



pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

BUREAU OF WASTE MANAGEMENT
DIVISION OF MUNICIPAL and RESIDUAL WASTE

GENERAL PERMIT WMGR052

PROCESSING FOR BENEFICIAL USE AND
BENEFICIAL USE OF STABILIZED FGD MATERIAL IN
MINE RECLAMATION

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A. Description.

1. No processing or beneficial use activities shall commence unless approved, in writing, by the Department.
2. This general permit authorizes the following activities:
 - a. The processing, by mixing of approved materials, to produce stabilized flue gas desulfurization material (stabilized FGD material) for beneficial use in mine reclamation, or
 - b. The beneficial use of stabilized FGD material produced in accordance with subparagraph A.2.a., above, in mine reclamation activities conducted in accordance with 25 Pa. Code §§ 290.104 – 105, provided the reclamation is occurring in accordance with one of the following and the appropriate Department Regional Office (see attached list) receives a copy of the mining permit or reclamation contract prior to the first beneficial use at a site:
 - i. A mining permit or a revised mining permit issued for a coal mining activity site that specifically identifies the source of the stabilized FGD material, or
 - ii. A reclamation contract with the Department for use at abandoned mine lands that specifically identifies the source of the stabilized FGD material.
3. For the purposes of this general permit, stabilized FGD material consists of a mixture of lime, or other alkaline agent approved by the Department, flue gas desulfurization (FGD), and the following types of coal ash:
 - a. Coal ash that has been certified in accordance with 25 Pa. Code § 290.201 (herein after referred to as “certified coal ash”); or
 - b. Coal ash that has been disposed of or has been stored for longer than 1 year (herein after referred to as “waste coal ash”).
4. For the purposes of this general permit, FGD may include one, or a combination of, the following: Gypsum, non-oxidized FGD sludge, or dry FGD residue.
5. For the purposes of this general permit, the permittee is a “person” or “municipality,” as the terms are defined in 25 Pa. Code § 287.1, proposing to perform any of the following activities:
 - a. Process, by mixing of approved materials, to produce stabilized FGD material for beneficial use in mine reclamation;
 - b. Beneficially use stabilized FGD material in accordance with paragraph A.2.b., above; or

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- c. Process and beneficially use stabilized FGD material in accordance with subparagraphs a. and b. above.

B. Determination of Applicability Requirements.

A person or municipality that proposes to process for beneficial use, beneficially use stabilized FGD material in mine reclamation activities, or both, as set forth in Section A 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 having jurisdiction over the processing or beneficial use facility (see attached list) 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."

The Department recommends conducting a pre-application meeting with the appropriate Regional Office prior to submitting an application. Additional forms and information required will be determined at this meeting.

C. Operating Conditions for All Permittees and Activities Authorized by this General Permit

1. All activities conducted under the authorization granted in this general permit shall be performed in accordance with the permittee's application, except to the extent the permit states otherwise. All initial application materials and modifications to the permittee's application must be coordinated with the Department's District Mining Office having jurisdiction over the site or the Bureau of Abandoned Mine Reclamation, as appropriate, and may also require a revision to the mining permit where stabilized FGD material is proposed to be used on a coal mining activity site or a revised reclamation contract for material used on an abandoned mine land.
2. Stabilized FGD material produced or beneficially used in accordance with this general permit shall comply with the following:
 - a. The concentration of any constituent in the stabilized FGD material shall not exceed the limit identified in Section F, Table 1 of this general permit.
 - b. The stabilized FGD material shall not be a hazardous waste, as the term is defined at 40 CFR § 261.2 (relating to definition of solid waste) and incorporated by reference by 25 Pa. Code, § 261a.1 (relating to incorporation by reference, purpose and scope).
 - c. Organic material and plant wastes may not be mixed or stored with the FGD, lime, certified coal ash or waste coal ash, and may not be beneficially used with stabilized FGD material.

