

Air Quality General Permit Memorandum

Bethlehem Landfill Co.
Mr. David Pannucci
2335 Applebutter Road
Bethlehem, PA 18015

Re: General Permit No. GP3-48-035
Bethlehem Landfill Co.
Bethlehem Landfill
Lower Saucon Twp.,
Northampton County

Dear Mr. Pannucci:

The Department has reviewed your application for authority to construct and/or operate under the Air Quality General Plan Approval and Operating Permit No. GP3-48-035. By this memorandum, you are hereby authorized to use GP-3 in accordance with your application and the attached GP-3 Standard Conditions.

PLAN APPROVAL / OPERATING PERMIT

GP-3

Sources: Portable Stone Crushing Plant

One (1) Fintech , Model No. 1107 Crusher- 100 TPH

Air Cleaning Device: Water Sprays

Location: Bethlehem Landfill

Lower Saucon Twp., Northampton County

Issued: July 6, 2021

Effective: July 6, 2021

Expires: July 5, 2026

Mark Wejkszner

Mark J. Wejkszner, P.E.

Air Quality Program Manager

EXHIBIT

BLC 57

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

GENERAL PLAN APPROVAL AND/OR GENERAL OPERATING PERMIT
For
Portable Nonmetallic Mineral Processing Plants
(BAQ-PGPA/GP-3)

1. Statutory Authority and General Description

In accordance with Section 6.1(f) and (g) of the Air Pollution Control Act, 35 P.S. § 4006.1(f) and (g), 25 Pa. Code §§ 127.514 and 127.631, the Department of Environmental Protection (Department) hereby issues this general plan approval and general operating permit for portable nonmetallic mineral processing plants (hereinafter referred to as "General Permit").

2. Applicability/Source Coverage Limitations

This General Permit is limited to the erection, operation, and modification of portable nonmetallic mineral processing plants:

- a. Which are temporarily (no longer than 24 months) located at construction sites;
- or,
- b. Which are located at sites for which a valid mining permit or an air quality permit exists for the operation of a nonmetallic mineral processing plant.

"Nonmetallic mineral processing plants," as defined in 40 CFR § 60.671, means any combination of equipment that is used to crush or grind any nonmetallic mineral. Nonmetallic mineral processing plants are designed to process nonmetallic minerals, and consist of affected units like crushers, grinders, screening operations, belt conveyors, bucket elevators, storage bins, bagging operations, and enclosed truck and rail car loading stations.

"Portable plant" means any of the nonmetallic mineral processing plants that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turn-buckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Diesel-fired internal combustion engine(s) required to operate nonmetallic mineral processing plants are not covered by this General Permit. Internal combustion engine(s) may be covered by general plan approval and general operating permit for a diesel or No. 2 fuel-fired internal combustion engines (BAQ-GPA/GP 9) or nonroad engines (BAQ-GPA/GP-11) as applicable.

This General Permit has been established in accordance with the provisions described in 25 Pa. Code Chapter 127, Subchapter H (relating to general plan approvals and general operating permits). If the portable nonmetallic mineral processing plant at the facility cannot be regulated by the requirements of this General Permit, a plan approval and/or an operating permit issued in accordance with 25 Pa. Code Chapter 127, Subchapter B (relating to plan approval requirements) and/or F (relating to operating permit requirements) 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 (relating to Title V Operating Permits) will be required.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

- a. Crushed and broken stone, including limestone, dolomite, granite, traprock, sandstone, quartz, quartzite, marl, marble, slate, shale, oil shale, and shell;
- b. Sand and gravel;
- c. Clay including kaolin, fireclay, bentonite, Fuller's earth, ball clay, and common clay;
- d. Rock salt;
- e. Gypsum;
- f. Sodium compounds, including sodium carbonate, sodium chloride, and sodium sulfate;
- g. Pumice;
- h. Gilsonite;
- i. Talc and pyrophyllite;
- j. Boron, including borax, kernite, and colemanite;
- k. Barite;
- l. Flourospar;
- m. Feldspar;
- n. Diatomite;
- o. Perlite;
- p. Vermiculite;
- q. Mica; and
- r. Kyanite, including andalusite, sillimanite, topaz, and dumortierite.

Nonmetallic minerals do not include coals of any type.

This General Permit is designed to serve as both a general plan approval and a general operating permit for one or more portable nonmetallic mineral processing plant 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 General Permit authorizes the construction of portable nonmetallic mineral processing plants that meet the best available technology (BAT) required under 25 Pa. Code §§127.1 and 127.12(a)(5), provided the respective construction is not subject to the requirements of 25 Pa. Code Chapter 127, Subchapter D (relating to prevention of significant deterioration), or 25 Pa. Code Chapter 127, Subchapter E (relating to new source review). For the purpose of this General Permit, BAT shall include the installation of water spray dust suppression systems, fabric collectors, combinations of these or other measures capable of meeting the emission limitations described in Condition 21.

Operating Permit

This General Permit authorizes the operation of portable nonmetallic mineral processing plants for a period of no longer than twenty four (24) months for plants located at a construction site and maximum up to five (5) years for plants located at a site for which a valid mining permit or an air quality permit exists for the operation of a nonmetallic mineral processing plant. A facility, which is subject to the requirements of 25 Pa. Code Chapter 127, Subchapter F (relating to Operating Permit Requirements), or Subchapters F and G (relating to Title V Operating Permits Requirements) may use this General Permit as a plan approval to construct and an operating permit to operate a qualifying portable nonmetallic mineral processing plant on a temporary basis until such time as the operating permit required pursuant to 25 Pa. Code Chapter 127, Subchapter F, or Subchapters F and G, has been obtained or amended to include the terms and conditions of this General Permit.

Once authorization to use this General Permit is granted, operation may proceed provided that the permittee notifies the Department in accordance with Condition 6.

Any portable nonmetallic mineral processing plant located at a "Title V facility" as defined in 25 Pa. Code § 121.1, shall comply with the requirements of 25 Pa. Code §127.514 (relating to general operating permits at Title V facilities).

3. **Application for Use**

Any person proposing to install, operate or modify under this General Permit shall notify the Department using the Portable Nonmetallic Mineral Processing Plant General Permit Application provided by the Department. In accordance with 25 Pa. Code § 127.641 (relating to application for use of general plan approvals and general operating permits for portable sources), the applicant shall receive written authorization from the Department prior to installing, operating or modifying under this General Permit. The Department will take action on the application within 30 days of receipt.

Any portable nonmetallic mineral processing plant driven by internal combustion engine(s) must also apply for General Plan Approval and/or General Operating Permit for Diesel or No. 2 Fuel-Fired Internal Combustion Engines (BAQ-GPA/GP 9), or General Plan Approval and/or General Operating Permit for Nonroad Engines (BAQ-GPA/GP 11), in conjunction with the portable nonmetallic mineral plant general permit application.

4. **Compliance**

Any portable nonmetallic mineral processing plant operating under this General Permit must comply with the terms and conditions of the General Permit. The portable nonmetallic mineral processing plant and any associated air cleaning devices shall be:

- a. Operated in such a manner as not to cause air pollution, as the term is defined in 25 Pa. Code § 121.1.
- 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 General Permit.

5. **Permit Modification, Suspension and Revocation**

This General Permit may be modified, suspended, or revoked if the Department determines that affected nonmetallic mineral processing plants cannot be adequately regulated under this General Permit. Authorization to use this General Permit shall be suspended or revoked if the permittee fails to comply with applicable terms and conditions of the General Permit.

Authorization to operate the portable nonmetallic mineral processing plant shall 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 portable nonmetallic mineral processing plant and any associated air pollution control device covered by this General Permit. Upon suspension of the General Permit, the permittee may not continue to operate or use said nonmetallic mineral processing plant. If warranted, the Department will require that the nonmetallic mineral processing plant 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 authorizing the use of General Permits in the county in which the portable nonmetallic mineral processing plant is, or will be located. As required under § 127.621(b), the application shall be either hand delivered or transmitted by certified mail with a return receipt.

The permittee shall notify the Department, in writing, of the permittee's intent to commence operation of source(s) authorized by the General Plan Approval at least five (5) 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, by telephone, within 24 hours of the discovery of any malfunction of a portable nonmetallic mineral processing plant operating pursuant to this General Permit, or any malfunction of an associated air cleaning device, which results in, or may possibly be resulting in, the emission of air contaminants in excess of any applicable limitation specified herein or in excess of the limitations specified in any applicable rule or regulation contained in 25 Pa. Code Chapters 121 through 145 or which otherwise results in, or may possibly be resulting in, noncompliance with the requirements specified in any applicable condition of this General Permit (if the permittee is unable to provide notification within 24 hours of discovery due to a weekend or holiday, the notification shall be made to the Department by no later than 4 p.m. on the first Department business day following the respective weekend or holiday). The permittee shall additionally provide whatever subsequent written report the Department may request regarding any reported malfunction.

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 particulate matters established in Condition 21.

If, at any time, the Department has cause to believe that air contaminant emissions from a nonmetallic mineral processing plant 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).

The permittee shall perform such testing in accordance with applicable provisions of 25 Pa. Code Chapter 139 (relating to sampling and testing) and in accordance with any restrictions or limitations established by the Department at the time the permittee is notified, in writing, of the testing requirement.

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 (35 P.S. §4001 et seq.), the Clean Air Act (42 U.S.C. §7401 et seq.), and the applicable regulations under the acts.

Records maintained under this General Permit shall be kept for a period of five (5) years and shall be made available to the Department upon its request.

9. **Term of Permit**

Authority to use this General Permit is granted for a fixed period of five years.

The authority to operate the portable nonmetallic mineral processing plants at one location would be allowed for:

- a. No longer than twenty-four (24) months for plants, which are temporarily located at construction sites.
- b. A maximum up to (5) years for plants, which are located at sites for which a valid mining permit or an air quality permit exists for the operation of nonmetallic mineral processing plant.

Authority to operate the portable nonmetallic mineral processing plants beyond the stipulated periods in 9a and 9b above at one location would require a new authorization from the Department.

The Department will notify each applicant, in writing, when authority to construct and/or operate under this General Permit is granted.

