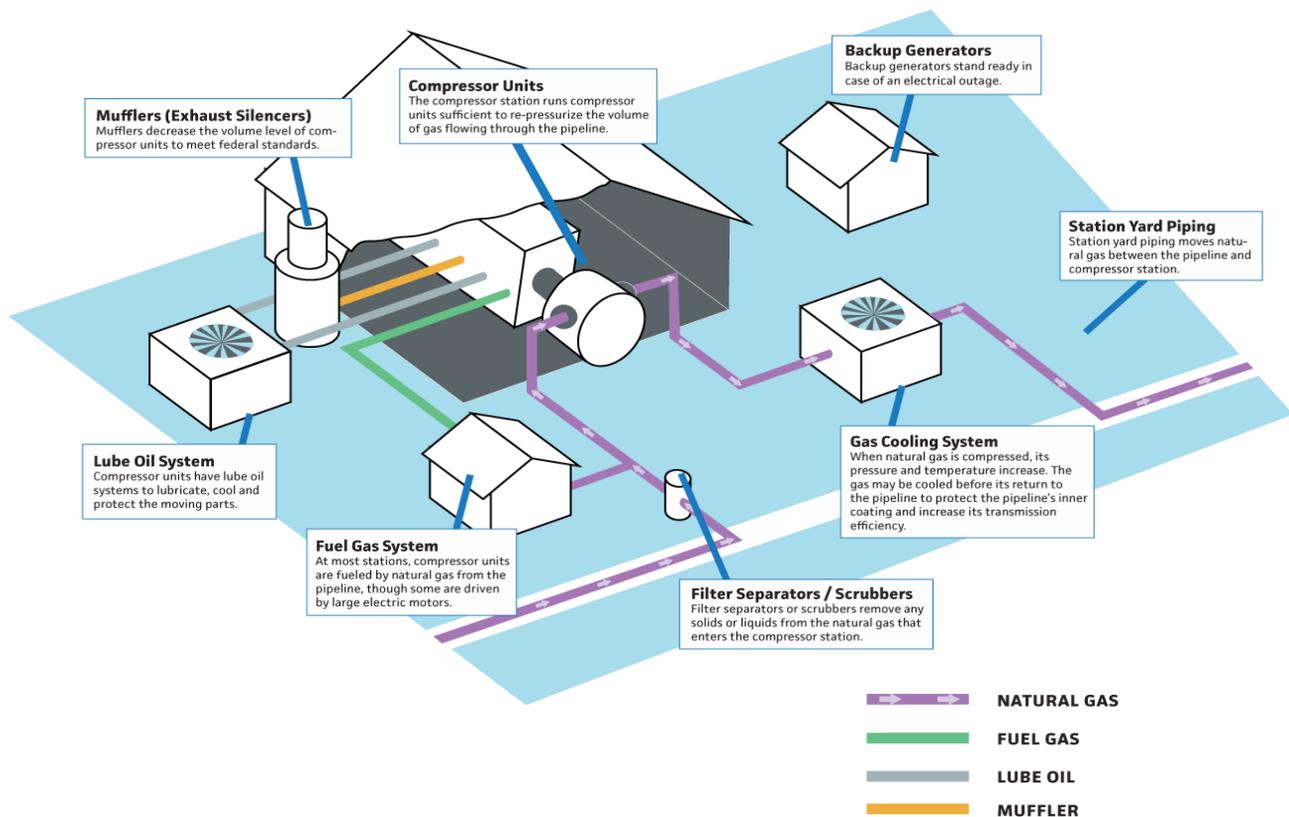


Air Pollution Control Permits for Natural Gas Compressor Stations

To accommodate the significant increase in natural gas production in eastern Ohio, the oil and gas industry is expanding the infrastructure needed to transport natural gas to its customers. Compressor stations are a key component to transporting gas through pipelines. This fact sheet focuses on Ohio EPA's regulatory oversight of air emissions from compressor stations.