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- d. FGD, certified coal ash, waste coal ash, lime or stabilized FGD material shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, special handling waste, or other residual wastes not authorized in Section A of this permit, as those four types of solid waste are defined in 25 Pa. Code § 287.1. Should the stabilized FGD material contain other constituents which do not meet the requirements of 25 Pa. Code § 288.623(a) (relating to minimum requirements for acceptable waste), or which pose a threat of harm to human health or the environment, the stabilized FGD material shall not be beneficially used in accordance with this general permit.
3. The storage and transportation of FGD, stabilized FGD material, certified coal ash, waste coal ash, and lime shall be in a manner which does not create a nuisance or harm to the public health, safety or the environment and shall comply with the requirements of 25 Pa. Code, Chapter 299 (relating to storage and transportation of residual waste).
4. Except as provided in Condition C.5.d, the FGD, certified coal ash, waste coal ash, lime, or stabilized FGD material may be stored for up to six (6) months, unless the duration of storage is otherwise specified by the Department in writing through approval of the initial permit application or a minor modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit.
5. FGD, certified coal ash, waste coal ash, lime or stabilized FGD material must be stored in a tightly lidded container, properly tarped container, or an area with at least three sides and a roof that is adequately ventilated. Alternatively, FGD, certified coal ash, waste coal ash, lime, or stabilized FGD material may be stored in outdoor piles if the following subparagraphs are satisfied:
 - a. Best Management Practices (BMPs) are implemented to divert stormwater run-on and manage stormwater run-off in accordance with Condition C.8 of this general permit.
 - b. BMPs are implemented to prevent FGD, certified coal ash, waste coal ash, lime or stabilized FGD material from being blown or deposited outside of the storage area by wind or water.
 - c. The FGD, certified coal ash, waste coal ash, lime or stabilized FGD material being stored shall be separated from the seasonal high-water table by at least 4 feet, unless the material is stored on a liner system or storage pad that satisfies the requirements of 25 Pa. Code § 299.132 (relating to storage pad or liner system). Storage piles without a liner system or pad may require installation of a water quality monitoring system in accordance with 25 Pa. Code §§ 288.251 – 288.255. For the use of stabilized FGD material at an abandoned mine land, the Department may, in writing, waive this requirement through approval of the initial permit application or a minor modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit. This requirement

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will not be waived for stabilized FGD material that is used at a coal mining activity site.

- d. Certified coal ash, waste coal ash, lime, FGD or stabilized FGD material that is not stored in a tightly lidded container, properly tarped container, or an area with at least three sides and a roof that is adequately ventilated, may not be stored in piles at a coal mining activity site or abandoned mine land in a quantity that exceeds the amount that the permittee is able to beneficially use during a single day of operation, unless another amount is approved by the Department in a reclamation contract for an abandoned mine land.
 - e. During a temporary cessation of operations or an equipment breakdown event, certified coal ash, waste coal ash, lime, FGD or stabilized FGD material that is stored in piles shall be kept moist or covered to prevent fugitive dust emissions. The integrity of the canvas or tarpaulins must be maintained at all times.
6. Equipment used in the production or storage of FGD, certified coal ash, waste coal ash, lime, or stabilized FGD material shall be maintained in good operating condition to prevent these materials from being unintentionally conveyed outside of the processing or storage areas. During periods of processing activity, weekly inspections of each processing or storage area and its surrounding environs are to be conducted to determine compliance with the terms and conditions of this general permit and for evidence of failures.
 7. This general permit does not authorize and shall not be construed as an approval to discharge to waters of the Commonwealth any wastes, wastewater, leachate or runoff from areas where solid waste management activities are conducted. A National Pollutant Discharge Elimination System (NPDES) permit may be required if there is a point or non-point source discharge to waters of the Commonwealth of any industrial wastes; wastewater; stormwater run-off and leachate, combined; or run-off from staging or storage areas of stabilized FGD material or other waste.
 8. BMPs shall be implemented to divert stormwater run-on from outdoor processing or storage areas. Stormwater runoff from outdoor processing or storage areas shall not cause groundwater or surface water degradation and shall be managed in accordance with the Clean Streams Law (35 P.S. §§ 691.1 – 691.1001) and regulations promulgated thereunder. Prior to beginning operations at a facility where outdoor processing or storage of waste is proposed, the operator must obtain all necessary stormwater management permits.
 9. The permittee shall comply with the fugitive emissions regulations under 25 Pa. Code, Chapter 123 (relating to standards for contaminants) issued under the Air Pollution Control Act, 35 P.S. § 4005 - 4106, and shall comply with all applicable provisions of 25 Pa. Code §§ 123.1 and 123.2 (relating to prohibition of certain fugitive emissions and fugitive particulate matter).
 10. 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