10. **Permit Fees**

- a. This General Permit establishes the following application fees for a new authorization:

One thousand (\$1000) dollars.

- b. The following additional fees are applicable each time a change in location of the nonmetallic mineral processing plant along with its diesel-fired or nonroad engine(s), which may be used to operate it occurs:

Three hundred seventy five (\$375) dollars.

A new plan approval application and fee as indicated in Condition 10.a is required each time the permittee installs or modifies a portable nonmetallic mineral processing plant. The installation or modification of a portable nonmetallic mineral processing plant must be conducted according to the terms and conditions of this General Permit and only after written authorization is received from the Department.

11. **Expiration and Renewal of Authorization**

The permittee's authority to use this General Permit terminates after a fixed term of five years from the date of issuance of the authorization and cannot be renewed for another term.

12. **Change of Location**

In advance of each change in location without any modification of the portable nonmetallic mineral processing plant the permittee shall, in accordance with 25 Pa. Code § 127.641, notify both the Department and the municipality where the operation will take place. The notice to the Department shall require an application and appropriate fees required by Condition 10.b.

13. **Applicable Laws**

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

14. **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), 25 Pa. Code Chapter 127, Subchapter E (relating to new source review), or 25 Pa. Code Chapter 127, Subchapter G (relating to Title V operating permits), may not operate under this General Permit. Title V facilities may use this General Permit as a general

plan approval when major new source review and prevention of significant deterioration requirements are not applicable.

15. Transfer of Ownership or Operation

The permittee may not transfer authorization to operate under this General Permit. A new owner shall submit a new application and fees as described in Condition 10.a.

16. Regulatory Conflicts

Wherever a conflict occurs between this general plan approval and operating permit and any of the regulations listed below, the permittee shall, in all cases, meet the more stringent requirement:

- a. 25 Pa. Code §§ 123.1, 123.2, 123.13(c), and 123.41.
- b. 40 CFR 60, Subpart OOO.

17. Emission Limitations

The operation of a portable nonmetallic mineral processing plant shall not at any time result in the emission of:

- a. Fugitive air contaminants in excess of the limitations specified in 25 Pa. Code §§ 123.1 and 123.2. All reasonable actions shall be taken to prevent particulate matter from becoming airborne. These actions include, but are not limited to, the following:
 - i. Proper installation of a water spray dust suppression system and operation in accordance with Condition 18 or proper design, installation, and operation of a fabric collector.
 - ii. Application of asphalt, water or suitable chemicals on dirt roads, material stockpiles and other surfaces that may give rise to airborne dusts.
 - iii. Paving and maintenance of plant roadways.
 - iv. Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosions by water, or other means.
- b. Particulate matter emissions from air pollution control devices in excess of 0.04 gr/dscf as specified in 25 Pa. Code § 123.13(c).
- c. Visible emissions from air pollution control devices in excess of the following limitations:
 - i. Equal to or greater than 20% for a period or periods aggregating more than three minutes in any one (1) hour.
 - ii. Equal to or greater than 60% at any time.

18. Air Pollution Control Device Specifications

- a. Water Spray Dust Suppression Systems.

Water spray dust suppression systems on portable nonmetallic mineral processing plants shall be operated on any and all occasions that the respective plant is operated. Operation without simultaneous operation of the water spray dust suppression system can take place only in those unusual instances where processed materials contain sufficient moisture so as not to create air contaminant emissions in excess of the limitations and standards of this General Permit. If, however, the water spray dust suppression system is incapable of operation due to weather conditions or any other reason, the permittee may not operate the plant. A pressure gauge will be installed to indicate a normal operation of the dust suppression system.

b. Fabric Collectors

Fabric collectors shall be equipped with pressure drop measuring instrumentation and operated in accordance with manufacturer's specifications. Compressed air sources for fabric collectors shall be equipped and operated with air dryers and oil traps.

c. Scrubbers

Scrubbers shall be equipped with pressure drop and flow measuring instrumentation for water and gas streams and operated in accordance with manufacturer's specifications.

19. **Maintenance**

a. The permittee shall keep on hand a sufficient quantity of spare fabric collector bags for any fabric collector associated with a portable nonmetallic mineral processing plant in order to be able to immediately replace any bags requiring replacement due to deterioration resulting from routine operation of the plant.

b. The permittee shall keep on hand such equipment and materials as are necessary to take reasonable action (including, but not limited to the application of water, oil or chemicals) to prevent fugitive particulate matter resulting from the use of any roadways and/or material stockpiling operations associated with the plant from becoming airborne and shall be used, as necessary, to prevent such fugitive particulate matter from becoming airborne.

c. The storage and handling of any material collected in any air cleaning device associated with the plant shall not at any time result in the emission of fugitive air contaminants in excess of the limitations specified in 25 Pa. Code § 123.1(a).

20. **Portable nonmetallic mineral processing equipment manufactured and commenced construction, reconstruction, or modification on or after August 31, 1983**

Conditions 21 through 25 detail requirements of the federal New Source Performance Standards (40 CFR Part 60, Subpart OOO) and are applicable to all portable nonmetallic mineral processing plant equipment manufactured and commencing construction, reconstruction, or modification on or after August 31, 1983.

