineering Evaluation/Fact Sheet and Draft Permit have been available for review since publication of the legal advertisement (July 9, 2025)
- DAQ will continue to accept public comments until 5:00 PM on September 19, 2025
- DAQ will evaluate and respond to all timely public air quality-related comments
- DAQ will make a final determination on this permitting action and make this determination and any related documents available at that time

Contact Information

West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Attention: Jerry Williams
jerry.williams@wv.gov

**** TransGas Development Comments as subject line ****

<https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx>