64683 Corrosion Control Study Procedure

(a)

Each system conducting a corrosion control study shall: (1) Evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the CCT for that system: (A) Alkalinity and pH adjustment; (B) Calcium hardness adjustment; and (C) The addition of a corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration throughout the distribution system. (2) Evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documentation of such treatments from systems of similar size, water chemistry and distribution system configuration. (3) Measure the following WQPs in any tests conducted under this subsection before and after evaluating the corrosion control treatments listed above: (A) Lead; (B) Copper; (C) pH; (D) Alkalinity; (E) Calcium; (F) Conductivity; (G) Corrosion control inhibitor active ingredient (when an inhibitor is used); (H) Water temperature. (4) Identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following: (A) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or (B) Data and documentation demonstrating

that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes. (5) Evaluate the effect of the chemicals used for corrosion control treatment on other water treatment processes. (6) Recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes CCT for that system on the basis of an analysis of the data generated during each evaluation. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (a)(1) through (5) of this section.

(1)

Evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the CCT for that system: (A) Alkalinity and pH adjustment; (B) Calcium hardness adjustment; and (C) The addition of a corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration throughout the distribution system.

(A)

Alkalinity and pH adjustment;

(B)

Calcium hardness adjustment; and

(C)

The addition of a corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration throughout the distribution system.

(2)

Evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documentation of such treatments from systems of similar size, water chemistry and distribution system

configuration.

(3)

Measure the following WQPs in any tests conducted under this subsection before and after evaluating the corrosion control treatments listed above: (A) Lead; (B) Copper; (C) pH; (D) Alkalinity; (E) Calcium; (F) Conductivity; (G) Corrosion control inhibitor active ingredient (when an inhibitor is used); (H) Water temperature.

(A)

Lead;

(B)

Copper;

(C)

pH;

(D)

Alkalinity;

(E)

Calcium;

(F)

Conductivity;

(G)

Corrosion control inhibitor active ingredient (when an inhibitor is used);

(H)

Water temperature.

(4)

Identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following: (A) Data and documentation showing that a particular corrosion control

treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or (B) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(A)

Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(B)

Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5)

Evaluate the effect of the chemicals used for corrosion control treatment on other water treatment processes.

(6)

Recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes CCT for that system on the basis of an analysis of the data generated during each evaluation. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (a)(1) through (5) of this section.

(b)

Based on the study conducted pursuant to subsection (a), and a system's recommended treatment alternative, the Department will either approve the corrosion control treatment option recommended by the system, or designate

alternative corrosion control treatment(s) from among those listed in paragraph (a)(1) of this section, notify the system of its decision on CCT in writing and explain the basis for its determination. If the Department requests additional information to aid its review, the water system shall provide the information.