21. **Standard for particulate matter**

- a. The operation of a portable nonmetallic mineral processing plant shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:
 - i. Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and
 - ii. Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubber control device. Facilities using a wet scrubber must comply with the reporting provisions of Condition 23.c., d. and e.
- b. On and after the sixtieth (60th) day after achieving the maximum production rate at which the processing plant will be operated, but not later than one hundred and eighty (180) days after initial startup as required under 40 CFR § 60.11, the operation of nonmetallic mineral processing equipment shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in Condition 21.c. or d.
- c. On and after the sixtieth (60th) day after achieving the maximum production rate at which the processing equipment will be operated, but not later than one hundred and eighty (180) days after initial startup as required under 40 CFR § 60.11, the operation of a nonmetallic mineral processing plant shall not cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.
- d. If any transfer point on a conveyor belt or any affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in Paragraphs 21.a. b. and c., or the building enclosing the affected facility or facilities must comply with the following limits:
 - i. Operation of nonmetallic mineral processing equipment shall not cause to be discharged into the atmosphere from any building enclosing any other affected emissions unit any visible fugitive emissions except from a vent.
 - ii. Operation of nonmetallic mineral processing equipment shall not cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in Paragraph 21.a.
- e. On and after the sixtieth (60th) day after achieving the maximum production rate at which the processing plant will be operated, but not later than one hundred and eighty (180) days after initial startup as required under 40 CFR § 60.11, the operation of nonmetallic mineral processing equipment shall not cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.
- f. The operation of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph a.i. and a.ii. of this condition.
- g. On and after the sixtieth (60th) day after achieving the maximum production rate at which the processing plant will be operated, but not later than one hundred and eighty (180) days after initial startup, the operation of nonmetallic mineral processing equipment shall not cause to be discharged into the atmosphere from:
 - i. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

- ii. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operation, bucket elevator, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

22. Monitoring

Any permittee which uses a wet scrubber, baghouse or dust suppression system to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

- a. A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.
- b. A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.
- c. A device for measurement of pressure drop across the baghouse. Monitoring must be performed daily to ensure pressure drop is within manufacturer's recommended pressure drop range for normal operations. In cases of deviations, the permittee shall take corrective actions to return the operations of the baghouse to within the recommended operating range. The monitoring device must be calibrated on an annual basis in accordance with manufacturer's instructions.

23. Test Methods and Procedures

- a. In conducting the performance tests required by 40 CFR §60.8, the permittee shall use as reference methods and procedures the test methods in Appendix A of 40 CFR Part 60 or other methods and procedures as approved by the Department or the Environmental Protection Agency. Acceptable alternative methods and procedures are given in Paragraph (e) of this condition.
- b. Compliance with the particulate matter standards in Condition 21.a. shall be conducted as follows:
 - i. Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.
 - ii. Method 9 and the procedures in 40 CFR § 60.11 shall be used to determine opacity.
- c. In determining compliance with the particulate matter standards in Condition 21.b. and c., the permittee shall use Method 9 and the procedures in 40 CFR § 60.11, with the following additions:
 - i. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
 - ii. In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under Condition 21.e., using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).
 - iii. When determining compliance with the fugitive emissions standard described in Condition 21.b., the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if both of the following apply:

1. There are no individual readings greater than 10 percent opacity;
 2. There are no more than 3 readings of 10 percent for the 1-hour period.
- iv. When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under Condition 21.c., the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if both of the following apply:
1. There are no individual readings greater than 15 percent opacity;
 2. There are no more than 3 readings of 15 percent for the 1-hour period.
- d. In determining compliance with Condition 21.d., the permittee shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.
- e. The permittee may use the following as alternatives to the reference methods and procedures specified in Condition 23:
- i. For the method and procedures of Paragraph (c) of this condition, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
 1. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
 2. Separate the emissions so that the opacity of emissions from each affected facility can be read.
- f. To comply with Condition 24.d., the permittee shall record the measurements as required in Condition 24.c. using the monitoring devices in Condition 22.a. and b. during each particulate matter run and shall determine the averages.
- g. If, after thirty (30) days notice for an individual scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required by this condition, the permittee shall submit a notice to the Department and EPA at least 7 days prior to any rescheduled performance test.
- h. Initial Method 9 performance tests under 40 CFR § 60.11 and Condition 21. of this General Permit are not required for:
- i. Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.
 - ii. Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.
- i. On and after the sixtieth (60th) day after achieving the maximum production rate at which processing equipment will be operated, but not later than one hundred and eighty (180) days after initial startup the permittee shall conduct the tests required under 40 CFR § 60.11.

