GENERAL PERMIT WMGR052
BENEFICIAL USE OF LOW PERMEABILITY CEMENTITIOUS MATERIAL

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT
DIVISION OF MUNICIPAL AND RESIDUAL WASTE

Issued: March 5, 2016
Expires: March 5, 2026
GENERAL PERMIT WMGR052
BENEFICIAL USE OF LOW PERMEABILITY CEMENTITIOUS
MATERIAL
Rev. 3/2016

A. Description.

This general permit authorizes Low Permeability Cementitious (LPC) material to be provided
to persons for the proposed beneficial use as reclamation material at a specific mine site,
provided the reclamation is occurring at that site in accordance with a mining authorization,
and the appropriate Department Regional Office (see p. 10 of this general permit) receives a
copy of the authorization prior to the beneficial use of the material at the site. LPC material
consists of a mixture of lime, flue gas desulfurization (FGD) sludge, and coal ash from coal-
fi red power plants.

B. Determination of Applicability Requirements.

A person or municipality that proposes to produce LPC material for beneficial use by
operating under the terms and conditions of this general permit after the date of permit
issuance must apply for and obtain a "Determination of Applicability" (DOA) from the
appropriate Department Regional Office (see p. 10) prior to commencing authorized
activities under this general permit. A completed application on forms available from the
Department must be submitted to the appropriate Department Regional Office. A check in
the amount identified on Form 20 (Application for a Municipal or Residual Waste General
Permit) shall be made payable to the "Commonwealth of Pennsylvania."

C. Operating Requirements.

1. The permittee shall ensure that all activities conducted under the authorization granted
in this permit shall be conducted in accordance with these operating conditions and the
permittee's application, where it does not conflict with the regulations or governing
statutes and all applicable laws and regulations.

2. LPC material may be made available for beneficial use provided:

   a. None of the following levels are exceeded:

   Table 1

   Chemical Concentration Limits for Beneficial Use
   of LPC Material for Reclamation Material of Mine Sites

<table>
<thead>
<tr>
<th>Constituents</th>
<th>Use for reclamation of mine sites (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total (mg/kg) (2)</td>
</tr>
<tr>
<td>Aluminum</td>
<td>190,000</td>
</tr>
<tr>
<td>Ammonia</td>
<td>1,900</td>
</tr>
<tr>
<td>Antimony</td>
<td>88</td>
</tr>
<tr>
<td>Arsenic</td>
<td>48</td>
</tr>
<tr>
<td>Barium</td>
<td>15,000</td>
</tr>
</tbody>
</table>

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Table 1 (continued)

Chemical Concentration Limits for Beneficial Use of LPC Material for Reclamation Material of Mine Sites

<table>
<thead>
<tr>
<th>Constituents</th>
<th>Use for reclamation of mine sites (^{(1)}) Total (mg/kg)(^{(2)})</th>
<th>Leachable (mg/L)(^{(3,4)})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beryllium</td>
<td>440</td>
<td>0.1</td>
</tr>
<tr>
<td>Boron</td>
<td>20,000</td>
<td>15</td>
</tr>
<tr>
<td>Cadmium</td>
<td>47</td>
<td>0.125</td>
</tr>
<tr>
<td>Calcium</td>
<td>(\text{variable})</td>
<td>(\text{variable})</td>
</tr>
<tr>
<td>Chromium (Total)</td>
<td>190,000</td>
<td>2.5</td>
</tr>
<tr>
<td>Chromium (III)</td>
<td>94</td>
<td>(\text{variable})</td>
</tr>
<tr>
<td>Chromium (VI)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cobalt</td>
<td>(\text{variable})</td>
<td>17.5</td>
</tr>
<tr>
<td>Chloride</td>
<td>(\text{variable})</td>
<td>250</td>
</tr>
<tr>
<td>Copper</td>
<td>8,200</td>
<td>25</td>
</tr>
<tr>
<td>Fluoride</td>
<td>(\text{variable})</td>
<td>4.0</td>
</tr>
<tr>
<td>Iron</td>
<td>66,000</td>
<td>7.5</td>
</tr>
<tr>
<td>Lead</td>
<td>500</td>
<td>0.375</td>
</tr>
<tr>
<td>Magnesium</td>
<td>(\text{variable})</td>
<td>(\text{variable})</td>
</tr>
<tr>
<td>Manganese</td>
<td>31,000</td>
<td>2.5</td>
</tr>
<tr>
<td>Mercury</td>
<td>66</td>
<td>0.05</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>18</td>
<td>4.375</td>
</tr>
<tr>
<td>Nickel</td>
<td>4,400</td>
<td>2.5</td>
</tr>
<tr>
<td>Nitrate</td>
<td>(\text{variable})</td>
<td>10</td>
</tr>
<tr>
<td>Nitrite</td>
<td>N/A</td>
<td>1</td>
</tr>
<tr>
<td>Potassium</td>
<td>(\text{variable})</td>
<td>(\text{variable})</td>
</tr>
<tr>
<td>Selenium</td>
<td>1,100</td>
<td>0.5</td>
</tr>
<tr>
<td>Silver</td>
<td>1,100</td>
<td>2.5</td>
</tr>
<tr>
<td>Sulfate</td>
<td>(\text{variable})</td>
<td>2,500</td>
</tr>
<tr>
<td>Sulfur</td>
<td>(\text{variable})</td>
<td>(\text{variable})</td>
</tr>
<tr>
<td>Thallium</td>
<td>15</td>
<td>0.05</td>
</tr>
<tr>
<td>Vanadium</td>
<td>1,500</td>
<td>6.125</td>
</tr>
<tr>
<td>Zinc</td>
<td>66,000</td>
<td>50</td>
</tr>
</tbody>
</table>

