Clean Water Services

November 4, 2019

Aron Borok
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Submitted via email to: mercury2019@deq.state.or.us

Re: Comments on the *Willamette Basin Mercury Multiple Discharger Variance and Amendments to Variance Authorization Rule*

Dear Mr. Borok:

Clean Water Services (District) appreciates the opportunity to comment on DEQ's *Willamette Basin Mercury Multiple Discharger Variance and Amendments to Variance Authorization Rule* (Willamette Mercury Variance Rule). The District is a county service district, located in Washington County, Oregon, providing sanitary sewer service, stormwater management, and environmental restoration for nearly 600,000 residents and the businesses and industries that support the local and global economy. The District holds an integrated watershed-based NPDES permit covering the sanitary sewer conveyance system, four wastewater treatment plants, and the municipal separate storm sewer system serving urbanized Washington County. The District also acts as the agent for DEQ in administering the industrial stormwater (1200-Z) and construction stormwater (1200-C and 1200-CN) permit programs. The District recognizes and appreciates the effort required to produce the Willamette Mercury Variance Rule. However, there are some areas of the proposed rule that should be revised or clarified and we offer the following comments on the draft rule and supporting materials.

Draft Rule:

1. 340-041-0059(1), Applicability

This provision allows the DEQ director to grant individual water quality variances and the Environmental Quality Commission (EQC) to grant multiple discharger and water body variances. It would be helpful if the rule would clarify the role of Department orders and EQC's role in approving variances.

It would be helpful to the regulated community if the variance rule were to specify where multiple discharger and waterbody variances should be memorialized. It would make sense to add waterbody variances to the basin-specific water quality standards; perhaps individual and multiple discharger variances should be assigned their own section within Division 41. This may also avoid confusion between multiple discharger and waterbody variances.

2. 340-041-0059(3)(a), Variance Duration and Re-evaluation.

The District suggests that the provisions regarding the variance duration and the process for re-evaluation be placed in separate sections for clarity.

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The first sentence of this section reads, "The duration of the variance must only be as long as necessary to meet the highest attainable condition [HAC] as described in section (5) of this rule." Section (5)(a)(B) identifies the HAC in part as, "The interim effluent condition that reflects the greatest pollutant reduction achievable." Inclusion of the interim effluent condition differs from the federal variance rule which, when referencing the length of the term of the variance, includes the factors applicable for a variance in 40 CFR 131.10(g). The EPA variance rule does not include the interim effluent limits as one of the conditions governing the length of a variance term. As a result, this first sentence is ambiguous and could be misinterpreted as meaning that the duration of the variance should be set as the amount of time needed to achieve the HAC, which is clearly not what is intended. A variance would have no meaning if it lasted only so long as required to achieve the interim limit. To be consistent with the federal requirement, the DEQ rule should reference the conditions similar to the federal rule and not include the interim limits. In practice, the variance should not last beyond the time when the underlying criterion and beneficial use need to be applied, all actions taken consistent with 40 CFR 131.10(g), and the State undertakes the appropriate actions. The District urges DEQ to adopt the federal language regarding HACs and the term of variances, and change the term "achieve" to "apply."

3. 340-041-0059(3)(b)

This section applies to variances that have a duration shorter than the length of an NPDES permit term. In such case, a point source could seek a compliance schedule rather than pursue a variance. It is not clear if DEQ is encouraging the use of a variance as the appropriate tool in this situation rather than a compliance schedule. DEQ may want to clarify when they would suggest a facility pursue a variance rather than a compliance schedule as the more appropriate response.

4. 340-041-0059(6), Variance Permit Conditions

Item (b) requires the permit to include a requirement to implement any pollutant reduction actions approved as part of a pollutant minimization plan "adopted in the applicable variance." Since the development of a pollutant minimization plan (PMP) is a requirement of a variance and is developed after a variance is granted, a PMP is not adopted in a variance. It would be better to express this permit element as requiring incorporation of the PMP into the permit by reference, or requiring compliance with the PMP developed in compliance with the variance.

5. 340-041-0059(7), Public Notification Requirements

The items to be included in the published list in (b) includes "discharger," but not "facility." Since a discharger may own or operate multiple facilities, the items to be included should include facility names.

6. 340-041-0059(8)

"Willamette Basin" should be spelled out.

7. 340-041-0345(6) Multiple Discharger Variance for Mercury
The Variance Rule creates three types of variances: individual, multiple discharger, and water body, which have different submittal requirements and different HACs. Although titled a multiple discharger variance, the Willamette Mercury Variance only applies to dischargers within the Willamette Basin and is included in the Willamette Basin-specific criteria, so appears to be a water body variance, not a multiple discharger variance. Since different requirements apply, the rule should clearly state whether the Multiple Discharger Variance for Mercury is a multiple discharger variance or a water body variance.

The lead paragraph to this section should refer to the "fish tissue-based human health criterion for methylmercury."

