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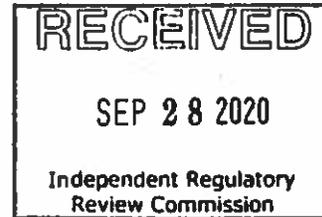
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September 25, 2020

Pennsylvania Environmental Quality Board
P.O. Box 8477
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Submitted by eComment



**RE: *Water Quality Standard for Manganese and Implementation (25 Pa. Code Chapters 93 and 96)
Notice of Proposed Rulemaking
50 Pa.B. 3724, July 25, 2020***

To whom it may concern:

In response to the public notice published in Pennsylvania Bulletin on July 25, 2020, CONSOL Energy, Inc. (CONSOL) offers the following comments on the proposed Water Quality Standard for Manganese and Implementation; Notice of Proposed Rulemaking (50 Pa.B. 3724).

CONSOL is a leading producer and exporter of high quality, bituminous coal from the Northern Appalachian Basin. The Company's Pennsylvania Mining Complex, located in Greene and Washington counties, is the largest underground coal mining complex in North America. Together with our subsidiaries, CONSOL owns several facilities in the Commonwealth which would be subject to the proposed rulemaking.

The proposed rulemaking was initiated in response to Act 40 of 2017 (Act 40), which required the Environmental Quality Board (EQB) to revise the water quality standards at Chapter 96.3(d) in a manner that would provide clarity on the point of compliance for the existing 1.0 mg/L manganese water quality standard, which is specific to, and was established for, the protection of waters designated as Potable Water Supply ("PWS"). Act 40 intended to provide consistency with other water quality criteria similarly established for the protection of potable water supplies such as sulfate and fluoride.

Rather than promulgate regulation as directed by Act 40, the proposed rulemaking seeks to reclassify Manganese as a toxic substance under Chapter 93.8(c) and proposes adoption of a new, more stringent human health criterion of 0.3 mg/L. Finally, the rulemaking proposes two alternatives for the point of

measuring compliance: the point of potable water supply withdrawals, or in all surface waters at the point of effluent discharge. For the reasons set forth below, CONSOL respectfully requests that the EQB retain its current 1.0 mg/L “PWS” Manganese criterion, and further, that EQB updates Chapter 96.3(d) as required by Act 40, as necessary to maintain the point of potable supply withdrawal as the point of compliance for the criterion.

Proposed Human Health Criterion

First, the proposed 0.3 mg/L human health criterion was derived using outdated scientific methodology. In deriving the proposed 0.3 mg/L water quality criterion, the Department relies upon an oral reference dose developed by the federal Environmental Protection Agency (EPA) in 1995 based on dietary studies alone, applies a conservative “modification factor” of 3, and assumes a daily drinking water intake of 2.4 Liters. The purpose of the modification factor is to translate the 1995 dietary reference dose into a drinking water consumption dose. However, in 2004, EPA recommended discontinuing the use of modifying factors, based on a comprehensive review of the processes used to derive reference dose concentrations (*EPA/630/P-02/002F*). If Pennsylvania had excluded the modification factor, the ambient water quality criterion would have been calculated at 0.9 mg/L, which closely aligns with the existing 1.0 mg/L standard.

Second, the proposed 0.3 mg/L human health criterion is redundant with the existing secondary maximum contaminant level (SMCL) of 0.05 mg/L for domestic drinking water in Pennsylvania (*Chapter 109.202(b)(1)*). In other words, regardless of whether EQB retains the existing 1.0 mg/L standard, or adopts the proposed 0.3 mg/L human health criterion, the 0.05 mg/L SMCL will not change if Act 40 were enacted as proposed. The drinking water consumed in the Commonwealth will not contain Manganese at a concentration of 0.3 mg/L, and therefore, the revised criterion will not provide any benefit to drinking water quality beyond what is provided by the existing SMCL. It is also noteworthy that the EPA established the SMCL based on aesthetic and taste considerations, and not based on human health. In contrast, for toxic substances such as Arsenic or Benzene, EPA has developed specific, primary drinking water standards at low concentrations that are protective of human health. Manganese has not yet been classified as a toxic substance for which a primary drinking water standard is required.

Finally, the proposed 0.3 mg/L human health criterion is inconsistent with regulation adopted in surrounding states and at the federal level. Manganese toxicity is associated with chronic exposure and high dosages. As such, Manganese has not been widely categorized as a toxic substance for which broad surface water protection is warranted. For instance, in West Virginia, the Manganese human health criterion is applied within a five mile zone immediately upstream of a private water supply. While Ohio does not have specific aquatic life or human health criteria for Manganese, the state classifies all waters within 500 yards of an existing public water intake as a public water supply. In Virginia, the Manganese human health criterion for public water supply use was removed, in part, because the state’s narrative criteria ensure full protection of the designated uses, including public water supply. In Pennsylvania, the current 1.0 mg/L Manganese surface water quality standard is applicable in stream and is intended to be protective of waters designated “PWS.” This would not change if Act 40 were enacted as proposed.

Proposed Point of Compliance

The point of potable supply withdrawal should be maintained as the point of compliance for the Manganese criterion. First, changing the point of compliance to be within all surface waters or at the point of effluent discharge unnecessarily expands the 0.3 mg/L to be applicable for designated uses beyond human health. Given that the proposed Manganese standard was developed based on intake, consumption, and human health only, it is inappropriate and overprotective to apply the proposed standard as an ambient standard that must be achieved in all surface waters, or at the point of all discharges. Rather, the standard should be applied where it will ensure the protection of intake and consumption – in those surface waters classified as “PWS.”

As part of the NPDES permitting process, the Department evaluates the proposed discharge and assigns effluent limits that are intended to not only protect the designated use of the receiving streams, but also to protect the nearest downstream potable water supply intake. The Department consistently employs its Penn-tox program, which is a quantitative assessment of the reasonable potential for a discharge to cause an excursion above the applicable water quality standards. This process applies to all dischargers and NPDES permit holders across the state – regardless of industry classification. The analysis is completed under conservative theoretical conditions that assume an elevated concentration of manganese is discharged at a maximum flow rate under drought conditions in the receiving stream, to ensure adequate protection of designated uses and downstream water supplies at all times. This analysis includes a comparison of industry specific effluent limit guidelines, to other guidelines and standards such as water quality standard based effluent limits and total maximum discharge loads developed at the watershed level – an approach that is consistent with the Department’s water quality management and pollution control duties at the watershed level under the Clean Streams Law. In this analysis, the most protective category of effluent limit is applied – and to reiterate, even in circumstances where industry specific federal effluent limit guidelines have been developed for specific industrial source categories. This analysis is routinely repeated during the permit renewal process to ensure continued protection and anti-degradation of the Commonwealth’s water resources and associated designated uses.

In implementing Act 40 of 2017 as intended, and in defining the location of potable water withdrawal as the point of Manganese compliance, these processes would not change. In the examples above, where discharges exhibit reasonable potential to cause, contribute to, or influence water quality at the point of withdrawal, then restrictive limits are imposed to protect a waterbody’s designated use. If Act 40 were enacted as proposed, this process would continue to protect potable water supplies.

CONSOL appreciates the opportunity to comment on the proposed rulemaking. As states above, we recommend that the current 1.0 mg/L “PWS” Manganese criterion be retained, and further, that EQB updates Chapter 96.3(d) as required by Act 40.

Sincerely,



Jacqueline M. Fidler