A. Description.

This general permit authorizes:

- The beneficial use of carbonaceous wastes: (i) petroleum coke, (ii)
 uncontaminated and untreated wood chips generated during the pulp and/or
 paper making process, and (iii) other paper and wood industry wastes comprised
 primarily of wood fibers, and tire-derived fuel (TDF) as alternative fuels to be
 combined with waste coal/coal to produce specification fuel for circulating
 fluidized bed boilers (CFB); and
- 2. 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 beneficial use as (i) structural fill, (ii) soil substitute or soil additive, (iii) at coal mining activity sites, (iv) at abandoned surface mining sites, and (v) other beneficial uses.

B. Determination of Applicability (DOA) Requirements.

A person or municipality that proposes to operate under the terms and conditions of this general permit after the date of permit issuance must apply for and obtain a DOA from the appropriate Department Regional Office (see attached list) prior to commencing authorized activities under this general permit. A completed (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) along with a DOA fee in the amount identified in Section A (General Information) of the Form 20 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.

- Petroleum coke, uncontaminated and untreated wood chips, other paper and wood industry wastes comprised primarily of wood fibers, and TDF may be beneficially used, individually or in combination, as alternative fuels blended with waste coal/coal to produce fuel for CFB if all of the following requirements are met:
 - a. The blended fuel has a heating value of no less than 5,000 British Thermal Units (Btu) per pound.

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- b. The blended fuel contains no more than 50%, by weight, of the listed alternative fuel.
- c. The blended fuel meets the requirements of the air quality permit for the facility.
- 2. The beneficial use of resulting ash produced from the co-firing of the alternative fuels approved in this general permit as a soil additive to facilitate re-vegetation at permitted coal mine activity sites and abandoned surface mining sites under contract shall meet all requirements below:
 - a. The maximum lifetime metals loading rate shall not exceed the loading limit for any pollutant as specified in Table 1 below:

Table 1

Maximum Lifetime Metal Loading Rate

Pollutant	Cumulative Loading Rate	
	Pounds per acre (lbs/acre)	Kilogram per hectare (kg/hectare)
Arsenic	36	41
Boron	60	67.2
Cadmium	34	38
Chromium	2,672	3,104
Copper	1,320	1,490
Lead	264	296
Mercury	15	17
Molybdenum	16	18
Nickel	370	420
Selenium	88	99
Zinc	2,464	2.780

b. Leaching analysis on a representative sample of the ash shall not exceed the chemical concentration limit for any pollutant as specified in Table 2 below:

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<u>Table 2</u>
Allowable Leachate Concentration Limits

Pollutant	Leachate ^(*) Concentration Limit (mg/l)
Aluminum	5.0
Ammonia	30
Antimony	0.15
Arsenic	0.25
Barium	50.0
Beryllium	0.10
Boron	15.0
Cadmium	0.125
Calcium	-
Chloride	250
Chromium (Total)	2.5
Cobalt	17.5
Copper	25.0
Fluoride	-
Iron	7.5
Lead	0.375
Magnesium	-
Manganese	2.5
Mercury	0.05
Molybdenum	4.375
Nickel	2.5
Nitrate	10
Nitrite	1
Potassium	-
Selenium	0.5
Silver	2.5
Sodium	-
Sulfate	2,500
Sulfur	-
Thallium	0.05
Vanadium	6.5
Zinc	50

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- (*) = Leaching analysis must be determined using EPA Method 1312, the Synthetic Precipitation Leaching Procedure, unless another leaching procedure is required by the Department.
- 3. The ash produced from the co-firing of the alternative fuels approved in this general permit with waste coal/coal may be beneficially used in accordance with 25 Pa. Code §§290.102 106 and this general permit.
 - a. The use of ash as structural fill is authorized provided that all of the conditions of 25 Pa. Code §290.102 (relating to use of coal ash as structural fill) are satisfied, including notice required for the use of coal ash as structural fill.
 - b. The use of ash as a soil substitute or soil additive is authorized provided that all of the conditions of 25 Pa. Code §290.103 (relating to use of coal ash as a soil substitute or soil additive) are satisfied, including notice required for the use of coal ash as a soil substitute or soil additive.
 - i. When beneficially used as a soil additive, pH of the ash and pH of the soil must be in a range of 6.5 8.0 when mixed together in the manner required by the project, as shown by field and laboratory testing using EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA Publication No. SW-846) or comparable methods approved by the Department. Lime may be added to raise pH.
 - ii. When beneficially used as an alkaline additive, the calcium carbonate equivalency of the ash, as determined by the Neutralization Potential Test in the Department's Overburden Sampling and Testing Manual (Noll, et.al., 1988) or other method approved by the Department, must be a minimum of 100 parts per thousand (10% by weight).
 - c. The use of ash at mining activity sites is authorized provided that all of the conditions of 25 Pa. Code §290.104 (relating to beneficial use of coal ash at coal mining activity sites) are satisfied, including notice required for the use of coal ash at coal mining activity sites or pursuant to an approved mine reclamation plan.
 - d. The use of ash at abandoned coal and non-coal surface mining sites is authorized provided that all of the conditions required for coal ash at surface mining sites under 25 Pa. Code §290.105 (relating to coal ash beneficial use at abandoned coal and abandoned non-coal surface mine sites) are satisfied.

