

## Environmental Protection Agency

## § 141.81

(i) *Reporting requirements.* Systems shall report to the State any information required by the treatment provisions of this subpart and § 141.90.

(j) *Recordkeeping requirements.* Systems shall maintain records in accordance with § 141.91.

(k) *Violation of national primary drinking water regulations.* Failure to comply with the applicable requirements of this section and §§ 141.81 through 141.93, including requirements established by the State pursuant to the provisions in this subpart, is a violation of the national primary drinking water regulations for lead and copper.

(l) *Testing in schools and child care facilities.* All community water systems must collect samples from all schools and child care facilities within its distribution system in accordance with § 141.92.

[56 FR 26548, June 7, 1991; 57 FR 28788, June 29, 1992, as amended at 72 FR 57814, Oct. 10, 2007; 86 FR 4282, Jan. 15, 2021; 86 FR 31947, June 16, 2021]

### **§ 141.81 Applicability of corrosion control treatment steps to small, medium, and large water systems.**

(a) *Corrosion control treatment.* This section sets forth when a system must complete the corrosion control treatment steps for 31947, June optimize corrosion control treatment based on size, whether the system has corrosion control treatment, and whether it has exceeded the lead trigger and/or action level and/or the copper action level.

(1) *Large water system (serving >50,000 people).* (i) Large water systems with corrosion control treatment that exceed either the lead trigger level or copper action level shall complete the corrosion control treatment steps specified in paragraph (d) of this section.

(ii) *Large water systems without corrosion control treatment* with 90th percentile results as calculated in accordance with § 141.80(c)(4) that exceed either the lead practical quantitation level of 0.005 mg/L or the copper action level shall complete the corrosion control treatment steps specified in paragraph (e) of this section.

(iii) *Large water systems with corrosion control treatment* with 90th percentile results as calculated in accordance with § 141.80(c)(4) that exceed the

lead practical quantitation level but do not exceed lead trigger level or the copper action level may be required by the State to complete the corrosion control treatment steps in paragraph (d) of this section.

(2) *Medium-size water systems (serving >10,000 and ≤50,000 people).* (i) Medium-size water systems with corrosion control treatment that exceed either the lead trigger level or copper action level shall complete the corrosion control treatment steps specified in paragraph (d) of this section.

(ii) *Medium-size water systems without corrosion control treatment* that exceed either the lead or copper action level shall complete the corrosion control treatment steps specified in paragraph (e) of this section.

(iii) *Medium-size water systems without corrosion control treatment* that exceed the lead trigger level but do not exceed the lead or copper action levels shall complete the treatment recommendation step specified in paragraph (e)(1) of this section (Step 1). The water system shall complete the remaining steps in paragraph (e) of this section if it subsequently exceeds either the lead or copper action level.

(3) *Small water systems (serving ≤10,000 people) and non-transient, non-community water systems.* (i) Small and non-transient non-community water systems with corrosion control treatment that exceed the lead trigger level or the lead action level but do not exceed the copper action level, shall complete the corrosion control treatment steps specified in paragraph (d) of this section, if corrosion control treatment is approved by the State as a compliance option under § 141.93(a).

(ii) *Small and non-transient, non-community water systems with corrosion control treatment* that exceed the copper action level shall complete the corrosion control treatment steps specified in paragraph (d) of this section.

(iii) *Small and non-transient, non-community water systems without corrosion control treatment* that exceed the lead action level shall complete the corrosion control treatment steps specified in paragraph (e) of this section if corrosion control treatment is approved by the State as a compliance option under § 141.93.

(iv) Small and non-transient, non-community water *systems without corrosion control treatment* that exceed the copper action level shall complete the corrosion control treatment steps specified in paragraph (e) of this section.

(b) *Systems deemed to have optimized corrosion control.* A system is deemed to have optimal corrosion control treatment (OCCT) or re-optimized OCCT if the system satisfies one of the criteria specified in paragraphs (b)(1) through (3) of this section. Any such system deemed to have OCCT under this paragraph and which has corrosion control treatment in place shall continue to operate and maintain that treatment and meet any additional requirements that the State determines to be appropriate to ensure *optimal corrosion control treatment* is maintained.

