



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

**GENERAL PLAN APPROVAL AND/OR GENERAL OPERATING PERMIT
BAQ-GPA/GP – 1
SMALL GAS AND NO. 2 OIL FIRED COMBUSTION UNITS**

1. Statutory Authority and General Description

In accordance with Section 6.1(f) of the Air Pollution Control Act, 35 P.S. §4006.1, and 25 Pa. Code §§127.514 and 127.611, the Department of Environmental Protection (Department) hereby issues this general plan approval and/or general operating permit for small gas and No. 2 oil fired combustion units (hereinafter referred to as "Small Combustion Unit General Permit").

2. Applicability/Source Coverage Limitations

This Small Combustion Unit General Permit is limited to combustion units with rated capacities of less than 50 million Btu per hour of heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas, or by No. 2 or lighter (viscosity less than or equal to 5.82 cSt) commercial fuel oils.

This Small Combustion Unit General Permit shall not be used where the operator has added waste materials or recycled oils to their commercial fuel oils.

This Small Combustion Units General Permit has been established in accordance with the provisions described in 25 Pa. Code Chapter 127, Subchapter H. If the combustion units at the facility cannot be regulated by the requirements of this general permit, an operating permit issued in accordance with 25 Pa. Code Chapter 127, Subchapter F will be required, or, if the facility is a Title V facility, a Title V operating permit issued in accordance with Subchapters F and G will be required.

This Small Combustion Unit General Permit is designed to serve as both a general plan approval and a general operating permit for one or more boilers located in a facility. The specific use of the general permit will depend upon permit status, emission levels and location of the facility as outlined below.

Plan Approval

This Small Combustion Unit General Permit authorizes the construction of combustion unit(s) that meet the best available technology (BAT) required under 25 Pa. Code §§127.1 and 127.12(a)(5). For purposes of this general permit, BAT for units with a rated capacity equal to or greater than 10 million Btu per hour shall include the installation of low NO_x burners, flue gas recirculation (FGR), combinations of these, use of No. 2 oil with low nitrogen content or other measures capable of meeting the emission limitations described in Condition No.17. A facility owner or operator may use this general permit as a plan approval to construct qualifying combustion units. Appropriate provisions of this general permit will then be incorporated into either a Title V or state-only operating permit where the non-Title V facility includes regulated sources in addition to combustion units covered by this Small Combustion Unit General Permit. If the facility consists only of small combustion units qualifying for coverage under this General Permit, the facility may continue to operate so long as authorization to operate is renewed every five years in accordance with Condition 9 of this General Permit.

Operating Permit

This Small Combustion Units General Permit is not intended for use as an operating permit by a Title V facility as defined in 25 Pa. Code § 121.1. A "Title V facility" includes sources that have actual emissions or a potential to emit (PTE) equal to or greater than the maximum permitted emission levels shown in the following table for a single facility. A facility is eligible to operate under this Small Combustion Units General

Permit if its actual emissions will remain below the maximum permitted emission levels listed below. A combustion unit in a facility is exempted from the permit requirements of § 127.402 if it is demonstrated that the facility's actual emissions are less than the permit exemption levels in this section.

Pollutant	Maximum Permitted Emission Levels/Facility	Facility Permit Exemption Levels
CO	<100 TPY	<20 TPY
NOx	<100 TPY *	<10 TPY
SOx	<100 TPY	<8 TPY
VOCs	<50 TPY *	<8 TPY
PM ₁₀	<100 TPY	<3 TPY
Single HAP	<10 TPY	<1 TPY
HAPs	<25 TPY	<2.5 TPY

* < 25 TPY for the "Severe" 1-hour ozone nonattainment area.

3. Application for Use

Any person proposing to install, operate, or modify a combustion unit under this Small Combustion Unit General Permit shall notify the Department using the Small Combustion Unit General Permit Application provided by the Department. In accordance with 25 Pa. Code §127.621 (relating to application for use of general plan approvals and general operating permits), the applicant shall receive written authorization from the Department prior to constructing or operating under this general permit.

4. Compliance

Any combustion unit operating under this Small Combustion Unit General Permit shall comply with the terms and conditions of the general permit. The combustion unit and any associated air cleaning devices shall be:

- a. Operated in such a manner as not to cause air pollution.
- b. Operated and maintained in a manner consistent with good operating and maintenance practices.
- c. Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this Small Combustion Unit General Permit.

5. Permit Modification, Suspension and Revocation

This Small Combustion Unit General Permit may be modified, suspended, or revoked if the Department determines that affected combustion unit(s) cannot be adequately regulated under this general permit. Authorization to use this Small Combustion Unit General Permit shall be suspended or revoked if the permittee fails to comply with applicable terms and conditions of the Small Combustion Unit General Permit.

