



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

GENERAL PLAN APPROVAL AND/OR GENERAL OPERATING PERMIT APPLICATION INSTRUCTIONS

General Permit BAQ-GPA/GP-22: Landfill Gas-fired Simple Cycle Turbine(s)

GENERAL INFORMATION

1. The owner or operator of any landfill gas-fired turbine proposing to operate under BAQ-GPA/GP-22 shall comply with the terms and conditions specified therein. Failure to comply with the applicable laws, rules and regulations and terms and conditions of this General Permit, for any reason, is grounds for the revocation or suspension of the permittee's approval to operate under the General Permit.
2. BAQ-GPA/GP-22 cannot be used to cover the installation of a landfill gas-fired turbine where the emission increases from the installation of the new landfill gas-fired turbine and other emission increases that have occurred would subject the facility to Prevention of Significant Deterioration (25 Pa. Code Chapter 127, Subchapter D) or New Source Review (25 Pa. Code Chapter 127, Subchapter E) requirements. Guidance in this regard may be obtained by contacting the Department.
3. BAQ-GPA/GP-22 is applicable to a turbine fueled by landfill gas only.
4. An applicant seeking authorization to use BAQ-GPA/GP-22 must fulfill performance testing requirements in order to show compliance with the emission limits established in Condition 8 of the General Permit.
5. An applicant seeking authorization to use BAQ-GPA/GP-22 must fulfill the requirements regarding the filing of compliance review forms according to the regulations (25 Pa. Code Section 127.412).
6. Authorization to use BAQ-GPA/GP-22 will be granted for a term of five years. The application fee is specified in Condition 16 of the General Permit. An application for renewal and the renewal fee must be submitted 30 days prior to expiration of the General Permit.
7. The application and fees should be submitted to the appropriate Regional Office.
8. The permittee may not transfer authorization to use this General Permit. The new owner or operator of the landfill gas-fired turbine(s) shall submit a new application and fees in accordance with the requirements specified in Condition 16 of the General Permit.
9. If the landfill gas-fired turbine at the facility cannot be regulated by the requirements of BAQ-GPA/GP-22, an applicant must apply for a plan approval under Chapter 127, Subchapter B in lieu of BAQ-GPA/GP-22.
10. Each application seeking authorization to use BAQ-GPA/GP-22 shall contain a drawing of the facility showing general equipment arrangements of the process associated with the landfill gas treatment, transportation and turbine.

DEP's Minimum Acceptable Specifications and Requirements for Portable Gas Analyzers

Exhaust NO_x emissions may be determined using a Portable Gas Analyzer, which meets at a minimum the following specifications and requirements:

Specifications:

Analyzer Calibration Error:	Less than plus or minus 5% of Calibration Gas over the measurement range for High, Medium and Zero gas concentration of Calibration Gases
Sampling System Bias:	Less than plus or minus 5% Calibration Gas
Interference Performance Check:	Less than plus or minus 6% Calibration Gas
Resolution:	NO and NO ₂ - 1 PPM, O ₂ - 0.1%

High gas (optional but recommended): Concentration equivalent to 80-100% of the instrument span or a maximum of 4 times the emission concentration, whichever is less.

Medium gas: Concentration approximately equivalent (plus or minus 20%) to the emission concentration

Zero gas: Concentration less than 0.25% of the instrument span. Ambient air may be purified by passing it through a charcoal filter or through one or more impingers containing a solution of 3% H₂O₂

Requirements:

The analyzer should demonstrate linearity across a three point (high, medium, and zero gas) calibration curve that brackets the emission concentration.

Manufacturers' tolerance for calibration should not exceed plus or minus 2% of the tag values.