24. Reporting and Recordkeeping

- a. This General Permit allows the replacement of existing nonmetallic mineral processing plant equipment with equipment of equal or smaller size and having the same function as defined in 40 CFR § 60.671. Each permittee shall submit the following information about the existing unit being replaced and the replacement piece of equipment.
 - i. For a crusher, grinding mill, bucket elevator, bagging operation or enclosed truck or railcar loading station:
 1. The rated capacity in tons per hour of the existing equipment being replaced; and
 2. The rated capacity in tons per hour of the replacement equipment.
 - ii. For a screening operation:
 1. The total surface area of the top screen of the existing screening operation being replaced; and
 2. The total surface area of the top screen of the replacement screening operation.
 - iii. For a conveyor belt:
 1. The width of the existing belt being replaced; and
 2. The width of the replacement conveyor belt.
 - iv. For a storage bin:
 1. The rated capacity in tons of the existing storage bin being replaced; and
 2. The rated capacity in tons of replacement storage bins.
- b. Each permittee shall also submit the following data to the Director of the Emissions Standards and Engineering Division (MD-13), U.S. Environmental Protection Agency (EPA), Research Triangle Park, NC, 27711.
 - i. The information described in Condition 24.a.;
 - ii. A description of the control device used to reduce particulate matter emissions from the existing facility and a list of all other pieces of equipment controlled by the same control device; and
 - iii. The estimated age of the existing facility.
- c. During the initial performance test of a wet scrubber, and daily thereafter, the permittee shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.
- d. After the initial performance test of a wet scrubber, the permittee shall submit semiannual reports of such occurrences when the measurements of the scrubber pressure low (or gain) and liquid flow rate differ by more than ± 30 percent from the averaged determined during the most recent performance test.
- e. The permittee shall record the measurements of pressure drop for the gas stream across the baghouse daily.
- f. The permittee shall submit semiannual reports of such occurrences when the measurements of the pressure drop for the gas stream across the baghouse deviate from manufacturer's suggested operating range.

- g. The semiannual reports required under Paragraph d. and f. shall be postmarked within thirty (30) days following end of the second and fourth calendar quarters.
- h. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Condition 21, including reports of opacity observations made using Method 9 to demonstrate compliance with Condition 21.b., c., and e. and reports of observations using Method 22 to demonstrate compliance with Condition 21.d.
- i. A permittee who operates any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to Condition 21.g. and subsequently processes unsaturated materials, shall submit a report of this change within thirty (30) days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in Condition 21.b. and the emission test requirements of 40 CFR § 60.11.

Likewise, a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within thirty (30) days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in Condition 21.g.

- j. The notification requirement under 40 CFR § 60.7(a)(2), of the anticipated date of initial startup of portable nonmetallic mineral processing plant equipment shall be waived for a permittee operating under this General Permit.
- k. A notification of the actual date of initial startup of each affected facility shall be submitted to the Department and EPA.
 - i. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of start may be submitted by the permittee to the Department and EPA. The notification shall be postmarked within fifteen (15) days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.
 - ii. The notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

25. **Additional Requirement**

Pursuant to the federal New Source Performance Standards under 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. Copies of all the documents shall be submitted to:

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

Approved by: _____

Joyce E. Epps
Director
Bureau of Air Quality

Date approved: March 6, 2006

Air Quality General Permit Memorandum

Bethlehem Landfill Co.
Mr. David Pannucci
2335 Applebutter Road
Bethlehem, PA 18015

Re: General Permit No. GP9-48-035
Bethlehem Landfill Co.
Bethlehem Landfill
Lower Saucon Twp.,
Northampton County

Dear Mr. Pannucci:

The Department has reviewed your application for authority to construct and/or operate under the Air Quality General Plan Approval and Operating Permit No. GP9-48-035. By this memorandum, you are hereby authorized to use GP-9 in accordance with your application and the attached GP-9 Standard Conditions.

PLAN APPROVAL / OPERATING PERMIT

GP-9

Sources: I C Engine

One (1) Caterpillar C9DI Engine-350 BHP

Air Cleaning Device: None

Location: Bethlehem Landfill

Lower Saucon Twp., Northampton County

Issued: July 6, 2021

Mark Wejkszner

Effective: July 6, 2021

Mark J. Wejkszner, P.E.

Expires: July 5, 2026

Air Quality Program Manager



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

GENERAL PLAN APPROVAL AND/OR GENERAL OPERATING PERMIT (BAQ-GPA/GP 9)

Diesel or No. 2 Fuel-fired Internal Combustion Engines

1. Statutory Authority and General Description:

In accordance with Section 6.1(f) and (g) of the Air Pollution Control Act, 35 P.S. §4006.1, and 25 *Pa. Code* §§127.611 and 127.631, the Department of Environmental Protection ("Department") hereby issues this general plan approval and/or general operating permit for diesel or No. 2 fuel-fired engine(s) (hereinafter referred to as "Diesel Engine(s) General Permit").

2. Applicability/Source Coverage Limitations:

This Diesel Engine(s) General Permit authorizes construction and/or operation of diesel engine(s) including, but not limited to, electrical power generation, rock crushing operation, portable non-metallic processing plants, and those engine(s) used in other processes, which are not covered by other General Permits. GP-11 and GP-12 shall be used for Non-road engines and engines located at coal or coal refuse mining sites respectively.

