

DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Water Quality Control Commission

REGULATION NO. 38 - CLASSIFICATIONS AND NUMERIC STANDARDS FOR SOUTH PLATTE RIVER BASIN, LARAMIE RIVER BASIN, REPUBLICAN RIVER BASIN, SMOKY HILL RIVER BASIN

5 CCR 1002-38

[Editor's Notes follow the text of the rules at the end of this CCR Document.]

38.6 TABLES

(1) Introduction

The numeric standards for various parameters in this regulation and in the tables in Appendix 38-1 were assigned by the Commission after a careful analysis of the data presented on actual stream conditions and on actual and potential water uses. For each parameter listed in the tables in Appendix 38-1, only the most stringent standard is shown. Additional, less stringent standards may apply to protect additional uses and can be found in the tables in Regulation No. 31.

Numeric standards are not assigned for all parameters listed in the tables in Regulation No. 31. If additional numeric standards are found to be needed during future periodic reviews, they can be assigned by following the proper hearing procedures.

(2) Abbreviations

(a) The following abbreviations are used in this regulation and in the tables in Appendix 38-1:

ac	=	acute (1-day)
<u>AEL</u>	≡	<u>alternative effluent limit</u>
°C	=	degrees Celsius
ch	=	chronic (30-day)
CL	=	cold lake temperature tier
CLL	=	cold large lake temperature tier
CS-I	=	cold stream temperature tier one
CS-II	=	cold stream temperature tier two
DM	=	daily maximum temperature
D.O.	=	dissolved oxygen
DUWS	=	direct use water supply
<i>E. coli</i>	=	<i>Escherichia coli</i>
mg/L	=	milligrams per liter
MWAT	=	maximum weekly average temperature
OW	=	outstanding waters
sp	=	spawning
SSE	=	site-specific equation
T	=	total recoverable
t	=	total
tr	=	trout
TVS	=	table value standard
µg/L	=	micrograms per liter

UP	=	use-protected
WL	=	warm lake temperature tier
WS	=	water supply
WS-I	=	warm stream temperature tier one
WS-II	=	warm stream temperature tier two
WS-III	=	warm stream temperature tier three

(6) Discharger--specific Variances

(a) Upper South Platte River Segments 15 and 16i (COSPUS15 and COSPUS16i):

Discharger-Specific Variance, Suncor Energy (U.S.A.) Inc., Commerce City Refinery (CO0001147): Adopted 10/11/2016.

Selenium (acute) = TVS: no limit; Selenium (chronic) = 9: 24 µg/L. Expiration date: 12/31/2023.

(b) Lower South Platte River Segment 2 (COSPLS02):

Discharger-specific Variance, Town of Crook (COG589015), Adopted 6/13/2022.

Ammonia (acute): Initial AEL=4 lbs/day, Final AEL=3.4 lbs/day;

Ammonia (chronic): Initial AEL=4 lbs/day, Final AEL=3.4 lbs/day.

Includes a Pollutant Minimization Program.

Expiration date: 12/31/2025.

~~*[*Because the collaborative technical analysis is ongoing and further evaluation of selected alternatives is needed, the Initial AEL and Final AEL values are in development and will be provided in the division's Prehearing Statement]*~~

38.105 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JUNE 13-14, 2022 RULEMAKING; FINAL ACTION AUGUST 8, 2022; EFFECTIVE DATE SEPTEMBER 30, 2022

The provisions of C.R.S. 25-8-202(1)(a), (b) and (2); 25-8-203; 25-8-204; and 25-8-402; provide the specific statutory authority for adoption of these regulatory amendments. The commission also adopted in compliance with 24-4-103(4) C.R.S. the following statement of basis and purpose.

BASIS AND PURPOSE

A. Temporary Modifications

Pursuant to the requirements in the Basic Standards (at 31.7(3)), the commission reviewed the status of all temporary modifications to determine whether the temporary modifications should be modified, eliminated, or extended.

1. Temporary Modifications for Standards Other than Arsenic

The commission took no action on the temporary modifications set to expire on or before the effective date of this hearing, allowing the following temporary modifications to expire and be deleted from Appendix 38-1:

Upper South Platte: 15 (COSPUS15; temperature; expired 12/31/2021)

The commission's intent is that adequate division, commission, and stakeholder resources are available to maintain focus on work and hearings prioritized by the 10-year Water Quality Roadmap, including a rulemaking hearing to consider revisions to Regulation No. 85, Policy 17-1, and lakes nutrients criteria in November 2022. To accommodate this rulemaking hearing in November 2022, the 2022 biennial temporary modifications rulemaking hearing, which is typically held in December, was consolidated into the June 2022 rulemaking hearing. In some cases, proposals to resolve the temporary modifications could not be prepared on this accelerated timeline and additional time was needed. To allow these temporary modifications to be addressed as soon as possible, the division proposed to include these temporary modifications in the June 2023 rulemaking hearing. To facilitate this delay, temporary modifications expiring on or before June 30, 2023 needed to be extended; an expiration date of December 31, 2023 aligns with the anticipated effective date of the June 2023 rulemaking hearing. Accordingly, the commission considered the expiration dates of temporary modifications expiring on or before June 30, 2023 and extended the following temporary modifications:

The commission extended by six months the following temporary modifications:

Clear Creek: 7a (COSPCL07a; temperature; expires 12/31/2023) and 7b (COSPCL07b; temperature; expires 12/31/2023)
St. Vrain Creek: 6a (COSPSV06a; iron; expires 12/31/2023)

For the temporary modifications set to expire after June 30, 2023, the commission reviewed progress toward resolving the uncertainty in the underlying standard and/or the extent to which conditions are a result of natural or anthropogenic conditions, and evaluated whether the temporary modifications were still justified. The commission took no action on the following temporary modifications:

Upper South Platte Segment 16g (COSPUS16g): temporary modification of the chronic temperature standard (12/1-2/29; expires 12/31/2025). Centennial Water & Sanitation District continues to make progress to resolve the uncertainty in the feasibility of treatment options for controlling temperature and in the temperature standards. The commission made no change to

the expiration date, as the original time allotment was deemed adequate to resolve the uncertainty.

