

**COLORADO WATER QUALITY CONTROL COMMISSION
STATE OF COLORADO**

**PROPONENTS PREHEARING STATEMENT
OF THE WATER QUALITY CONTROL DIVISION**

**REVISIONS TO THE BASIC STANDARDS AND METHODOLOGIES FOR
SURFACE WATER (REGULATION NO. 31)**

I. STATEMENT OF FACTUAL AND LEGAL CLAIMS

The Water Quality Control Division (“Division”), serving as staff to the Water Quality Control Commission (“Commission”), is providing supporting information concerning the proposals to modify certain sections of the Basic Standards and Methodologies for Surface Water, Regulation No. 31 (“Basic Standards”).

II. WRITTEN TESTIMONY

Separate exhibits are provided regarding a number of topics. A summary of the Division's position is set forth in the draft Statement of Basis, Specific Statutory Authority and Purpose contained in the hearing notice for the changes proposed by the Division (Notice Exhibit 1). A summary of those exhibits is provided below at Section IV.

The Division anticipates providing a revised version of its Proposal and Statement of Basis and Purpose, with the Rebuttal Statement on May 19. We anticipate that as the parties and the Division progress through the steps in the hearing process, compromises will be reached and additional errors may be found. The Division will incorporate all language modifications that it supports in its Rebuttal Statement and will provide a clean copy of the proposal for the Commission and the parties.

III. OVERSIGHTS AND ERRORS

Oversights and errors were discovered in the Notice. The Division proposes to change the following:

- Hyphenate “Effluent-Dominated” and “Effluent-Dependent” streams in definitions 16 and 17 and where they are used as adjectives.
- Remove the mention of “un-ionized” from definition #19 and in the antidegradation water quality test (as discussed in Exhibit 8).

- In the Antidegradation provisions (section 31.8) change the reference to recreation classes E, P or U, to class P (as discussed in Exhibit 8).

IV. SUMMARY OF PROPOSAL

A. Metals Table Value Standards

Review of Colorado’s current table value criteria for several metals shows that the criteria either do not match EPA’s national criteria or are otherwise in need of revision. The Division proposes that the Commission adopt revisions to the metals table value criteria as summarized below. Exhibits 1 and 2 provide more detail in support of each proposal.

Metal	Use	Proposal	Basis
Aluminum	aquatic life	add a footnote limiting applicability change to total recoverable.	consistency with the science underlying the national criteria
Antimony	W+F	revise with new fish consumption rate and relative source contribution	consistency with national criteria and Policy 96-2
	FI	revise with new fish consumption rate	consistency with national criteria
Arsenic	water supply	revise to have both MCLG and MCL range	consistency with national MCL
	W+F	revise with new fish consumption rate and inorganic forms in fish tissue	consistency with national criteria and Policy 96-2
	FI	revise with new fish consumption rate and inorganic forms in fish tissue	consistency with national criteria and Policy 96-2
Cadmium	aquatic life	revise per new EPA criteria document	consistency with national criteria
Uranium	water supply	add a water supply table value	consistency with national MCL
Zinc	aquatic life	adjust the chronic value and acute equations	review of new toxicity information

B. Proposed Aquatic Life Table Value Criteria for Ammonia

The Division proposes that the Commission adopt EPA’s 1999 ammonia criteria and revise Table II and its footnote 1 at section 31.16 to reflect these new criteria. The new criteria are in the form of total ammonia rather than the current un-ionized criteria. In general, the proposed changes mean more restrictive effluent limits for permittees that discharge wastewater to warm-water segments and less restrictive effluent limits for permittees that discharge wastewater to cold-water segments. Exhibit 3 addresses the ammonia proposal.

C. Proposed Temperature Criteria

The Division proposes to adopt the following temperature standards:

WQCD Proposed Temperature Standards		
PARAMETER	COLD WATER BIOTA	WARM WATER BIOTA
Temperature (°C)	19.3 °C (MWAT); 23.8 °C (DM); 12.6 °C (sp) (MWAT) 16.1 °C (ct) (MWAT); 21.9 °C (ct) (DM); 14.5 °C (ct/sp) (MWAT)	24.4 °C (MWAT); 29.9 °C (DM)

The proposed temperature standards include a Maximum Weekly Average Temperature (MWAT) for protection against sub lethal effects and a Daily Maximum (DM) for protection against lethal effects. New concepts such as spawning standards (sp) and a cutthroat qualifier (ct) have been added. Implementation into permits is addressed in Section 31.14(14).

