

401 KAR 10:029. General provisions.

RELATES TO: KRS 146.200-146.360, 146.410-146.535, 146.550-146.570, 146.600-146.619, 146.990, 224.01-010, 224.01-400, 224.16-050, 224.16-070, 224.70-100-224.70-140, 224.71-100-224.71-145, 224.73-100-224.73-120, 40 C.F.R. 136, 33 U.S.C. 1326(a), EO 2008-507, 2008-531

STATUTORY AUTHORITY: KRS 146.220, 146.241, 146.270, 146.410, 146.450, 146.460, 146.465, 224.10-100, 224.16-050, 224.16-060, 224.70-100, 224.70-110, 40 C.F.R. 131, 136, 16 U.S.C. 1531-1544, 33 U.S.C. 1311, 1312, 1313, 1314, 1316, 1341

NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 requires the cabinet to develop and conduct a comprehensive program for the management of water resources and to provide for the prevention, abatement, and control of water pollution. This administrative regulation and 401 KAR 10:001, 10:026, 10:030, and 10:031 establish procedures to protect the surface waters of the commonwealth, and thus protect water resources. EO 2008-507 and 2008-531, effective June 16, 2008, abolish the Environmental and Public Protection Cabinet and establish the new Energy and Environment Cabinet. This administrative regulation establishes the commonwealth's surface water antidegradation policy, provides for withdrawals of waters not meeting water quality standards, and addresses sample collection and analytical methodology and mixing zones.

Section 1. Antidegradation Policy.

- (1) The purpose of 401 KAR 10:026 through 401 KAR 10:031 is to safeguard the surface waters of the commonwealth for their designated uses, to prevent the creation of new pollution of these waters, and to abate, existing pollution.
- (2) Where the quality of surface waters exceeds that necessary to support propagation of fish, shellfish, wildlife and recreation in and on the water, that quality shall be maintained and protected unless the cabinet finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the cabinet's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.
 - (a) For point source discharges, water quality shall be maintained and protected in these waters according to the procedures specified in 401 KAR 10:030, Section 1(2)(b) or (3)(b).
 - (b) In allowing degradation or lower water quality, the cabinet shall assure water quality adequate to protect existing uses fully.
 - (c) The cabinet shall assure that there shall be achieved the highest statutory and regulatory requirements for waste treatment by all new and existing point sources and that nonpoint sources of pollutants be controlled by application of all cost effective and reasonable best management practices.
- (3) Water quality shall be maintained and protected in a water categorized as an outstanding national resource water according to the procedures specified in 401 KAR 10:030, Section 1(1)(b).
- (4) Water quality shall be maintained and protected in those waters designated as outstanding state resource waters according to the procedures specified in 401 KAR 10:031, Section 8.
- (5) If potential water quality impairment associated with a thermal discharge is involved, a successful demonstration conducted under Section 316 of the Clean Water Act, 33 U.S.C.

1326, shall be in compliance with this section.

Section 2. Withdrawal of Contaminated Water. Surface waters occasionally do not meet the criteria established in 401 KAR 10:031.

- (1) Withdrawal and subsequent discharge of these waters without alteration of the physical or chemical characteristics into the same or similar surface water shall not be considered a violation of water quality standards.
- (2) The cabinet shall determine KPDES permit limitations in these situations based on the quality of the raw and receiving waters.
- (3) The cabinet retains the right to require permit modification under the provisions of 401 KAR 5:035, 5:065, 5:070, 5:075, and 5:080.

Section 3. Sample Collection and Analytical Methodology.

- (1) All methods of preservation and analysis used to determine conformity or nonconformity with water quality standards shall be governed by 40 C.F.R. 136, as amended, if applicable.
- (2) Sample collection and other methods not established in subsection (1) of this section may be used as appropriate if they:
 - (a) Meet commonly accepted quality assurance and quality control principles;
 - (b) Are within the accuracy required for determining conformity or nonconformity with water quality standards; and
 - (c) Receive prior written approval by the cabinet.