\(^{(1)}\) = The total and leachable levels must be met.
\(^{(2)}\) = On dry weight basis.
\(^{(3)}\) = The Synthetic Precipitation Leaching Procedure (EPA method 1312) or other leaching procedure approved by the Department shall be used for all leaching analyses.
\(^{(4)}\) = Leachable limits as specified in 25 Pa. Code § 290.201(a), except for fluoride. Leachable limit for fluoride is based on the primary drinking water standard (Maximum Contaminant Level, MCL).
\(^{(5)}\) = No limit established.
\(^{(6)}\) = This determination is not required.
Notes:

The determinations of compliance with Table 1 of Condition C.2 may be based on the 90 percent upper confidence level using data from multiple samples collected during the reporting period only. Data from other reporting periods may not be used to calculate the 90 percent upper confidence level. Test Methods for Evaluating Solid Waste (EPA SW-846) should be used as guidance for the statistical treatment of data.

Should the LPC material contain other constituents which do not meet the requirements of § 288.623(a) (relating to minimum requirements for acceptable waste) or which pose a threat of harm to human health or the environment, the LPC material shall not be placed directly into the environment.

b. The hydraulic conductivity of the LPC material is $1.0 \times 10^{-6}$ cm/sec or less based on hydraulic conductivity testing using ASTM D5084 (Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter) or other method approved by the Department. Hydraulic conductivity testing should use compaction and other preparation techniques that will duplicate the expected surrounding conditions.

c. The pH is greater than 7.0 standard units.

3. The LPC material shall not be a hazardous waste.

4. The LPC material shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, special handling waste, or other residual waste.

5. Best Management Practices shall be implemented to divert storm water run-on from the staging, storage, and other areas where the LPC material is loaded. Storm water runoff shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder. Prior to operating under this general permit, the permittee must obtain all the necessary storm water management permits.

6. Any emissions, including dust from the LPC mixture or any of its components before mixing, shall be managed in accordance with the Air Pollution Control Act and the regulations promulgated thereunder, including Chapter 123 (relating to standards for contaminants) and §§ 123.1, 123.2, and 123.31 (relating to prohibition of certain fugitive emissions; fugitive particulate matter; and limitations).

7. Nothing in this general permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, providing that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act, 35 P.S. §§ 6018.101-6018.1003; or the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. §§ 4000.101-4000.1904.

8. Nothing in this permit shall supersede requirements of any permit issued under Chapters 86, 87 or 90.
9. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access to and to inspect all areas on which solid waste management activities required of the permittee are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of waste, soils, water, or gases; take photographs; to perform measurements, surveys, and other tests; inspect any monitoring equipment; inspect the methods of operation; and inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with §§ 608 and 610(7) of the Solid Waste Management Act, 35 P.S. §§ 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.

10. Failure of measures herein approved to perform as intended, or as designed, or in compliance with the applicable laws, rules, and regulations and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.

11. Any independent contractors or agents retained by the permittee for the completion of activities authorized under this permit shall be subject to compliance history review by the Department prior to performance of any activities, as specified by the Solid Waste Management Act.