(1) A small or medium-size water system without corrosion control treatment is deemed to have optimal corrosion control if the water system does not exceed the lead action level and copper action level during two consecutive 6-month tap sampling monitoring periods and thereafter remains at or below the lead trigger level and copper action level in all tap sampling periods conducted in accordance with §141.86.

(2) A small or medium-size water system with corrosion control treatment is deemed to have optimal corrosion control treatment if the water system does not exceed the lead trigger level and copper action level during two consecutive 6-month monitoring periods conducted in accordance with §141.86 and thereafter remains at or below the lead trigger level and copper action level in all tap sampling periods conducted in accordance with §141.86. Small or medium-size systems with corrosion control treatment that exceed the lead trigger level but do not exceed the lead and copper action levels during two consecutive 6-month monitoring periods and thereafter remains at or below the lead and copper action levels in all tap sampling periods conducted in accordance with §141.86 are deemed to have re-optimized *optimal corrosion control treatment* if the system meets the requirements of this section. Where the State has set optimal water quality parameters (OWQPs) under paragraph (d) or (e) of this sec-

tion a system will not be eligible to be deemed to have optimized or re-optimized OCCT pursuant to paragraph (b) of this section.

(3) Any water system is deemed to have optimized or re-optimized corrosion control if it submits results of tap water monitoring in accordance with §141.86 demonstrating that the 90th percentile tap water lead level is less than or equal to the lead practical quantitation level of 0.005 mg/L and does not exceed the copper action level for two consecutive 6-month tap sampling monitoring periods, and does not have optimal water quality parameters that were set by the State under paragraph (d) or (e) of this section. Any such system with 90th percentile tap sample results that thereafter exceeds the lead practical quantitation level or copper action level during any tap sampling period shall not be eligible to be deemed to have optimized OCCT in accordance with this paragraph (b)(3) without first completing the treatment steps specified in paragraph (d) or (e) of this section

(i) [Reserved]

(ii) Any water system deemed to have optimized corrosion control in accordance with this paragraph (b)(3) shall continue monitoring for lead and copper at the tap no less frequently than once every three calendar years using the reduced number of sites specified in §141.86(c) and collecting samples at times and locations specified in §141.86(d)(4)(v).

(iii) through (v) [Reserved]

(c) *Corrosion control steps completion for small and medium-size water systems without corrosion control treatment.* Any small or medium-sized system without corrosion control treatment required to complete the corrosion control steps in paragraph (e) of this section due to its exceedance of the lead or copper action level that does not exceed either the lead or copper action levels during each of two consecutive 6-month tap sample monitoring periods pursuant to §141.86 prior to the start of Step 3 in paragraph (e)(3) of this section or Step 5 in paragraph (e)(5) of this section may cease completing the steps and is not required to complete Step 3 or Step 5, respectively, except that medium-sized systems with lead service lines

and small systems with lead service lines that choose the corrosion control option pursuant to §141.93 must complete a corrosion control treatment study under paragraph (e)(3)(i) of this section. Any system that initiates Step 5 must complete all remaining steps in paragraphs (e)(6) through (8) of this section and is not permitted to cease the steps. Any system that ceases the steps either prior to Step 3 or Step 5 and thereafter exceeds either the lead or copper action level shall not be permitted to cease the steps a second time and shall complete the applicable treatment steps beginning with the first treatment step which was not previously completed in its entirety. The State may require a water system to repeat treatment steps previously completed by the water system when the State determines that this is necessary to implement the treatment requirements of this section. The State must notify the system in writing of such a determination and explain the basis for its decision.

(d) *Treatment steps and deadlines for water systems re-optimizing corrosion control treatment.* Except as provided in paragraph (b) of this section or §141.93, water systems with corrosion control treatment shall complete the following corrosion control treatment steps (described in the referenced portions of §§141.82, 141.86, and 141.87) by the indicated time periods.

(1) *Step 1.* (i) A water system other than those covered in paragraph (d)(1)(ii) of this section shall recommend re-optimized optimal corrosion control treatment (§141.82(c)) within six months after the end of the tap sampling period during which it exceeds either the lead trigger level or copper action level. States may approve modifications of the existing corrosion control treatment without a study for systems that exceed the lead trigger level, but do not exceed the lead or copper action level. The State shall specify re-optimized corrosion control treatment within six months of receiving the treatment recommendation. The system shall complete modifications to corrosion control treatment to have re-optimized corrosion control treatment installed within six

months of the State specifying re-optimized corrosion control treatment.