This Diesel Engine(s) General Permit has been established in accordance with the provisions described in 25 *Pa. Code* Chapter 127, Subchapter H (relating to general plan approvals and general operating permits). If the diesel or No. 2 oil-fired engine(s) at the facility cannot be regulated by the requirements of this General Permit, a plan approval and/or an operating permit issued in accordance with 25 *Pa. Code* Chapter 127, Subchapters B (relating to plan approval requirements) and/or Subchapter F (relating to operating permit requirements) 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 (relating to Title V Operating Permits) will be required.

Plan Approval:

This Diesel Engine(s) General Permit authorizes the construction of internal combustion engine(s) that meet the best available technology (BAT) required under 25 *Pa. Code* §§127.1 and 127.12(a)(5). For purposes of this Diesel Engine(s) General Permit, BAT for any diesel-fired engine shall include the installation and operation of available control measures that reduce emissions to the limitations described in Condition 7.

Operating Permit:

Once authorization to use this Diesel Engine(s) General Permit is granted, operation may proceed provided that the permittee notifies the Department in accordance with condition 6.

Any diesel-fired engine(s) located at a "Title V facility" as defined in 25 *Pa. Code* §121.1, shall comply with the requirements of 25 *Pa. Code* §127.514 (relating to general operating permits at Title V facilities).

3. Application for Use:

Any person proposing to operate or construct under this Diesel Engine(s) General Permit shall notify the Department using the Diesel Engine(s) General Permit Application provided by the Department and shall receive prior written approval from the Department as required under *25 Pa. Code* §127.621 (relating to application for use of general plan approvals and general operating permits). The Department will take action on the application within 30 days of receipt.

4. Compliance:

Any applicant authorized to operate a diesel-fired internal combustion engine(s) under this Diesel Engine(s) General Permit must comply with the terms and conditions of the general permit. The diesel-fired internal combustion engine(s) shall be:

- a. operated in such a manner as not to cause air pollution, as defined in *25 Pa. Code* §121.1;
- b. operated and maintained in a manner consistent with good operating and maintenance practices; and
- c. operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this General Permit.

5. Permit Modification, Suspension, and Revocation:

This Diesel Engine(s) General Permit may be modified, suspended, or revoked if the Department determines that the affected diesel-fired internal combustion engines cannot be regulated under this general permit. Authorization to use this Diesel Engine(s) General Permit shall be suspended or revoked if the permittee fails to comply with the applicable terms and conditions of the Diesel Engine(s) General Permit.

The approval herein granted to operate the Diesel Engine(s) General Permit shall be suspended, if, at any time, the permittee causes, permits or allows any modification (as defined in *25 Pa. Code* §121.1) without Department approval of the internal combustion engine(s) covered by this General Permit. Upon suspension of the General Permit, the permittee may not continue to operate or use the diesel-fired internal combustion engines. If warranted, the Department will require that the diesel-fired internal combustion engine(s) be permitted under the State Operating Permit and/or Title V Operating Permit requirements in *25 Pa. Code* Chapter 127, if 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 diesel-fired internal combustion engine is, or will be, located. As required under *25 Pa. Code* §127.621(b), the application shall be either hand delivered or transmitted by certified mail return receipt requested.

The permittee shall not construct a new source under the Diesel Engine(s) General Permit until and unless the appropriate Regional Office is notified that construction is to be conducted and written authorization to construct is received. The fees described in Condition 13 shall accompany the notification of construction.

This Diesel Engine(s) General Permit may be used by a new source owner or operator to authorize operation provided that the Department receives written notice from the permittee of the completion of construction and the intent to commence operation at least five (5) working days prior to completion of construction.

The permittee shall notify the Department, in writing, within 24 hours of the discovery of any malfunction during a business day or by 5:00 p.m. on the first business day after a weekend or holiday of any malfunction of the diesel-fired internal combustion engine(s) 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. Emissions Limits for Diesel Engines:

- a. Any diesel engine for which construction commenced prior to July 1, 1972: any diesel engine(s) operated under this general permit may not, at any time, result in the emission of:
 - i. Visible emissions in excess of the limitations specified in *25 Pa. Code* §123.41 (relating to limitations) as follows:
 - A. Equal to or greater than 20% for a period or periods aggregating more than three (3) minutes in any one (1) hour; and
 - B. Equal to or greater than 60% at any time.
 - ii. Particulate matter in excess of 0.04 grain per dry standard cubic foot (dscf), when the effluent gas volume is less than 150,000 dry standard cubic feet per minute as specified in *25 Pa. Code* §123.13 (c)(1)(i). Compliance with Condition 7.a.i. will be considered demonstration of compliance with the above particulate matter emission requirement of 0.04 grain per dscf.
 - iii. Sulfur oxides in such a manner that the concentration of sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million by volume, dry basis. Compliance with sulfur content of the diesel fuel of 0.3% (by weight) or less would ensure compliance with this requirement.
 - iv. Odor emissions in such a manner that the malodors are detectable outside the property of the permittee as specified in *25 Pa. Code* §123.31.
- b. Any diesel engine for which construction commenced on or after July 1, 1972 and best available technology requirements have not been previously established:
 - i. If the diesel-fired internal combustion engine has an engine rating greater than 100 brake horsepower, the engine shall, at a minimum, comply with a Total Hydrocarbon (THC) emission standard of 1.0 gm/bhp-hr.
 - ii. If the diesel-fired internal combustion engine is equal to or greater than 200 brake horsepower and number of hours of operation of engine are equal to or greater than the hours per year listed in the following table, then the engine shall be installed with NO_x control device with a minimum of 80% NO_x control efficiency.