Authorization to operate the combustion unit under this Small Combustion Unit General Permit may be suspended, if, at any time, the permittee causes, permits or allows any modification without Department approval (as defined in 25 Pa. Code §121.1) of the combustion unit and any associated air pollution control device covered by this general permit. Upon suspension of the authorization, the permittee may not continue to operate or use said combustion unit. If warranted, the Department will require that the combustion unit be permitted under the state operating permit or Title V operating permit requirements in 25 Pa. Code Chapter 127, as appropriate.

6. Notice Requirements

The applications and notifications required by 25 Pa. Code § 127.621 shall be submitted to the appropriate Regional Office responsible for issuing general permits in the county in which the combustion unit is, or will be, located. As required under § 127.621(b) the application shall be either hand delivered or transmitted by certified mail return receipt requested.

The permittee shall notify the Department in writing permittee's intent to commence operation of source(s) authorized by the General Plan Approval at least five working days prior to the completion of construction. The notice shall specify the expected date of completion of construction and date of commencement of operation for the source(s).

The permittee shall notify the Department in writing, within 24 hours of the discovery during a business day or by 5:00 pm on the first business day after a weekend or holiday, of any malfunction of the combustion unit which results in, or may result in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in 25 Pa. Code, Subpart C, Article III (relating to air resources).

7. Sampling and Testing

No later than one hundred and eighty (180) days after initial start-up, the permittee shall demonstrate compliance with the emission limitations for NO_x, and CO established in Conditions 17 for each boiler. The demonstration may include either of the following methods:

- a. Performance stack testing in accordance with applicable provisions of 25 Pa. Code Chapter 139 (relating to sampling and testing).
- b. Portable analyzers approved by the Department.
- c. Recent test data approved by the Department for identical boilers.

If performance source testing according to 25 Pa. Code Chapter 139 (relating to sampling and testing) is chosen for demonstration of compliance, the permittee shall:

- a. Conduct all tests in accordance with the Department's latest Source Testing Manual.
- b. Submit a stack test protocol to the Regional Air Quality Program Manager for approval at least sixty (60) days prior to the stack test.
- c. Notify the Regional Air Quality Program Manager of the date and time of any testing, 30 days prior to the stack test.
- d. Submit two copies of completed stack test reports, including all operating conditions, within 60 days of completion of testing, to the Regional Air Quality Program Manager.

The permittee shall, upon the request of the Department, provide fuel analyses, or fuel samples of the fuel used in any combustion unit authorized to operate under this general permit.

If, at any time, the Department has cause to believe that air contaminant emissions from a combustion unit covered by this general permit are in excess of the limitations specified in, or established pursuant to, any applicable regulation contained in 25 Pa. Code, Subpart C, Article III, the permittee shall conduct tests deemed necessary by the Department to determine the actual emission rate(s).

8. Monitoring, Recordkeeping and Reporting

The permittee shall comply with applicable monitoring, recordkeeping and reporting requirements set forth in 25 Pa. Code Chapter 139 (relating to sampling and testing), the Air Pollution Control Act, the Clean Air Act, and the applicable regulations under the acts.

9. Term of Permit

Authority to operate under this Small Combustion Unit General Permit is granted for a fixed period of five years. The Department will notify each applicant, by letter, when authority to construct and/or operate under this general permit is granted.

10. Permit and Administrative Fees

The Small Combustion Unit General Permit establishes the following application and permit renewal fees payable every five years if no equipment changes occur:

- a. Three hundred dollars during the 2000-2004 calendar years.
- b. Three hundred seventy-five dollars beginning in the 2005 calendar year.

An additional application and fee as indicated above is required each time the permittee installs or modifies a combustion unit. The installation or modification of a combustion unit must be conducted according to the terms and conditions of this general permit and only after written authorization is received from the Department. Two or more combustion units may be installed under a single plan approval fee.

11. Expiration and Renewal of Authorization

The permittee's right to operate under this Small Combustion Unit General Permit terminates on the date of expiration of the authorization to operate under this permit unless a timely and complete renewal application is submitted to the Department 30 days prior to the authorization expiration date.

Upon receipt of a complete and timely application for renewal, the combustion unit may continue to operate subject to final action by the Department on the renewal application. This protection shall cease to exist if, subsequent to a completeness determination, the applicant fails to submit by the deadline specified in writing by the Department any additional information required by the Department to process the renewal application.

The Small Combustion Unit General Permit application for renewal shall include the identity of the owner or operator, location of the combustion unit, current authorization number, description of the combustion unit, the appropriate renewal fee listed in Condition 10 and any other information requested by the Department. At a minimum, the permit renewal fee shall be submitted to the Department at least 30 days prior to the expiration of the Small Combustion Unit General Permit.

12. Applicable Laws

Nothing in this Small Combustion Unit General Permit relieves the permittee from its obligation to comply with all applicable Federal, state and local laws and regulations.

13. Prohibited Use

Any stationary air contamination source that is subject to the requirements of 25 Pa. Code Chapter 127, Subchapter D (relating to prevention of significant deterioration) and 25 Pa. Code Chapter 127, Subchapter E (relating to new source review) 25 Pa. Code Chapter 127, Subchapter G (relating to Title V operating permits), or 25 Pa. Code § 129.91 (relating to control of major sources of NO_x and VOCs), may not operate under this Small Combustion Unit General Permit. Title V facilities may use this Small Combustion Unit General Permit as a general plan approval when the major new source review and prevention of significant deterioration requirements are not applicable.

