



Kentucky
Department for Surface Mining
Reclamation and Enforcement

Reclamation Advisory Memorandum

From: Commissioner Elmore C. Grim

E.C.G.

Date: September 21, 1982

Subject: Coal Waste Sites

RAM# 49

Attached is a copy of emergency regulation 405 KAR 7:050E, regarding coal waste sites, which became effective on September 21, 1982. This regulation was necessary in order to provide this department with the information needed to identify potentially hazardous coal waste sites and the clear authority to prevent the development of hazardous conditions and to deal effectively with hazardous conditions.

The Abandoned Mine Lands fund is being used to identify and correct hazardous conditions at coal waste sites which were abandoned prior to August 3, 1977. However, coal waste sites used or built new after August 3, 1977 are the responsibility of the owners and operators of the sites.

Some sites which were used after August 3, 1977 were later abandoned and not included in permits from this department. Also, for some sites which were included in permits issued after May 3, 1978, we do not have sufficient detailed engineering information in the interim permit because of the limited requirements on coal waste in the interim program regulations. Thus, for many coal waste sites used after August 3, 1977, we need more information. This emergency regulation will require that the necessary information be submitted to the department, unless it has already been submitted as part of a permit application.

Within 60 days, a location map (preferably a USGS topographic map) and as-built drawings must be submitted for all coal waste sites used after August 3, 1977.

Also, detailed engineering information which the owner or operator already has available, such as engineering plans submitted to MSHA, must be submitted to the department, unless it has already been submitted as part of a permit application. Please note that only existing detailed engineering information is required within 60 days. This regulation does not require that new engineering studies be undertaken within the next 60 days. If you have already submitted the information to the department, you may write the regional office and tell us; otherwise, you must submit the information.

For coal waste banks which are not impoundments, where engineering plans have been approved by MSHA, this regulation requires the owner/operator to comply with those plans, and this department will take direct enforcement action to insure that the approved plans are complied with. Additionally, this regulation requires that owners/operators comply with the applicable MSHA regulations at 30 CFR 77.214 and 77.215 for such sites. Sites which are impoundments must comply with the interim Kentucky regulations on impoundments at 405 KAR 1:210 and 3:180. Where existing coal waste sites will be included in a permanent program permit application, they must also comply with 405 KAR 7:040E, Section 4.

Where the department finds potential or actual significant problems at a site, the department will require the owner/operator to prepare and submit whatever additional engineering information is necessary for a thorough evaluation of the site. When necessary, the department will require the owner/operator to carry out whatever corrective measures are needed to insure the stability of the site.

All maps and engineering documents must be certified according to 405 KAR 7:040E, Section 10.

Effective immediately, all ongoing construction at coal waste sites must be periodically inspected by registered professional engineers (or persons under their supervision) and the inspection certified under 405 KAR 7:040E Section 10. This is essentially the same inspection procedure that will be required for coal waste sites under permanent program permits.

We know the industry shares our concern for the stability of waste sites, and we expect to have the industry's full cooperation in this effort.

If you have any questions, please call us.

Attachments

NATURAL RESOURCES AND ENVIRONMENTAL
PROTECTION CABINET
Department for Surface Mining Reclamation
and Enforcement

405 KAR 7:050E. Coal processing waste disposal sites.

RELATES TO: KRS 350.020, 151.125, 151.297, 224.071

PURSUANT TO: KRS 13.082, 350.020, 151.125, 224.033

NECESSITY AND FUNCTION: KRS 350.020 states that unregulated surface coal mining operations create hazards dangerous to life and property and that it is the purpose of KRS Chapter 350 to provide such regulation and control of these operations in order to minimize or prevent injurious effects on the people and resources of the commonwealth. KRS 350.020 directs the department to adopt whatever regulations are found necessary to accomplish the purpose of KRS Chapter 350. Furthermore, KRS 151.125 and 151.297 provide for the issuance of remedial orders whenever life or property are or may be endangered by the failure of any dam, reservoir, levee, embankment, or other water barrier. In addition, KRS 224.071 provides for the issuance of abate and alleviate orders when there is a danger to the health or welfare of the people of the Commonwealth or to natural resources. This regulation provides for the control of coal processing waste dams, waste impoundments, and waste banks in order to prevent loss of life, damage to property, and injurious effects on the environment of the Commonwealth due to structural failure of these facilities and is necessary because such facilities are not otherwise adequately regulated. This regulation provides, among other things, for submittal of engineering reports, performance standards, and remedial measures to correct dangerous facilities.

Section 1. Applicability. This regulation applies to all coal processing waste disposal sites, whether dams, waste impoundments, or waste banks, that were constructed or utilized after August 3, 1977, regardless of whether or not the sites are or have been under permit or bond under KRS Chapter 350.

Section 2. Reports.

