

**General Permit WMGR116**

**Beneficial Use  
of  
Alternative Fuels for Circulating and  
Bubbling Fluidized Bed Boilers and  
Pulverized Coal-fired Boilers**

**Department of Environmental Protection  
Bureau of Waste Management  
Division of Municipal and Residual Waste**

**General Permit WMGR116  
Beneficial Use of Alternative Fuels  
for Circulating and Bubbling Fluidized Bed Boilers and Pulverized Coal-Fired Boilers  
(CFB/BFB/PC)**

**A. Description.**

This general permit authorizes the beneficial use of the following wastes as alternative fuels to be combined with waste coal/coal, hereinafter referred to as “combined or blended fuel,” to produce specification fuel for CFB/BFB/PC facilities:

- petroleum coke;
- wood and paper and wood industry wastes comprised primarily of wood fibers except for Chromated Copper Arsenate (CCA) or Pentachlorophenol (PCP) pressure-treated wood and lead-painted wood;
- agricultural plant/animal wastes;
- non-hazardous coal tar and oil-contaminated waste;
- high carbon coal fly ash;
- tire-derived fuel (chipped or whole tires);
- biosolids; and
- waste asphalt shingles.

This general permit also authorizes the beneficial use of the resulting ash generated by co-firing the approved alternative fuels with waste coal/coal, hereinafter referred to as “ash,” for the beneficial uses authorized for coal ash in accordance with 25 Pa. Code, §§287.661 – 665 (relating to beneficial use of coal ash) at active or abandoned mine sites.

**B. Determination of Applicability Requirements.**

Persons or municipalities that propose to operate under the terms and conditions of this general permit after the date of permit issuance must obtain a “Determination of Applicability” (DOA) from the applicable regional office of the Department of Environmental Protection’s (DEP) Waste Management Program (see attached list) that has jurisdiction for waste-related activities in the county where the facility will be located. A completed Form 20 (Application for a Municipal or Residual Waste General Permit), along with the DOA application fee as specified in the residual waste regulations, must be submitted to the appropriate regional office of DEP’s Waste Management Program. No activities shall commence unless authorized in writing by DEP.

**C. Operating Conditions.**

Petroleum coke, wood and paper and wood industry wastes comprised primarily of wood fibers (except for CCA/PCP pressure-treated wood and lead-painted wood), agricultural plant/animal wastes, non-hazardous coal tar and oil-contaminated waste, high carbon coal fly

ash, tire-derived fuel (chipped or whole tires), biosolids and waste asphalt shingles may be beneficially used, individually or in combination, as alternative fuels blended with waste coal/coal to produce fuel for CFB/BFB/PC if all of the following operating conditions are met:

1. The lower heating value of the alternative fuels, as combined or blended, must be sufficient to maintain continuous operation of the CFB/BFB/PC.
2. The combined or blended fuel contains no more than 50%, by weight, of the listed alternative fuels.
3. The permittee of a facility burning this combined or blended fuel meets the regulatory requirements of the Bureau of Air Quality, including the permitting requirements of 25 Pa. Code, Chapter 127.
4. The total combined quantity of biosolids and wood and asphalt shingles generated from municipal waste (including construction/demolition waste) that may be burned in the CFB/BFB/PC is limited to less than 50 tons/day.
5. When a new waste source or new fuel combination or blend is utilized, the permittee shall submit an analysis of a representative sample of the resulting ash from the burning of this combined or blended fuel to the applicable regional office of DEP's Waste Management Program and if used on an active or abandoned mine site, the applicable DEP district mining office(s) (see attached lists) to demonstrate that the ash meets the requirements of Condition C15 of this permit, no less than fifteen (15) days prior to beneficial use of the ash. For agricultural plant/animal alternative fuels, DEP may reduce or eliminate the testing requirements of this condition after two years if the ash has consistently met the requirements of Condition C15.
6. The ash shall not be stored in direct contact with or applied directly into the waters of the Commonwealth except as specifically approved by DEP.
7. Runoff from the ash storage areas shall not cause surface water pollution or groundwater degradation and shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder.
8. The permittee shall manage surface water and control erosion and sedimentation to meet the applicable requirements of 25 Pa. Code, Chapter 102 (relating to erosion and sediment control).
9. The permittee shall comply with the fugitive emissions standards adopted under 25 Pa. Code, Sections 123.1 and 123.2.

