



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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Peter Butler, Chair
Water Quality Control Commission
4300 Cherry Creek Drive South
Denver, CO 80222-1530

Subject: EPA Action on Multiple Sets of Temporary
Modifications for Arsenic

Dear Mr. Butler:

The U.S. Environmental Protection Agency (EPA) has completed its review of multiple sets of temporary modifications for arsenic adopted by Colorado's Water Quality Control Commission (Commission). Each submission included an Opinion of the Attorney General certifying that the standards were duly adopted pursuant to State law. Receipt of the revised standards initiated EPA's review pursuant to Clean Water Act § 303(c). EPA has completed its review of the revisions, and this letter is to notify you of our action.

Today's action addresses the following sets of WQS revisions:

- The arsenic temporary modification for Upper South Platte segment 14 adopted by emergency rulemaking on December 13, 2011. This temporary modification was adopted with the caveat that it shall remain in effect until the effective date of permanent regulations or one year, whichever comes first. Received by EPA on December 27, 2011.
- The permanent adoption of the arsenic temporary modification for Upper South Platte segment 14. Adopted on August 13, 2012. Received by EPA on August 28, 2012.
- The arsenic temporary modification for Boulder Creek segment 9. Adopted on October 9, 2012. Received by EPA on October 26, 2012.
- Arsenic temporary modifications for multiple segments statewide. Adopted May 13, 2013. Received by EPA on May 31, 2013.

CLEAN WATER ACT REVIEW REQUIREMENTS

CWA § 303(c)(2) requires States and authorized Indian Tribes to submit new and revised water quality standards to EPA for review. EPA is required to review and approve or disapprove the

revised standards pursuant to CWA § 303(c)(3). The Region's goal has been, and will continue to be, to work closely and collaboratively with States and authorized Tribes throughout the standards revision process so that submitted revisions can be approved by EPA.

TODAY'S ACTION

I am pleased to inform you that today the Region is approving, without condition, the new and revised water quality standards identified above. The adopted revisions, and the basis for our action, are summarized below.

Adopted Revisions

The water quality standards revisions approved today are arsenic temporary modifications for certain individual segments where a water supply use classification and a 0.02 µg/L human health-based numeric standard have been adopted.

The revisions adopted May 13, 2013 established new temporary modifications for a number of individual segments, and modified previously-adopted temporary modifications, such that all arsenic temporary modifications are now identical. Each temporary modification identifies interim water quality requirements that apply while the temporary modification is in effect. For discharges existing on or before June 1, 2013, the temporary modifications require maintenance of current conditions. The Statement of Basis and Purpose adopted by the Commission for the May 13, 2013 revisions explains that:

The Commission intends that, when implementing the temporary modification of "current condition" in a CDPS permit, the Division will assess the current effluent quality, recognizing that it changes over time due to variability in treatment facility removal efficiency and influent loading from natural or anthropogenic sources, and due to changes in the influent flow and concentration over time. Maintaining the current condition will include maintaining permitted total arsenic loading to a treatment facility from arsenic contributors at the levels existing on the effective date of the temporary modification, while expressly allowing for variability in such loading due to changes in effluent quality as described above and due to changes in the influent flow and concentration over time within the permitted design flow of that facility.

For new or increased discharges commencing on or after June 1, 2013, each temporary modification is expressed as a range from 0.02 to 3.0 µg/L. While the temporary modifications are in effect, control requirements, such as discharge permit limits, shall be established using the first number in the range as the ambient water quality target, provided that no effluent limit shall be more restrictive than the second number in the range.

The temporary modifications will expire on December 31, 2021. The Statement of Basis and Purpose adopted by the Commission for the May 13, 2013 revisions explains that:

The expiration date of the temporary modification was set at 12/31/21 to allow for CDPS permits that are issued prior to the effective date of anticipated changes to the chronic arsenic standard in the 2016 Basic Standards Rulemaking to not have the temporary modification expire within the term of a permit. The Commission adopted this temporary modification to allow time for the Division, dischargers and stakeholders to continue a workgroup process to resolve the uncertainty regarding the appropriateness of the W+F chronic arsenic standard of 0.02 µg/L.

The Division's January 29, 2013 pre-hearing statement and the Statement of Basis and Purpose adopted by the Commission on May 13, 2013 both explain that while the temporary modifications are in effect, the Division will collaborate with a stakeholder workgroup to develop a revised water + fish table value standard for adoption during the 2016 triennial review rulemaking hearing. EPA anticipates that application of the revised table value to individual segments (and deletion of the temporary modifications) would then be considered by the Commission.

Basis for EPA's Action

The revisions are consistent with the temporary modification general policy in *Basic Standards and Methodologies for Surface Waters* (Regulation #31, Section 31.7(3)).¹ EPA's regulation at 40 CFR § 131.13 provides that such general policies may be adopted at State discretion, while also specifying that they are subject to EPA review and approval. The Colorado general policy has been approved by EPA on multiple occasions, and most recently on August 4, 2011.

