

# General Permit for Air Pollution Control in Natural Gas Compression and/or Processing Facilities (GP-5)

## Introduction

In accordance with Section 6.1(f) of the Air Pollution Control Act and 25 Pa. Code §§ 127.514 and 127.611, the Department of Environmental Protection (DEP) has issued General Plan Approvals and General Operating Permits (hereinafter referred to as **general permits** or **GP**) to specific categories of sources that are similar in design and operation, and can be adequately regulated with standardized specifications and conditions. The department first issued a General Permit for Natural Gas, Coal Bed Methane or Gob Gas Production or Recovery Facilities (GP-5) on March 10, 1997, and revised it periodically. DEP revised the general permit on Feb. 2, 2013, to cover various aspects of the natural gas compression and processing operations. This general permit was finalized after substantive public participation. This fact sheet will provide basic information about the general permit, including the following:

- ◆ What operations will be covered by this permit
- ◆ Who may obtain authorization to use this general permit
- ◆ General conditions that apply under this air quality permit

## What is a general permit?

A general permit serves as a general plan approval and a general operating permit. When a company seeks an authorization to use a GP, it must demonstrate to DEP that the affected sources comply with the requirements specified by the GP. If it does, DEP authorizes the company to use the GP and issues a notice to that effect in the *Pennsylvania Bulletin*.

A general permit is a permit where all the terms and conditions of the permit are developed in advance. An applicant can review the general permit qualifying criteria, terms and conditions, and then apply to DEP for coverage under the general permit. DEP reviews the applicant's information to confirm they meet the qualifications and issues the authorization to use the general permit.

The biggest advantage of the general permit approach is time savings. By addressing the detailed rule/technical analysis and development of permit conditions up front, DEP is able to issue the authorization within 30 days. The issuance of an individual (non-general) plan approval and/or operating permit, covered by the permit decision guarantee program, is assured within 130 business days.

It is important to note that the terms and conditions of the general permit are just as stringent as they are for an individual plan approval and/or operating permit. Any facility that desires to use the general permit to meet their permitting requirements shall meet all of the conditions listed in the permit. The general permit conditions cannot be modified on a case-by-case basis.

## Why was this general permit revised?

The general permit was revised for three main reasons as follows:

- ◆ To extend the applicability of GP-5 to all air contamination sources present at natural gas processing and compression facilities.
- ◆ To update the best available technology (BAT) for sources including engines and establish BAT for some additional sources such as simple cycle turbines.
- ◆ To incorporate the Environmental Protection Agency's (EPA) New Source Performance Standards (NSPS) and the National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements.

## What air pollutants come from natural gas compression and processing activities?

- ◆ Nitrogen Oxides (NO<sub>x</sub>)
- ◆ Carbon Monoxide (CO)
- ◆ Particulate Matter (PM)
- ◆ Hazardous Air Pollutants (HAP) such as Formaldehyde
- ◆ Volatile Organic Compounds (VOCs)

## Who may obtain authorization to use this general permit?

An owner or operator planning to construct and operate a natural gas compression and/or processing facility in PA that falls within the scope of this general permit may obtain an authorization to construct and operate such a facility. **This general permit is only applicable to non-major facilities.**

## What operations are covered by this general permit?

This general permit authorizes the construction, modification, and/or operation of natural gas compression and/or a gas processing facility. The applicability of this general permit may include any of the following:

- ◆ Natural gas-fired spark ignition internal combustion engines (hereinafter referred to as "engine")
- ◆ Natural gas-fired simple cycle turbines (hereinafter referred to as "turbine")
- ◆ Centrifugal compressors
- ◆ Storage vessels/tanks

- ◆ Glycol dehydration units and associated equipment including Gas-Condensate-Glycol ("GCG") separators (Flash tank separators)
- ◆ Natural gas fractionation process units (such as De-propanizer, De-ethanizer, De-butanizer)
- ◆ Equipment leaks
- ◆ Pneumatic controllers
- ◆ Sweetening units

