GEI Consultants

January 5, 2021

Consulting Engineers and Scientists

Jennifer Fullam
Surface Water Quality Bureau
New Mexico Environment Department
P.O. BOX 5469
Santa Fe, New Mexico 87502
jennifer.fullam@state.nm.us

RE: Chevron Mining, Inc.'s Comments on the New Mexico Environment Department's Proposed Amendments to Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC) - Triennial Review

Dear Ms. Fullam,

On behalf of Chevron Mining, Inc. – Questa Mine (CMI), GEI Consultants Inc. (GEI) has reviewed the New Mexico Environment Department's (NMED's) Proposed Amendments to Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC) - Triennial Review (hereafter: NMED 2020 proposal). This letter provides comments on the NMED 2020 proposal filed on behalf of CMI.

20.6.4.10 Review of Standards; Need For Additional Studies

The 2020 proposal includes slight adjustments to the language to clarify that a change to less stringent standards is allowable on a site-specific basis as long as the attainable uses are protected. GEI suggests adding a sentence to specify that the change to a less stringent standard would not trigger an antidegradation evaluation in permits where the less stringent standard is being implemented. While this is current practice, the language would provide clarity when future changes occur to standards on a site-specific basis. Proposed language below in ***blue bold italics***.

> **~~B.~~] C.** It is recognized that, in some cases, numeric criteria [~~have been adopted that reflect use designations rather than existing conditions of surface waters of the state.~~] for a particular designated use may not adequately reflect the local conditions and the adaptive nature of particular organisms to utilize a water without harm. In these cases, a water quality criterion may be modified to reflect the natural condition of a specific waterbody. [~~Narrative criteria are required for many constituents because accurate data on background levels are lacking. More intensive water quality monitoring may identify surface waters of the state where existing quality is considerably better than the established criteria.~~] When justified by sufficient data and information, a numeric [~~the~~] water quality [~~criteria~~]criterion [~~will~~]may be adopted or modified to a less stringent criterion and still protect the attainable uses of the waterbody ***without triggering an antidegradation review***. The modification of the criterion does not necessarily change the designated use. The removal or amendment of a designated use to a less stringent use can only be done through a use attainability analysis in accordance with 20.6.4.15 NMAC.

20.6.4.900 Aluminum

The NMED 2020 Proposal includes a recommendation to re-establish dissolved acute and chronic aquatic life criteria for aluminum in waters with pH outside the range approved by USEPA (2012) for the hardness-based aluminum criteria (pH 6.5 – 9.0) under 20.6.4.900(I) NMAC. The proposed criteria outside this pH range are fixed value acute and chronic criteria values of 750 and 87 µg/L dissolved aluminum, respectively. This proposal is being made by NMED to address and be consistent with USEPA's disapproval of the 20.6.4.900(I) NMAC aluminum criteria for use in waters outside the acceptable pH range of 6.5 – 9.0 (USEPA 2012). This disapproval also included a requirement to apply the 1988 Nationally Recommended Criteria (USEPA 1988) to waters below this pH range.

However, the new language proposed by NMED under 20.6.4.900(J)(2)(i) NMAC is not consistent with requirements of the USEPA disapproval. This new proposed language states:

> *The acute and chronic aquatic life criteria for dissolved aluminum is only applicable when the concurrent pH is outside the range established for the hardness-based total recoverable criteria for aluminum in Paragraphs (1) and (2) of Subsection I of 20.6.4.900 NMAC.* [emphasis added]

In contrast, the USEPA disapproval language only applies to waters with pH less than 6.5:

> *…EPA is disapproving the application of this equation in waters where the pH is below 6.5 as it may not be protective of applicable uses below that pH range.* [emphasis added]

Therefore, to be fully consistent with USEPA (2012) we recommend revising the proposed language under 20.6.4.900(J)(2)(i) NMAC as follows:

> The acute and chronic aquatic life criteria for dissolved aluminum is only applicable when the concurrent pH is ~~outside~~ below the lower end of the range (6.5) established for the hardness-based total recoverable criteria for aluminum in Paragraphs (1) and (2) of Subsection I of 20.6.4.900 NMAC

20.6.4.900 Dissolved Manganese

The NMED 2020 Proposal includes proposed amendments to human health organism only (HH-OO) criteria (20.6.4.900(J)(1) NMAC) for some pollutants to comply with 40 C.F.R. 131.20. For manganese, NMED proposes to add a HH-OO criterion of 0.1 mg/L which appears to be based on the 1993 national criterion USEPA. However, this value is not based on the toxic effects of drinking water exposure to humans, and instead the criterion is based only on an "observation that manganese can bioaccumulate in marine mollusks" (USEPA 1993). No other technical rationale was provided.

Given that there are no marine waters in New Mexico, GEI believes that this criteria value is inappropriate for the freshwaters of New Mexico. Therefore, we suggest that NMED withdraw its proposed addition of the 0.1 mg/L HH-OO criterion value for use with 20.6.4.900(J)(1) NMAC.

Please feel free to contact us should you require any additional information.

Sincerely,
GEI Consultants, Inc.

Natalie Love
Laboratory Director

Robert W. Gensemer, Ph.D.
Vice President, Senior Ecotoxicologist

Cc: Cynthia Gulde, Chevron Mining Inc.
Louis W. Rose, Montgomery & Andrews, P.A.

References

U.S. Environmental Protection Agency (USEPA). 1988. Ambient aquatic life water quality criteria for aluminum. August 1988. United States Environmental Protection Agency. Office of Water, Regulations and Standards, Criteria and Standards Division. Washington, D.C. EPA-440-5-88-008.

U.S. Environmental Protection Agency (USEPA). 1993. Drinking Water Criteria Document for Manganese. USEPA Office of Water, Cincinnati, OH. ECAO-CIN-D003.

U.S. Environmental Protection Agency (USEPA). 2012. Letter Dated April 30, 2012 from William K. Honker, USEPA Region 6 to James P. Bearzi, New Mexico Environment Department.