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regulation, providing that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act (SWMA), 35 P.S. §§ 6018.101- 6018.1003, or the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. §§ 4000.101 - 4000.1904.

11. Nothing in this permit shall supersede requirements of any permit issued under 25 Pa. Code, Chapters 86, 87, 88, 90, 287, or 290.
12. As a condition of this 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; 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 Sections 6018.608 and 6018.610(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.
13. 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.
14. 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 SWMA.
15. The permittee shall develop and implement 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." A copy of the plan shall be maintained where mixing of FGD, certified coal ash, waste coal ash or lime occurs and at the coal mining activity site or abandoned mine lands where stabilized FGD material is beneficially used. The PPC plan shall be updated at least every five years and when any changes have been made to the operation of the coal mining activity site or abandoned mine lands that would affect the PPC plan.
16. 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, or reissue the authorization granted in this permit if it deems necessary to prevent harm or the threat of harm to the public health, the environment, or if the activities cannot be adequately regulated under the conditions of this general permit.

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17. The permittee shall comply with the terms and conditions of this general permit, the approved permit application documents 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 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 people or the environment of this Commonwealth.
18. Analytical testing required by this general permit shall be performed by a laboratory accredited under the Pennsylvania Environmental Laboratory Accreditation Act, 27 Pa. C.S.A. §§ 4101-4113.
19. Any documentation required under this general permit shall be made available to the Department upon request.
20. Upon cessation of permitted operations at the processing facility, the permittee shall manage or remove all wastes and provide for the processing, recycling, beneficial use, or disposal of wastes in accordance with the SWMA and other applicable statutes, and the regulations promulgated thereunder.

D. Additional Operating Requirements for a Person or Municipality Who Processes By Mixing Approved Ingredients to Produce Stabilized FGD

1. Mixing of the FGD, certified coal ash or waste coal ash and lime to produce a stabilized FGD material may occur at the point of generation or the site where the stabilized FGD material will be beneficially used. Mixing of FGD, certified coal ash or waste coal ash and lime shall be performed as follows:
 - a. A defined blend or recipe that will be used by the permittee for the production of stabilized FGD material must be identified in the permittee's application. The identified blend or recipe must include, at a minimum, the percentage of each ingredient that will be used in the production of stabilized FGD material and a demonstration that a stabilized FGD material that is consistent in chemical and physical properties can be produced by the permittee. If the permittee intends to modify or replace the identified blend or recipe or include additional blends or recipes that were not previously identified in the permittee's application, the permittee must submit an application to the Department in accordance with Section B and Condition C.1 of this permit to modify its coverage under the general permit.
 - b. The FGD, certified coal ash or waste coal ash and lime shall be uniformly mixed by processing equipment, such as a pug mill, double auger, etc., unless an equivalent mixing method is approved through approval of the initial permit application or a minor modification of the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit.
 - c. If performed outdoors, the mixing of FGD, certified coal ash or waste coal ash and lime shall be performed in an area with an implemented erosion and sedimentation

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(E&S) control plan in accordance with the requirements as specified in 25 Pa. Code, Chapter 102 (relating to erosion and sedimentation control). A copy of the approved E&S plan must be maintained at the processing facility or area where mixing occurs and provided to the Department upon request.

2. Stabilized FGD material shall not be more permeable than 1.0×10^{-6} cm/sec within 56 days of placement, based on laboratory testing, using the ASTM D5084 method, or other testing method approved by the Department, in writing, through approval of the initial permit application or a minor modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit. Testing shall be conducted in accordance with Section F of this general permit. The permeability requirements of Condition E.11 may be used in lieu of this condition.
3. Stabilized FGD material may only be supplied to a person or municipality in accordance with a mining permit issued for a coal mining activity site, or a reclamation contract with the Department for use at abandoned mine lands. The Department may suspend or revoke a permittee's authorization to produce stabilized FGD material if the permittee supplies stabilized FGD material to any person or municipality that is not authorized to beneficially use the stabilized FGD material.