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- e. Other beneficial use of ash are authorized provided that all of the conditions for similar uses of coal ash under 25 Pa. Code §290.106 (relating to other beneficial uses of coal ash) are satisfied.
- f. The facility operators comply with requests for information as set forth under 25 Pa. Code §290.107 (relating to requests for information).
- 4. The ash may not be placed within 8 feet of the water table, except where the ash is used for mine subsidence control, mine fire control or mine sealing under §290.106(a)(7) (relating to other beneficial uses).
- 5. When used as a soil additive, ash shall be incorporated into the soil within forty-eight (48) hours of application, except when application is to lands that already support substantial volunteer growth, or when ash is applied to sloped areas that, if plowed, would cause soil displacement.
- 6. The ash that is beneficially used under this general permit shall not be mixed with other types of waste materials, including hazardous waste, municipal waste, special handling waste or other residual waste, except as set forth in the application or as specifically approved in a reclamation plan.
- 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 law, ordinance, or regulations, providing that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act, 35 P.S. §§6018.101 6018.1003; Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. §§4000.101 4000.1904; Air Pollution Control Act, 35 P.S. §§4001 4005; Waste Transportation Safety Act, 27 Pa. C.S. §§6201 6209; and the Clean Streams Law, 35 PS. §§691.1 691.1001.
- 8. The permittee shall not cause or allow a point or non-point source discharge of any of the following: industrial or residual wastes; wastewater; combined storm water runoff and leachate, if generated; runoff or leachate from the staging, processing, and storage areas where solid waste management activities are conducted; or runoff or leachate from the mine reclamation sites to the surface waters of the Commonwealth, unless permitted by the Department.
- 9. The permittee shall comply with the fugitive emissions regulations under 25 Pa. Code, Chapter 123 (Standards for Contaminants) issued under the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, 35 P.S. §4005 and shall comply with all the applicable provisions of the Fugitive Emissions §§123.1, 123.2, and 123.31.

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- 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 general permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this general permit.
- 11. 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 are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of wastes, soils, water, or gases; take photographs; to perform measurements, surveys, and other tests; inspect any monitoring equipment; to 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 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.
- 12. Any independent contractors or agents retained by the permittee in the completion of beneficial use activity authorized under this permit shall be subject to a compliance history review by the Department prior to performance of activities under this general permit, as specified by the Solid Waste Management Act.
- 13. The beneficial use of ash 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 cannot comply with the conditions of this general permit or if the authorized processing and beneficial use activities cannot be adequately regulated under the conditions of this general permit.
 - b. Require an individual permit be obtained if it is deemed necessary to prevent harm or the threat of harm to public health and the environment.
- 14. The volume in cubic yards or the weight in dry tons of ash that may be stored on a mine reclamation site at any point in time shall be as specified in §290.104(f) of the Department's residual waste management regulations.

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- 15. The ash shall not be stored in direct contact with, or applied directly into the waters of the Commonwealth, except as specially approved by the Department in a reclamation plan.
- 16. The ash authorized under this general permit shall be stored and transported in accordance with 25 Pa. Code Chapter 299 (relating to storage and transportation). In addition, the facility shall be in compliance with federal and state statues, rules and regulations relating to transportation.
- 17. At a minimum, weekly inspections of all storage areas are to be conducted to determine compliance with the terms and conditions of this general permit, and for evidence of failure.
- 18. The permittee shall manage surface water and erosion and sedimentation control to meet applicable requirements under 25 Pa. Code, Chapter 102 (relating to erosion and sediment control).
- 19. All beneficial use activities conducted under the authorization granted in this general permit shall be performed in accordance with the permittee's application. Except to the extent that the permit states otherwise, the permittee shall operate as described in the approved application.
- 20. The ash that is not beneficially used in accordance with this general permit, and any waste generated from the beneficial use activity authorized by this general permit shall be shall be managed in accordance with the Solid Waste Management Act, 35 P.S. §§6018.101 6018.1003, and the regulations promulgated thereunder unless authorized by the Department, in writing, to do otherwise.
- 21. When used as a soil additive, ash shall not be applied to the land during periods of rain or to ground that is saturated, covered with snow or frozen.
- 22. When used as a soil substitute or soil additive, ash shall not be applied or stored within the minimum isolation distances below:
 - a. 100 feet or less of a perennial or an intermittent stream;
 - b. 300 feet or less of a water source, unless the operator obtains a written waiver from the owner of the water source consenting to the activities closer than 300 feet;
 - c. 300 feet of an exceptional value wetland, or of exceptional value or high quality waters as defined in 25 Pa. Code §93.1 (relating to definitions);

