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Submitted via email

RE: Columbia Riverkeeper and Northwest Environmental Defense Center Public Comment on Draft NPDES Permit for Northwest Aluminum Specialties, Permit No. 101759.

Dear Oregon Department of Environmental Quality:

These comments are submitted on behalf of Columbia Riverkeeper and the Northwest Environmental Defense Center (NEDC) concerning the Northwest Aluminum Specialties (NW Aluminum) application to renew NPDES Permit No. 101759. NW Aluminum's outfalls discharge directly to the Columbia River. The Columbia River, and the communities who depend on it, face serious threats from toxic pollution. Everyday thousands of pipes buried under and along the Columbia River discharge toxic pollution from cities, industry, and dirty stormwater run-off. Pesticides and heavy metals also enter the river from non-point source pollution, such as runoff from agricultural lands and air deposition. This public comment is part of Columbia Riverkeeper and NEDC's (collectively "Riverkeeper") effort to improve quality of life in the Columbia River Basin for purposes including public health, recreation, and habitat quality.

Columbia Riverkeeper's mission is to restore and protect the water quality of the Columbia River and all life connected to it, from the headwaters to the Pacific Ocean. NEDC is dedicated to preserving, protecting, and improving the natural environment in the Pacific Northwest. NEDC, based in Portland, Oregon, has worked since 1969 to protect the environment and natural resources of the Pacific Northwest by providing legal support to individuals and grassroots organizations with environmental concerns, and engaging in litigation independently or in conjunction with other environmental groups. Columbia Riverkeeper and NEDC's members and supporters live, recreate, and work throughout the Columbia River Basin, including near and downstream of the NW Aluminum site.

Authorized Maximum Flow Rate

NW Aluminum's 2005 Permit estimated a maximum stormwater discharge of 7.55 million gallons per day (MGD). NW Aluminum used the water primarily for a non-contact cooling system for its aluminum smelter. The site has changed enormously since 2005. In 2009, the smelter was demolished. Now, DEQ estimates that the site actually only discharges between 1 and 2 MGD. However, the draft Permit adopts the identical flow rate as the 2005 permit. In turn, the Permit fails to reflect changed circumstances: NW Aluminum demolished the aluminum plant. In addition, the DEQ relies on the old flow rate to calculate how much pollution the facility may discharge. The Permit justifies using the old flow rate by claiming that once a new facility takes over the site, the Permit will be updated to reflect the changed circumstances.

This is problematic for three reasons. First, DEQ's use of inaccurate flow rates undermines the integrity of the final Permit and associated water quality-based effluent limits (WQBEL). Second, the Permit fails to ratchet back pollution discharges per the CWA's purpose. *See* 33 U.S.C. § 1251(a). Third, DEQ's failure to issue permits with accurate flow rates jeopardizes the validity of DEQ's Antidegradation analysis in future permit cycles. Riverkeeper urges DEQ to revise the Permit to reflect the actual maximum flow rate under existing site conditions.

In addition, DEQ's estimate of the current flow rate of 1 to 2 MGD is flawed. Extrapolating from the flow rate of 600 gallons per minute from the non-contact cooling system, Outfall 001 would only yield 0.864 MGD. Wastewater from the Cyanide Destruct System discharges an additional 0.03 MGD from Outfall C to Outfall 001.¹ In total, the facility only actually discharges a maximum of 0.894, well short of the Permit's estimated range of 1 to 2 MGD. The Permit should reflect the facility's precise and accurate flow rates.

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¹ An additional 0.2 MGD or less is discharged from Outfall C to Outfall 1 four or five times a year. During those times, Outfall 001 discharges a maximum of 1.094 MGD. While technically this number is between 1 and 2 MGD, it is also between 1 and 10 MGD or 1 and 100 MGD. The permit should be as precise as possible, given that calculations using different flow rates yield different effluent levels.

Water Quality Based Effluent Limits

In 2011, the State of Oregon adopted some of the most protective water quality standards for toxics in the nation. After decades of research, scientific review, and policy discussions, DEQ made a commitment to reduce toxics that threaten public health. The state’s historic decision followed years of hard work by Columbia River tribes and others to convince Oregon to do the right thing for people who rely on our rivers for sustenance. Yet the State of Oregon’s landmark decision to reduce toxic pollution is not reflected DEQ’s proposed pollution discharge permit for NW Aluminum. Riverkeeper urges DEQ to revise the permit to ensure that Oregon’s new toxic standards are fully integrated in new and revised NDPEs permits.

Specifically, the Permit should reflect the new criteria for the pollutants listed in Table 40: Human Health Water Quality Criteria for Toxic Pollutants. The concentration for each pollutant listed in Table 40 was “derived to protect Oregonians from potential adverse health impacts associated with long-term exposure to toxic substances associated with the consumption of fish, shellfish, and water.” See Table 40. The Columbia River’s beneficial uses include public and private water supply, salmon and steelhead migration corridor, shad and sturgeon spawning area, fishing, and water recreation.