E. Additional Operating Requirements for a Person or Municipality Who Beneficially Uses Stabilized FGD Material for Mine Reclamation

1. To utilize stabilized FGD material for beneficial use in reclaiming a coal mining activity site, the permittee of the mining operation must submit an application for a mining permit or revision to a mining permit justifying the beneficial use. The proposed operation must meet the respective requirements of 25 Pa. Code, Chapters 86, 87, 88, or 90. In addition, the permittee must demonstrate that there is no presumptive evidence of potential pollution to the waters of the Commonwealth and that the proposed reclamation plan can be feasibly accomplished. The mine site permittee is responsible for obtaining all necessary approvals for beneficial use at the particular coal mining activity site and for compliance issues relating to use of stabilized FGD material on the site.
2. To utilize stabilized FGD material for beneficial use in reclaiming an abandoned mine land, a reclamation contract with the Department must be executed that includes plans for using stabilized FGD material.
3. For each new source of FGD, certified coal ash or waste coal ash not identified in the permittee's application that is proposed to be used in the production of stabilized FGD material, the appropriate District Mining Office (see attached list) must approve the new source material through a minor revision to the mining permit before the stabilized FGD material produced from the new source may be beneficially used. If a reclamation contract with the Department is being used for abandoned mine land reclamation, it must be amended before the stabilized FGD material produced from the new source may be beneficially used.

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4. Stabilized FGD material utilized for mine reclamation purposes shall conform to the chemical and physical specifications set forth in Section F of this permit. Stabilized FGD material that does not meet the requirements as specified in Section F of this general permit shall be disposed at a permitted disposal facility.
5. Prior to the placement of stabilized FGD material, the permittee shall:
 - a. Prepare the reclamation site such that it is free of debris, vegetation, organic material, etc., and provide for the processing, recycling, beneficial use, or disposal of wastes generated during the preparation in accordance with the SWMA and other applicable statutes, and the regulations promulgated thereunder.
 - b. Where the reclamation site contains springs or wet areas, the permittee shall construct drainage courses or an underdrain system to prevent water from being in contact with the stabilized FGD material. The underdrain system shall be protected by an adequate filter to ensure continued free flow or drainage of anticipated seepage from precipitation and from the spring or wet weather seeps. The underdrain system shall be designed and constructed using standard geotechnical engineering methods.
 - c. The site shall be designed to minimize surface and groundwater contact with the stabilized FGD-material, including upslope diversion ditches and drains to divert groundwater away from the material and convey surface water under the material.
 - d. Surface configurations shall be designed and installed to minimize surface water infiltration and prevent stormwater runoff from being in contact with the stabilized FGD-material.
6. The stabilized FGD material shall be uniformly placed and compacted in horizontal layers not exceeding 2 feet in thickness, or by an alternate method approved by the Department, in writing, through approval of the initial permit application or a minor modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit, to achieve the permeability requirements as specified in Condition D.2 or E.11, and upon final placement, the minimum unconfined compressive strength as specified in Condition E.12 of this general permit.
7. The stabilized FGD material shall not be placed where the slope is greater than 40% (no more than 2.5 feet per vertical foot rise), unless otherwise approved by the Department in writing through approval of the initial permit application or a minor modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit.
8. Stabilized FGD material shall be placed at least 8 feet above the regional groundwater level.
9. The working surface of the placement area shall be graded to promote positive drainage and minimize filtration. The final lift of the stabilized FGD material shall have a minimum three percent (3%) slope.

