



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

BUREAU OF WASTE MANAGEMENT  
DIVISION OF MUNICIPAL and RESIDUAL WASTE

GENERAL PERMIT WMGR157

BENEFICIAL USE OF SYNTHETIC GYPSUM  
AS A SOIL AMENDMENT AND NUTRIENT SOURCE

**Issued: June 9, 2017**

**Expires: June 9, 2027**

GENERAL PERMIT NO. WMGR157  
BENEFICIAL USE OF SYTHETIC GYPSUM AS A SOIL AMENDMENT AND NUTRIENT  
SOURCE

**A. Description:**

This general permit authorizes the beneficial use of synthetic gypsum generated from a flue gas desulfurization (FGD) process as a soil amendment or nutrient source for agricultural use.

The synthetic gypsum is not considered a waste when it has satisfied the conditions of this permit and is ready for use, marketing or distribution as a soil amendment or nutrient source for agricultural use.

**B. Registration Requirements**

A person or municipality that proposes to generate, supply, distribute, sell or give away synthetic gypsum for beneficial use under the terms and conditions of this general permit after the date of permit issuance must obtain a registration from the appropriate Department Regional Office (see attached list) prior to commencing authorized activities under this general permit. A completed application on forms provided by the Department along with the application fee for a registration must be submitted to the appropriate Department Regional Office. Checks shall be made payable to the "Commonwealth of Pennsylvania". No activities shall commence unless approved, in writing, by the Department.

**C. Operating Conditions:**

1. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application. Except to the extent the permit states otherwise, the permittee shall utilize the processed material as described in the permit application.
2. The permittee shall comply with the applicable provisions of sections §§ 123.1-2 of the fugitive emissions regulations, 25 Pa. Code, §§ 123.1-2 (relating to prohibition of certain fugitive emissions and fugitive particulate matter), issued under the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, 35 P.S. §4005.
3. Nothing in this 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, provided that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act (SWMA), 35 P.S. §§ 6018.101—6018.1001; and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. §4000.101 et seq.
4. As a condition of this general permit and of the permittee's authority to conduct the activities authorized by this general 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 inspect all areas on which solid waste management activities 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 to inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in

GENERAL PERMIT NO. WMGR157  
BENEFICIAL USE OF SYTHETIC GYPSUM AS A SOIL AMENDMENT AND NUTRIENT  
SOURCE

accordance with §608 and §610(7) of the SWMA, 35 P.S. §6018.608 and §6018.610(7). This condition in no way limits any other powers granted under the SWMA.

5. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this general permit shall be subject to compliance history review by the Department prior to performance of any activities, as specified by the SWMA.
6. 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.
7. 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 modify, suspend, revoke, and reissue the authorization granted in this general permit if it deems necessary to prevent harm or the threat of harm to the public health, and the environment or if they cannot be adequately regulated under the conditions of this general permit.
8. The permittee shall comply with the terms and conditions of this general permit and with the environmental protection acts to the same extent as if the activities were covered by an individual permit. The Department may require an individual permit be obtained if the permittee cannot comply with the conditions of this general permit or is conducting an activity that harms or presents a threat of harm to the health, safety, or welfare of the public or the environment of this Commonwealth.
9. This permit does not authorize and shall not be construed as an approval to discharge any waste, wastewater, or runoff from the site of processing to the land or waters of the Commonwealth.
10. Best Management Practices shall be implemented to divert storm water run-on from the storage and placement areas. Storm water runoff shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder.
11. Equipment used for the storage of synthetic gypsum shall be maintained in good operating condition. Daily inspections of each storage area and surrounding environs shall be conducted to determine compliance of the terms and conditions of this general permit and for evidence of failure.
12. Storage of synthetic gypsum by the permittee shall be in a manner that complies with the requirements set forth in 25 Pa. Code, Chapter 299 (relating to storage and transportation of residual waste).
13. The synthetic gypsum shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, special handling waste, or other residual waste, as the terms are defined in 25 Pa. Code § 287.1.
14. Synthetic gypsum shall not be:

GENERAL PERMIT NO. WMGR157  
 BENEFICIAL USE OF SYTHETIC GYPSUM AS A SOIL AMENDMENT AND NUTRIENT  
 SOURCE

- a. Placed in direct contact with surface or ground water;
- b. Placed within 100 feet of an intermittent or perennial stream;
- c. Placed in or within 100 feet of an exceptional value wetland;
- d. Placed within 300 feet of a water source unless the current owner of this water source has provided a written waiver consenting to the activities closer than 300 feet;
- e. Placed within 100 feet of a sinkhole;
- f. Within 300 feet measured horizontally from an occupied dwelling, unless the owner has provided a written waiver consenting to the activities closer than 300 feet;
- g. Placed during periods of heavy rain or to ground that is saturated;
- h. Placed with the 100-year floodplain of a water of the Commonwealth.