Facilities Located in the “Severe” Ozone Non-Attainment Area

Engine Rating (BHP) >	Engine Rating (BHP) ≤	Actual Annual Operating Hours ≥
200	500	2,000
500	1,000	700
1,000	-----	500

Facilities Located in “Moderate” (or lower classified) Ozone Non-Attainment Areas

Engine Rating (BHP) >	Engine Rating (BHP) ≤	Actual Annual Operating Hours ≥
200	250	7,000
250	500	4,000
500	750	1,700
750	1,000	1,500
1,000	1,500	1,100
1,500	2,000	750
2,000	-----	500

If NO_x emissions from engine(s) are controlled using control technology that uses ammonia or urea as a reagent, then the company shall limit the exhaust ammonia slip at 10 ppmvd, or less corrected at 15% O₂.

All other diesel engines shall at a minimum comply with the NO_x emission standard of 6.9 gms/hp-hr.

- iii. If the diesel-fired engine is equal to or greater than 100 brake horsepower and number of hours of operation of engine are equal to or greater than the hours per year listed in the following table, then the engine shall be installed with CO Oxidation Catalyst control device with a minimum of 90% control efficiency.

Engine Rating (BHP) >	Engine Rating (BHP) ≤	Actual Annual Operating Hours ≥
100	150	4,800
150	250	2,800
250	500	1,850
500	750	1,200
750	1,000	950
1,000	1,500	700
1,500	2,000	670
2,000	2,500	500
2,500	-----	100

All other diesel engines shall at a minimum comply with CO emission standard of 2.0 gms/bhp-hr.

- iv. The sulfur content in diesel fuel shall not, at any time exceed 0.3 percent (by weight).
- v. The particulate matter emissions from each engine shall not exceed 0.4 gms/bhp-hr.

- vi. Visible emissions from diesel engine(s) stacks shall not exceed the following limitations:
 - A. Equal to or greater than 10% for a period or periods aggregating more than three (3) minutes in any one (1) hour; and
 - B. Equal to or greater than 30% at any time.
- vii. Odor emissions in such a manner that the malodors are detectable outside the property of the permittee as specified in *25 Pa. Code* §123.31.

8. Performance Testing:

- a. For a new diesel-fired internal combustion engine installed in accordance with Conditions 2 and 7.b. and which has a rated capacity equal to or less than 500 brake horsepower, vendor guarantees shall be sufficient to fulfill this requirement. However, the Department reserves the right to require an additional verification of emission rates which may include source testing in accordance with applicable provisions of *25 Pa. Code* Chapter 139 (relating to sampling and testing) or portable exhaust gas analyzers approved by the Department if the NO_x emissions from the facility including the proposed diesel engines are equal to or greater than:
 - i. 22.5 tons per year if the facility is located in severe ozone non-attainment areas; and
 - ii. 90 tons per year if the facility is located in any other area than those listed above in 8.a.i.
- b. For a new internal combustion engine installed in accordance with Conditions 2 and 7.b. and which has a rated capacity greater than 500 brake horsepower, within 180 days of receiving authority to construct under this general permit, the permittee shall perform stack testing in accordance with *25 Pa. Code* Chapter 139.
- c. In addition to the stack testing required by this condition, within 12 months after the initial stack testing, and annually thereafter, the permittee shall perform NO_x emissions tests upon each of the respective engines subjected to the BAT as stated in Condition 7.b. herein using a portable analyzer approved by the Department. The Department may alter the frequency of annual portable analyzer tests based on the results. The Department may also waive all or parts of this requirement if the permittee demonstrates compliance, in lieu of testing, through alternate means satisfactory to the Department.
- d. The Department reserves the right to require stack tests in accordance with EPA reference methods should the data from the portable analyzer warrant such tests. The purpose of this testing is to demonstrate compliance with the emission limitations required for new engines.
- e. The Department may accept the vendor guarantees or recent on-site test data on similar engines, or any other means approved by the Department as a verification of NO_x emission if the NO_x emissions from a diesel engine located in severe non-attainment area for ozone are less than 2.5 tons per year or 10 tons per year if a diesel engine is located in areas other than severe non-attainment for ozone.
- f. If performance stack tests are required for the demonstration of compliance with applicable emissions limits, the owner or operator of the affected facility shall comply with the following requirements:

- i. Within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but no later than one hundred eighty (180) days after the initial startup of the source and the owner or operator shall demonstrate compliance with the applicable emission limits.
- ii. At least sixty (60) days prior to the test, the company shall submit to the Department for approval the procedures for the test and a sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples.
- iii. At least thirty (30) days prior to the test, the Department shall be informed of the date and time of the test.
- iv. Within sixty (60) days after the source test(s), two copies of the complete test report, including all operating conditions, shall be submitted to the Department.