8. 340-041-0345(6)(a), Findings
a. The Variance Rule requires that, before granting a variance, DEQ must determine that, "The requirements that apply throughout the term of the water quality standards variance will not result in lowering the currently attained ambient water quality, unless the variance is needed for restoration activities as specified in paragraph (2)(b)(G) of this rule." The findings in 340-041-0345(6)(a) do not provide such a determination. DEQ should include the required finding in 340-041-0345(6)(a) to be consistent with 340-041-0059(2)(a) .

b. The Variance Rule [at 340-041-0059(2)(b)] provides seven acceptable reasons that attaining the designated use and criteria during the term of a variance can be found infeasible. The Multiple Discharger Variance for Mercury finds (at item C) that, "It would cause more environmental harm to install and operate additional treatment technology to remove additional mercury than to reduce mercury through implementing mercury minimization plans." This finding is unnecessary to grant the variance. Furthermore, advanced wastewater treatment technologies should not be equated with causing environmental harm. While it is true that upgrading facilities just for mercury removal is not justified by the incremental improvement in performance, high cost, additional energy use, and lack of water quality benefit, this comparison between potential interim measures (treatment vs. source control) does not belong in findings supporting a variance. The District suggests that this finding be removed from the final rule.

9. 340-041-0345(6)(c) and (d)
The District suggests several editorial changes to this section. Section (c) is titled "Eligibility requirements" and section (d) is titled "Application requirements," however both sections begin, "To qualify for a variance…" In addition, the second sentence of item (d)(B) states that two years of quarterly effluent data is required to receive coverage, which is an eligibility requirement. The District suggests that the requirement for two years of quarterly data be moved to the eligibility requirements and the lead sentence for the application requirements be changed to "To apply for the variance…"

The District also notes that permittees, not facilities, qualify for and apply for variances. In addition, since a permittee may own, but not operate a facility, the eligibility requirement at (c)(A) should include, "Own or operate…" Also at (c)(A), the term "discharger" typically applies to the owner or operator of a point source, not the point source itself, so the requirement should be to, "Own or operate a permitted municipal or industrial point source…" Also, the term "qualifying for coverage" is used elsewhere and seems more appropriate here than "qualifying for a variance." In addition, item (c)(C) should read, "… value needed to meet the fish tissue-based human health criterion for methylmercury." Finally, the reference to the description of mercury minimization plans should be 340-041-0345(6)(f).

To summarize, the District suggests that 340-041-0345(6) (c) and (d) be revised to read as follows:

> (c) Eligibility requirements. To qualify for coverage under the variance, a permittee must meet the following requirements:
>
> (A) Own or operate a permitted municipal or industrial point source employing a minimum of secondary treatment;
>
> (B) Hold an individual NPDES permit to discharge wastewater to waters of the Willamette Basin;
>
> (C) Have effluent levels greater than the water concentration value needed to meet the human health criterion for fish tissue methylmercury;
>
> (D) Have the potential to reduce mercury from the facility's effluent or in the receiving waterbody; and
>
> (E) Provide DEQ at least two years of quarterly effluent data.
>
> (d) Application requirements. To apply for coverage under the variance, a permittee must provide to DEQ the following information:
>
> (A) A letter applying for the mercury variance under this rule;
>
> (B) All mercury effluent data from the previous five years, including at least two years of quarterly effluent data; and
>
> (C) A mercury minimization plan, as described in 340-041-0345(6)(f).

10. 340-041-0345(6)(e)
The last sentence provides that, "The LCA [level currently achievable] is the 95th percentile value of recent (e.g., five years) data, the highest value of recent data, or a previously applicable LCA, whichever is lower." The District suggests redrafting this section to be consistent with the description of LCA calculation included at section 3.2.1 of the supporting document.

Regarding enforcement of the LCA, the supporting document at 4.2.1 (page 31), states that DEQ will include permit limits based on quarterly average concentrations and proposes to define a violation of the maximum quarterly average permit limit as two consecutive quarters in which the quarterly average is above the 95th percentile of the distribution. There should be a reference to the supporting document, such as, "implemented as described in section 4.2.1 of the variance supporting document."

11. 340-041-0345(6)(f)(B) and (D)
The minimum elements of a mercury minimization plan include inspections of dental offices and commercial laboratories. Based on 18 years of experience implementing a mercury minimization program, the District believes that inspections of every facility is not necessary. Since the purpose is to identify facilities and provide outreach through calls, surveys, and other tools, the plans should allow for flexibility to provide outreach, not inspections. The District notes that the plan requires inspection of dental offices to ensure installation of amalgam separators "if not otherwise required." Oregon Revised Statutes 679.520 requires dentists to install and maintain amalgam separators, so they are required throughout the state, with inspection to be provided by the Oregon Board of Dentistry. It is unnecessary to add a redundant inspection requirement.

The District also notes that the recently promulgated EPA Effluent Limitations Guidelines and Standards for the Dental Category (40 CFR 441) do not require inspections. The EPA guidelines require the installation, operation and maintenance of amalgam separators, and the implementation of BMPs to reduce mercury discharges from dental offices. Dental offices are required to submit a certification that they are in compliance with the requirements of 40 CFR 441. The District recommends that outreach be required instead of inspection for dental offices and commercial laboratories.

