



North American Metals Council  
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June 1, 2020

Via E-Mail

Ms. Emily Halter  
U.S. Environmental Protection Agency  
Office of Water  
Office of Wastewater Management (4203M)  
1200 Pennsylvania Avenue NW  
Washington, DC 20460-0001

Re: Input on the Proposed 2020 National Pollutant Discharge  
Elimination System Multi-Sector General Permit; Docket Number  
EPA-HQ-OW-2019-0372

Dear Ms. Halter:

The North American Metals Council (NAMC) is pleased to submit this letter regarding the U.S. Environmental Protection Agency's (EPA) proposed rule for the 2020 National Pollutant Discharge Elimination System (NPDES) Multi-Sector General Permit (MSGP) (Proposed Rule). NAMC is an unincorporated, not-for-profit group formed to provide a collective voice for North American metals producers and users (*i.e.*, the North American "metals industry") on science- and policy-based issues that affect metals in a generic way. NAMC members include trade associations as well as individual companies.

While NAMC questions the overall justification and usefulness of benchmark monitoring as applied to stormwater discharges from the North American metals industry, NAMC appreciates the opportunity to provide the following comments on the benchmark monitoring requirements included in the Proposed Rule:

1. EPA's proposed MSGP requires certain benchmark monitoring parameters, which are designed for facilities to use to determine the overall effectiveness of stormwater control measures. However, for metals, many benchmark values are based on aquatic life criteria, which are derived from laboratory testing and used to evaluate the effects of pollutants on fish and insects. There is no connection between aquatic life criteria and effectiveness of

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stormwater control measures. Typical industrial process wastewater effluent limitations are established based on the use of extreme low-flow stream conditions because the industry is expected to have a constant discharge independent of receiving stream flow. When stormwater runoff occurs from an industrial site, however, the receiving stream flow is higher than normal due to runoff from other areas of the drainage basin. Additionally, in-stream concentrations associated with an individual industrial facility would be quite low due to the high flow in the receiving stream diluting in-stream concentrations. To account for this situation, NAMC recommends that EPA establish benchmark values based on a reasonably conservative estimate of in-stream concentrations. More specifically, EPA should use a dilution and attenuation factor (DAF) of 100, which would still be a conservative value.

2. The proposed MSGP benchmarks for arsenic, copper, and zinc are for total (*unfiltered*) metals concentrations. Importantly, however, these benchmarks are based on acute criteria that are derived from EPA's National Recommended Water Quality Criteria (NRWQC) for the protection of aquatic life, which is based on (*filtered*) dissolved metal concentrations. The distinction between total and dissolved phase metals is particularly relevant in evaluating potential impacts to aquatic life associated with exposure to metals in stormwater because of the increased concentrations of suspended particulates in stormwater. Data from the National Stormwater Quality Database (NSQD)<sup>1</sup> show that the average value of copper in dissolved samples is 50.5 percent lower than the average value of total samples (NSQD Version 4.02, 2015). This result indicates that a substantial portion of total copper concentrations is associated with particulate-bound metal complexes that are less bioavailable and toxic. Therefore, NAMC urges EPA to use the dissolved (filtered) phase as the basis for a benchmark that is established for the protection of aquatic life. The comparisons would be more appropriate in assessing potential impacts

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<sup>1</sup> NSQD is an urban stormwater runoff characterization database developed by Dr. Robert Pitt, P.E., of the University of Alabama and the Center for Watershed Protection under EPA support.



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to aquatic life and would be consistent with the technical basis of EPA's NRWQC.

3. EPA should use the same approach outlined by the National Academies of Sciences, Engineering, and Medicine (NASEM) in its 2019 report,<sup>2</sup> which: (1) acknowledges that dissolved metal concentrations more accurately evaluate potential impact to aquatic life; and (2) recommends that facilities with repeated benchmark exceedances for total metals should be allowed to sample for dissolved metals. One example pertinent to certain metals such as copper is the Biotic Ligand Model (BLM), which is used to determine the bioavailability of the metals to aquatic life. NASEM recognizes that the sampling for dissolved metals is more complex than sampling for total metals and suggests that dissolved metal sampling should be an option, not a requirement. Specifically, for copper and some other metals, the more complex BLM is used to determine the bioavailability of the metals to aquatic life based on ten parameters of the water body in question. NAMC urges EPA to follow NASEM's recommendation that the MSGP allow facilities with repeated benchmark exceedances for total metals to develop a BLM for their receiving water to establish a site-specific benchmark value. The report describes how watershed-based collaborative relationships among municipalities, industries, and other dischargers could be established to develop watershed-specific benchmark concentrations for copper using the BLM (which has already been done in Oregon).

Thank you for the opportunity to comment. Please contact Ligia Duarte Botelho, NAMC Manager, at [lbotelho@bc-cm.com](mailto:lbotelho@bc-cm.com) with any questions.

Sincerely,

William J. Adams, Ph.D.  
NAMC Chair

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<sup>2</sup> NASEM. 2019. *Improving the EPA Multi-Sector General Permit for Industrial Stormwater Discharges*.