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10. After placement of the stabilized FGD, stormwater run-on at the mine reclamation site shall be diverted away from the stabilized FGD material. Surface water controls must be constructed, implemented, and maintained to eliminate or prevent ponding and excessive wetting and shall be based on a 24-hour precipitation event to be expected once every 25 years.
11. The permittee shall meet one of the following requirements:
 - a. The stabilized FGD material shall, upon final placement, be at least one order of magnitude less permeable than the barrier fill material required to be established between the placement area and a coal outcrop, high wall or low wall and drainage sump areas, based on a field testing method approved, in writing, by the Department through approval of the initial permit application or a minor modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit.
 - b. At sites where barrier fill materials are not required (e.g., coal refuse disposal sites), the stabilized FGD material shall be protected from contact with ground and/or surface water, to the maximum extent possible, by placing surface diversions, collection ditches, and/or underdrains to collect such water and divert it away from the placement area. Surface diversions shall be constructed out of materials that are not susceptible to erosion and dissolution. A final cap shall be placed and graded over the stabilized FGD material and must comply with the requirements of the mining permit issued or reclamation contract executed for reclamation activities at the site.
 - c. The permeability requirements of Condition D.2 may be used in lieu of this condition.
12. The stabilized FGD material shall achieve, upon final placement, a minimum unconfined compressive strength, based on field-testing, of 40 pounds per square inch (psi), using the ASTM D2166 method.
13. Unless otherwise indicated in writing by the Department through approval of the initial permit application or a minor modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit, the permittee shall develop a "Water Quality Monitoring Plan," as described in 25 Pa. Code §§ 288.251 – 288.257, § 290.101, and §§ 290.301 – 290.307; submit it to the Department for review, and, at a minimum, comply with the following:
 - a. Prior to installation, discuss groundwater monitoring points with the Department and receive Department approval of the monitoring points. Groundwater monitoring points normally include monitoring wells, springs, seeps, mine discharges, and abandoned mine shafts.
 - b. The groundwater monitoring shall be sufficient to detect impacts of the placement of stabilized FGD material on the groundwater.

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- c. Before the stabilized FGD material is placed, six (6) background samples from each monitoring point shall be collected monthly to adequately characterize groundwater quality of the reclamation site.
 - d. The groundwater monitoring points shall be sampled on a quarterly basis following placement of the stabilized FGD material.
 - e. The groundwater monitoring shall continue for five (5) years after the completion of beneficial use of stabilized FGD material. The monitoring required in this condition shall continue for five (5) additional years if groundwater degradation is determined to occur.
 - f. Background and quarterly samples shall be analyzed for the following: static water elevation (for monitoring wells); flow (for springs, seeps, or mine discharges); pH (field and laboratory value); conductance; alkalinity; acidity; Sulfate; Chloride; Fluoride; Total Dissolved Solids; Total Suspended Solids; Ammonia Nitrogen; Total Kjeldahl Nitrogen; Nitrate; Nitrite; and total and dissolved concentrations for Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium (Total), Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, and Zinc.
14. Upon cessation of operations for 45 days or more of the processing or reclamation activities at the mine site, the permittee shall remove any remaining FGD, certified coal ash, waste coal ash, lime, stabilized FGD material and any other residual wastes or other materials which contain, or have come in contact with, stabilized FGD material and shall provide for the processing and disposal of the waste or material in accordance with the SWMA, the environmental protection acts and the regulations promulgated thereunder.

F. Sampling and Analysis.

- 1. The permittee shall collect representative samples of the stabilized FGD material and determine its quality before it may be beneficially used. Samples shall be collected and analyzed as follows:
 - a. To obtain a representative sample of the stabilized FGD material, samples must be taken from multiple locations in the batch and represent the entire amount of stabilized FGD material being sampled. The pollutant limits specified in this section pertain to the quality of the stabilized FGD material that will be beneficially used, and therefore, samples must be collected after the final stage of processing and prior to storage of the produced stabilized FGD material. Should knowledge of the processing operation, visual observations, or analytical results indicate variability in the quality of the stabilized FGD material, more frequent testing shall be conducted.

