UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 155
Seattle, WA 98101-3123

WATER DIVISION

February 28, 2022

Mr. Pat Hallinan
Washington Department of Ecology
Water Quality Program
4601 N. Monroe Street
Spokane, WA 99205
(*Sent via email to:* phal461@ecy.wa.gov)

Re: U.S. Environmental Protection Agency Comments
Draft National Pollutant Discharge Elimination System (NPDES) Permit and Fact Sheet
Kaiser Aluminum Washington, LLC (Permit #WA0000892)

Dear Mr. Hallinan:

Thank you for the opportunity to comment on the Washington Department of Ecology (Ecology) draft permit for Kaiser Aluminum Washington, LLC. EPA conducted this review in accordance with the procedures outlined in the National Pollutant Discharge Elimination System (NPDES) Memorandum of Agreement Between Ecology and EPA Region 10. EPA is providing the following comments on the draft permit and fact sheet.

Fact Sheet

Ambient Background Data and Wastewater Characterization

Tables 5 and 6 list background and effluent data, respectively, for polychlorinated biphenyls (PCBs). However, the tables do not specify the type of blank censoring used for these PCB data. Please include this information.

Evaluation of Surface Water Quality-based Effluent Limits for Numeric Criteria

The fact sheet states, on Page 43, that Ecology evaluated reasonable potential to cause or contribute to excursions above several chemicals that are subject to human health criteria, including mercury. The table on Page 73 of the fact sheet shows that Ecology applied a human health criterion of 0.14 µg/L for mercury. Ostensibly, this is based on footnote G to Table 240 in Ecology's water quality standards, which states that, "the human health criteria for mercury are contained in 40 CFR 131.36." The human health criterion for mercury in 40 CFR 131.36 for consumption of water and organisms is 0.14 µg/L. However, this footnote has been disapproved by EPA. As explained in the action letter dated November 15, 2016, "The EPA is disapproving Footnote G because it is no longer accurate. The EPA has removed Washington from the National Toxics Rule at 40 CFR 131.36 for mercury and promulgated new human health criteria for methylmercury in the EPA's final federal rule at 40 CFR 131.45." Thus, Ecology should not use this criterion for a reasonable potential analysis for mercury.

The fact sheet does not address the EPA-promulgated methylmercury fish tissue criterion at 40 CFR 131.45. Ecology should determine whether the facility has the reasonable potential to cause or contribute to excursions above the fish tissue criterion for methylmercury. EPA has published the *Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion* to assist permitting authorities with this analysis.[1] EPA notes that there are data available for total mercury in fish tissue at river mile 84.4, downstream from the facility.[2]

PCB Analytical Methods

The discussion of total PCB analytical methods beginning on Page 50 of the fact sheet should include EPA Method 1628. This is a PCB congener method which was published in July 2021, and which has undergone multi-laboratory validation, although it has not yet been approved under 40 CFR Part 136 for use in NPDES permit compliance monitoring.[3]

Technical Calculations

As Brian Nickel of my staff discussed with you on February 2, 2022, EPA published updated Clean Water Act Section 304(a) recommended criteria for aluminum in 2018.[4] These updated criteria superseded the recommended criteria from 1988, which are used in the reasonable potential analysis for aluminum on Page 72 of the fact sheet. Ecology should repeat the reasonable potential analysis for aluminum using the updated recommended aluminum criteria.

As Brian Nickel of my staff discussed with you on February 2, 2022, the receiving water concentrations of PCBs in the table on Page 75 of the fact sheet were labeled as having units of µg/L, but the listed values are expressed in units of pg/L. Assuming the receiving water PCB concentrations are accurate except for the mismatched units, these concentrations should be a 90th percentile of 0.000059 µg/L and a geometric mean of 0.000041 µg/L. Although this error is inconsequential because no mixing zone was authorized for PCBs, it should nonetheless be corrected.

Draft Permit

Monitoring Requirements

The fact sheet states on Page 51 that PCB monitoring using method EPA Method 1668 is required for the purpose of BMP effectiveness monitoring. However, the only mention of Method 1668 in the permit is in the requirements for the quality assurance project plan for underground injection control reporting (S14.A.4). The requirements for the PCB PMP annual report (S8.B.1) state that "the data summaries must include congener, homologue, dioxin like congener, and total PCB results," which implies that a congener method is required, however, the permit does not specify the use of Method 1668, nor does the permit specify detection or quantification limits for PCB congeners, which would require the use of a sensitive method such as Method 1668C.

In the Permitting Recommendations for the Spokane River Watershed submitted to Ecology on July 13, 2015, EPA recommended that Ecology require monitoring of the final effluent for Kaiser Aluminum for PCB congeners using EPA Method 1668C at least quarterly. EPA continues to recommend this effluent

[1] https://www.epa.gov/sites/default/files/2019-02/documents/guidance-implement-methylmercury-2001.pdf
[2] https://apps.ecology.wa.gov/eim/search/Detail/Detail.aspx?DetailType=Location&SystemStationId=100007006&LocationUserId=SPK84.4
[3] https://www.epa.gov/cwa-methods/pcb-congeners-low-resolution-gc-ms-method-1628-not-yet-approved
[4] https://www.epa.gov/wqc/aquatic-life-criteria-aluminum

monitoring to evaluate the effectiveness of both source control BMPs and treatment and to quantify PCB loadings from point sources.

EPA also recommends that the permit specify that a "sufficiently sensitive" method be used for determining compliance with the permit's effluent limits for total PCBs, instead of specifying the use of EPA Method 608.3. Currently, Method 608.3 is the most sensitive EPA-approved analytical method for PCBs and is therefore currently "sufficiently sensitive" as per 40 CFR 122.44(i)(1)(iv). However, a more sensitive method such as EPA Method 1628 may be approved for compliance purposes during the term of the permit. Requiring the use of a sufficiently sensitive method would require the permittee to switch to a more sensitive method if one is approved during the permit term, rather than continuing to use Method 608.3 until the permit is modified or reissued.

For any questions or concerns with EPA's comments on Ecology's draft permit for Kaiser Aluminum Washington, LLC, feel free to contact Brian Nickel of my staff at 206-553-6251 or Nickel.Brian@epa.gov.

Sincerely,

SUSAN POULSOM

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Date: 2022.02.28 13:18:30 -08'00'

Susan Poulsom, Section Manager
NPDES Permitting Section

cc: Adriane Borgias, Ecology ERO (via e-mail)
Karl Rains, Ecology ERO (via e-mail)