15. The beneficial use of the synthetic gypsum as a soil amendment is contingent upon compliance with this permit and, if sold, the *Pennsylvania Fertilizer, Soil Conditioner and Plant Growth Substance Law* of the Pennsylvania Department of Agriculture. (Information relating to this law may be obtained from the Department of Agriculture by writing the *Bureau of Plant Industry, Division of Agronomic Services, 230 North Cameron Street, Harrisburg, PA 17110-9408.*)

16. The permittee shall inform all persons or municipalities who propose to beneficially use synthetic gypsum in accordance with this general permit of the conditions and limitations imposed on the beneficial use of synthetic gypsum by the Department. This notification shall be made by providing a copy of Appendix "A," Acceptable Uses and Use Restrictions, of this permit to the person or municipality proposing to use the synthetic gypsum. It is incumbent upon the permittee to ensure that all users of the synthetic gypsum approved under this general permit comply with Appendix A.

**D. Additional Operating Requirements:**

- 1. Use of the synthetic gypsum as a soil amendment cannot exceed the following chemical limits:

Constituent	Use as a soil amendment
	Total (mg/kg) <sup>(1)</sup>
Aluminum	190,000
Ammonia	1,900
Antimony	1.5
Arsenic	13.1
Barium	1,000
Beryllium	2.5
Boron	200
Cadmium	1.0
Chromium (III)	100
Chromium (VI)	94
Cobalt	20

GENERAL PERMIT NO. WMGR157  
 BENEFICIAL USE OF SYTHETIC GYPSUM AS A SOIL AMENDMENT AND NUTRIENT  
 SOURCE

Copper	95
Iron	66,000
Lead	30
Manganese	1,500
Mercury	2.5
Molybdenum	10
Nickel	100
Selenium	50
Silver	1,100
Sulfur	220,000
Thallium	1.0
Vanadium	136
Zinc	125
Ra-226	10 pCi/g

- (1) On a dry weight basis.
2. Samples from each source of synthetic gypsum shall be collected and analyzed for all analytes listed in Condition D.1. The analysis shall be performed by a laboratory accredited under the Pennsylvania Environmental Laboratory Accreditation Act, Act of 2002, 27 Pa. C.S.A. §§4101-4113.
3. Analytical results for the constituents listed in Condition D.1 shall be provided to the end user no later than the date the material is shipped to the end user. Analytical results required under this paragraph shall be from the most recent sample representing the synthetic gypsum supplied to the end user.
4. No less than fifteen (15) working days prior to acceptance and beneficial use of the synthetic gypsum from a new source, the permittee shall submit an analysis of a representative sample of the synthetic gypsum to the appropriate Regional Office (See attached list) to demonstrate that the synthetic gypsum is in compliance with the requirements as specified in Condition D.1. The permittee may receive synthetic gypsum from a new source in accordance with the conditions of this general permit and the aforementioned fifteen days unless otherwise instructed by the Department.
5. Synthetic gypsum may only be applied at a maximum application rate not to exceed 2 tons per acre per year.
6. Synthetic gypsum shall not be used as a soil amendment in amounts that exceed the following maximum cumulative loading rates:

<b>Constituent</b>	<b>Cumulative Loading Rate (lbs/acre)</b>
Arsenic	36
Boron	60
Cadmium	34
Chromium	2672
Copper	1320

GENERAL PERMIT NO. WMGR157  
BENEFICIAL USE OF SYTHETIC GYPSUM AS A SOIL AMENDMENT AND NUTRIENT  
SOURCE

Lead	264
Mercury	15
Molybdenum	16
Nickel	370
Selenium	88
Zinc	2464

**E. Recordkeeping:**

1. The permittee shall maintain records of all analytical evaluations conducted on the synthetic gypsum, and records shall be made available to the Department upon request. Records of analytical evaluations must include, at a minimum, the following for each sample: the dates of sampling and testing, sampling procedures utilized, name of the individual who collected the sample, the volume or weight of the sample, each parameter tested, the analytical results, the name of the analytical laboratory used, and the analytical methodologies employed.
2. The permittee shall maintain records of all waste accepted by the facility. Records of each source of incoming waste must include, at a minimum, the following: the name, address, and phone number of each source of incoming waste; the date of receipt; the quantity of waste received; the results of visual observations; and the name, address, and phone number of the destination of each outgoing shipment of waste.
3. The permittee shall maintain records of spills or releases that include, at a minimum, the following: the location, date, time, identification, and quantity of spilled or released material, and a description of how the material was cleaned up.
4. The permittee shall maintain records of all reports submitted to the Department or to the U.S. Environmental Protection Agency.
5. The permittee shall record the name and address of each person who is given or purchases the synthetic gypsum, the total tonnage distributed, and the intended use of the material. This information shall be included in the annual report required in Condition F.2.
6. All required records shall be retained by the permittee for a minimum of 5 years and be made available to the Department upon request.