What are compressor stations?

Compressor stations are used to pump natural gas through pipelines. Compressors, located at intervals along a pipeline, pressurize the gas to keep it moving through the pipeline. Most compressor stations sit on about an acre of land and run on diesel or natural gas fuel. There are many components that make up a typical compressor station, such as yard piping; gas cleaning operations (filters or scrubbers); liquid storage tanks; process heaters; gas compressors; compressor engines (either engines or turbines); gas cooling systems; and backup electrical generators.



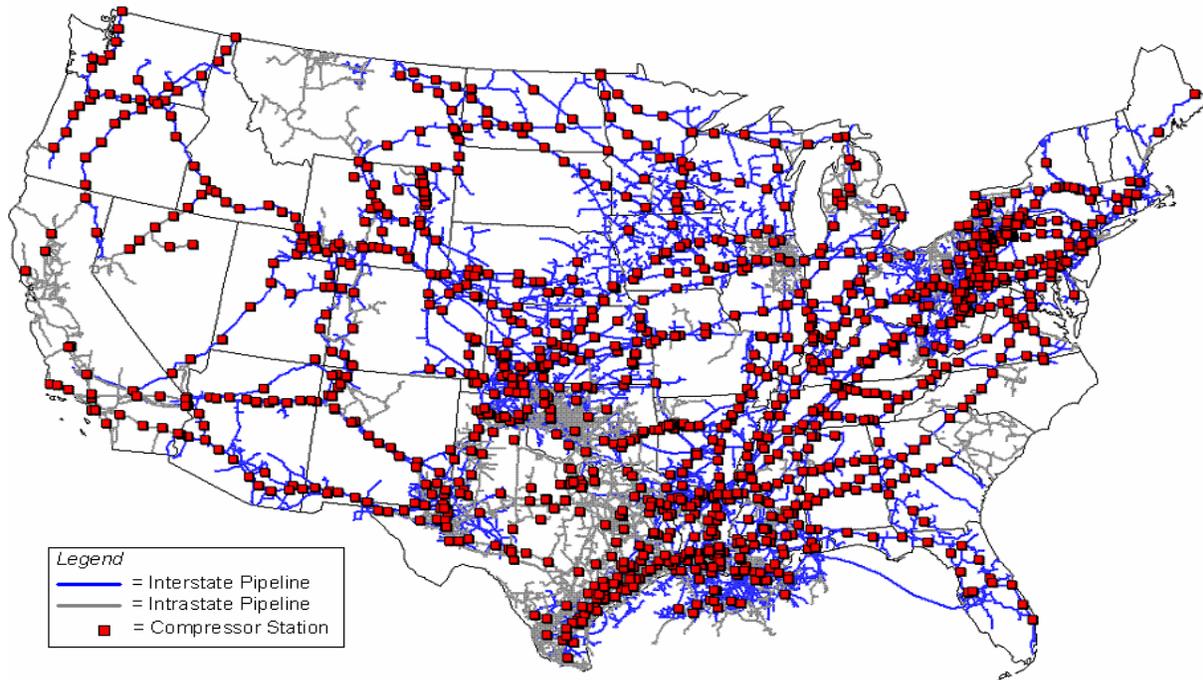
Source: NEXUS Gas Transmission

Why are compressor stations needed?

When natural gas flows through a pipeline, friction causes the gas flow to slow. To keep the gas flowing at the desired rate, it is re-pressurized at compressor stations located along the pipeline's route. The locations and number of compressor stations are determined by the pipeline's diameter, length and operating pressure; elevation changes along the route; and the volume of gas to be transported.

Air Pollution Control Permits for Natural Gas Compressor Stations (continued)

Across the country, hundreds of compressor stations service thousands of miles of natural gas pipelines.



Source: U.S. Energy Information Administration, 2008

Who regulates compressor stations in Ohio?

There are multiple governmental entities that regulate various aspects of compressor stations. Each entity has a specific regulatory role and authority.

