

# 3182



February 16, 2018

SUBMITTED ELECTRONICALLY

Environmental Quality Board  
P.O. Box 8477  
Harrisburg, PA 171015-8477

RECEIVED  
IRRC  
2018 FEB 16 P 2:08

RE: TRIENNIAL REVIEW OF WATER QUALITY STANDARDS  
PROPOSED RULEMAKING TO THE 25 PA. CODE CHAPTER 93 – WATER QUALITY STANDARDS

Dear Sir or Madam:

Thank you for the opportunity to comment on the proposed amendments to PA Code Title 25, Chapter 93 – Water Quality Standards. The purpose of this letter is to provide comments on the proposed changes and to ask for clarification on some of the amendments.

Evaluating water quality data and assessing compliance with water quality standards and attainment of designated uses are among the most technically daunting tasks the Department of Environmental Protection performs. The language provided in Chapter 93 (along with Chapter 16 – Water Quality Toxics Management Strategy) outlines certain aspects necessary in completing these tasks. In doing so, the Water Quality Standards, and amendments so proposed, will have lasting impacts on not only the quality of the state's waters but also those entities that are directly related to those waters – most notably the dischargers of treated wastewater. It is our intention with these comments to assist the Environmental Quality Board (EQB) and the Department in performing these tasks by asking for clarification on the amendments. Addressing these clarifications now will allow for permitted dischargers to properly address their specific cases when permitting issues arise.

We offer the following comments:

**§ 93.8c. Human health and aquatic life criteria for toxic substances**

Under subsection (a), the EQB is proposing the following language (with amendments shown in **bold** and proposed text to be removed not shown for clarity):

*Table 5 and the table of site-specific criteria maintained by the Department list the aquatic life and human health criteria for toxic substances which the Department uses in development of effluent limitations in NPDES Permits and for other purposes. The human health criteria, which include probable modes of exposure (such as, but not limited to ingestion from drinking water and fish consumption, inhalation and dermal absorption), are further defined as to the specific effect (that is, cancer or threshold health effects). For those aquatic life criteria which are a function of local water quality conditions and are specified as a formula, such as several of the heavy metals, the hardness and pH values used to derive the appropriate water quality criteria shall be determined by instream measurements or best estimates, representative of the median concentrations or*

***conditions of the receiving stream for the applicable time period and design conditions.***

We would like the EQB to clarify what it means by "instream measurements or best estimates, representative of the median concentrations or conditions of the receiving stream for the applicable time period and design conditions." Is it the EQB's position that the water quality (i.e., hardness or pH) that is used to define the stream criteria should be characterized by collecting instream samples of the water quality (i.e., hardness or pH) downstream of the discharge? We also ask that the EQB clarify what it means by "best estimate." Is it the EQB's position that stream hardness will no longer be considered a default value (i.e., 100 mg/L), but rather the EQB will use best judgement to estimate the stream hardness? We would also like clarification on what the EQB means by "applicable time period and design conditions."

We believe that the characterization of the water quality that is used to calculate certain aquatic life criteria should be done under the same conditions to which those criteria are applied. In other words, if the criteria are going to be applied, e.g., at the edge of the mixing zone, under critical low-flow stream and permitted treatment plant conditions, then water quality needs to be characterized under those same conditions. The only way to accomplish this is to characterize both the receiving water body (upstream of a discharge) and the discharge individually and use a mass balance approach to combine the two using the appropriate stream and discharge flows.

**§ 93.8d. Development of site-specific water quality criteria**

Under subsection (c), the EQB is proposing the following language with the **bolded** sentence as an addition:

***Scientific studies shall be performed in accordance with the procedures and guidance in the Water Quality Standards Handbook (EPA 1994), as amended and updated, including: "Guidance on the Determination and Use of Water-Effect Ratios for Metals" (February 1994); and the "Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health" (2000). The Department may require the use of the Biotic Ligand Model (BLM) for the development of new or updated site-specific criteria for copper in freshwater systems. Other guidance approved by the Department, which is based on other EPA-approved or scientifically defensible methodologies, may be used.***

Would we like the EQB to clarify when it is going to require the use of the BLM and when it will allow for the use of other scientifically defensible methodologies, like the hardness only formula (as listed in Table 5 of the Water Quality Standards) and the use of a Water Effect Ratio. This comment also applies to the amendments to Chapter 16 – Water Quality Toxics Management Strategy.

Thank you for the opportunity to comment on the EQB's proposed changes to Chapter 93 – Water Quality Standards. Feel free to contact James Cosgrove via phone (609-454-4550) or email (JCosgrove@Kleinfelder.com) or Joseph Schwarz via phone (609-454-4559) or email (JSchwarz@Kleinfelder.com) to discuss these comments.

Sincerely,



Sincerely,



James F. Cosgrove, Jr., P.E.  
Vice President/Principal

Joseph W. Schwarz, P.E.  
Project Engineer