

**350.270 Disposal of coal combustion by-products at surface coal mining operations  
-- Permitting process -- Requirements for disposal -- Authority for  
administrative regulations.**

- (1) The cabinet may issue a permit under this chapter authorizing the disposal of coal combustion by-products at surface coal mining operations.
- (2) This section shall apply to the disposal of waste from burning clean oil or gas with coal, if the oil or gas is used only for startup or flame stabilization. This section shall not apply to disposal of coal combustion by-products for which a special waste formal permit or a special waste registered permit-by-rule is required under administrative regulations promulgated pursuant to KRS Chapter 224. This section shall also not apply to disposal of coal combustion by-products that have been mixed or otherwise co-managed with low volume waste or with materials that exhibit hazardous waste characteristics. This section shall also not apply to coal combustion by-products generated prior to July 15, 1994, unless the applicant can demonstrate to the satisfaction of the cabinet that these coal combustion by-products have not been mixed or otherwise co-managed with low volume waste or with materials that exhibit hazardous waste characteristics. This section shall also not apply to underground injection of coal combustion by-products.
- (3) An application to modify an existing permit to initially include disposal of coal combustion by-products shall be an application for a major revision or an amendment under KRS 350.070.
- (4) An application under this section to modify an existing permit issued under this chapter that includes coal combustion by-product disposal pursuant to a permit issued under KRS Chapter 224, where the application proposes disposal of the same coal combustion by-products in the same locations as approved in these existing permits in a manner consistent with the disposal requirements of this section, may be made by application for a minor revision.
- (5) An application to modify an existing permit to increase the amount of coal combustion by-products to be received, to change the components of the coal combustion by-products, or to change the generating facility, may be an application for a minor revision. However, if the cabinet determines that the scope and nature of the proposed change will have the effect of increasing the concentrations of heavy metals, or is such that public notice is necessary to allow participation in the cabinet's decision by persons who have an interest which may be adversely affected by the proposed change, the change shall be made by application for a major revision.
- (6) The permittee shall keep accurate records, which shall be made available to the cabinet upon request, showing the source and amount of each shipment of coal combustion by-products that is received.
- (7) Prior to disposal of the coal combustion by-products, any material that is not the coal combustion by-products approved for disposal shall be removed from the coal combustion by-products. A record shall be kept of the removed material and its disposition, and this record shall be available at the minesite for examination by the cabinet.

- (8) Coal combustion by-products shall be disposed of only in the pit or extraction area from which coal has been removed by surface mining activities; except that coal combustion by-products may be disposed of in areas within the permit area other than coal extraction areas if the applicant demonstrates to the satisfaction of the cabinet, based upon site specific conditions and the characteristics of the coal combustion by-products, that no adverse environmental impacts will occur.
- (9) No component of the coal combustion by-products to be disposed of shall be listed or meet the criteria of a hazardous waste in the cabinet's administrative regulations promulgated pursuant to KRS Chapter 224 and the Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended.
- (10) The permittee shall prepare and maintain accurate maps, which shall be made available to the cabinet upon request, showing each location where coal combustion by-products have been disposed of under this section and the volume of coal combustion by-products disposed of at that location. Phase I bond release shall not be granted for an area containing coal combustion by-products unless the permittee has submitted to the cabinet accurate maps showing the locations and volumes of the coal combustion by-products disposed of under this section.
- (11) If requested by the cabinet, or if required by the issued permit, the applicant or permittee shall provide representative samples of the coal combustion by-products to the cabinet in a manner satisfactory to the cabinet.
- (12) The permittee shall annually obtain and submit to the cabinet, a laboratory analysis to characterize the coal combustion by-products in the manner required under the cabinet's administrative regulations promulgated pursuant to KRS Chapter 224 and the Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended.
- (13) If the disposal of coal combustion by-products is proposed, any newspaper advertisements required under KRS 350.055 shall also state that the applicant proposes to dispose of coal combustion by-products in the permit area and shall state the location, business name, and mailing address of the facility that will generate the coal combustion by-products.
- (14) The application shall demonstrate that the applicant has the legal right to dispose of coal combustion by-products on the proposed disposal areas. The application shall include a copy of the conveyance that grants or reserves the right to dispose of waste materials such as coal combustion by-products. If the mineral estate has been severed from the surface estate, the application shall include the written consent of the surface owner for the disposal of coal combustion by-products or a copy of the conveyance that expressly grants or reserves the right to dispose of coal combustion by-products.
- (15) The application shall state:
  - (a) The location, business name, mailing address, and telephone number of the facility that will generate the coal combustion by-products, and the name and title of the responsible official of the generating facility who may be contacted regarding the coal combustion by-products;