Issue	Main Regulator
Air pollution	Ohio EPA Division of Air Pollution Control; U.S. Environmental Protection Agency
Eminent domain	State of Ohio laws
Noise	Local zoning organizations; Federal Energy Regulatory Commission
Property values	Local zoning organizations (town, city or county)
Siting of compressor stations and pipelines	Interstate lines (cross one or more states) – Federal Energy Regulatory Commission Intrastate gas pipelines (operate only in Ohio) – Ohio Power Siting Board Gathering lines (carry gas from a processing facility to a fractionation plant, to an interstate or intrastate pipeline) and lines carrying liquids – Local zoning Production lines (installed at the well site) – Ohio Department of Natural Resources
Safety	Interstate and liquids lines – Pipeline and Hazardous Materials Safety Administration Most Ohio pipelines – Public Utilities Commission of Ohio Production lines – Ohio Department of Natural Resources
Truck traffic	Local organizations (town, city or county); Ohio Department of Transportation
Wetlands and streams	Ohio EPA Division of Surface Water; U.S. EPA; U.S. Army Corps of Engineers
Zoning restrictions	Local zoning organizations (town, city or county)

Air Pollution Control Permits for Natural Gas Compressor Stations (continued)

Ohio EPA's air pollution regulatory authority centers around the air emissions generated during a compressor station's operation. With help from district offices and local air agencies, Ohio EPA's Division of Air Pollution Control reviews applications and issues permits to ensure proposed projects would comply with the federal Clean Air Act and maintain air quality at a level that protects public health and the environment.

It's important to note: Ohio EPA does not have regulatory authority over many issues of concern to the community including compressor station locations; pipeline routes; eminent domain; setbacks to homes, schools and businesses; noise levels; traffic; zoning; safety issues; and impacts on property values.

What air pollutants are associated with compressor stations?

Air pollutants typically emitted from compressor stations can include volatile organic compounds; particulate matter; nitrogen oxides; carbon monoxide; sulfur dioxide; greenhouse gases (carbon dioxide, methane and nitrous oxide); and small amounts of hazardous air pollutants (e.g., benzene, acetaldehyde, formaldehyde, toluene, ethyl benzene and xylenes).

The amount of volatile organic compounds emitted from the average-sized compressor station is similar to what would be emitted from a large gas station. The amount of the other pollutants is similar to what would be emitted from a boiler used to heat a small office building.

What is a draft air permit and what does it cover?

After thoroughly reviewing an application, if Ohio EPA determines the proposed project would comply with federal and state air quality standards, the Agency issues a draft air permit. The draft permit includes limits on airborne emissions that may be generated from the facility's equipment and activities (collectively known as sources or emissions units).

In addition to emissions limits, the draft permit includes operating restrictions, monitoring, recordkeeping, reporting and testing requirements to ensure ongoing compliance.

To minimize equipment leaks, the draft permit also requires a compressor station's owner/operator to implement a leak detection monitoring, inspection and repair program. A forward looking infrared (FLIR) camera or other EPA-approved analyzer may be used to detect leaks.

What happens once a draft air permit is issued?

Ohio EPA values public participation in the permitting process. When the Agency issues a draft permit, a legal notice is placed in the newspaper of largest circulation for the county in which the facility would be located. A minimum 30-day public comment period is held to provide interested parties an opportunity to review and comment on the draft action. If Ohio EPA's director determines significant public interest exists, there also may be a public meeting scheduled in the community where the facility would be located.

Following the public comment period, Ohio EPA reviews and considers all the comments received, develops a written response to comments, and makes a final permitting decision. Final actions of Ohio EPA's director are appealable to the Environmental Review Appeals Commission.

Copies of air permits are available online at: www.epa.ohio.gov/dapc/newpermits/issued.aspx.

Where can I find more information?

For more information concerning Ohio EPA's regulatory oversight of compressor stations or other environmental issues in your area, contact the Public Interest Center at (614) 644-2160.