

405 KAR 30:390. Backfilling and grading.

RELATES TO: KRS 350.600

STATUTORY AUTHORITY: KRS 151.125, 224.033, 350.028, 350.050, 350.600

CERTIFICATION STATEMENT:

NECESSITY, FUNCTION, AND CONFORMITY: KRS 350.600 requires the Environmental and Public Protection Cabinet to develop administrative regulations for oil shale operations to minimize and prevent their adverse effects on the citizens and the environment of the Commonwealth. This administrative regulation sets forth requirements relating to the backfilling and grading of areas affected by oil shale operations.

Section 1. Postmining final graded slopes need not be uniform nor does the mined area have to be backfilled to achieve the approximate original contour of the land surface.

Section 2. Spoil, spent shale and other wastes may be disposed of in the mined area provided it is demonstrated to the satisfaction of the cabinet by hydrological means and chemical and physical analyses that these waste materials are suitable for use as fill material and that use of these materials will not adversely affect water quality, water flow, and vegetation; will not present hazards for public health and safety; and will not cause instability in the backfilled area.

Section 3. Covering and Stabilizing.

(1) Any acid-forming or toxic-forming materials, combustible materials, or any other mining waste materials that are exposed, used, or produced during mining shall be covered with a minimum of four (4) feet of nontoxic and nonacid forming material; or, if necessary, treated in order to prevent water pollution and sustained combustion, and to minimize adverse effects on plant growth and land uses. These four (4) feet of nontoxic, nonacid forming material do not include the topsoil or topsoil substitute material required in 405 KAR 30:290 relating to topsoil and 405 KAR 30:280 covering prime farmland. Acid-forming or toxic-forming material shall not be buried or stored in proximity to a drainage course so as to pose a threat of water pollution or otherwise adversely affect the hydrologic balance.

(2) Backfilled materials shall be selectively placed and compacted as necessary to prevent leaching of acid-forming and toxic-forming materials into surface or subsurface waters and wherever necessary to ensure the stability of the backfilled materials. The method of compacting backfill material and the design specifications shall be approved by the cabinet before the acid-forming or toxic-forming materials are covered.

(3) Where highwalls are created during mining which contain various geologic zones with substantially different weathering rate, the permittee shall, at a minimum, backfill all zones which are overlain by a formation with a much slower weathering rate.

(4) All backfilling shall be placed and compacted to achieve a minimum static safety factor of one and three-tenths (1.3) or higher if deemed necessary by the cabinet based on specific site conditions.

(5) Spent shale shall be disposed of in mined areas in accordance with the requirements of 405 KAR 30:370, Sections 1(1) and 2 of this administrative regulation.

Section 4.

(1) Where deemed necessary by the cabinet impervious liner(s) will be required in backfill areas to protect water quality, water flow, water quantity, and vegetation, and to prevent hazards to public health and safety.

(2) The cabinet shall approve the type and order in which all materials are backfilled.

Section 5. Grading Along the Contour. All final grading, preparation of overburden before replacement of topsoil or topsoil substitute, and placement of topsoil, in accordance with the

provisions of 405 KAR 30:290, shall be conducted in a manner which minimizes erosion and provides a surface for replacement of topsoil which will minimize slippage.

Section 6. Regrading or Stabilizing Rills and Gullies. When rills or gullies deeper than nine (9) inches form in areas that have been regraded and the topsoil or topsoil substitute material replaced but vegetation has not yet been established, the permittee shall fill, grade, or otherwise stabilize the rills and gullies and reseed or replant the areas in accordance with 405 KAR 30:400 with regard to revegetation. The cabinet shall specify that rills or gullies of lesser size be stabilized if the rills or gullies will be disruptive to the approved postmining land use or may result in additional erosion and sedimentation.

Section 7. Small Depressions. If approved by the cabinet, small depressions may be constructed to minimize erosion, conserve soil moisture, or promote revegetation. The depressions shall be compatible with the approved postmining land use and shall not be inappropriate substitutes for construction of lower grades on the reclaimed lands. Depressions approved under this section shall have a holding capacity of less than one (1) cubic yard of water or, if it is necessary that they be larger, shall not restrict normal access throughout the area or constitute a hazard.

Section 8. Permanent Impoundments. If approved in the postmining land use plan, permanent impoundments may be retained on mined and reclaimed areas. No impoundments shall be constructed on top of areas in which mining and processing waste materials or spent shale are deposited. Impoundments shall not be used to meet the requirements of Section 4 of this administrative regulation with regard to covering of acid-forming and toxic-forming materials, spent shale or other waste materials.

(405 KAR 030:390. 8 Ky.R. 133; 489; eff. 3-1-1982; 9 Ky.R. 964; eff. 10-5-1983; TAm eff. 8-9-2007; Crt eff. 7-3-2018; Crt eff. 6-30-2025.)