NW Aluminum currently discharges aluminum, antimony, Benzo (a) Pyrene [B(a)P], cyanide, fluoride, and nickel. The human health criteria for antimony, B(a)P and nickel are 5.1 µg/L, 0.0013 µg/L, and 140 µg/L respectively. Based on a regulatory mixing zone, the draft Permit authorizes toxic pollution discharges at levels that far exceed the human health criteria, as illustrated in Table 1 below.

Table 1

Toxic Pollutant	Human Health Criteria (µg/L)	NW Aluminum’s Average Daily Discharge Limit (µg/L)	Percentage above Health Criteria
Antimony	5.1	2300	45,098%
Benzo (a) Pyrene	0.0013	41	3,153,846%
Nickel	140	1000	714%
Chlorine	19 (acute), 11 (chronic)	380	3,455%

Question: How does NW Aluminum’s proposed Permit take into account Oregon’s current human health criteria?

Because DEQ could not find any data for concentrations of cyanide and B(a)P in the Columbia River, it used estimates for those parameters. The Permit used a maximum cyanide level of 200 µg/L, based on drinking water standards. The more recent Human Health Water Quality Criteria set that level lower, at 130 µg/L. The cyanide calculations in the Permit should be changed to reflect the more protective limits.

The Permit's estimate of B(a)P concentrations in the Columbia were based on even more tenuous data collected from the Great Lakes over 20 years ago. Considering B(a)P is a highly carcinogenic compound found in coal tar, Riverkeeper urges DEQ to collect data on its concentration levels in the Columbia River.

Toxic Mixing Zone

Toxic mixing zones are not authorized by the CWA. Specifically, the CWA requires a strict timeline for compliance with water quality based effluent limits. 33 U.S.C. § 1311(b). The statutory deadline by which point sources were to meet water quality standards was July 1, 1977. 33 U.S.C. § 1311(b)(1)(C). By that date, dischargers were required to meet "any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations . . . or required to implement any applicable water quality standard established pursuant to this Act." *Id.* To protect our nation's waterways from toxic pollutants, Congress expressly required all dischargers to comply with all effluent limitations by March 31, 1989 at the latest. 33 U.S.C. § 1311(b)(2). Nonetheless, EPA and DEQ sanction the use of toxic mixing zones.

Riverkeeper does not support the use of mixing zones for toxic pollutants. This is particularly true for bioaccumulative toxins. *See* U.S. EPA, *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001 at 71 (March 1991) ("[A] State regulatory agency may decide to deny a mixing zone in a site-specific case. For example, denial should be considered when bioaccumulative pollutants are in the discharge.").

DEQ's Permit Evaluation relies on an outdated, twenty year old mixing zone evaluation. Riverkeeper recommends that DEQ require that the applicant: (1) conduct a mixing zone evaluation that captures current river conditions; and (2) evaluate the efficacy of the current discharge pipe to ensure that mixing is occurring as predicted in the mixing zone modeling.

Best Available Technology to Reduce Pollution Discharges from Industrial Waste Landfills

The NW Aluminum site contains two toxic landfills. EPA listed the site on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priority List in 1987 after testing detected cyanide in the groundwater. In 1996, EPA and DEQ entered into a Memorandum of Agreement (MOA) allowing DEQ to oversee CERCLA monitoring, operation, and maintenance of the site through a Resource Conservation and Recovery Act Permit. EPA terminated the MOA in October 2012 "[b]ased on concerns identified by EPA concerning management of the Site." U.S. EPA, *Five Year Report: Fourth Five-Year Review Report for Lockheed Martin Corporation The Dalles Facility* (May 13, 2013) (hereafter "EPA Report").

The Permit Evaluation states: "The [permitted] facilities discharge to the Columbia River . . . from Northwest Aluminum Specialties' (NWAS) recycling plant, Lockheed Martin's

Cyanide Destruct System (CDS), and stormwater runoff from the properties.” Permit Evaluation at 2. The Permit Evaluation states further: “The CDS discharge is composed of leachate from the CERCLA and RCRA landfills. The leachate is treated while in the collection system through use of a bioremediation technology, which uses organic carbon to augment existing natural breakdown processes for the reduction of cyanide.” *Id.* at 2-3. NW Aluminum’s system collects leachate in the CDS tank and then discharges the leachate in batches from Outfall C to Outfall 1 in the Columbia River.

During its Five Year Review under CERCLA, EPA determined that NW Aluminum’s landfill treatment is not acceptable. Specifically, EPA’s Report states:

Bioremediation treatment of cyanide replaced thermal treatment for the CERCLA landfill leachate in 2007 through a permit modification of the RCRA permit. Through the five-year review, EPA has determined that the effectiveness of biotreatment of cyanide cannot be demonstrated and that a new treatment is required.

