

## **405 KAR 5:050. Protection of surface water quantity and quality.**

RELATES TO: KRS 350.010(2), 350.240, 350.300

STATUTORY AUTHORITY: KRS Chapter 13A, 350.028, 350.029, 350.240, 350.300

NECESSITY, FUNCTION, AND CONFORMITY: KRS Chapter 350 in pertinent part, requires the cabinet to promulgate administrative regulations pertaining to noncoal mineral operations to minimize their adverse effects on the citizens and the environment of the Commonwealth. This administrative regulation sets forth general provisions and specifications for the protection of surface waters from noncoal mineral operations.

Section 1. General. (1) Appropriate protection measures shall be designed, constructed, and maintained to minimize disturbance of surface water quantity and quality within the permit area, to prevent material damage to surface water quantity and quality outside the permit area, and to prevent additional contributions of sediment to streamflow or to run-off outside the permit area.

(2) Protection measures include practices carried out within and adjacent to the disturbed area.

(3) The scale of downstream practices shall reflect the degree to which successful techniques are applied at the sources of the disturbance.

(4) Surface water quantity and quality protection measures consist of the utilization of proper mining, reclamation methods, and incorporated practices, singly or in combination, including but not limited to:

(a) Disturbing the smallest practicable area at any one time during the mineral operation through progressive backfilling and grading, and timely revegetation;

(b) Shaping the backfill material to encourage a reduction in the velocity of run-off, to an extent which is consistent with the requirements of this chapter;

(c) Retention of sediment within the pit and disturbed area;

(d) Utilization of straw dikes, riprap, check dams, mulches, vegetative buffer zones, dugout ponds, silt fence, and other measures that reduce overland flow velocity, reduce run-off volume, and entrap sediment;

(e) Utilization of other appropriate treatment facilities such as chemical treatment for acid and metals; and

(f) Sedimentation ponds.

(5) Maximum utilization shall be made of on site sediment control practices.

(6) All surface drainage from the disturbed area, including disturbed areas which have been graded, seeded, or planted, shall pass through sediment control structures and, where necessary, other treatment facilities that have been approved by the cabinet, before leaving the permit area.

(a) For the purpose of this administrative regulation, disturbed area shall not include those areas in which only diversion ditches, sedimentation ponds, or roads are installed in accordance with 405 KAR Chapter 5 and the upstream area is not otherwise disturbed by the mineral permittee.

(b) Sediment control structures shall be retained until untreated drainage from the disturbed area has met the water quality requirements of the administrative regulations of the Division of Water and the revegetation requirements of 405 KAR 5:070 have been met.

(c) All sedimentation ponds required shall be constructed in accordance with this chapter and placed in appropriate locations prior to any mining in the affected drainage area in order to control sedimentation or otherwise treat water.

(d) Sedimentation ponds may be used individually or in series, and shall be located as near as possible to the disturbed area, and where possible, out of major stream courses.

(7) No mineral operation shall violate any state or federal water quality standard or the effluent limitations established in the administrative regulations of the Division of Water.

(8) The cabinet may require other actions, above and beyond the requirements of this administra-

tive regulation, as necessary to ensure that surface waters are protected.

Section 2. Pond Design Specifications. At a minimum, all sedimentation ponds shall be designed to meet the requirements for impoundments in 405 KAR 5:055 and the following additional specifications:

(1) Sedimentation ponds shall be designed, constructed, and maintained to prevent short circuiting.

(2) Sedimentation ponds shall be designed so that discharges from the pond shall meet the effluent limitations of the administrative regulations of the Division of Water.

(3) The elevation of the crest of the emergency spillway shall be a minimum of one and one-half (1.5) feet above the crest of the principal spillway.

Section 3. Sediment Removal. (1) Sediment shall be removed from sedimentation ponds so as to assure maximum sediment removal efficiency and attainment and maintenance of effluent limitations of the administrative regulations of the Division of Water or as directed by the cabinet.

(2) Sediment removal shall be done in a manner that minimizes adverse effects on surface waters due to its chemical and physical characteristics, on infiltration, on vegetation, and on surface and groundwater quality.

(3) Sediment that has been removed from sedimentation ponds and that meets the requirements for topsoil may be redistributed over graded areas. (21 Ky.R. 756; 1131; 2109; eff. 2-22-1995; Crt eff. 7-3-2018.)