Other Proposed Changes for the Basic Standards

The Division proposes that the Commission adopt the following revisions to Regulation No. 31. These revisions are a refinement of the existing regulation, and provide all parties with greater clarity in implementing the regulation.

I. SEGMENT DESCRIPTIONS

A. Background

Numerous segment descriptions in Regulations Nos. 32 to 38 have segment descriptions that leave in question the exact location of the beginning or end of a segment. This is especially problematic for "all tributary" segments.

B. Proposal

Section 31.6(4) describes how the Commission adopts segments within basin regulations. The Division is proposing to add the following to 31.6(4).

(d) Segment descriptions, unless specified by the Commission, are to mean that any boundary reference means to be "immediately above" that reference.

C. Explanation

This proposal clarifies that unless otherwise identified, boundary references in segment descriptions should be interpreted as immediately upstream of that reference.

II. USE OF HARDNESS FOR DETERMINATION OF ATTAINMENT

A. Background

Footnote 3 of Table III at 31.16 relates to the use of hardness in hardness-based water quality criteria for metals. Currently, it specifies that the hardness value used in the equations should be based upon a regression of paired flow and hardness data. While this is appropriate for determining the operative numeric criteria value during critical low flows (upon which permits are based), it is not appropriate for all flow regimes (e.g. for overall standards attainment).

B. Proposal

The Division is proposing to clarify footnote 3 of Table III at 31.16. The proposal, shown below, addresses how hardness should be used in two different situations: determining permit effluent limitations, and determining standards attainment.

(3) Hardness values to be used in equations are in mg/l as calcium carbonate and shall be no greater than 400 mg/l. For permit effluent limit calculations, ~~T~~the hardness values used in calculating the appropriate metal standard should be based on the lower 95 per cent confidence limit of the mean hardness value at the periodic low flow criteria as determined from a regression analysis of site-specific data. Where insufficient site-specific data exists to define the mean hardness value at the periodic low flow criteria, representative regional data shall be used to perform the regression analysis. Where a regression analysis is not appropriate, a site-specific method should be used. In calculating a hardness value, regression analyses should not be extrapolated past the point that data exist. For determination of standards attainment, where paired metal/hardness data is available, attainment will be determined for individual sampling events. Where paired data is not available, the mean hardness will be used.

B. Explanation

The proposal clarifies that for purposes of determining attainment, paired metal-hardness data should be used, not paired flow-hardness data. The proposal formalizes the currant practice of the use of the mean of the available hardness data where there is insufficient paired flow and hardness data.

III. AMBIENT QUALITY BASED STANDARDS

A. Background

Currently, subsection 31.7(1)(b)(ii) states that the Commission can adopt acute ambient quality based standards, but in no case may an ambient chronic standard be more lenient than the acute standard. This has led to some instances where the Commission has had to adopt an acute ambient quality-based standard of "no acute standard" in order to conform with the prohibition against setting an ambient chronic standard that would be more lenient than the acute standard.

B. Proposal

The Division proposed in the Notice to make the following changes to 31.7(1)(b)(ii):

(ii) Ambient Quality-Based Standards

For state surface waters where evidence has been presented that the natural or irreversible man-induced ambient water quality levels are higher than specific numeric levels contained in tables I, II, and III, but are determined adequate to protect classified uses, the Commission may adopt site-specific chronic standards equal to the 85th percentile of the available representative data. Site-specific ~~A~~acute standards shall be based on ~~table values or site-specific criteria-based standards, and in no case may an ambient chronic standard be more lenient than the acute standard.~~ the 95th percentile value of the available representative data.

In developing other proposals for this rulemaking hearing, the Division recognized other changes needed to make 31.7(1)(b)(ii) consistent with those proposals. The reference to

the 85th percentile is not always correct. Other statistics are used for parameters such as Dissolved Oxygen, pH, *E. coli*, and temperature. Therefore, the Division is modifying its proposal for 31.7(1)(b)(ii) to the following:

(ii) Ambient Quality-Based Standards

For state surface waters where evidence has been presented that the natural or irreversible man-induced ambient water quality levels are higher than specific numeric levels contained in tables I, II, and III, but are determined adequate to protect classified uses, the Commission may adopt site-specific chronic standards equal to the ~~85th percentile~~ existing quality of the available representative data. Site-specific or daily maximum ~~A~~acute standards shall be based on ~~table values or site-specific-criteria-based standards, and in no case may an ambient chronic standard be more lenient than the acute standard.~~ the 95th percentile value of the available representative data.

C. Explanation

The collective changes provide a reference to the "existing quality" which is now defined at section 31.5(19). It also provides a methodology for establishing an "ambient-based" acute standard.

IV. DEFINITION OF EXISTING QUALITY

A. Background

Regulation No. 31 has a functional definition of "existing quality" which can be found in the antidegradation provisions at 31.8(2)(a)(i). This definition has been used to define ambient conditions for a variety of water quality assessment functions in addition to the application of antidegradation provisions.

B. Proposal

The Division is proposing to formally add the definition of "existing quality" to section 31.5. In the Notice, the Division proposed the following definition:

(19) "EXISTING QUALITY" means the 85th percentile of the data for un-ionized ammonia, nitrate, and the dissolved metals, the 50th percentile for total recoverable metals, the 15th percentile of such data for dissolved oxygen, the geometric mean of such data for *E. coli*, and the range between the 15th and 85th percentiles for pH.