## What is the process for obtaining an authorization to use this general permit?

The GP-5 authorization process requires applicants to submit detailed information regarding every piece of equipment covered by the permit. The serial number and specific design parameters of each piece of equipment are required. The applicant must also identify methods used to demonstrate compliance for engines, dehydrators, tanks and other related equipment. Estimates of fugitive VOC and HAP emissions from connectors, flanges, open-ended lines, pump seals, valves, compressor seals, relief valves, diaphragms, drains, meters and other components are also needed. Once all the information is received and a review is conducted to verify that all the conditions of the GP-5 are met, the authorization to use the GP-5 is issued to that facility.

## What are the applicable fees associated with this general permit?

General plan approval application fee: \$1700

General operating permit fee: \$375

Annual operating permit administration fee, payable by March 1, for the previous year: \$375

## How long is authorization to use this general permit valid?

The authorization to construct and/or operate a natural gas compression and/or processing facility under this general permit is granted for a period of five years. However, the authorization to construct a natural gas compression and/or processing facility will expire 18 months from the date of authorization if the owner or operator fails to commence construction.

## How does one go about re-authorization of this general permit?

The authorization to operate under this general permit will terminate on the date of expiration of the authorization unless a complete application for authorization to use GP-5 is submitted to the department at least 30 days prior to the expiration date of the authorization. The authorization to use GP-5 shall cease to exist if the owner or operator fails to submit, by the deadline specified by the department, any additional information requested by the department to process the application.

## What are some of the responsibilities of the facilities covered by this general permit?

The facilities covered by this general permit have to adhere to the conditions prescribed in the permit. In addition to meeting the emission limits set forth in the permit, the facility is subject to comprehensive

performance testing, verification, monitoring, recordkeeping and reporting requirements.

## What general conditions need to be met for compliance with this general permit?

The facility authorized to use this general permit shall comply with the specifications in the application and terms and conditions of this general permit. The facility must be operated in such a manner as to not cause air pollution as that term is defined in 25 Pa. Code § 121.1. It must be operated and maintained in accordance with the manufacturer's specifications, procedures, the specifications in the Application for Authorization to Use GP-5, and recommended maintenance schedule, or an alternate procedure approved by the department. Also, the facility must not allow emission into the outdoor atmosphere of any malodorous air contaminants from any source such that the malodors are detectable outside the property of the owner or operator. The facility is required to keep records and report emissions to the department. In addition, the facility is required to meet all applicable federal requirements.

## How are the sources that fall outside the scope of this general permit regulated?

An owner or operator planning to construct a facility that has air emissions is required to obtain a plan approval before construction unless the type of facility is exempt from such requirements. If the type of facility is not exempt and it falls outside the scope of this general permit, the owner or operator must obtain a plan approval (similar to a construction permit). Once the facility is constructed, the owner or operator is required to obtain a state-only operating permit or a Title V permit.

## Where can I get more information?

To obtain additional information please use any of the following resources:

- ◆ Visit [www.dep.state.pa.us](http://www.dep.state.pa.us) and click on the Air tab, then click on Bureau of Air Quality link, and then click on the Permits link.
- ◆ Call the DEP Bureau of Air Quality central office in Harrisburg at 717-787-9702.
- ◆ Call the Air Quality program at the DEP regional office near you:
  - Southeast (Norristown): 484-250-5920
  - Northeast (Wilkes-Barre): 570-826-2435
  - South-central (Harrisburg): 717-705-4702
  - North-central (Williamsport): 570-327-3648
  - Southwest (Pittsburgh): 412-442-4161
  - Northwest (Meadville): 814-332-6940

Philadelphia and Allegheny counties have their own air pollution control program. Please contact them for more information.

- Allegheny County: 412-578-8103
- Philadelphia County: 215-685-7585