12. The activities authorized by this general permit shall not harm or present a threat of harm to the health, safety, or welfare of the people or environment of this Commonwealth. The Department may:

a. Modify, suspend, revoke, or reissue the authorization granted in this general permit if the permittee does not comply with the conditions of this general permit or applicable laws and regulations, or if the authorized activities are not adequately regulated under the conditions of this general permit.

b. Suspend or revoke authorization to provide LPC material to any person whose authorization to beneficially use LPC material for reclamation of a mine site has been suspended or revoked.

c. Require an individual permit to be obtained if it is deemed necessary to prevent harm or a threat of harm to the health, safety or welfare of the public or the environment.

13. An updated copy of a Preparedness, Prevention and Contingency (PPC) plan that is consistent with the most recent edition of the Department's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans" and approved by the Department shall be maintained at the facility. The PPC plan shall be updated at least every five years. The Department-approved PPC plan shall be immediately implemented for any emergency that affects or threatens public health, safety, welfare, or the environment.
14. The storage and transportation of LPC material by the permittee or its contractors or agents shall be in a manner which complies with the requirements of 25 Pa. Code, Chapter 299 (relating to storage and transportation of residual waste).

15. The permittee shall only provide LPC material to a person that proposes to beneficially use the LPC material at a specific mine site, and if the following conditions are met:

a. The reclamation is occurring in accordance with a mining authorization that has been issued pursuant to 25 Pa. Code Chapters 86, 87 or 90 to use the permittee's material for that site and includes the requirements in Chapter 290, Subchapters D and E (relating to water quality monitoring and storage) and Section 290.104 (relating to beneficial use at coal mining activity sites).

b. The appropriate Department Regional Office (see attached list) receives a copy of the authorization for that mine site.

The mine site approval process must have included the public notice and participation process described in Conditions C.16 and C.17 of this general permit. For each mine site at which the permittee intends to provide the LPC material, the permittee must notify the appropriate Department Regional Office (see attached list), and provide a copy of the mining authorization for the permittee's LPC material to be beneficially used in mine reclamation at that site. This notification shall be provided at least ten (10) days prior to providing the LPC material to the person proposing to beneficially use it for mine reclamation.

16. Upon receipt of an application for mining authorization, the Department will publish a notice in the Pennsylvania Bulletin that includes the following:

a. Notice that the Department received an application for a mining authorization to beneficially use LPC material for mine reclamation.

b. The specific source of the LPC material proposed for beneficial use and the residual waste general permit number under which the source's LPC material has been authorized for beneficial use in mine reclamation.

c. A brief description of the proposed beneficial use activities and location.

d. A statement that interested persons may submit comments to the Department within 30 days of the publication of the notice, and may recommend conditions to, revisions to, approval or disapproval of the application.

e. A brief description of the procedures for public comment.

f. The location and address where interested persons may review and obtain a copy of the mining application.

17. Prior to submitting an application for a mining authorization, the person proposing to beneficially use the LPC material shall publish an advertisement in a newspaper of general circulation in the locality of the proposed beneficial use at least once a week for four consecutive weeks.
a. This advertisement must have included the following:

i. A brief description of the proposed beneficial use activity and location.

ii. A statement that interested persons may submit comments to the Department within 30 days of the Department's notice when published in the Pennsylvania Bulletin, and may recommend conditions to, revisions to, approval or disapproval of the application.

iii. A brief description of the procedures for the public comment period described in (ii).

iv. The Department-approved location and address where interested persons may review and obtain a copy of the mining application.

b. The application must have been available at the Department-approved location no later than the publication date of the first newspaper advertisement.

D. Sampling and Analysis.

1. Prior to providing the LPC material for beneficial use, the permittee shall collect four (4) representative samples of the LPC material spaced throughout a two- to six-month sampling period and analyze for pH, the appropriate constituents listed in Table 1 of Condition C.2 and the physical properties in Condition C.2.b of this general permit.

2. Each time a new source of ingredients is used to produce the LPC material, the permittee shall collect a representative sample of the LPC material prepared using ingredients from the new source and analyze for pH, the appropriate constituents listed in Table 1 of Condition C.2, and the physical properties in Condition C.2.b of this general permit to ensure compliance with this general permit.

3. Subsequent to the initial sampling in Condition D.1, the permittee shall collect a representative sample of the LPC material quarterly and analyze for pH, the appropriate constituents listed in Table 1 of Condition C.2, and the physical properties in Condition C.2.c and d of this general permit. Separate quarterly samples and analyses are required for LPC material produced from different sources of ingredients.

4. The chemical analyses required in this general permit shall be performed by a laboratory accredited or registered for accreditation under the Pennsylvania Environmental Laboratory Accreditation Act, 27 Pa. C. S. A. §§ 4101-4113.

5. The permittee shall conduct more frequent testing if variability in the quality of the LPC material is indicated through visual observation or analytical testing during the production of the LPC material.