2. Temporary Modifications for Arsenic

To remain consistent with the commission's decisions regarding arsenic in section 38.99, all existing temporary modifications for arsenic of "As(ch)=hybrid" (expiration date of 12/31/24) were retained.

The division submitted a plan to resolve uncertainty in the 2019 Temporary Modifications rulemaking. The division plans to propose revised standards for arsenic as soon as possible following updated toxicological information from EPA's Integrated Risk Information System (IRIS) and completion of ongoing studies to better understand arsenic conditions in Colorado. Furthermore, per the conditions of the revised and extended temporary modification at 38.6(2)(c) (effective 6/30/2020 and expires 12/31/2024), and based on the widespread need to make progress to understand sources of arsenic and set forth processes for lowering arsenic in discharges, additional permit Terms and Conditions (T&Cs) are being implemented for facilities benefitting from the "current condition" temporary modification. These T&Cs may include requirements for additional monitoring, source identification, and characterization of source control and treatment options for reducing arsenic concentrations in effluent. The commission recognizes the need to resolve the uncertainty in the arsenic standards and ensure that human health is adequately protected.

B. Discharger-specific Variances (DSVs)

The commission's provisions at Regulation 31.7(4) allow adoption of a discharger-specific variance (DSV), which is a temporary standard that represents the highest feasible degree of protection of a classified use, while temporarily authorizing alternative effluent limits (AELs) for a specific pollutant and specific point source discharge where compliance with the water quality-based effluent limits (WQBELs) is not feasible. An initial AEL ensures the protection of currently attained ambient water quality from the onset of the variance, and a final AEL represents the highest attainable condition that is feasible to achieve during the term of the variance.

Lower South Platte River Segment 2 (COSPLS02): The commission adopted a DSV for Lower South Platte River Segment 2 (COSPLS02) for ammonia that represents the highest degree of protection of the classified use that is economically feasible for the Town of Crook (COG589015). The initial AEL shall not be more restrictive than 4 lbs/day and the final AEL shall not be more restrictive than 3.4 lbs/day prior to the expiration of the DSV on 12/31/2025. The commission ensures that the discharge will not contribute to any lowering of the currently attained ambient water quality by adopting an initial AEL that, at a minimum, represents the level currently achieved, as stated by its rule at 31.7(4)(b)(i)(C). This DSV also includes a Pollutant Minimization Program (PMP) that is described in the division's Rebuttal Revised Exhibit I (pages 22-23).

Although the Town of Crook completed a sewer relining project in 2018, there is still significant variability in influent flows to the wastewater treatment plant that is believed to be due to groundwater inflow to the Town of Crook's collection system. In addition, the Town of Crook's wastewater treatment facility has sludge accumulation that is affecting its organics (TSS and BOD₅) removal, and the lack of lining of the treatment system is potentially resulting in leakage to groundwater. During the term of this variance, the Town of Crook will complete the rehabilitation of the wastewater collection system to minimize infiltration and inflow (I&I), reline its wastewater lagoon system, and dredge the sludge. The planned rehabilitation actions will help reduce influent flows into the system, provide the necessary conditions for TSS and BOD₅ removal, and provide the facility performance baseline data needed to identify and pilot feasible ammonia removal technologies.

While the Town of Crook does not have WQBELs for ammonia in its current permit, the permit, which is administratively continued, is expected to be renewed soon. At that time, 30-day average and daily maximum ammonia WQBELs are expected to be added to the permit to protect the Aquatic Life use downstream. However, a comprehensive alternatives analysis (division Rebuttal Revised Exhibit I

Appendix I-4) demonstrated that there are currently no economically feasible alternatives that would allow the Town of Crook to meet the anticipated ammonia WQBELs and compliance with these future ammonia WQBELs would cause substantial and widespread adverse social and economic impacts to the community. Treatment that would allow the Town of Crook to meet the ammonia WQBELs, such as replacing the lagoon with a mechanical plant, would result in user fees that exceed the community's ability to pay. Based on the information in the division's Rebuttal Revised Exhibit I Appendix I-1, the commission determined that any alternative that would result in user fees exceeding 1.6% of median household income for the Town of Crook's residents was economically infeasible at this time. This finding of economic infeasibility is based on the Town of Crook's current population of 101 people and its current economic conditions, including a local median household income that is significantly lower than the State's average, high per capita debt burden, and a declining population.

The commission adopted a DSV with an initial AEL to protect the ambient water quality in the receiving stream and a final AEL that is based upon the expected ammonia effluent quality that will be achieved through feasible improvements to the lagoon. Because there is uncertainty in the final effluent quality that will be achieved, the Town of Crook will collect additional data to characterize the flow rates and effectiveness of the improvements, which the commission will review upon reevaluation of the DSV. The commission expects that the Town of Crook will submit annual reports to the division describing the progress made on PMP implementation in November of each year until the end of the DSV. The requirements of the DSV will be reviewed during the June 2025 rulemaking hearing and if it remains infeasible for the Town of Crook to achieve ammonia WQBELs at the end of the variance, a subsequent DSV may be appropriate.

In addition, the acronym "AEL" was defined at 38.6(2)(a).