**F. Reporting Requirements:**

1. Any person that operates under the provisions of this permit shall immediately notify the Department via certified mail of any changes in: the company name, address, owners, operators, and/or responsible officials of the company, compliance status, and the status of any permit issued by the Department or federal government under the environmental protection acts.
2. Persons operating under the provisions of this general permit shall submit the appropriate Department Regional Office (see attached list), an annual report on the

GENERAL PERMIT NO. WMGR157  
BENEFICIAL USE OF SYTHETIC GYPSUM AS A SOIL AMENDMENT AND NUTRIENT  
SOURCE

beneficial use activities conducted under this permit by March 1 for the preceding calendar year. This report shall include the total amount of synthetic gypsum, in tons, sold or distributed for beneficial use; the names and locations of the end-users of the synthetic gypsum; the amounts distributed to each end-user; and the analytical results for all testing performed on the synthetic gypsum.

3. The permittee shall immediately notify the Department's Emergency Hotline by telephone at 800-541-2050 and the waste management program in the appropriate Department Regional Office (see attached list) of any accidental spills and shall take appropriate immediate action to protect the health and safety of the public and the environment.

**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 submitted to the appropriate DEP Regional Office (see attached list) and include, at a minimum, the following:

- (i) General Information Form (Authorization Application for a Residual or Municipal Waste General Permit Application);
- (ii) Form B (Professional Certification);
- (iii) Form 20 (Application for a Municipal or Residual Waste General Permit);
- (iv) Form 27R (Acceptance of General Permit Conditions); and
- (v) Renewal application fee in the amount identified in Section A (General Information of the Form 20. A check shall be made payable to the "Commonwealth of Pennsylvania."

A copy of the renewal application shall also be sent the Department's Bureau of Waste Management, Division of Municipal and Residual Waste, 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 renewal for permit coverage, provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit

APPENDIX A  
Acceptable Uses and Use Restrictions  
General Permit No. WMGR157

The following restrictions apply to the beneficial use of synthetic gypsum generated from the flue gas desulfurization (FGD) process for use as a soil amendment and nutrient source for agricultural use.

- A1. Synthetic gypsum must be transported and stored in a manner that will not create a nuisance or be harmful to the public health, safety, or the environment.
- A2. Hazardous waste, municipal waste, special handling waste, and other residual wastes may not be mixed and/or stored or beneficially used with synthetic gypsum without prior written approval by the Department on a case-by-case basis or under the authority of another general permit.
- A3. Synthetic gypsum shall not be:
  - a. Placed in direct contact with surface or ground water;
  - b. Placed within 100 feet of an intermittent or perennial stream;
  - c. Placed in or within 100 feet of an exceptional value wetland;
  - d. Placed within 300 feet of a water source unless the current owner of this water source has provided a written waiver consenting to the activities closer than 300 feet;
  - e. Placed within 100 feet of a sinkhole;
  - f. Within 300 feet measured horizontally from an occupied dwelling, unless the owner has provided a written waiver consenting to the activities closer than 300 feet;
  - g. Placed during periods of heavy rain or to ground that is saturated;
  - h. Placed with the 100-year floodplain of a water of the Commonwealth.
- A4. Synthetic gypsum may only be applied at a maximum application rate not to exceed 2 tons per acre per year.
- A5. The beneficial use of the synthetic gypsum as a soil amendment is contingent upon compliance with this permit and, if sold, the *Pennsylvania Fertilizer, Soil Conditioner and Plant Growth Substance Law* of the Pennsylvania Department of Agriculture. (Information relating to this law may be obtained from the Department of Agriculture by writing the *Bureau of Plant Industry, Division of Agronomic Services, 230 North Cameron Street, Harrisburg, PA 17110-9408.*)



**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

- II. Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming.

**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 3<sup>rd</sup> Street - Suite 101  
Williamsport, PA 17701  
Phone: (570) 327 – 3653

- V. Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland.

**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