6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-R08-OW-2019-0404; FRL-10003-46-Region 8]

Approval of Variance Decision Pursuant to the Safe Drinking Water Act; Alternative Treatment Technique for National Primary Drinking Water Lead and Copper Regulations for Denver Water

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice and opportunity for public comment.

SUMMARY: The Environmental Protection Agency (EPA) is approving a variance under the Safe Drinking Water Act (SDWA) for Denver Water. This variance will allow Denver Water to implement a Lead Reduction Program Plan (LRPP) as an alternative to using orthophosphate as a corrosion control treatment to reduce lead concentrations in drinking water. Denver Water's LRPP is expected to be as protective in lowering lead levels as the requirements under the Lead and Copper Rule (LCR). This variance is effective for an initial period of three years and may be extended if Denver Water demonstrates the effectiveness of this alternative approach. Concurrent with this action, the EPA is asking for comments on the potential criteria for how the Agency will determine whether to extend this variance for up to an additional twelve years. The EPA is accepting public comments on these criteria and on the EPA's interpretation of the statutory standard for future variance requests, as described under **Supplementary Information**.

DATES: All public comments on the criteria must be received on or before [**INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER**].

ADDRESSES: All comments can be submitted directly through docket number EPA-R08-OW-2019-0404 available at www.regulations.gov.

FOR FURTHER INFORMATION CONTACT: The variance documents are available through docket number EPA-R08-OW-2019-0404 available at www.regulations.gov. Questions can be directed to Natalie Cannon, Drinking Water B Section, EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, phone 303-312-6625.

SUPPLEMENTARY INFORMATION: The Lead and Copper Rule (LCR) required that all large public water systems (PWSs) complete corrosion control treatment steps and install optimal corrosion control treatment for lead and copper by January 1, 1997, complete follow up sampling, and operate in compliance with optimal water quality parameters (OWQPs) specified by the applicable regulatory authority by July 1, 1998. Denver Water conducted a corrosion control treatment study in the mid-1990's. Based on that study, CDPHE designated pH and alkalinity treatment as optimal corrosion control treatment for Denver Water and set a minimum pH of 7.5 and alkalinity of 15 mg/L, respectively, as OWQPs on October 18, 1995. Denver Water installed pH and alkalinity adjustment treatment prior to January 1, 1997. Denver Water has consistently monitored, met these OWQPs and has not had any excursions or violations related to OWQPs.

In 2012, Denver Water exceeded the lead action level of 15 µg/L, but Denver Water was not required to conduct any lead service line replacements under the LCR because Denver Water does not own any lead service lines. CDPHE, however, required Denver Water to conduct a new corrosion control treatment study, which was completed in September 2017. On March 20, 2018, CDPHE modified its designation of the optimal corrosion control treatment (OCCT) for Denver Water, requiring Denver Water to install and operate orthophosphate as OCCT by March 20, 2020.

Section 1415 (a)(3) of the SDWA and 40 CFR 142.46 authorize the Administrator to grant a variance from a treatment technique "upon a showing by any person that an alternative treatment technique not included in such requirement is at least as efficient in lowering the level of the contaminant with respect to which such requirement was prescribed. A variance under this paragraph shall be conditioned on the use of the alternative treatment technique which is the basis for the variance."

On September 6, 2019, Denver Water requested a variance under Section 1415(a)(3) of the SDWA from the optimal corrosion control treatment requirements of the LCR. In its request, Denver Water proposed that instead of following the requirement to install the State's designation of orthophosphate as optimal corrosion control treatment as required by 40 CFR 141.82(e), it would implement its LRPP. The LRPP includes a suite of actions that will work together to reduce lead in Denver's drinking water including: 1) developing a LSL inventory to identify and track lead service line replacements (LSLRs); 2) initiating a lead removal filter program for homes with LSLs and certain homes with copper pipe with lead solder; 3) conducting an accelerated LSLR program to replace all LSLs in 15 years; 4) operating increased pH/alkalinity adjustment as corrosion control treatment for all customers; and 5) implementing a communications, outreach, and education plan. Denver Water provided an analysis demonstrating that the LRPP is expected to provide public health protection and at least equivalent lead reductions as compared to compliance with the LCR provisions regarding corrosion control.