Exhibits 4 through 6 address the temperature proposal. The evidence for the rulemaking hearing is presented in Exhibit 4. Exhibit 5 is Draft 3 of the Temperature: Implementation Guidance. Exhibit 6 is the Temperature Database used to calculate the proposed standards for warm and cold water.

D. Proposed Recreation Use Classification Changes

The Division proposes to revise the regulation by establishing four recreational use classifications instead of the current three. The proposal includes two classes of primary contact recreation, an “Undetermined” recreational use category, and a “Not Primary Contact” use category.

The following table shows the proposed classes and the numeric criteria:

Recreation Classification	Numeric Criteria <i>E coli</i> (geo mean)
E - Existing Primary Contact Use	126 /100 ml
P - Potential Primary Contact Use	205 /100 ml
U - Undetermined Use	126 /100 ml
N - Not Primary Contact Use	630 /100 ml

The Division has also proposed to remove the *fecal coliform* standard and rely on the *E coli* standard. Exhibit 7 addresses the Division’s Recreational Use Classification proposal.

E. Proposed Changes to Antidegradation Provisions

The Division proposes that the Commission adopt two substantive sets of changes to the antidegradation provisions at section 31.8. One proposal modifies the criteria for assigning the Use Protected (“UP”) designation. UP would be “decoupled” from the class 2 cold aquatic life use and criteria would be established for a data-driven decision regarding the appropriate antidegradation category for class 2 warm waters. The other proposal provides for establishing an alternate date for determining baseline water quality where that water quality has improved after September 30, 2000. Exhibit 8 addresses the proposed changes to the antidegradation provisions.

F. Other Proposed Changes

The Division has proposed general cleanup revisions and corrections that would increase the usability and clarity of Regulation No. 31. Exhibit 9 addresses these proposals. Some of the more substantive changes include:

- Clarify how to determine the appropriate hardness to apply depending upon the end use of the calculation, i.e., permitting or assessment of attainment.
- Add a footnote to Manganese Agriculture table value on Table III. This value is only appropriate for use where there are acidic soils.
- Clarify that pH is applied as an instantaneous minimum and maximum for effluent limits, but for determining instream attainment of water quality standards for pH, appropriate averaging periods may be applied, provided that beneficial uses will be fully protected.
- Clarify that for an alluvial well water supply, standards are to be applied at the point in the channel that is closest to the well.

V. TYPE (iii) TEMPORARY MODIFICATIONS

The Division recently discovered a potential inconsistency between the way the Basic Standards address type iii temporary modifications and their treatment in the Permit Regulations (No. 61). For the Notice, the Division proposed a modification of 31.7(3)(a)(iii) regarding temporary modifications based on uncertainty. The Notice further indicated that “this hearing will also consider potential revision to the Colorado Discharge Permit System Regulations, Regulation No. 61, that may be necessary to clarify the relationship between the temporary modification provisions of section 31.7(3) in Regulation No. 31 and the permitting requirements set forth in Regulation No. 61.” Since that time, the Division has engaged the Basic Standards work group, the 303(d) List work group, EPA, and other stakeholders in a discussion of the issue and the potential remedies.

The Division provided a concrete proposal to the workgroups for review and discussion. That dialogue has resulted in a number of important observations, including the following:

- Resolving type (iii) standards issues quickly is important so that appropriate control actions can be undertaken, whether for point or non-point sources.
- The need for quick resolution of temporary modifications must be balanced with the need to manage the administrative/rulemaking burden. Numerous rulemaking actions would be a drain on limited Division resources.
- Clarification is necessary to describe how CDPS limits are to be developed for discharges to segments with type (iii) temporary modifications, and to ensure that such limits are reasonable and consistent with the goal of maintaining/improving water quality.