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- b. At the initial process startup and prior to the first beneficial use, the permittee shall collect at a minimum four (4) representative samples of the stabilized FGD material spaced throughout a two- to six-month sampling period and analyze for the following:
 - i. The total and leachable levels for each parameter listed in Table 1 of this section, and
 - ii. The physical properties listed in Condition D.2 of this general permit.
 - iii. The pH of the stabilized FGD material. Stabilized FGD material showing a pH of less than 7.0 standard units shall not be beneficially used pursuant to this general permit.
- c. A subsequent sampling and analysis event shall be conducted in accordance with subparagraph b. above at least quarterly and each time a new source of FGD, certified coal ash or waste coal ash that is not identified in the permittee's application is used to produce the stabilized FGD material and any time the permittee changes the defined blend or recipe used to produce stabilized FGD. The sampling results must be received by the Department no later than 30 days after the last day of the quarter and should be sent to the Solid Waste Manager at the appropriate Department Regional Office (see attached list) and to the appropriate District Mining Office under the designated mining permit number.
- d. The stabilized FGD material shall be re-characterized when there is a significant change at an existing source providing such materials, such as a change in the fuel type (e.g. from bituminous coal to anthracite coal or Illinois basin coal to Powder River basin coal) or a change in the scrubbing technology at the power station (e.g. wet scrubber to spray dryer or non-oxidized system to oxidized system).
- e. For beneficial use at an abandoned mine land, compliance with Table 1 of this section may be based on the 90% upper confidence level using data from multiple samples collected during a single reporting period only and the EPA's Test Methods for Evaluating Solid Waste (EPA SW-846) as guidance for the statistical treatment of data. Data from other reporting periods may not be used to calculate the 90% upper confidence level.
- f. For beneficial use at a coal mining activity site, each sample result must be in compliance with Table 1 of this section.

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Table 1

**Chemical Concentration Limits for Beneficial Use
 of Stabilized FGD Material for Reclamation Material of Mine Sites**

Constituents	Use for reclamation of mine sites ⁽¹⁾	
	Total (mg/kg) ⁽²⁾	Leachable (mg/L) ^(3,4)
Aluminum	190,000	5.0
Ammonia	1,900	30
Antimony	88	0.15
Arsenic	48	0.25
Barium	15,000	50
Beryllium	440	0.10
Boron	20,000	15
Cadmium	47	0.125
Calcium	⁽⁵⁾	⁽⁵⁾
Chromium (Total)	⁽⁶⁾	2.5
Chromium (III)	190,000	⁽⁶⁾
Chromium (VI)	94	⁽⁶⁾
Cobalt	⁽⁶⁾	17.5
Chloride	⁽⁶⁾	250
Copper	8,200	25
Fluoride	⁽⁶⁾	4.0
Iron	66,000	7.5
Lead	500	0.375
Magnesium	⁽⁵⁾	⁽⁵⁾
Manganese	31,000	2.5
Mercury	66	0.05
Molybdenum	18	4.375
Nickel	4,400	2.5
Nitrate	⁽⁵⁾	10
Nitrite	N/A	1
Potassium	⁽⁵⁾	⁽⁵⁾
Selenium	1,100	0.50
Silver	1,100	2.5
Sulfate	⁽⁵⁾	2,500
Sulfur	⁽⁵⁾	⁽⁶⁾
Thallium	15	0.05
Vanadium	1,500	6.125
Zinc	66,000	50

- (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

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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.

2. The permittee may request a reduction in the required frequency of sampling/testing for stabilized FGD material used on an abandoned mine land by submitting an application to the appropriate Department regional office (see attached list) for minor permit modification to the permittee's coverage under this general permit in accordance with Condition C.1 of this general permit. A reduced sampling/testing frequency may be requested if the following criteria are met:
 - a. Physical and chemical analysis of representative samples of the stabilized FGD material has been conducted in accordance with this section for a two-year period; and
 - b. The permittee has demonstrated that the physical and chemical requirements of Condition F.1 have been satisfied for a two-year period.

Written approval from the Department must be obtained prior to implementing a reduced sampling/testing frequency. The reduced frequency of monitoring may not be less than twice per year. A reduced sampling/testing will not be approved for stabilized FGD material that is used at a coal mining activity site.