10. The storage, transportation and use of the ash and alternative fuels shall be done in a manner that will not create a nuisance or be harmful to the public health, safety or the environment and shall be in a manner that prevents the dispersal of ash by wind or water erosion.
11. Unless otherwise authorized by DEP in writing, storage of the resulting ash at any use location, as part of an “in-progress” project, shall be for no more than two (2) weeks after its receipt.
12. The ash produced from the co-firing of the alternative fuels approved in this general permit with waste coal/coal may be used for the following beneficial uses of coal ash as set forth in 25 Pa. Code §§287.661 – 287.665 in accordance with the conditions of this general permit as:
  - a. The use of ash as structural fill provided the notice and regulatory conditions required for the use of coal ash as structural fill as set forth in 25 Pa. Code §287.661 (relating to use of coal ash as structural fill) are satisfied.
  - b. The use of ash as a soil substitute or soil additive provided all the notice and regulatory conditions required for the use of coal ash as set forth in 25 Pa. Code §287.662 (relating to use of coal ash as a soil substitute or soil additive) are satisfied.
  - c. The use of ash at mining activity sites provided all the conditions and operating requirements for coal ash as set forth in 25 Pa. Code §287.663 (relating to beneficial use of coal ash at coal mining activity sites as coal mining activities are defined in §86.1), or pursuant to an approved mining reclamation plan are satisfied.
  - d. The use of ash at abandoned coal and non-coal surface mining sites provided all the conditions and operating requirements for coal ash as set forth in 25 Pa. Code §287.664 (relating to coal ash beneficial use at abandoned coal and abandoned noncoal surface mine sites) are satisfied.
  - e. Other beneficial uses of ash provided all the conditions for similar uses of coal ash as set forth in 25 Pa. Code §287.665 (relating to other beneficial uses of coal ash) are satisfied.
13. When the ash is beneficially used as a soil additive in accordance with Section 287.662, ash-loading rates shall be determined by the pH of the existing soil, as follows:

<u>pH of Existing Soil</u>	<u>Application Rate</u>
4.5 - 5.5	10 - 15 tons/acre
5.5 - 6.5	5 - 10 tons/acre
6.5 - 7.5	2 - 5 tons/acre
> 7.5	No Application

14. When the ash is beneficially used as a soil additive in accordance with Section 287.662 to facilitate revegetation at permitted mine sites and abandoned mine sites under contract or otherwise approved by DEP, the maximum lifetime metal loading shall not exceed any of the following:

<u>Constituent</u> <sup>1</sup>	<u>Limit (lbs./acre)</u>
Arsenic	41
Cadmium	39
Chromium	3000
Copper	1500
Lead	300
Nickel	420
Selenium	100
Zinc	2800

15. The ash that is beneficially under this permit shall meet the following leaching analysis requirements. The leaching analysis, using the Toxicity Characteristic Leaching Procedure (EPA Method 1311) or the Synthetic Leaching Procedure (EPA Method 1312), on a representative sample of the ash indicates that none of the following are exceeded:

<u>Constituent</u> <sup>1</sup>	<u>Leachable (mg/l)*</u>
Aluminum	5.0
Antimony	0.15
Arsenic	0.25
Barium	50
Boron	3.15
Cadmium	0.125
Chromium	2.50
Chloride	2500
Copper	25
Iron	7.5
Lead	0.125
Manganese	2.5
Mercury	0.05
Molybdenum	4.38
Nickel	2.5
Nitrate	10
Selenium	1.0
Sulfate	2500
Zinc	50

\* These determinations must be based upon the 90% upper confidence level using “*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*” (EPA SW-846) as guidance for statistical treatment of data.

<sup>1</sup> Additional constituents may be added as needed based on the types and quantities of alternative fuels utilized.

16. The chemical analysis required in Condition C13, Condition C14 and C15 of this general permit shall be performed by a laboratory accredited or registered for accreditation under the Pennsylvania Environmental Laboratory Accreditation Act, 27 Pa. Code §§ 4101-4113.