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- d. 100 feet of the edge of a sinkhole or area draining into a sinkhole; and
- e. 300 feet measured horizontally from an occupied dwelling, unless the operator obtains a written waiver from the current dwelling's owner consenting to the activities closer than 300 feet.
- 23. When used as a structural fill, the ash shall not be applied or stored within the minimum isolation distances below:
 - a. In the 100-year floodplain of waters of this Commonwealth, unless the Department approves in the permit a method for protecting the facility from a 100-year flood consistent with the Flood Plain Management Act (32 P.S. §§679.101 - 679.601) and the Dam Safety and Encroachment Act (32 P.S. §§693.1 - 693.27);
 - b 100 feet of a perennial or an intermittent stream unless the structural fill is otherwise protected by a properly engineered diversion or structure that is permitted by the Department under the Dam Safety and Encroachment Acts (32 P.S. §§693.1 693.27);
 - 300 feet of a ground water source, unless the operator obtains a written waiver from the owner of the water source consenting to the activities closer than 300 feet;
 - d. 25 feet of bedrock outcrop, unless the outcrop is properly treated to minimize infiltration into fractured zones or otherwise approved by the Department;
 - e. 100 feet or less of the edge of a sinkhole or area draining into a sinkhole:
 - f. 300 feet of exceptional value or high quality waters, as defined in 25 Pa. Code §93.1(relating to definitions);
 - g. 100 feet of a wet land, other than an exceptional value wetland; and
 - h. In or within 300 feet of an exceptional value wetland as defined in 25 Pa. Code §105.17(1) (relating to wetlands).
- 24. The permittee shall develop and implement a water quality monitoring plan, at the location of the site where ash was placed, in accordance with requirements as specified in §290.301 if either more than 10,000 tons of ash per acre or more than 100,000 tons of ash in total is utilized as a structural fill at a coal mining activity site or at an abandoned mine land site. The Department may require a

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water quality monitoring plan for projects with lesser quantities of the ash or for other beneficial uses of the ash where site conditions warrant.

- 25. Best Management Practices (BMPs) shall be implemented to divert storm water run-on away from the storage area of ash. Storm water runoff shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder. Prior to commencing operations at the facility, the permittee must obtain all the necessary storm water management permits.
- 26. Upon completion of beneficial use activities or by the expiration date of this permit, unless extended by the Department, the permittee shall remove any remaining ash and any other residual waste, storage tanks and structures or other materials which contain or have been in contact with the ash, and shall provide for the processing and disposal of the waste or material in accordance with the Solid Waste Management Act, the environmental protection acts and the regulations promulgated thereunder.
- 27. Reclamation activities may not commence on permitted mine sites unless specifically authorized by the District Mining Office of the Department's Bureau of Mining and Reclamation. Reclamation activities may not commence on abandoned mine sites unless specifically authorized by the Department's Bureau of Abandoned Mining Reclamation or other contracting governmental agency.
- 28. The permittee shall inform all persons or municipalities that intend to beneficially use the ash pursuant to this general permit of all conditions and limitations imposed upon the use of the ash by the Department. This notification shall be made by providing a copy of this general permit to each user of the ash. It is incumbent upon the permittee to see that all uses of ash approved under this general permit comply with all conditions of this general permit.

D. Sampling, Analysis and Frequency of Monitoring.

1. Prior to the first time beneficial use of any source of ash material pursuant to the provisions of this general permit, the permittee shall collect representative samples of the entire ash produced and analyze for the "leachable" levels for each constituent as listed in Table 2, Condition C(2) of this general permit. More than one sample is usually necessary to accurately represent the ash produced or stored. To obtain a representative sample of the ash, the sample must be taken from the correct locations and represent the entire amount of ash produced and stored. In general, the more samples taken, the greater the chance that the sampling results will be representative of the quality of the ash that is produced. It is important that samples be collected from locations representative of the final ash that will be beneficially used.