Under the LRPP, Denver Water will conduct full LSLRs of privately-owned LSLs at an accelerated rate compared to current conditions. Denver Water estimates it has approximately 64,000 LSLs. Under the LRPP, Denver Water commits to taking proactive steps to replace all

LSLs in 15 years. Because some homes with LSLs will have to wait multiple years for their LSL to be replaced, Denver Water will also initiate a program that will provide a filter and replacement cartridges to every household with a LSL and select households with copper pipe with lead solder. In conjunction with these efforts, Denver Water will operate increased pH/alkalinity adjustment as corrosion control treatment to reduce lead corrosion from all sources. Denver Water will also conduct a full investigation of its LSL inventory and publish a map showing the locations of all LSLs. Finally, Denver Water will conduct extensive outreach to educate customers about the health risks of lead and ways that they can reduce their exposure to lead in drinking water.

Denver Water provided an analysis demonstrating that these steps are expected to provide at least equivalent lead reductions as orthophosphate treatment and will therefore be protective of public health. The EPA finds that Denver Water has made a showing that its alternative treatment technique appears to meet the requirements of SDWA Section 1415(a)(3). In the variance order, the EPA explains how it evaluated and compared the LRRP to the requirement to install the State's designation of optimal corrosion control treatment as defined in 40 CFR 141.2 in concluding that LRRP is "at least as efficient" in lowering the levels of lead in tap water as orthophosphate.

The EPA is therefore approving Denver Water's request for a SDWA Section 1415(a)(3) variance for an initial period of three years to enable Denver Water to further support its demonstration with additional data and for the EPA to verify the effectiveness of the LRPP. This variance is supported by the State of Colorado and will enable the State to modify its determination of optimal corrosion control treatment to incorporate the terms and conditions of this variance.

In evaluating the variance request, the EPA also considered other factors beyond the statutory standard of "as efficient." Denver Water's 90th percentile lead levels have consistently been below the lead action level since 1997 (except in 2012). Denver Water has the technical, managerial, and financial capacity to implement the lead reduction program both for Denver water consumers and for the consecutive systems they serve. Importantly for long-term public health protection, Denver Water has committed to and has the capacity to fully replace all lead service lines in 15 years. The EPA also recognizes that Denver Water wants to more fully engage in a holistic water management strategy based on concerns about the potential impacts from increased levels of phosphate in wastewater discharges to the South Platte River. This river is dominated by the effluent of a waste water treatment plant so there are limited options to effectively control nutrient levels.

In the terms and conditions that make up the variance order, the EPA includes criteria for how the Agency will assess the effectiveness of Denver Water's program during the first three years and determine whether to extend this variance for an additional twelve years, which would provide the time necessary for Denver Water to complete its lead service line replacements. These criteria are intended to confirm the alternative treatment technique can be effectively implemented and results in "at least as efficient" lead reductions, as compared to installation of orthophosphate.

The EPA is accepting public comments on these criteria. The EPA is also requesting comment on how the Agency should evaluate whether any future treatment technique variance requests are at least as efficient as the treatment technique requirements of the LCR. The EPA is not taking comment on the EPA's approval of Denver Water's variance, which is effective per

the variance order, given the EPA's analysis of Denver Water's variance application and the previous public participation opportunities that informed the application.

Specific questions the EPA is seeking comments on include:

1) Do the criteria in the variance order capture the data and factors the EPA should examine during the initial three-year approval period? Are there other criteria or information relevant to the meaning of "at least as efficient" that the EPA should consider when deciding whether to extend Denver Water's SDWA variance?
2) Should the EPA consider going through a notice and comment process for the extension?
3) How should the EPA evaluate any future treatment technique variance requests to the LCR? Specifically, because the term is not currently defined in statute or regulation, how should the EPA interpret "at least as efficient" to satisfy the statutory requirements for a variance to be granted under the SDWA Section 1415(a)(3)? Beyond the criteria the EPA has evaluated in issuing the variance order, are there other criteria relevant to the meaning of "at least as efficient" that the EPA should consider for future requests? How should the Agency evaluate the combined overall efficiency of a proposed alternative treatment technique, including whether or how to:
    a. prepare an LSL inventory to identify and track LSLRs;
    b. distribute filters certified for lead removal to homes at risk of elevated lead levels;
    c. accelerate LSLRs;
    d. achieve near optimal corrosion control treatment; and
    e. conduct outreach and education with consumers?

4) The EPA also requests comment on other actions that water systems could take to ensure equally efficient reductions in drinking water lead exposure.

The variance order and its terms and conditions are available online as part of docket number EPA-R08-OW-2019-0404 at www.regulations.gov.

After consideration of public comments received, the EPA may modify the terms and conditions of the variance order to change the criteria by which the EPA will assess the effectiveness of Denver Water's alternative program in order to determine whether the variance should be extended.

Dated: December 16, 2019.

Gregory Sopkin,

Regional Administrator, Region 8.

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