

Kansas Administrative Regulations

Kansas Department of Agriculture—Division of Water Resources

Article 40.—Design of Earth Dams

5-40-30. Time of concentration.

(a) Except as specified in subsections (b) and (c), the time of concentration (T_c) shall be determined by using one of the methods specified in chapter 15, "travel time, time of concentration and lag," in the natural resources conservation service (NRCS) national engineering handbook, part 630, dated August 1972, which is hereby adopted by reference.

(b) For drainage areas of not more than three square miles, the time of concentration (T_c) may be determined by use of the Kirpich formula, which is as follows:

$$T_c = \left(\frac{11.9L^3}{H} \right)^{0.385}$$

Where

T_c = the time of concentration, in hours

L = the longest distance that water has to travel in the drainage basin, in miles

(c) In addition to the methods specified in subsections (a) and (b), the applicant may determine T_c based on sound engineering principles and commonly accepted engineering practices if the applicant obtains the prior written consent of the chief engineer.

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

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