G. Recordkeeping.

1. The permittee shall maintain records of all physical and analytical evaluations conducted in accordance with Section F of this general permit to demonstrate that stabilized FGD material meets the beneficial use requirements and the concentration limits of this general permit. Records of physical and analytical evaluations must include, at a minimum, the following for each sample: the dates of sampling and testing; sampling procedures utilized; the 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. A permittee authorized to process certified coal ash, waste coal ash, lime or FGD by mixing to produce stabilized FGD material shall maintain records of all ingredients used to produce the stabilized FGD material. Records must include, at a minimum, the quantity of FGD, certified coal ash, waste coal ash or lime used to produce stabilized FGD material and the results of any visual observations of the ingredients prior to processing. If the permittee accepts FGD, certified coal ash, waste coal ash or lime from other generators to use as an ingredient in the production of stabilized FGD material, the permittee must maintain records for each source, including, at a minimum, the following: the name, address, and phone number of each source of incoming FGD, certified coal ash, waste coal ash or lime; the date of receipt; the

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quantity of FGD, certified coal ash, waste coal ash or lime received; and the results of visual observations.

3. A permittee authorized to process certified coal ash, waste coal ash, lime or FGD to produce stabilized FGD material shall maintain records of all stabilized FGD material produced. Records must include, at a minimum, the following: the destination of outgoing shipments of the stabilized FGD material; the contact name, address, telephone number and mining permit number of the person or municipality that will beneficially use the material; the date and weight in dry tons of the stabilized FGD material shipped; and the blend or recipe used for each outgoing shipment.
4. A permittee authorized to receive stabilized FGD material pursuant to this general permit shall maintain records of all stabilized FGD material received. Records must include, at a minimum, the following: the name, address and telephone number of the person or municipality that will supplied the stabilized FGD material for beneficial use; the location where stabilized FGD material was beneficially used; the date and weight in dry tons of the stabilized FGD material received; and the blend or recipe used for each outgoing shipment.
5. The permittee shall maintain records of all 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.
6. All records required by this general permit shall be retained for a minimum of five years and made available to the Department upon request.

H. Reporting and Public Notice Requirements.

1. The permittee must apply for and obtain coverage under this general permit prior to processing certified coal ash, waste coal ash, lime or FGD for beneficial use or beneficially using stabilized FGD material. Upon receipt of an application for coverage under this general permit, the Department will publish notice in the *Pennsylvania Bulletin* in accordance 25 Pa. Code § 287.642. Approval for use on any mine site is subject to applicable public notice and participation processes described in Conditions H.2 and H.3 of this general permit.
2. Prior to submitting an application for a mining permit or a revision to a mining permit, a person or municipality proposing to beneficially use stabilized FGD material shall comply with the public notice requirements of 25 Pa. Code § 86.31 (relating to public notices of filing of permit applications), or 25 Pa. Code § 86.54 (relating to public notice of permit revision), as applicable.
3. Prior to execution of a reclamation contract with the Department for reclamation of an abandoned mine land, a person or municipality proposing to beneficially use stabilized FGD 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. This advertisement must include the following:

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- a. A brief description of the proposed beneficial use activity and location.
 - b. 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.
 - c. A brief description of the procedures for interested persons to submit public comments to the Department.
 - d. The Department-approved location and address where interested persons may review and obtain a copy of the reclamation contract.
4. Upon receipt of an application for a mining permit or a revised mining permit, and prior to execution of a reclamation contract with the Department for reclamation of an abandoned mine land, 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 permit to beneficially use stabilized FGD material for mine reclamation, or notice that the Department intends to use stabilized FGD material for reclamation at an abandoned mine land.
 - b. The specific source of the stabilized FGD material proposed for beneficial use and the residual waste general permit number under which the stabilized FGD 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 or reclamation contract.
5. A permittee authorized to process FGD, certified coal ash, waste coal ash or lime under the terms and conditions of this general permit must notify the Department if the processing facility will be relocated, as follows:
- a. If the processing facility is located at the coal mining activity site or abandoned mine lands where stabilized FGD material is also beneficially used, the permittee must notify the appropriate Department District Mining Office having jurisdiction over the reclamation site (see attached list), in writing, at least fifteen (15) days prior to relocating the processing facility within the same reclamation site.