(ii) A water system with lead service lines that exceeds the lead action level must harvest lead pipes from the distribution system and construct flow-through pipe loops and operate the loops with finished water within one year after the end of the tap sampling period during which it exceeds the lead action level. These water systems must proceed to Step 3 in paragraph (d)(3) of this section and conduct the corrosion control studies for re-optimization under paragraph (d)(3)(i) of this section using the pipe loops.

(2) *Step 2.* (i) Large water systems shall conduct the corrosion control studies for re-optimization under paragraph (d)(3) of this section (Step 3) unless the system is at or below the lead action level and the State has approved the modification of the existing corrosion control treatment made under paragraph (d)(3)(i) of this section (Step 1).

(ii) Within 12 months after the end of the tap sampling period during which a small or medium-size water system with corrosion control treatment exceeds the lead trigger level or copper action level, the State may require the water system to perform corrosion control studies for re-optimization (§141.82(c)(2) or (3)). If the State does not require the system to perform such studies, the State must specify re-optimized corrosion control treatment (§141.82(d)(2)) within the timeframes specified in paragraphs (d)(2)(ii)(A) and (B) of this section. The State must provide its determination to the system in writing.

(A) For medium-size water systems, within 12 months after the end of the tap sampling period during which such water system exceeds the lead trigger level or copper action level.

(B) For small water systems, within 18 months after the end of the tap sampling period during which such water system exceeds the lead trigger level or copper action level.

(3) *Step 3.* (i) Any water system with lead service lines that exceeded the lead action level shall complete the corrosion control treatment studies for re-optimization within 30 months after

the end of the tap sampling period during which it exceeds the lead action level.

(ii) If the water system is required to perform corrosion control studies under paragraph (d)(2) of this section (Step 2), the water system shall complete the studies (§141.82(c)(2)) within 18 months after the State requires that such studies be conducted.

(4) *Step 4.* (i) The State shall designate re-optimized corrosion control treatment (§141.82(d)(3)) within six months after completion of paragraph (d)(3)(i) of this section (Step 3).

(ii) If the water system has performed corrosion control studies under paragraph (d)(2) of this section (Step 2), the State shall designate re-optimized corrosion control treatment (§141.82(d)(2) or (4)) within six months after completion of paragraph (d)(3)(ii) of this section (Step 3).

(5) *Step 5.* (i) Large water systems shall complete modifications to corrosion control treatment to have re-optimized corrosion control treatment installed within 12 months after completion of paragraph (d)(4)(i) of this section (Step 4).

(ii) Small or medium-size water systems shall install re-optimized corrosion control treatment (§141.82(e)(1)) within 12 months after completion of paragraph (d)(4)(ii) of this section (Step 4).

(6) *Step 6.* Water systems must complete follow-up sampling (§§141.86(d)(2) and 141.87(c)) within 12 months after completion of paragraph (d)(5)(i) or (ii) of this section (Step 5).

(7) *Step 7.* The State must review the water system's installation of treatment and designate optimal water quality control parameters (§141.82(f)(1)) within six months of completion of paragraph (d)(6) of this section (Step 6).

(8) *Step 8.* The water system must operate in compliance with the State-designated optimal water quality control parameters (§141.82(g)) and continue to conduct tap sampling (§141.86(d)(3) and water quality parameter monitoring under §141.87(d)).

(e) *Treatment steps and deadlines for systems without corrosion control treatment.* Except as provided in paragraph (b) of this section or §141.93, water sys-

tems without corrosion control treatment must complete the following corrosion control treatment steps (described in the referenced portions of §§141.82, 141.86, and 141.87) by the indicated time periods.

(1) *Step 1.* (i) A water system other than those covered in paragraph (e)(1)(ii) or (iii) of this section must recommend optimal corrosion control treatment (§141.82(a)(1), (2), (3), or (4)) within six months after the end of the tap sampling period during which it exceeds either the lead trigger level or copper action level.

(ii) A water system with lead service lines that exceeds the lead action level must harvest lead pipes from the distribution system and construct flow-through pipe loops and operate the loops with finished water within one year after the end of the tap sampling period during which it exceeds the lead action level. These water systems must proceed to Step 3 in paragraph (e)(3) of this section and conduct the corrosion control studies for optimization under paragraph (e)(3)(i) of this section using the pipe loops.