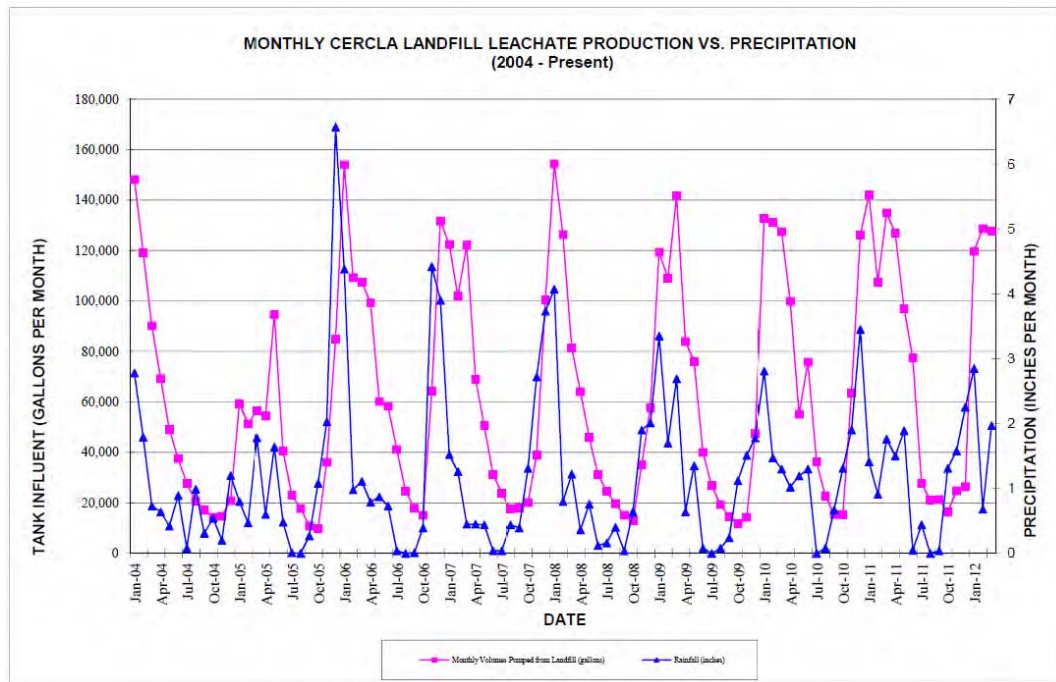
EPA Report at 9. The Clean Water Act requires that DEQ apply Best Available Technology Economically Achievable (BAT) as defined under CWA § 304(b)(2). Based on EPA’s determination regarding biotreatment methodology, DEQ must evaluate BAT for the new permit term.

Question: Will DEQ evaluate BAT for the new permit term and require a new, effective treatment method for cyanide discharges from Outfall C via Outfall 1?

In addition, the EPA Report notes that: (1) leachate production in the landfills has not decreased over time, and (2) leachate production is strongly correlated with precipitation.” *Id.* at 21-22; Table 2. EPA suspects that because the bottom of the landfill is not lined, shallow groundwater and stormwater infiltrating at the landfill perimeter will continue to contribute to cyanide effluent indefinitely. *Id.* EPA recommends a comprehensive groundwater investigation and other site modifications designed to prevent exposure of human and ecological receptors to potential hazards. If the landfill leachate is treated by the Cyanide Destruct System as the draft Permit proposes, the landfill will be even more directly tied into the wastewater system. Given the severity of the problems with the site’s landfills, and the close association of the landfill with other wastewater issues on the site, the Permit should carefully describe the landfills, not ignore them.

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Table 2.



Source: MMRF, The Dalles, OR Combined 2011 Semiannual RCRA and Annual CERCLA Report.

Responses to Permit Violations

The Draft Permit proposes to weaken the requirements for responding to exceedances when they occur. Following two consecutive bioassay test results indicating acute or chronic toxicity, NW Aluminum’s previous permit required the facility to “evaluate the source of the toxicity and submit a plan and time schedule for demonstrating compliance with water quality standards” and “implement that plan until compliance has been achieved.” The proposed permit eliminates those requirements. Instead, NW Aluminum simply has to notify DEQ of the toxic results and DEQ will “determine the appropriate course of action.” Riverkeeper urges DEQ to retain the response structure of the 2005 Permit, which establishes a framework for responding to acute or chronic toxicity issues.

In addition, DEQ’s Permit Evaluation fails to address why NW Aluminum exceeded its WQBEL for aluminum in July 2012. The Evaluation notes that in July 2012 NW Aluminum’s monthly average aluminum discharge from Outfall 1 was 16.97 lbs/day. The 2005 Permit limit is 10.8 lbs/day for the monthly average.

Question: Did DEQ investigate the cause of the July 2012 exceedance or undertake an enforcement action?

Question: Did DEQ learn anything about the cause of the July 2012 exceedance that can inform permit conditions in the permit renewal process?

Request for Meeting

Riverkeeper requests a meeting with DEQ to discuss the concerns raised in this comment. Please contact Riverkeeper's Staff Attorney, Lauren Goldberg, at 541-965-0985, to discuss the issues raised in this comment.

Thank you in advance for considering Columbia Riverkeeper and the Northwest Environmental Defense Center's input on NW Aluminum's draft NPDES permit.

Sincerely,



Candice McCloughlin
Law Clerk
Columbia Riverkeeper



Lauren Goldberg
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cc:

Cami Grandinetti, U.S. EPA