Temporary modifications are authorized by 31.7(3) where specific circumstances are shown to exist. For example, supporting information must show that there is significant uncertainty regarding the water quality standard necessary to protect current and/or future uses (31.7(3)(a)(ii)(A)), or regarding the extent to which existing quality is the result of natural or irreversible human-induced conditions (31.7(3)(a)(ii)(B)).

¹ Section 31.7(3) authorizes temporary modifications if an existing permitted discharge has a demonstrated or predicted water quality-based effluent limit compliance problem, and one of two situations is shown to exist: (1) significant uncertainty regarding the water quality standard necessary to protect current and/or future uses, or (2) significant uncertainty regarding the extent to which existing quality is the result of natural or irreversible human induced conditions. Section 31.7(3) requires that adequate supporting information must be submitted, including a justification for the interim narrative or numeric value, any data describing effluent and ambient quality, a plan for eliminating the need for the temporary modification, and a justification for the proposed expiration date. Temporary modification expiration dates are determined by the Commission based on relevant factors, including how soon resolving the issues that necessitated adoption of the temporary modification is deemed feasible. Pursuant to 31.7(3)(e), the Commission must hold an annual rulemaking hearing to review temporary modifications that will expire within approximately two years. Pursuant to such hearings, the Commission may delete, modify, or make no changes to each temporary modification. Compliance schedules requiring actions intended to eliminate the uncertainty regarding the appropriate underlying standard may be included in the permit pursuant to 31.14(15)(b).

During the April 8, 2013 rulemaking hearing, the Commission heard testimony from EPA that there is scientific uncertainty regarding the cancer risk assessment for arsenic, which is currently under review by EPA. Similar information was included in the written comments submitted by EPA to the Commission on February 26, 2013, and March 27, 2013.

In its pre-hearing statement, the Water Quality Control Division (Division) cited several additional factors that contribute to uncertainty regarding the appropriate numeric standard for arsenic. These same reasons were cited in responsive comments submitted by various Colorado stakeholders.

- *Natural contributions:* Many Colorado waters have natural levels above the 0.02 µg/L numeric standard.
- *Technical Feasibility:* Effluent concentrations that can be achieved on a consistent basis are uncertain. The Division’s pre-hearing statement noted that: “the wide range of pollutant mixtures (from contaminated groundwater, uncontaminated but arsenic-rich groundwater, to typical domestic wastewater) also complicates the conclusions about technical feasibility.”
- *Perceived Unfairness:* There is a risk management/equity question about whether it is appropriate to require ambient surface water concentrations that meet the (purely health-based) table value standard when much higher finished drinking water concentrations are allowed to be delivered to households.² The 10 µg/L Safe Drinking Water Act (SDWA) Maximum Contaminant Level (MCL) was based on non-health factors and a cost-benefit study.

In addition to being authorized by Colorado’s general policy, the arsenic temporary modifications are consistent with EPA’s water quality standards regulation (40 CFR § 131.10(g)), which authorizes site-specific adjustments to WQS if the State can demonstrate that it is not feasible to attain a designated use (which is not an existing use as defined at 40 CFR § 131.3). Where supported by the factual circumstances, this provision of the EPA regulation may allow for: (1) removal of designated uses, (2) adoption of less-stringent designated use sub-categories, and/or (3) adoption of WQS variances. EPA believes that several of the factors that contribute to uncertainty regarding the 0.02 µg/L arsenic standard are closely aligned with attainability factors in 40 CFR § 131.10(g). For example, 40 CFR § 131.10(g)(1) authorizes WQS revisions where “naturally occurring pollutant concentrations prevent the attainment of the use” and 40 CFR § 131.10(g)(6) authorizes WQS revisions where “controls more stringent than those required by Sections 301(b) and 306 of the Act would result in substantial and widespread economic and social impact.”

² Colorado’s table value assumes an incremental cancer risk level of 10⁻⁶ (or 1 in 1,000,000).

Based on review of the evidence submitted to the Commission, EPA concludes that the revisions to water quality standards that are the subject of today's action are consistent with both Colorado's approved general policy (31.7(3)) and EPA's water quality standards regulation (40 CFR §§ 131.10(g), 131.13). Accordingly, the revisions are approved.

ESA Consultation

It is important to note that EPA approval of State standards is considered a federal action which may be subject to the Section 7(a)(2) consultation requirements of the Endangered Species Act (ESA). For ESA Section 7(a)(2) to apply, EPA must be taking an action in which it has sufficient discretionary federal involvement or control to protect listed species. Human health water quality criteria are designed to protect humans, not plants and animals. EPA's discretion to act on Colorado's submission is limited to determining whether the criteria ensure the protection of the designated uses upon which the criteria are based (i.e., use by humans). Therefore, today's EPA approval is not subject to ESA Section 7(a)(2) consultation requirements.

CONCLUSION

The arsenic temporary modifications adopted on December 13, 2011, August 13, 2012, October 9, 2012, and May 13, 2013 are approved. EPA Region 8 thanks the Commission and the Division for their efforts to review and revise Colorado water quality standards. Questions regarding this letter may be directed to David Moon, the Region's water quality standards coordinator, at 303-312-6833.

Sincerely,



Martin Hestmark
Assistant Regional Administrator
Office of Ecosystems Protection and Remediation