#### **D. Standard Operating Conditions.**

1. 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, providing that said local law, ordinance or regulation is not preempted by the Pennsylvania Solid Waste Management Act, 35 P.S. § 6018.101 et seq.; the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. § 4000.101 et seq.; the Surface Mining Conservation and Reclamation Act, 52 P.S. § 1396.1 et seq.; or the Noncoal Surface Mining Conservation and Reclamation Act, 52 P.S. § 3301 et seq.
2. 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 DEP, without advance notice or search warrant upon presentation of appropriate credentials and without delay, to have access and to inspect all areas or permittee-controlled adjacent areas where solid waste management activities are being or will be conducted. This authorization and consent shall include consent to collect samples of waste, water or gases; to take photographs; to perform measurements, surveys and other tests; to inspect any monitoring equipment; to inspect the methods of operation; and to inspect and/or copy documents, books and papers required by DEP to be maintained or produced. (See Section 608 and 610(7) of the Solid Waste Management Act, 35 P.S. Section 6018.608 and 6018.610(7)). This condition does not limit any other powers granted to DEP under the Solid Waste Management Act.
3. Failure of the measures herein approved to perform as intended, 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.
4. The activities authorized by this permit shall not harm or present a threat of harm to the health, safety or welfare of the people or environment of this Commonwealth. DEP 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 permit.

5. The permittee shall inform the end-users that propose to receive the resulting ash for beneficial use, covered under this general permit, of all the conditions and limitations imposed on the beneficial use of resulting ash by DEP. This notification shall be satisfied by providing a copy of Appendix A (Acceptable Uses and Use Restrictions) of this general permit.
6. Any person who operates under the provisions of this permit shall immediately notify, in writing, the Solid Waste Manager in the applicable regional office of DEP's Waste Management Program of any changes in the name, address, owners, operators and/or responsible officials of the company; the location of mine reclamation sites; land ownership and the right to enter and operate on mine reclamation sites; the physical or chemical characteristics of the ash; the generator(s) of the ash; and the status of any permit issued by DEP or federal government under the environmental protection acts.
  - a. For persons that operate under the provisions of this permit on permitted mine sites, the above notification must also be provided to the appropriate district mining office of DEP's Bureau of District Mining Operations.
  - b. For persons that operate under the provisions of this permit on abandoned mine sites that are under contract, the above notification must also be provided to the appropriate district mining office of DEP's Bureau of Abandoned Mine Reclamation and any other governmental agency that is party to the contract or approved the beneficial use.
7. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application, except to the extent that the application conflicts with the regulations or governing statutes.
8. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this permit shall be subject to compliance history review by DEP prior to the performance of activities as specified by the Solid Waste Management Act.
9. The permittee shall immediately notify DEP's Emergency Hotline by telephone at 800-541-2050 and the applicable regional office of DEP's Waste Management Program in the event of a discharge or spill of ash and shall take appropriate immediate action to protect the health and safety of the public and the environment.
10. Beneficial use of resulting ash may not commence on permitted mine sites unless specifically authorized by the appropriate DEP district mining office. Beneficial use of resulting ash may not commence on abandoned mine sites unless specifically authorized by DEP's Bureau of Abandoned Mine Reclamation or other governmental agency.
11. A person or municipality that plans to continue the beneficial use 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 DEP for submission at a later date. The renewal application shall be made using "Form 20" (Application for a Municipal or Residual Waste General Permit).

In the event that a timely and complete application for renewal has been submitted and DEP 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.

**E. Special Wastes.**

The ash shall not be mixed with other solid wastes, except as set forth in the application or as specifically approved in a reclamation plan.

**F. Record Keeping.**

Persons operating under this general permit shall record and maintain the following information at the CFB/BFB/PC facility. All records shall be maintained for a minimum of five (5) years and shall be made available to DEP upon request:

1. All analytical information relative to the testing of the ash to ensure compliance with this permit;
2. The locations where that ash has been beneficially used or the name and address of each person receiving the ash and its intended use;
3. The type of beneficial use (mine reclamation or soil additive);
4. The dates and weight or volume of ash delivered to each site where the ash is beneficially used;
5. When used as a soil additive, the ash application rate with the determination of the metal loading rate to date;
6. Project status, completion date or anticipated completion date;
7. The type, generator, date and weight or volume of waste delivered to the CFB/BFB/PC facility; and
8. An annual chemical analysis of the ash for the parameters listed in Condition C15.