In developing other proposals for this rulemaking hearing, the Division recognized changes needed to make the definition of "existing quality" consistent with those proposals, which are shown below:

(19) "EXISTING QUALITY" means the 85th percentile of the data for ~~un-ionized~~ ammonia, nitrate, and the dissolved metals, the 50th percentile for total recoverable metals, the

15th percentile of such data for dissolved oxygen, the geometric mean of such data for *E. coli*, and the range between the 15th and 85th percentiles for pH. For temperature, existing quality means the maximum weekly average temperature (the mathematical mean of multiple, equally spaced daily temperatures over a seven-day consecutive period) calculated from available representative data.

C. Explanation

The Division is proposing to add "existing quality" as a definition in section 31.5 because it has broader applicability than just the antidegradation provisions. The word un-ionized was struck from the noticed proposal because the Division's ammonia proposal utilizes the total fraction. The explanation of existing quality for temperature was added to be consistent with the Division's temperature proposal (see Exhibit 4).

V. DETERMINATION OF pH ATTAINMENT

A. Background

Just as in Footnote 3 of Table III at section 31.16, pH standards are used for two purposes, establishing permit limits and determining attainment. Footnote 3 of Table 1 regarding the pH standard was written many years ago to address only the permit limit function. Since, waterbodies fluctuate in pH over short periods of time due to climatic and naturally occurring events other averaging periods are appropriate for the attainment determination function.

B. Proposal

The Division is proposing to modify footnote 3 of Table 1 at 31.16, which is the footnote explaining the pH standard.

(3) The pH standards of 6.5 (or 5.0) and 9.0 are an instantaneous minimum and maximum, respectively to be applied as effluent limits. In determining instream attainment of water quality standards for pH, appropriate averaging periods may be applied, provided that beneficial uses will be fully protected.

C. Explanation

The proposal allows the Division to determine appropriate averaging periods for pH data in assessing attainment of the pH standard, with the proviso that the beneficial use is to be protected.

VI. PRACTICAL QUANTITATION LIMITS

A. Background

In January 2003, the Commission removed the Practical Quantitation Limits ("PQLs") from the regulatory framework of the Regulation for the State Discharge Permit System (Regulation No. 61), and remanded the PQLs to the Division to be handled as policy.

B. Proposal

The Division is proposing that the provision at 31.14(9) which addresses PQLs to be revised in light of the removal of PQLs from the Regulation for the State Discharge Permit System (Regulation No. 61), as follows:

(9) Whenever the practical quantitation level or PQL for a pollutant is higher (less stringent) than an effluent limitation or other reporting requirement that would result from direct application of site-specific water quality standards or the statewide standards in section 31.11, the PQL shall be used as the compliance threshold; that is, the permit shall require that the level of discharge be less than the PQL. ~~For organic chemical standards, the PQLs identified in the Regulations for the State Discharge Permit System at shall apply.~~ These PQLs shall be approved by the Water Quality Control Division unless ~~and until~~ they are ~~modified as~~ a result of a subsequent rulemaking hearing, or a site-specific or discharge-specific PQL ~~is~~ has been established.

C. Explanation

This proposed correction is intended to make Regulation No. 31 conform with Regulation No. 61 and the PQL policy.

VII. DETERMINATION OF ATTAINMENT FOR ALLUVIAL WELLS

A. Background

Current regulations do not specify where attainment of metals standards should be assessed for an alluvial well water supply that is not located in the stream channel.

B. Proposal

The Division is proposing to modify footnote 2, Table III in section 31.16 to read as follows:

(2) Metals for agricultural and domestic uses are stated as total recoverable unless otherwise specified. For an alluvial well water supply, the standard is to be applied at the point in the channel closest to the well.

C. Explanation

The Division has been assessing attainment of a standard for an alluvial well water supply in this manner for some time. This proposal formalizes this practice.

VIII. MANGANESE FOOTNOTE

A. Background

The agriculture use standard for manganese in Table III – METAL PARAMETERS is based upon EPA's 1972 Water Quality Criteria, which states that the standard is only appropriate where irrigation water is applied to soils with pH values lower than 6.0.

B. Proposal

The Division is proposing to add footnote 12 to the agriculture use standard for manganese in Table III – Metal Parameters in section 31.16 as follows:

(12) This standard is only appropriate where irrigation water is applied to soils with pH values lower than 6.0.

C. Explanation

This proposal is to make the agriculture use standard for manganese in Table III – Metal Parameters conform with EPA's 1972 Water Quality Criteria. The agricultural standard for manganese is not appropriate for waters applied to soils with pH above 6.0.

IX. TRIBUTLYTIN

A. Background

EPA released a final ambient water quality criteria document for tributyltin (TBT) in January 2004 designed to protect aquatic life in both fresh and saltwater. The TBT criteria development document can be found on the internet at http://www.epa.gov/waterscience/criteria/tributyltin.

B. Proposal

The Division is proposing to add an acute and chronic standard for tributyltin (TBT) to the table in section 31.11 Basic Standards Applicable To Surface Waters of the State based upon the EPA acute criteria of 0.46 ug/L and the chronic criteria of 0.072 ug/l.

C. Explanation

The Division is proposing these standards to be consistent with EPA Clean Water Act criteria.