(1) Within sixty (60) days of the effective date of this regulation, operators or owners of coal processing waste disposal sites shall submit two (2) copies of the following to the department regional office:

(a) All existing information currently available to the operator or owner including complete design of the facility, stability analyses, and a description of the coal processing waste material at the site including moisture content and particle size gradation. This shall also include copies of plans submitted to and/or approved by MSHA. If such plans submitted to MSHA include all of the information required by this paragraph, then submittal of copies of such plans shall suffice. Where information required by this paragraph has already been submitted to the department as a part of a permit application, the operator or owner shall so notify the department regional office in writing and need not resubmit duplicate material.

(b) As-built drawings of the current phase of construction or of the completed facility as applicable, including a map showing the location of the facility.

(2) Analyses and descriptions submitted under subsection (1)(a) of this section shall be based upon current information available to the operator or owner. However, on a case-by-case basis, at any time, the department may require the operator or owner to submit such additional plans and analyses or to conduct such investigations and testing of materials as necessary to determine the stability of the facility where failure of the facility could cause damage to life or property or injurious effects on the environment of the Commonwealth. This may include, but is not limited to, seepage investigations, settlement studies based on compressibility and mining subsidence, foundation investigations including borings or test pits, laboratory testing of foundation materials, and determination of strength parameters based on laboratory testing of site specific coal processing waste materials.

Section 3. Performance standards.

(1) Any coal processing waste disposal site impounding water, or impounding coal processing waste which is physically unstable due to excessive moisture content or excessive fine-grained material, and any dam containing coal processing waste in the embankment shall comply with either 405 KAR 1:210 or 405 KAR 3:180.

(2) All other coal processing waste disposal sites shall comply with 30 CFR 77.214 and 30 CFR 77.215, provided, however, no facility shall be constructed in such manner that it may cause loss of life, damage to property, or injurious effects on the environment of the Commonwealth due to structural failure of the facility.

(3) Those portions of structures that have already been constructed and structures that have been completed need not be reconstructed except where reconstruction is determined by the department to be necessary to ensure stability of the facility in order to eliminate potential hazards to life or property or to prevent injurious effects on the environment of the Commonwealth.

(4) Nothing in this regulation shall be construed as relieving an operator from the obligation to comply with any other provision of this Title, including, but not limited to, compliance with the permanent program performance standards and the requirements for existing structures at 405 KAR 7:040E, Section 4.

Section 4. Remedial measures. Operators or owners of coal processing waste disposal sites may be required by the department to revise the facility design and/or to implement such remedial measures as necessary to comply with Section 3.

Section 5. Certifications.

(1) All designs, maps, plans, and drawings submitted under this regulation shall be prepared and certified by a qualified registered professional engineer.

(2) Construction or reconstruction of coal processing waste disposal sites shall be inspected during and after construction by a qualified registered professional engineer or by qualified persons under the engineer's supervision and the facility shall be certified within two (2) weeks of each inspection by the responsible qualified registered professional engineer as having been constructed in accordance with the design approved by the department. Where the department has not yet reviewed and approved the design, the engineer shall make the certifications based upon the design approved by MSHA.

Chapter I—Mine Safety and Health Admin.

§ 77.214 Refuse piles; general.

(a) Refuse piles constructed on or after July 1, 1971, shall be located in areas which are a safe distance from all underground mine airshafts, preparation plants, tipples, or other surface installations and such piles shall not be located over abandoned openings or steamlines.

(b) Where new refuse piles are constructed over exposed coal beds the exposed coal shall be covered with clay or other inert material as the piles are constructed.

(c) A fireproof barrier of clay or inert material shall be constructed between old and new refuse piles.

(d) Roadways to refuse piles shall be fenced or otherwise guarded to restrict the entrance of unauthorized persons.

[36 FR 9364, May 22, 1971, as amended at 36 FR 13143, July 15, 1971]

§ 77.215 Refuse piles; construction requirements.

(a) Refuse deposited on a pile shall be spread in layers and compacted in such a manner so as to minimize the flow of air through the pile.

(b) Refuse shall not be deposited on a burning pile except for the purpose of controlling or extinguishing a fire.

(c) Clay or other sealants shall be used to seal the surface of any refuse pile in which a spontaneous ignition has occurred.

(d) Surface seals shall be kept intact and protected from erosion by drainage facilities.

(e) Refuse piles shall not be constructed so as to impede drainage or impound water.

(f) Refuse piles shall be constructed in such a manner as to prevent accidental sliding and shifting of materials.

(g) No extraneous combustible material shall be deposited on refuse piles.

(h) After October 31, 1975 new refuse piles and additions to existing refuse piles, shall be constructed in compacted layers not exceeding 2 feet in thickness and shall not have any slope exceeding 2 horizontal to 1 vertical (approximately 27°) except that the District Manager may approve construction of a refuse pile in compacted layers exceeding 2 feet in thickness and with slopes exceeding 27° where engineering data substantiates that a minimum safety factor of 1.5 for the refuse pile will be attained.