12. 340-041-0345(6)(f)(G)
This element of the mercury minimization plan requires "cleanup of legacy mercury from collection systems." This requirement is apparently based on speculation on the cause of variations in mercury levels in treatment plant influent in other states. It is unclear what this requirement would provide in additional mercury reduction. The District cleans every sanitary line at least every four years. During this cleaning process, materials are not removed, but are flushed to higher flow portions of the system and ultimately conveyed to a treatment plant. The cleaning process is on-going, so would not be a source of influent variability. It is doubtful that any "legacy mercury" (however that might be defined) remains in the system. The District suggests that this requirement be deleted from the mercury minimization plans.

13. 340-041-0345(6)(f)(I) and (g)(E)
These elements of the mercury minimization plans for municipal and industrial dischargers allow facilities that have accomplished all activities within their control to implement mercury reduction activities outside their control. The District requests that this section be structured to allow trading.

14. 340-041-345(6)(h), Public notice
The description of the permittee's request should be described as a request for coverage under the variance, not an authorization.

15. 340-041-0345(6)(i), Re-evaluation of Highest Attainable Condition
Please see comment 2, above, regarding the need to revise the language on re-evaluations.

16. 340-041-0346(6)(i)(C)(ii)
Revisions to Mercury Minimization Plans should only be requested if necessary. The District suggests that this provision read, "DEQ will review updates to the facility's site-specific mercury minimization plan and, if necessary, request revisions to ensure that it is consistent with variance requirements."

Attachment 1 - Variance Explanation

The following comments are provided on the "Variance Explanation" document to ensure that the mercury variance rules are on firm footing. The rationale could be better structured. The District is concerned that secondary plants may not be able to achieve the same level as advanced plants.

17. Section 1.4, page 4
Major Municipal Facilities without Advanced Wastewater Treatment table. The list of permittees does not include the District's Hillsboro WWTF.

18. Section 2.2.1
This section compares effluent mercury levels achieved by secondary and advanced wastewater treatment plants. This section does not use criteria to define advanced treatment facilities consistent with other parts of the document. For example, this section places eight facilities into the advanced treatment category, whereas the table on page 4 and later sections include only three facilities in this category. DEQ should review the characterization of these facilities and present effluent characterization data that reflect this categorization.

The final paragraph of this section (page 12, beginning, "This information…") compares the efficacy of secondary treatment, advanced treatment and source reduction in reducing effluent mercury concentrations. Referring to Figure 2-6 showing California data and Figure 2-7 showing Oregon data, while the ranges do overlap, it is a small portion of the total range and advanced treatment is apparently more effective at removing mercury. (The labels for these figures need to be revised to include the description of the plots of data for advanced treatment.) The paragraph continues, noting that source reduction can achieve significant reductions in mercury, which are in some cases similar to those achieved by facilities employing advanced

treatment. We are concerned about using this as a basis for the multidischarger variance particularly if municipalities are asked to demonstrate that the mercury minimization practices are resulting in effluent levels similar to those achieved by advanced treatment facilities. Such a demonstration may be difficult and is not supported by the data. While minimization practices can be effective at reducing discharges of mercury into the environment, many of these practices have already been implemented (e.g., dental category) and others do not have a wastewater nexus and as such are difficult to link to improvement in effluent quality.

Looking the District's data, we implement the same mercury minimization program across the entire service area but effluent quality is better at the two advanced treatment facilities than the two conventional secondary facilities. A recent study notes that improving effluent quality can be linked directly to the level of technology being used at the WWTF. While employing mercury minimization plans should be a key element of the variance, it should not be touted as being equivalent to providing advanced treatment.

19. Section 3.1.2, Justification for HAC#3 for municipal facilities without advanced treatment
This section determines that HAC#3 is the most reasonable approach for the Multiple Discharger Variance for Mercury. The fourth bullet point compares the "environmental damage" caused by treatment versus source reduction. Higher levels of treatment must not be equated with causing "environmental damage." The District recommends stating that upgrading facilities just for mercury removal is not warranted due to negligible improvement in performance, high costs, additional energy usage, and no corresponding water quality benefit. As facilities upgrade for other reasons (nutrient removal, mass load restrictions, or other water quality considerations), improvements in mercury removal will be realized.

20. Section 3.1.2.1
This section concludes that mercury reductions achieved through source reduction could potentially achieve similar concentrations as advanced treatment. The analysis leading to this conclusion is not particularly rigorous and is unnecessary. Since it has already been made clear in section 3.1.2 that source reduction is preferred over advanced treatment for other reasons, comparing the two further is not needed to support that approach. Furthermore, the studies cited in comment 18 are counter to the conclusion reached.

Again, the District appreciates the opportunity to collaborate with DEQ in developing a Willamette Basin Mercury Variance that protects Oregon water quality without unduly burdening our residents and ratepayers. If you would like to discuss any of the issues raised in these comments, please feel free to call me.

Sincerely,

Robert P. Baumgartner
Regulatory Affairs Director