- (b) Each of the component materials, fly ash, bottom ash, scrubber sludge, or fluidized bed combustion waste that the coal combustion by-products will contain; and
  - (c) The approximate volume in cubic yards, and the approximate tonnage, of coal combustion by-products that will be received from the generating facility annually and for the term of the permit.
- (16) The application shall include the results of representative sampling and laboratory analysis of each component of the coal combustion by-products for contaminants listed in the cabinet's administrative regulations promulgated pursuant to KRS Chapter 224 and the Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended, using analytical testing methods performed in accordance with those administrative regulations. The analysis for metals shall include aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, molybdenum, nickel, selenium, mercury, silver, thallium, vanadium, and zinc. The analysis shall also include the neutralization potential and potential acidity. The application shall demonstrate that each component of the coal combustion by-products shall not contain any contaminant at a concentration that equals or exceeds the regulatory level set forth in the cabinet's administrative regulations promulgated pursuant to KRS Chapter 224 and the Resource Conservation and Recovery Act of 1976 (Public Law 94-580), as amended.
- (17) The application shall describe the proposed methods of coal combustion by-product handling and disposal, including methods of record keeping.
- (18) The application shall include appropriate maps and drawings of all areas and facilities to be used in the permit area for coal combustion by-product handling and disposal.
- (19) Each application for disposal of coal combustion by-products shall contain a determination of the probable hydrologic consequences of the disposal of coal combustion by-products for the permit and adjacent area and shall include a description of the measures to be taken to assure that the disposal will not pose a threat to human health or the environment, to minimize disturbances to the hydrologic balance within the permit area and adjacent area, and to prevent material damage to the hydrologic balance outside the permit area. The description shall be based on the baseline hydrologic, geologic, and other information required under this chapter and shall identify the protective measures to be taken to meet the requirements of this chapter or demonstrate to the satisfaction of the cabinet that protective measures are not necessary for the operation to meet the requirements, considering the characteristics and volume of the coal combustion by-products and the hydrogeologic characteristics of the site determined from the baseline hydrologic, geologic, and other information required under this chapter. The application shall describe the measures to be taken to prevent coal combustion by-products from becoming airborne.
- (20) The application shall include baseline data to characterize the quality of ground water and surface water in areas that may be affected by disposal of coal combustion by-products.

- (21) Surface water and ground water baseline data collection and monitoring stations shall be established, as appropriate, to satisfy the requirements of this chapter. In determining the acceptable number and locations of monitoring wells, the cabinet shall recognize the distinct differences between disposal of coal combustion by-products under this section and the disposal of coal combustion by-products for which a special waste formal permit or a special waste registered permit-by-rule is required under administrative regulations promulgated pursuant to KRS Chapter 224.
- (22) The characterization of ground water shall include the parameters of total dissolved solids, or specific conductance corrected to twenty-five (25) degrees Celsius; pH; dissolved iron; dissolved manganese; acidity; alkalinity; sulfate; arsenic; barium; cadmium; chromium; lead; mercury; selenium; and silver; except the cabinet may require different parameters for an application based upon the demonstrated characteristics of the coal combustion by-products.
- (23) The characterization of surface water shall include the parameters of total dissolved solids, or specific conductance corrected to twenty-five (25) degrees Celsius; total suspended solids; pH; total iron; total manganese; acidity; alkalinity; sulfate; arsenic; barium; cadmium; chromium; lead; mercury; selenium; and silver; except the cabinet may require different parameters for an application based upon the demonstrated characteristics of the coal combustion by-products.
- (24) The minimum number of sampling events for baseline characterization of ground water and surface water for parameters beyond those normally required for surface coal mining operations shall be in accordance with cabinet administrative regulations promulgated pursuant to KRS Chapter 224 pertaining to special waste landfills used solely for the disposal of coal combustion by-products.
- (25) The application shall include a plan for the monitoring and reporting, until final bond release on the permit area, of the quality of ground water and surface water in areas that may be affected by disposal of coal combustion by-products and shall provide for monitoring capable of detecting if contaminants from the coal combustion by-products are entering ground water and surface water.
- (26) The performance bond required under this chapter shall cover the disposal of coal combustion by-products on the permit area.
- (27) A permittee, operator, or person disposing of coal combustion by-products under this section shall comply with the following additional environmental protection performance standards:
  - (a) The coal combustion by-products shall be handled and disposed by the method approved in the permit.
  - (b) Disposal areas and facilities used for coal combustion by-products handling and disposal shall be designed, located, operated, and maintained to assure that the handling and disposal will not pose a threat to human health or the environment, to minimize disturbances to the hydrologic balance within the permit area and adjacent area, and to prevent material damage to the hydrologic balance outside the permit area, as required under this chapter.