(i) Foundations for new refuse piles and additions to existing refuse piles shall be cleared of all vegetation and

undesirable material that according to current, prudent engineering practices would adversely affect the stability of the refuse pile.

(j) All fires in refuse piles shall be extinguished, and the method used shall be in accordance with a plan approved by the District Manager. The plan shall contain as a minimum, provisions to ensure that only those persons authorized by the operator, and who have an understanding of the procedure to be used, shall be involved in the extinguishing operation.

(Secs. 101, 508, Pub. L. 91-173, 83 Stat. 745, 803 (30 U.S.C. 811, 957))

[36 FR 9364, May 22, 1971, as amended at 40 FR 41776, Sept. 9, 1975]

§ 77.215-1 Refuse piles; identification.

A permanent identification marker, at least six feet high and showing the refuse pile identification number as assigned by the District Manager, the name associated with the refuse pile and the name of the person owning, operating or controlling the refuse pile, shall be located on or immediately adjacent to each refuse pile within the time specified in paragraphs (a) or (b) of this section as applicable.

(a) For existing refuse piles, markers shall be placed before May 1, 1976.

(b) For new or proposed refuse piles, markers shall be placed within 30 days from acknowledgment of the proposed location of a new refuse pile.

(Secs. 101, 508, Pub. L. 91-173, 83 Stat. 745, 803 (30 U.S.C. 811, 957))

[40 FR 41776, Sept. 9, 1975]

§ 77.215-2 Refuse piles; reporting requirements.

(a) The proposed location of a new refuse pile shall be reported to and acknowledged in writing by the District Manager prior to the beginning of any work associated with the construction of the refuse pile.

(b) Before May 1, 1976, for existing refuse piles, or within 180 days from the date of acknowledgment of the proposed location of a new refuse pile, the person owning, operating or controlling a refuse pile shall submit to the District Manager a report in triplicate which contains the following:

(1) The name and address of the person owning, operating or controlling the refuse pile; the name associated with the refuse pile; the identification number of the refuse pile as assigned by the District Manager; and the identification number of the mine or preparation plant as assigned by MSHA.

(2) The location of the refuse pile indicated on the most recent USGS 7½ minute or 15 minute topographic quadrangle map, or a topographic map of equivalent scale if a USGS map is not available.

(3) A statement of the construction history of the refuse pile, and a statement indicating whether the refuse pile has been abandoned in accordance with a plan approved by the District Manager.

(4) A topographic map showing at a scale not to exceed 1 inch=400 feet, the present and proposed maximum extent of the refuse pile and the area 500 feet around the proposed maximum perimeter.

(5) A statement of whether or not the refuse pile is burning.

(6) A description of measures taken to prevent water from being impounded by the refuse pile or contained within the refuse pile.

(7) At a scale not to exceed 1 inch=100 feet, cross sections of the length and width of the refuse pile at sufficient intervals to show the approximate original ground surface, the present configuration and the proposed maximum extent of the refuse pile, and mean sea level elevations at significant points.

(8) Any other information pertaining to the stability of the pile which may be required by the District Manager.

(c) The information required by paragraphs (b)(4) through (b)(8) of this section shall be reported every twelfth month from the date of original submission for those refuse piles which the District Manager has determined can present a hazard and which have not been abandoned in accordance with a plan approved by the District Manager.

(Secs. 101, 508, Pub. L. 91-173, 83 Stat. 745, 803 (30 U.S.C. 811, 957))
[40 FR 41776, Sept. 9, 1975]

§ 77.215-3 Refuse piles: certification.

(a) Within 180 days following written notification by the District Manager that a refuse pile can present a hazard, the person owning, operating, or controlling the refuse pile shall submit to the District Manager a certification by a registered engineer that the refuse pile is constructed or has been modified in accordance with current, prudent engineering practices to minimize the probability of impounding water and failure of such magnitude as to endanger the lives of miners.

(b) After the initial certification required by this section, certifications shall be submitted every twelfth month from the date of the initial certification for all refuse piles which have not been abandoned in accordance with a plan approved by the District Manager.

(c) Certifications required by paragraphs (a) and (b) of this section shall include all information considered in making the certification.

(Secs. 101, 508, Pub. L. 91-173, 83 Stat. 745, 803 (30 U.S.C. 811, 957))
[40 FR 41776, Sept. 9, 1975]

§ 77.215-4 Refuse piles: abandonment.

When a refuse pile is to be abandoned, the District Manager shall be notified in writing, and if he determines it can present a hazard, the refuse pile shall be abandoned in accordance with a plan submitted by the operator and approved by the District Manager. The plan shall include a schedule for its implementation and describe provisions to prevent burning and future impoundment of water, and provide for major slope stability.

(Secs. 101, 508, Pub. L. 91-173, 83 Stat. 745, 803 (30 U.S.C. 811, 957))
[40 FR 41776, Sept. 9, 1975]