9. Monitoring, Recordkeeping and Reporting:

- a. The permittee shall maintain accurate records, which, at a minimum, shall include:
 - i. The number of hours per calendar year that each engine or piece of equipment operated using non-resettable hour meter.
 - ii. The amount of fuel used per calendar year in each engine or piece of equipment.
- b. When a new diesel-fired internal combustion engine is installed in accordance with Conditions 2 and 7.b and is required to conduct a performance test, the permittee shall maintain records or report the following:
 - i. Records including a description of testing methods, results, all engine operating data collected during the tests and a copy of the calculations performed to determine compliance with emission standards.
 - ii. Copies of the report that demonstrates that the engines were operating at rated brake horsepower and rated speed conditions during performance testing.
 - iii. Submittal of reports in accordance with the requirements and schedules outlined in this Diesel Engine(s) General Permit.
- c. These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request. The Department reserves the right to expand the list contained in this condition as it may reasonably prescribe pursuant to the provisions of Section 4 of the Pennsylvania Air Pollution Control Act (35 P. S. §§4004), and as it may deem necessary to determine compliance with any condition contained herein.

10. Small Sources of NO_x requirements:

Each diesel engine rated at greater than 1,000 brake horsepower and located in severe non-attainment area for ozone shall comply with small sources of NO_x requirements as established in 25 Pa. Code §§129.203 through 129.205.

11. Interstate Pollution Transport Reduction Requirements:

Each diesel engine rated equal to or greater than 3,000 brake horsepower that emitted greater or equal to 153 tons of NO_x from May 1 through September 30 in 1995 or from May 1 through September 30 of any year thereafter shall comply with the applicable requirements as established in 25 Pa. Code §§145.11 through 145.115.

12. Term of Authorization to Use Diesel Engine(s) General Permit:

Authority to operate under this Diesel Engine(s) General Permit is granted for a fixed term of five (5) years. The Department will notify each applicant, by letter, when authority to operate under this general permit is granted.

Authority to operate Diesel Fired Engine(s) required to operate any portable nonmetallic mineral processing plants under this Diesel Engine(s) General Permit is granted for no longer than 24 months if it is temporarily located at construction sites. Authority to operate the same plant beyond 24 months would require a new authorization, in writing, from the Department.

13. Permit Fees:

The Diesel Engine(s) General Permit establishes the following application and renewal fees payable every five (5) years if no equipment changes occur:

Three hundred seventy five dollars.

An additional application fee as indicated above is required each time the permittee installs or modifies a diesel-fired internal combustion engine. The installation or modification of a diesel-fired internal combustion engine must be conducted according to the terms and conditions of this general permit. Two (2) or more diesel-fired engines may be installed under a single plan approval fee.

14. Expiration and Renewal of Authorization to Use Diesel Engine(s) General Permit:

The permittee's right to operate under this Diesel Engine(s) 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 permit expiration date.

Upon receipt of a complete and timely application for renewal, the diesel-fired internal combustion engines 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 Diesel Engine(s) General Permit application for renewal shall include: the identity of the owner or operator; location of the diesel-fired internal combustion engines; current permit number; description of the engines and equipment located at the facility; information regarding previously imposed limitations; the appropriate renewal fee listed in Condition 13; 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 Diesel Engine(s) General Permit.

15. Applicable Laws:

Nothing in this Diesel Engine(s) General Permit relieves the permittee of its obligation to comply with all applicable Federal, state, and local laws and regulations.

16. 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), 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 a diesel-fired internal combustion engines under this Diesel Engine(s) General Permit. Title V facilities may use this Diesel Engine(s) General Permit as a plan approval when the major new source review and prevention of significant deterioration review requirements are not applicable.

17. Transfer of Ownership or Operation:

The permittee may not transfer the authorization to operate diesel engine(s). New owners or operators shall submit a new application and fees as described in Condition 13.

18. Department and Municipality Notification:

The permittee shall notify the Department and the municipality prior to relocation of any diesel-fired engine(s) used for operating a portable nonmetallic mineral processing plant as required under 25 *Pa. Code* §127.641(b)(2). The notification for relocation of any diesel-fired engine(s) to the Department and the municipality shall be either hand delivered or transmitted by certified mail return receipt requested as required under 25 *Pa. Code* §127.641(c).

19. Start-up and Shut-down Exclusion:

The emission limitations stated in Condition 7 of this General Permit shall apply at all times except during periods of start-up and shut-down, provided, however, that the duration of start-up and shut-down do not exceed one hour per occurrence.

20. Emission Limitations and/or Operating Requirements Previously Established Pursuant to Best Available Technology and/or Imposed to Give Synthetic Minor Status:

This Diesel Engine(s) General Permit cannot be used to vacate or reestablish best available technology or other emission limitations or requirements established through the air quality permitting process. Also, this General Permit was not intended to establish a new best available technology or other emissions limitations previously established through the air quality permitting process. The Department shall memorialize these limitations in the letter of authorization granted in accordance with Condition 2.

Note: A permittee may choose to apply for a plan approval for an engine in lieu of this general plan approval. If this option is chosen the applicable requirements shall be determined on a case-by-case basis.

Approved by: _____
Joyce E. Epps
Director
Bureau of Air Quality

Date Approved: March 17, 2005