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- b. If the processing facility is not located at the coal mining activity site or abandoned mine lands where stabilized FGD material is also beneficially used, the permittee must submit to the Department a new DOA in accordance with Section B of this general permit no less than 86 business days prior to operating at the new location. The new location must be approved in writing by the Department prior to operating the new facility.
6. If the permittee intends to beneficially use this stabilized FGD material at a coal mining activity site or abandoned mine land that is not identified in the permittee's application, the permittee must submit a DOA for the new beneficial use location no less than 86 business days prior to beneficially using stabilized FGD material at the new location. The DOA is subject to the public notice and public participation requirements of this Section H and must be approved in writing by the Department prior to beneficially using stabilized FGD material at the new location.
7. The permittee shall immediately notify the Solid Waste Manager at the appropriate Department Regional Office (see attached list) within 30 days, in writing, of any changes in the name, address, owners, operators and/or responsible officials of the company; changes in land ownership or the right to operate on the land occupied; the physical or chemical characteristics of the stabilized FGD material; and the compliance status (e.g., violations) of any permit issued by the Department or federal government under the environmental protection acts.
8. The permittee shall submit 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, on a quarterly basis all analytical results for the chemical composition and physical properties on samples taken in accordance with Section F of this general permit. 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.
9. Prior to January 31, for whichever is applicable, the permittee, shall submit for the previous calendar year an annual report to the Solid Waste Manager at the appropriate Department Regional Office (see attached list) and to the appropriate District Mining Office (see attached list) having jurisdiction of the coal mining activity site or abandoned mine land where stabilized FGD material was beneficially used, that includes the mining permit or reclamation contract number and the weight in dry tons shipped or beneficially used during the last calendar year.
10. The permittee shall notify the Solid Waste Manager at the appropriate Department Regional Office (see attached list) and the appropriate District Mining Office (see attached list) having jurisdiction of the coal mining activity site or abandoned mine land where stabilized FGD material was beneficially used, within 72 hours of any evidence that the material does not meet the chemical standards or physical property requirements of Section F of this general permit or that there is a variability in the quality of the stabilized FGD material that has been indicated through visual observation or analytical testing during the production of the stabilized FGD material.

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11. 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 stabilized FGD 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 stabilized FGD material need not be reported.

I. Renewal.

A person or municipality 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

- 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 3rd 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

**Department of Environmental Protection
District Mining Offices
(and Counties Served)**

- I. Adams, Bedford, Blair, Cambria, Indiana, Franklin, Fulton, Huntingdon, Juniata, Mifflin, Perry, Somerset, Westmoreland.

Cambria District Mining Office

286 Industrial Park Road
Ebensburg, PA 15931
Phone: 814-472-1900

- II. Allegheny, Armstrong, Fayette, Greene, Washington, Westmoreland.

California District Mining Office

25 Technology Drive
California Technology Park
Coal Center, PA 15423
Phone: 724-769-1100

* Bituminous Underground Mining

New Stanton District Mining Office

131 Broadview Road
New Stanton, PA 15672
Phone: 724-925-5500

- III. Beaver, Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren.

Knox District Mining Office

White Memorial Building - P.O. Box 669
Knox, PA 16232-0669
Phone: 814-797-1191

- IV. Bradford, Cameron, Centre, Clearfield, Clinton, Lycoming, Potter, Snyder, Sullivan, Tioga, Union.

Moshannon District Mining Office

186 Enterprise Drive
Philipsburg, PA 16866
Phone: 814-342-8200

- V. Berks, Bucks, Carbon, Chester, Columbia, Dauphin, Delaware, Lackawanna, Lancaster, Lebanon, Lehigh, Luzerne, Montgomery, Monroe, Montour, Northampton, Northumberland, Philadelphia, Pike, Schuylkill, Susquehanna, Wayne, Wyoming, York.

Pottsville District Mining Office

5 West Laurel Boulevard
Pottsville, PA 17901-2454
Phone: 570-621-3118