Section 4. Mixing Zones. The following requirements shall apply to a mixing zone:

- (1) The cabinet may assign definable geometric limits for mixing zones for a discharge of a pollutant or pollutants within a discharge based on the following criteria:
 - (a) Applicable limits shall include the linear distances from the point of discharge, surface area involvement, volume of receiving water, and shall take into account other nearby mixing zones;
 - (b) Dilution provided by assigned mixing zones shall not be allowed until applicable limits are assigned by the cabinet in accordance with this section;
 - (c) In a stream or river, unless assigned on or before December 8, 1999, an assigned mixing zone, from the point of discharge in a spatial direction, shall not exceed one-third (1/3) of the width of the receiving stream or one-half (1/2) of the cross-sectional area;
 - (d) In a lake or a reservoir, unless assigned on or before December 8, 1999, an assigned mixing zone, from the point of discharge in any spatial direction, shall not exceed one-tenth (1/10) of the width of the lake, or reservoir at the discharge point;
 - (e) An assigned mixing zone shall be limited to an area or volume that shall not adversely affect the designated uses of the receiving water and shall not be so large as to adversely affect an established community of aquatic organisms;
 - (f) The location of a mixing zone shall not:
 1. Interfere with fish spawning or nursery areas, fish migration routes, public water supply intakes, or bathing areas;
 2. Preclude the free passage of fish or other aquatic life; or
 3. Jeopardize the continued existence of endangered or threatened aquatic species listed under Section 4 of the Endangered Species Act, 16 U.S.C. 1531 through 1544, or result in the destruction or adverse modification of their critical habitat;

- (g) For thermal discharges, a successful demonstration conducted under Section 316(a) of the Clean Water Act, 33 U.S.C. Section 1326(a), shall constitute compliance with this section; and
 - (h) Unless assigned by the cabinet on or before September 8, 2004, there shall not be mixing zones for bioaccumulative chemicals of concern.
 - 1. A mixing zone that was assigned by the cabinet for a bioaccumulative chemical of concern shall not expire later than September 8, 2014.
 - 2. a. A bioaccumulative chemical of concern is one that accumulates in one (1) or more aquatic organisms by a human health bioaccumulation factor of greater than 1,000.
 - b. For the purposes of this administrative regulation, bioaccumulative chemicals of concern shall consist of the following:
 - (i) alpha-Hexachlorocyclohexane;
 - (ii) beta-Hexachlorocyclohexane;
 - (iii) Chlordane;
 - (iv) DDD;
 - (v) DDE;
 - (vi) DDT;
 - (vii) delta-Hexachlorocyclohexane;
 - (viii) Dieldrin;
 - (ix) Hexachlorobenzene;
 - (x) Hexachlorobutadiene;
 - (xi) Hexachlorocyclohexane;
 - (xii) Lindane;
 - (xiii) Mercury;
 - (xiv) Mirex;
 - (xv) Octachlorostyrene;
 - (xvi) PCBs;
 - (xvii) Pentachlorobenzene;
 - (xviii) Photomirex;
 - (xix) Toxaphene;
 - (xx) 1,2,3,4-Tetrachlorobenzene;
 - (xxi) 1,2,4,5-Tetrachlorobenzene; and
 - (xxii) 2,3,7,8-TCDD (Dioxin).
- (2) Concentrations of toxic substances that exceed the acute criteria for protection of aquatic life in 401 KAR 10:031 shall not exist within an assigned mixing zone or in the discharge itself unless a zone of initial dilution is assigned.
- (a) A zone of initial dilution shall be assigned pursuant to subsection (3) of this section.
 - (b) Chronic criteria for the protection of aquatic life and criteria for the protection of human health from the consumption of fish tissue shall be met at the edge of the assigned mixing zone.
- (3) The following requirements shall apply to a zone of initial dilution:
- (a) The cabinet shall require an applicant to provide a technical evaluation for a zone of initial dilution;
 - (b) Concentrations of toxic substances shall not exceed the acute criteria for the protection of aquatic life at the edge of the assigned zone of initial dilution, except, numeric acute

criteria may be exceeded within the zone if the frequency and duration of exposure of aquatic organisms are not sufficient to cause acute toxicity; and

- (c) Unless assigned on or before December 8, 1999, a zone of initial dilution for a pollutant shall not be allowed in an exceptional water.
- (4) Unless assigned on or before the most recent effective date of this administrative regulation, a zone of initial dilution for a pollutant shall be available only to a submerged high-rate multiport outfall structure and shall be limited in size to the most restrictive of the following:
 - (a) The acute criteria shall be met within ten (10) percent of the distance from the edge of the outfall structure to the edge of the regulatory mixing zone in a spatial direction;
 - (b) The acute criteria shall be met within a distance of fifty (50) times the square root of the cross-sectional area of a discharge port, in a spatial direction; or
 - (c) The acute criteria shall be met in a horizontal direction within a distance of five (5) times the natural water depth that prevails under mixing zone design conditions, and exists before the installation of a discharge outlet.