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- The chemical analysis required in Condition C(2) of this general permit shall be performed by a laboratory accredited under the act of June 29, 2002 (P.L. 596, No. 90)(27 Pa.C.S.A. §§ 4101-4113), known as the Environmental Laboratory Accreditation Act.
- 3. For <u>each</u> new source of ash, the permittee shall submit an analysis of ash to the appropriate Department's Regional Office and District Mining Office, by certified mail, to demonstrate the proposed ash is in compliance with the requirements as specified in Table 2 of Condition C(2) for approval.
- 4. The analytical methodologies used to meet the requirements as specified in Condition C(2) of this general permit shall be those in the most recent edition of the EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA SW-846), "Methods for Chemical Analysis of Water and Wastes" (EPA 600/4-79-020), "Standard Methods for Examination of Water and Wastewater" (prepared and published jointly by the American Public Health Association, American Waterworks Association, and Water Pollution Control Federation), the Department's "Sampling Manual for Pollutant Limits, Pathogens and Vector Attraction Reductions in Sewage Sludge" or a comparable method subsequently approved by the EPA or the Department.
- If knowledge of the generation process, visual observations, or analytical results indicate variability in the quality of ash material produced, more frequent testing shall be conducted.
- 6. The frequency of monitoring for the constituents contained in Table 2 of Condition C(2) of this general permit shall be at least once every three (3) months.
- 7. Upon request by the Department, the permittee shall collect and analyze representative samples of ash as required in Condition C(2) of this general permit, within 48 hours of the request.

E. Recordkeeping.

- 1. The permittee shall develop and maintain documents for the beneficial use activity during the last 12 months as follows:
 - a. Name, address and phone number of each person or municipality that received the ash for beneficial use activity authorized under this general permit:
 - b. Location of the site where the ash was utilized.

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- c. Identity of each source of the ash that was utilized.
- d. Volume in cubic yards or the weight in dry tons for each source.
- e. Date, time, location and quantity of spills or releases; and
- f. Description of how a spill or release was cleaned-up.
- 2. The permittee shall maintain records to demonstrate that ash meets the requirements as specified in Condition C(2) of the general permit.

Records of all analytical evaluations conducted on ash shall include the following on each sample: the dates of sampling and testing, sampling procedures, the person collecting the sample, each parameter tested, the analytical results, the laboratory used, and analytical methodologies. Records of all operational parameters (pH value, time, temperature, etc.) achieved on the ash shall include the name and address of the reading location, date and time, value and unit of the reading result.

3. All records required in this general permit shall be retained by the permittee at the permittee's place of business for a minimum of three years, after the beneficial use has ceased, and shall be made available to the Department upon request.

F. Reporting Requirements.

- 1. The permittee shall immediately notify the appropriate Department's Regional Office, in writing, of any changes in the name, address, owners, operators and/or responsible officials of the company; changes in the location of mine reclamation sites; changes in land ownership or the right to operate on the land occupied required by this general permit; the physical or chemical characteristics of ash; the generator(s) of ash; and the change in status of any permit issued by the Department or any state authority or federal government under the environmental protection acts.
- 2. Analytical results of samples conducted as specified in Condition C(2) of this general permit, for ash used at a mine site, shall be submitted to the appropriate District Mining Office one (1) month after receipt of the analyses. Otherwise, the analytical results of samples conducted as specified in Condition C(2) of this general permit shall be submitted to the Department's appropriate Regional Office.

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- 3. For each new source of ash other than from the sources described in the application, proposed for beneficial use, the appropriate District Mining Office must approve the new source ash as a permit amendment before the ash produced from the new source may be beneficially used. If a contract with the Department is being used for abandoned mine reclamation, it must be amended before the ash produced from the new source may be beneficially used.
- 4. The permittee shall notify the appropriate Department's Regional Office within 72 hours of any evidence that the ash does not meet requirements as specified in Condition 1 of this general permit.
- 5. The permittee shall immediately notify the Department's Emergency Hotline by telephone at 800-541-2050 and the appropriate DEP regional office waste management program in the event of a discharge or any spill of ash in a quantity capable of reaching surface water, and shall take appropriate immediate action to protect the health and safety of the public and the environment.
- 6. If more than 10,000 tons per acre or more than 100,000 tons in total of the ash authorized under this general permit was beneficially used as structural fill, the permittee shall submit an annual report to the appropriate Department's Regional Office, prior to January 31, for the previous calendar year that shall include contact information, the location of the site where ash was utilized, the identity of each source of ash, and the volume in cubic yards and the weight in dry tons for each source.
- 7. If ash authorized under this general permit was beneficially at mining active sites, the permittee of mining active site shall submit an annual report to the appropriate Department's District Mining Office, prior to January 31, for the previous calendar year that shall include permit number, mining company contact information, the identity of each source of ash, and the volume in cubic yards and the weight in dry tons for each source of ash that was placed at the site.
- 8. If ash authorized under this general permit was beneficially at abandoned coal, the land applier of ash shall submit an annual report to the appropriate Department's District Mining Office, prior to January 31, for the previous calendar year that shall include company contact information, the identity of the reclamation contract with the Department, the identity of each source of ash and its Department-assigned certification identifier, and the volume in cubic yards and the weight in dry tons for each source of ash that was placed at the site.

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G. Permit Renewal.

1. 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)".

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.

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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

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