## APPENDIX A

### **ACCEPTABLE USES AND RESTRICTIONS GENERAL PERMIT NO. WMGR116**

The following “Acceptable Uses and Restrictions” apply to persons or municipalities (end-users) that receive and/or use the ash generated from facilities operating under WMGR116 for beneficial use purposes in lieu of submitting a determination of applicability to DEP to beneficially use the resulting ash under the terms and conditions of this general permit.

#### **A. ACCEPTABLE USES.**

1. The ash that is generated by co-firing the approved alternative fuels with waste coal/coal, hereinafter referred to as “resulting ash,” in accordance with 25 Pa. Code, §287.661 – 665 (relating to beneficial use of coal ash).
2. The resulting ash must conform to the applicable engineering properties of any raw material for which it is substituted.
3. Unless otherwise authorized by DEP in writing, the storage of the resulting ash at any use location as part of an “in-progress” project shall be for no more than two (2) weeks after its receipt.

#### **B. USE RESTRICTIONS.**

1. The resulting ash shall not be placed or stored in direct contact with surface water or groundwater.
2. The resulting ash shall not be placed in a wetland or within 300 feet of a private or public water source.
3. Hazardous waste, municipal waste, special handling waste and other residual wastes may not be mixed, stored or beneficially used with the resulting ash.
4. Upon cessation of beneficial use activities, any excess resulting ash shall be removed and processed or disposed at a facility permitted under the Solid Waste Management Act.
5. The beneficial use of the resulting ash shall be done in a manner that will not create a nuisance or be harmful to the public health, safety or the environment.
6. Runoff from the resulting ash storage areas shall not cause surface water pollution or groundwater degradation and shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder.

7. The end-user shall immediately notify DEP's Emergency Hotline by telephone at 800-541-2050 and the applicable regional office of DEP's Waste Management Program in the event of a discharge or spill of resulting ash and shall take appropriate immediate action to protect the health and safety of the public and the environment.
  
8. Beneficial use of the resulting ash may not commence on permitted or abandoned mine sites unless specifically authorized by the applicable DEP district mining office. Beneficial use of resulting ash may not commence on abandoned mine sites unless specifically authorized by DEP's Bureau of Abandoned Mine Reclamation or other governmental agency.

**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  
Fax: 484- 250-5961
- 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  
Fax: 570-826-5448
- 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  
Fax: 717-705-4930
- 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  
Fax: 570-327-3420
- 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  
Fax: 412-442-4194
- 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  
Fax: 814-332-6117

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

- I. Adams, Bedford, Blair, Cambria, Cumberland, Franklin, Fulton, Huntindgon, Indiana, Juniata, Mifflin, Perry, Somerset**  
*The Cambria District Mining Office*  
286 Industrial Park Road  
Ebensburg, PA 15931  
Phone: 814-472-1900  
Fax: 814-472-1898
- II. Allegheny, Armstrong, Beaver, Fayette, Greene, Washington, Westmoreland**  
*The Greensburg District Mining Office*  
Armbrust Professional Center  
8205 Route 819  
Greensburg, PA 15601  
Phone: 724-925-5500  
Fax: 724-925-5557
- III. Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren**  
*The Knox District Mining Office*  
White Memorial Building  
P. O. Box 669  
Knox, PA 16232-0669  
Phone: 814-797-1191  
Fax: 814-797-2706
- IV. Bradford, Cameron, Centre, Clearfield, Clinton, Lycoming, Potter, Snyder, Sullivan, Tioga, Union**  
*The Moshannon District Office*  
186 Enterprise Drive  
Philipsburg, PA 16866  
Phone: 814-342-8200  
Fax: 814-342-8216
- V. Berks, Bucks Carbon, Chester, Columbia, Dauphin, Delaware, Lancaster, Lackawanna, Lebanon, Lehigh, Luzerne, Monroe, Montgomery, Montour, Northampton, Northumberland, Philadelphia, Pike, Schuylkill, Susquehanna, Wayne, Wyoming, York**  
*The Pottsville District Mining Office*  
5 West Laurel Boulevard  
Pottsville, PA 17901-2454  
Phone: 570-621-3118  
Fax: 570-621-3110