The dialogue also raised a number of important questions, including:

- What more can be done to ensure that type (iii) issues are resolved?
- Should the Basic Standards or Statement of Basis more clearly indicate that a plan to resolve uncertainty is an important part of the justification for a type(iii) temporary modification?
- What factors should be considered in developing CDPS effluent limits while type (iii) temporary modifications are in effect? Should the Basic Standards or Statement of Basis address development of BPJ technology-based effluent limits (e.g., for existing facilities with an ability to meet limits more stringent than required by the temporary modifications?) Should evaluation of this approach be required for discharges to segment with type (iii) temporary modifications?
- While type (iii) standards are in effect should CDPS permits include a compliance schedule to achieve the underlying standard? Alternatively, should a compliance schedule be developed only after the uncertainty is resolved?
- Is the distinction between “types” of temporary modifications necessary or helpful?

At this time, the Division is not ready to provide new regulatory language, new Statement of Basis language and a complete explanatory prehearing statement. We intend to provide these documents to the parties and the Commission on April 12, 2005. However, we offer the following summary of the approach that will be contained in those documents.

The Division believes there is a need for an effective and efficient, though closely circumscribed, Temporary Modification program. Uncertainties as to the appropriate attainable underlying standard and unexplained sources of non-attainment have occasionally been impediments to achieving Clean Water Act goals. With the modifications proposed by the Division it is hoped that Temporary Modifications can continue to be a useful tool for resolving thorny and difficult standards issues so as to expedite water quality improvements.

It has become evident that resolving temporary modifications, regardless of their underlying basis, is important so that definitive underlying standards can be implemented. However, the use of resources to move quickly must be weighed against the administrative, permitting and rulemaking burden. In addition, it takes time to develop the data and information upon which the Commission can make informed decisions regarding appropriate underlying standards.

The Division has the following goals in mind for this rulemaking:

- Ensure consistent type (iii) regulatory language and approach.

- Clarify the intent of temporary modifications and the basis upon which their adoption is appropriate.
- Identify criteria that can guide the Commission in determining the duration of temporary modifications.
- Clarify how effluents limits are to be developed in situations where the receiving water has a temporary modification.
- Establish a process by which the Division, the Commission and involved parties can actively manage temporary modifications and their resolution.

The Division intends to provide new proposed regulatory language, new proposed Statement of Basis language and the prehearing statement to the parties and the Commission on April 12, 2005.

VI. WITNESSES

The following Division staff may provide testimony on the appropriateness of proposed changes and rebuttal testimony as needed.

David Akers, Water Quality Protection Section Manager (all topics)
Judy Bruch, Surface Water Quality Assessor (recreation use standards)
John Hranac, Surface Water Quality Assessor (table values for metals)
Sarah Johnson, Assessment Unit Manager (all topics)
Aimee Majewski, Surface Water Quality Assessor (temperature standards and guidance)
Robert McConnell, Monitoring Unit Manager (all topics)
Greg Naugle, Groundwater Quality Coordinator (PQLs)
Joni Nuttle, Researcher, Monitoring Unit (lake temperature standards and guidance, ammonia early life stages)
Eric Oppelt, Water Quality Engineer (ammonia criteria)
Andrew Ross, Surface Water Quality Assessor (miscellaneous proposals)

Steve Canton of Chadwick Ecological Consultants, may provide testimony on the proposed zinc table value equations.

The Division reserves the right to call any other witnesses, as needed, for purposes of rebuttal.

VI. EXHIBITS

1. Proposed Table Value Criteria for Aluminum, Antimony, Arsenic, Cadmium, Uranium and Zinc
2. Chadwick Ecological Consultants Technical Memorandum on Updated Acute and Chronic Zinc Criteria
3. Proposed Aquatic Life Table Value Criteria for Ammonia
4. Proposed Aquatic Life Table Value Criteria for Temperature
5. Colorado's Water Quality Standard for Temperature Implementation Guidance

6. Temperature Criteria Development Database
7. Proposed Changes to the Recreation Use Classification System
8. Proposed Changes to Antidegradation Provisions
9. Other Proposed Changes for the Basic Standards

Respectfully submitted this 5th day of April, 2005.

FOR THE WATER QUALITY CONTROL DIVISION

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