

Kansas Administrative Regulations

Kansas Department of Agriculture—Division of Water Resources

Article 40.—Design of Earth Dams

5-40-55. Earthen auxiliary spillways.

Each earthen auxiliary spillway shall meet all of the following requirements: (a) If the design discharge from the auxiliary spillway is directed so that the discharge impinges on the downstream toe of the dam, a wing dike shall be designed and constructed to direct spillway flows away from the downstream toe of the dam.

(b) If the auxiliary spillway is located on the embankment of the dam, adequate armor protection, including articulated blocks, concrete paving, gabion baskets underlain with properly designed bedding, or engineered riprap, shall be placed on the portion of the dam where the auxiliary spillway is located.

(c) The side slopes shall be no steeper than three horizontal units to one vertical unit, unless the spillway is constructed through competent sandstone or limestone.

(d) There shall be at least a 30-foot level section immediately upstream of the control section. Immediately downstream of the control section, the slope of the spillway outlet shall be sufficient to ensure that flows at and above 50 percent of the design storm discharge will flow at a supercritical velocity.

(e) The auxiliary spillway shall be a minimum of three feet deep, as measured from the elevation of the control section to the design top of the dam.

(f) The entrance channel from the reservoir to the level section shall provide a smooth transition that prevents turbulent flow.

(g) The outlet channel shall convey flow to the receiving stream channel with a minimum of erosion.

(h) If a fish screen is installed, the screen shall not impair the functioning of the auxiliary spillway. If a fish screen is proposed, the design report shall demonstrate that the screen will not impair the functioning of the auxiliary spillway.

(Authorized by K.S.A. 2006 Supp. 82a-303a; implementing K.S.A. 2006 Supp. 82a-302 and 82a-303a; effective May 18, 2007.)

***** Authenticated Kansas Administrative Regulation *****