

## **902 KAR 115:010. Water fluoridation for the protection of dental health.**

RELATES TO: KRS Chapter 211

STATUTORY AUTHORITY: KRS 194A.050(1), 211.090(3), 211.180(1), 211.190(11)

NECESSITY, FUNCTION, AND CONFORMITY: KRS 211.190(11) requires the Cabinet for Health and Family Services to provide public health services that include water fluoridation programs for the protection of dental health. This administrative regulation establishes the requirements for the programs.

Section 1. Definitions. (1) "Cabinet" is defined by KRS 194A.005(1).

(2) "Consecutive supply" means a supply that purchases its water from another water system.

Section 2. Community Implementation. The population served by a water system includes its own population and the population served by its consecutive supplies. (1) A water system serving a community population of 3,000 or more, including consecutive supplies, shall adjust fluoride-deficient waters to protect the dental health of the people served by the supply.

(2) A water system serving a population between 1,500 and 3,000 shall provide supplemental fluoridation only if adequate fluoride feed equipment is available from the cabinet, Department for Public Health.

(3) Although not required to provide supplemental fluoridation, a water system serving a population of less than 1,500 that chooses to provide supplemental fluoridation shall do so only if:

(a) Adequate fluoride feed equipment is available from the cabinet, Department for Public Health; and

(b) There are competently trained or certified personnel at the water system.

Section 3. Approval. A water system shall obtain the written approval of the cabinet before adding fluoride to a public water system, pursuant to Section 5 of this administrative regulation.

Section 4. Equipment, Facilities, and Services. The equipment, facilities, and services shall meet the requirements set forth in this section.

(1) Feeding. Feeding equipment with an accuracy within five (5) percent shall be provided to feed the optimal dosage of fluoride.

(a) The rate of feed shall give a fluoride content operating tolerance range between six-tenths (0.6) ppm and one and two-tenths (1.2) ppm in the treated water, with an optimal concentration of seven-tenths (0.7) ppm.

(b) The point of application shall be selected so that fluoride is evenly mixed with the water leaving the treatment plant.

(2) Method of measurement.

(a) Saturator tanks. If solution feed equipment is used, the water plant shall have a corrosion-resistant solution tank and an accurate means for weighing the stock chemical (fluoride) available. A metering device for measuring the water for the solution shall also be used.

(b) Dry feed hoppers. Dry feed hoppers shall be mounted on scales.

(c) Acid systems (H<sub>2</sub>SiF<sub>6</sub>). Scales shall be available to measure the weight loss each day or a volumetric method of measuring the amount of acid being used each day shall be used.

(3) Protection of operator. Precautions shall be taken to protect the operators. Precautions shall include:

- (a) An approved respirator;
- (b) Approved rubber gloves;
- (c) An eye shield;
- (d) An apron; and
- (e) An exhaust or ventilation system for all fluoride feeding equipment.

(4) Storage. Separate storage areas shall be used for all fluoride chemicals.

(5) Laboratory facilities. Laboratory facilities shall be used for the determination of the fluoride content of the water by personnel in accordance with the current standards published by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation.

(6) Samples. Raw water and plant tap water samples shall be examined at least once per day and the results shall be included on the monthly operation report submitted to the Energy and Environment Cabinet in accordance with 401 KAR 8:020.

(a) Additional finished water samples shall be analyzed by a laboratory certified by the Energy and Environment Cabinet in accordance with 401 KAR 8:040 for fluoride determination, with the results being forwarded by the water system to the cabinet, Department for Public Health.

(b) This sampling shall be at a rate of two (2) samples per month.

(c) The first sample shall be collected from the plant tap during the first week of the month and the second sample collected from the distribution system, at a point of maximum retention, during the third week of the month.

(7) Siphon breakers. Fluoride feeders shall be equipped with siphon breakers to prevent back siphonage of concentrated fluoride solution into the distribution system.

(8) Notification of cabinet when fluoride begins. The cabinet shall be notified of the date on which fluoridation is to commence in order that a representative of the cabinet may be present to calibrate and check the fluoridation equipment and instruct the operating personnel concerning tests, records, operation, and safety precautions.

(9) Notice when fluoride is interrupted. The owner or operator of the water plant shall immediately notify the cabinet of any interruption to the addition of fluoride to the water supply.

Section 5. Procedure for Obtaining Approval. A system shall submit to the cabinet:

(1) Detailed plans showing the method and point of application of fluoride and storage facilities for stock chemicals;

(2) Information concerning technical supervision of the treatment process;

(3) Information on the provisions for laboratory facilities; and

(4) Evidence that the plant facilities and operation will provide for:

(a) Control and supervision;

(b) Safe operation and maintenance;

(c) The keeping of operational records; and

(d) Compliance with this administrative regulation and 401 KAR 8:010 through 401 KAR 8:700 relating to public water systems. (21 Ky.R. 816; eff. 9-21-1994; Am. 42 Ky.R. 145; 719; eff. 9-16-2015.)