E. Recordkeeping.

1. Records of all analytical evaluations conducted on the LPC material shall be retained by the permittee, for a minimum of five (5) years, at the permittee's place of business and shall be made available to the Department upon request.
2. At a minimum, analytical information on the LPC material, as specified in Condition C.2 of this general permit, shall include for each sample: the dates of sampling and testing, sampling procedures, person collecting the sample, the volume or weight of the sample, each parameter tested, the analytical results, the laboratory used, and analytical methodologies.

3. For each destination of outgoing shipments of LPC material, the permittee shall maintain records that contain: the contact name, address, phone number and mining permit number of the person or municipality that will beneficially use the LPC material, the date and the weight in dry tons of LPC material shipped, and the location where the LPC material will be beneficially used.

4. The permittee shall also maintain records of all spills of one (1) ton or greater and releases that contain: location, date, time, identification and quantity of spilled or released material, and a description of how the material was cleaned up. These records shall be retained by the permittee, for a minimum of five (5) years, at the permittee’s place of business and shall be made available to the Department upon request.

F. Reporting Requirements.

1. The permittee shall immediately notify the Solid Waste Manager at the appropriate Department Regional Office (see p. 10) within 30 days, in writing, of any changes in: the name, address, owners, operators and/or responsible officials of the company; changes in facility location; changes in land ownership or the right to operate on the land occupied; the physical or chemical characteristics of the LPC material; and the compliance status (e.g., violations) of any permit issued by the Department or federal government under the environmental protection acts.

2. The permittee shall submit to the Solid Waste Manager at the appropriate Department Regional Office (see p. 10) and to the Bureau of Mining Programs, Permitting and Compliance Division, 400 Market St, PO Box 8461, Harrisburg, PA 17105-8461, on a quarterly basis all analytical results for the chemical composition and physical properties on samples taken in accordance with Condition D.1, D.2, D.3, and D.5. The quarterly reports should be submitted no later than 30 days after the end of the quarter and no later than 10 days following receipt of the sets of data.

3. Prior to January 31, the permittee who supplied LPC material for beneficial use in the previous calendar year shall submit an annual report for the previous calendar year to the Solid Waste Manager at the appropriate Department Regional Office (see attached list) and to the Bureau of Mining Programs, Permitting and Compliance Division, 400 Market St, PO Box 8461, Harrisburg, PA 17105-8461, that includes the mining permit or contract number and the weight in dry tons shipped.

4. The permittee shall notify the Solid Waste Manager at the appropriate Department Regional Office (see attached list) and the Bureau of Mining Programs, Permitting and Compliance Division, 400 Market St, PO Box 8461, Harrisburg, PA 17105-8461, within 72 hours of any evidence that the material does not meet the chemical standards or physical property requirements in C.2 or that there is a variability in the quality of the LPC material that has been indicated through visual observation or analytical testing during the production of the LPC material.
5. The permittee shall immediately notify the Department’s Emergency Hotline at (717) 787-4343 and the appropriate DEP regional office in the event of a discharge or spill of LPC material and shall take appropriate immediate action to protect the health and safety of the public and the environment. Spills of less than one (1) ton of LPC material need not be reported.

G. Renewal.

A person that plans to continue the operations authorized under this general permit, after the expiration date indicated on the approval for coverage page, shall file a complete application for permit renewal at least 180 days before the expiration date of this general permit unless permission has been granted by the Department for submission at a later date. The renewal application shall be made using the “Form 20 (Application for a Municipal or Residual Waste General Permit).” The renewal shall be sent to the attention of the Department’s Bureau of Waste Management, Rachel Carson State Office Building, 400 Market Street, P.O. Box 69170, Harrisburg, PA 17106-9170.

In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the general permit or approval for coverage before its current coverage expiration date, the terms and conditions of the approved coverage will automatically continue and will remain fully effective and enforceable pending the issuance or denial of the application for renewal for permit coverage, provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit.
Department of Environmental Protection

Regional Offices
(and Counties Served)

I. Bucks, Chester, Delaware, Montgomery, Philadelphia.

Southeast Regional Office
2 East Main Street
Norristown, PA 19401
Phone: (484) 250 - 5960


Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18711-0790
Phone: (570) 826 - 2516

III. Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York.

Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: (717) 705 - 4706

IV. Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union.

Northcentral Regional Office
208 West 3rd Street - Suite 101
Williamsport, PA 17701
Phone: (570) 327 - 3653


Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Phone: (412) 442 - 4000

VI. Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren.

Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335-3481
Phone: 814-332-6848