14. Transfer of Ownership or Operation

The permittee may not transfer authorization to operate under this Small Combustion Unit General Permit. New owners or operators shall submit a new application and fees as described in Condition 10.

15. Combustion Units Constructed On or Before June 9, 1989

Any combustion unit operated under this Small Combustion Unit General Permit may not, at any time, result in the emission of:

- a. Visible emissions in excess of the limitations specified in 25 Pa. Code §123.41 (relating to limitations) as follows:
 - i. Equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any one hour.
 - ii. Equal to or greater than 60% at any time.
- b. Particulate matter in excess of 0.4 pound per million Btu of heat input as specified in 25 Pa. Code §123.11 (relating to combustion units).
- c. Sulfur oxides in excess of the limitations specified in 25 Pa. Code §123.22 (relating to combustion units) as follows:
 - i. In areas outside of the air basins and in the Allegheny County, Lower Beaver Valley, and Monongahela Valley air basins, the sulfur content of No. 2 oil shall not exceed 0.5% by weight.
 - ii. In all air basins, except the Allegheny County, Lower Beaver Valley, Monongahela Valley air basins and the outer zone of the Southeast Pennsylvania air basin, the sulfur content of No. 2 oil shall not exceed 0.3% by weight.
 - iii. In the inner zone of the Southeast Pennsylvania air basin, the sulfur content of No. 2 oil shall not exceed 0.2% by weight.

16. Combustion Units for Which Construction Commenced After June 9, 1989 and Subject to Federal New Source Performance Standards

These combustion units shall also comply with this Condition, subparagraphs a. through e. of this Small Combustion Unit General Permit and the emission limitations of the New Source Performance Standards prescribed in 40 CFR Part 60, Subpart Dc.

- a. The permittee shall install and maintain the necessary meter(s) to determine and to record amount of fuel usage.
- b. The permittee shall comply with the recordkeeping and certification requirements in accordance with 40 CFR §§60.46c(e), 60.42c(h) and 60.48c(f)(1). Reports shall be submitted on a semi-annual basis unless no excess emissions occurred. If there are no excess emissions, the permittee shall semi-annually report that no excess emissions occurred during the semi-annual reporting period (this does not apply to gas-fired units).
- c. The permittee shall maintain daily fuel consumption records in accordance with 40 CFR §60.48c(g) (this applies to both gas and oil-fired units). Records shall be kept for the fuel firing rates of the combustion unit on a monthly basis in order to determine sulfur dioxide (SO₂) emissions in accordance with 40 CFR §60.48c(d) (this applies to oil-fired units only).
- d. Semi-annual reports shall be submitted by the permittee in accordance with 40 CFR §§60.48c(d), 60.48c(e)(11) and 60.48c(j). The initial semi-annual report shall be postmarked by the 30th day of

the sixth month following the completion of the initial performance test. Each subsequent report shall be postmarked by the 30th day following the end of the reporting period (this does not apply to gas-fired units).

- e. Pursuant to 40 CFR §60.4, the permittee shall submit copies of all requests, reports, applications, submittals, and other communications to both EPA and the appropriate Regional Office of the Department. The EPA copies shall be forwarded to:

Air Enforcement Branch, Mail Code 3AP12
US EPA, Region III
1650 Arch Street
Philadelphia PA 19103-2029

17. Best Available Technology Requirements

- a. **Combustion Units Constructed after December 2, 1995, with Rated Capacity Equal to or Greater than 10 Million Btu per Hour**

As a condition of this Small Combustion Unit General Permit, the permittee shall construct qualifying small gas and No. 2 virgin oil fired combustion units capable of reducing nitrogen oxides (NOx) and carbon monoxide (CO) emissions to or below:

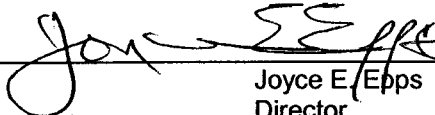
- i. 30 ppm_{dv} NOx at 3% O₂ when firing gas;
- ii. 90 ppm_{dv} NOx at 3% O₂ when firing No. 2 fuel oil; and
- iii. 300 ppm_{dv} CO at 3% O₂.

The combustion unit(s) shall be fired only on gas (natural or liquefied petroleum) or No. 2 commercial fuel oil to which there has been no reclaimed or waste oil or other waste materials added.

- b. **Additional Requirements for Combustion Units for Which Construction Commenced After January 24, 2004.**

Except for units located in the inner zone of the Southeast Pennsylvania air basin, all oil-fired combustion units shall also be restricted to the use of No. 2 oil that has a sulfur content of 0.3% by weight or less.

Approved by: _____



Joyce E. Epps
Director
Bureau of Air Quality

Date Approved: September 27, 2004