(iii) Large water systems under paragraph (a)(1)(ii) of this section must conduct the corrosion control studies for optimization under paragraph (e)(3) of this section (Step 3).

(2) *Step 2.* Within 12 months after the end of the tap sampling period during which a water system exceeds the lead or copper action level, if not otherwise required by this rule, the State may require the water system to perform corrosion control studies (§141.82(b)(1)). The State must notify the system in writing of this requirement. If the State does not require the system to perform such studies, the State must specify optimal corrosion control treatment (§141.82(d)(1) or (2)) within the timeframes established in paragraphs (e)(2)(i) and (ii) of this section. The State must provide its determination to the system in writing.

(i) For medium-size water systems, within 18 months after the end of the tap sampling monitoring period during which such water system exceeds the lead trigger level or copper action level.

(ii) For small water systems, within 24 months after the end of the tap sampling monitoring period during which such water system exceeds the lead trigger level or copper action level.

(3) *Step 3.* (i) Large water systems with or without lead service line and medium or small systems with lead service lines that exceed the lead action level shall complete the corrosion control treatment studies for optimization within 30 months after the end of the tap sampling period during which it exceeds the lead action level.

(ii) If the State requires a water system to perform corrosion control studies under paragraph (e)(2) of this section (Step 2), the water system must complete the studies (§141.82(c)(1)) within 18 months after the State notifies the system in writing that such studies must be conducted.

(4) *Step 4.* (i) The State shall designate re-optimized corrosion control treatment (§141.82(d)(3)) within six months after completion of paragraph (d)(3)(i) of this section (Step 3).

(ii) If the water system has performed corrosion control studies under paragraph (e)(2) of this section (Step 2), the State must designate *optimal corrosion control treatment* (§141.82(d)(1)) within six months after completion of paragraph (e)(3) of this section (Step 3).

(5) *Step 5.* The water system must install *optimal corrosion control treatment* (§141.82(e)(1)) within 24 months after the State designates *optimal corrosion control treatment* under paragraph (e)(2) or (4) of this section (Step 2 or Step 4).

(6) *Step 6.* The water system shall complete follow-up sampling (§§141.86(d)(2)(i) and 141.87(c)) within 12 months after completion of paragraph (e)(5) of this section (Step 5).

(7) *Step 7.* The State must review the water system's installation of treatment and designate optimal water quality control parameters (§141.82(f)(1)) within six months of completion of paragraph (e)(6) of this section (Step 6).

(8) *Step 8.* The water system must operate in compliance with the State-designated optimal water quality control parameters (§141.82(g)(1)) and continue to conduct tap sampling (§141.86(d)(3) and water quality parameter monitoring under §141.87(d)).

(f) *Treatment steps and deadlines for small community water systems and non-transient non-community water systems electing corrosion control treatment (CCT) as a compliance option under §141.93, or as required by the State.* Water systems selecting the corrosion control small system compliance flexibility option must complete the following steps by the indicated time periods.

(1) *Step 1.* A water system recommends corrosion control treatment as a small system compliance flexibility option under §141.93(a)(2) within six months after the end of the tap sampling period during which it exceeds either the lead trigger level or the lead action level.

(2) *Step 2.* The State approves in writing the recommendation of corrosion control treatment as a small system compliance flexibility option or designates an alternative option in accordance with §141.93(a) within six months of the recommendation by the water system in paragraph (f)(1) of this section (Step 1). Water systems required by the State to optimize or re-optimize corrosion control treatment must follow the schedules in paragraph (d) or (e) of this section, beginning with Step 3 in paragraph (d)(3) or (e)(3) of this section unless the State specifies optimal corrosion control treatment pursuant to either paragraph (d)(2)(ii) or (e)(2)(ii) of this section, as applicable.

[86 FR 4287, Jan. 15, 2021]

#### **§ 141.82 Description of corrosion control treatment requirements.**

This section sets forth the requirements applicable to systems and states in the designation of optimal corrosion control treatment for a system that is optimizing or reoptimizing corrosion control treatment. Each system must complete the corrosion control treatment requirements in this section as applicable to such system under §141.81.

(a) *System recommendation regarding corrosion control treatment for systems that do not contain lead service lines and systems with lead service lines that do not exceed the lead action level.* (1) Any system under this paragraph (a) without