- (c) To the extent practicable, areas to receive coal combustion by-products shall be selected to minimize water contact with the coal combustion by-products.
  - (d) The coal combustion by-products shall be placed at least four (4) feet above the seasonal high water table that is projected to be established after completion of mining and reclamation, unless the applicant demonstrates to the satisfaction of the cabinet, based upon site specific conditions and the characteristics of the coal combustion by-products, that no adverse environmental impacts will occur.
  - (e) The coal combustion by-products shall not be placed within four (4) feet horizontally of a final highwall, exposed coal seam, or coal outcrop.
  - (f) The volume of coal combustion by-products disposed of on the permit area shall not exceed the in-place volume of the marketable coal seams to be removed from the permit area.
  - (g) Disposal of coal combustion by-products shall not result in a greater amount of excess spoil than the amount that would result if disposal of coal combustion by-products were not part of the permitted operation.
  - (h) The thickness of coal combustion by-products at any point in any disposal area shall not exceed forty (40) feet.
  - (i) The cabinet may reduce the allowable maximum volume or thickness of coal combustion by-products for a disposal area if the cabinet determines, based upon site specific conditions and the characteristics of the coal combustion by-products, that the reduction in volume or thickness is necessary to assure protection of human health and the environment.
  - (j) After the coal combustion by-products are placed in the disposal area, they shall be covered as contemporaneously as practicable with at least four (4) feet of nonacid-forming spoil material.
- (28) The permittee shall monitor and report the quality of surface and ground water quarterly, except the monitoring of water quality parameters beyond those normally required for surface coal mining operations shall be conducted semiannually. The monitoring shall be conducted until final bond release on the permit area; except after four (4) initial monitoring events for the parameters beyond those normally required for surface coal mining operations, if analysis of subsequent monitoring events indicates no exceedences above maximum contaminant levels under cabinet administrative regulations promulgated pursuant to KRS Chapter 224 and the Safe Drinking Water Act of 1974 (Public Law 93-523), as amended, the permittee may, upon request, be granted permission from the cabinet to reduce monitoring parameters required under this chapter. The monitoring and reporting shall comply with the plan approved pursuant to subsection (25) of this section.
- (29) The monitoring and reporting of ground water quality shall include the parameters used in the baseline characterization of ground water under subsection (22) of this section, except the cabinet may require different parameters for a permit based upon the demonstrated characteristics of the coal combustion by-products.
- (30) The monitoring and reporting of surface water quality shall include the parameters

used in the baseline characterization of surface water under subsection (23) of this section, except the cabinet may require different parameters for a permit based upon the demonstrated characteristics of the coal combustion by-products.

- (31) The cabinet shall, upon July 15, 1994, process applications submitted under this section in the same manner as other permit applications submitted under this chapter.
- (32) The cabinet may promulgate administrative regulations under this section pertaining to the disposal of coal combustion by-products.

**Effective:** July 15, 1994

**History:** Created 1994 Ky. Acts ch. 459, sec. 2, effective July 15, 1994.