

## The Key April 2018 EPA Comments Were Not Resolved in the Final Poly Met NPDES Permit

by: Jeffry Fowley, dated: June 18, 2019

U.S. Environmental Protection Agency (EPA) staff read detailed comments on the then draft Poly Met NPDES permit to Minnesota Pollution Control Agency (MPCA) staff on April 5, 2018, as shown by the documents recently released by the EPA in response to litigation under the Freedom of Information Act (FOIA). The comments that were read included an entire letter to Jeff Udd (cover letter) and almost all of an attached enclosure (attachment). The final permit was issued by the MPCA in December 2018. This memorandum demonstrates how the key April 2018 EPA comments were not resolved in the final permit.

1 – The fundamental EPA comment was that, “the draft permit does not include water quality based effluent limitations except as described by the fact sheet (p. 41) for pH[,] or any other conditions that are as stringent as necessary to ensure compliance with the applicable water quality requirements of Minnesota, or of all affected States, as required of all state programs by CWA Section 402(b), 33 U.S.C. §1342(b), and 40 C.F.R. §§122.4(d), 122.44, and 123.44(c)(1), (8)-(9). Furthermore, the permit includes technology based effluent limitations that are up to a thousand times greater than applicable water quality standards.” Cover Letter pp. 1 – 2.

The EPA comments explain that the permit, “appears to authorize discharges that would exceed Minnesota’s federally-approved human health and/or aquatic life water quality standards for mercury, copper, arsenic, cadmium, and zinc. This concern would be resolved if the permit included WQBELs [water quality based permit limits] for these parameters.” Attachment p. 1, item 1. The EPA comments further explain that, “EPA is concerned that the permit and supporting materials do not include sufficient information to explain how downstream water will be protected consistent with CWA section 402(b)(5), 33 U.S.C. §1342(b)(5), based upon the following considerations including (1) downstream receiving waters [already] exceed the applicable state and downstream state human health and wildlife water quality standards for mercury, and (2) the pilot study states that the effectiveness of the treatment system to remove mercury is unknown. We note that a downstream tribe, that has ‘Treatment as a State’ and federally approved WQS, has notified EPA that the project is likely to contribute to exceedances of its downstream WQS, including for mercury. MPCA should ensure that its permit will ensure compliance with downstream state WQS. In summary, EPA recommends that MPCA include WQBELs in the permit....” Attachment p. 3, item 7 and paragraph following.

The final permit continues to fail to have any water quality based permit limits for mercury, copper, arsenic, cadmium and zinc, or any other pollutants, contrary to the April 2018 recommendations from the EPA. Instead, the permit continues to have the much less stringent technology based permit limits for arsenic (p. 350), cadmium (p. 350), copper (p. 351), mercury (p. 352), and zinc (p. 354). Thus the permit does not resolve (through having water quality based permit limits) the EPA concerns that the water quality standards of both Minnesota and the Fond du Lac tribe will be violated.

2 – The MPCA draft permit as of April 2018 contained operating limits regulating internal plant flows for sulfate and copper. The final permit continues to have operating limits for these

parameters (p. 426), plus the MPCA added additional operating limits including for cobalt (p. 425) and mercury (p. 426). The MPCA has represented in a brief filed in the state appeals court that these additional limits were added to satisfy the EPA's concerns.

However, in the April 2018 comments, the EPA made clear that such operating limits are not an adequate substitute for having the required water quality based permit limits. The EPA stated that, "[T]he permit contains 'operating limits' on an internal outfall that may not be enforceable by EPA, citizens, and potentially MPCA and, thus, may be ineffective at protecting water quality under the Clean Water Act (see 40 C.F.R. §§122.4(a), (d))."<sup>1</sup> Cover Letter p. 2. In objecting to the MPCA relying on operating limits, the EPA also went on to say that even if the MPCA considered that having internal operating limits would work to protect water quality, "the permit should include appropriate WQBELS at monitoring location SD001 [the final point of discharge] to ensure that these internal operating limits [actually] result in meeting applicable water quality standards at the point where the discharge is sent to receiving waters...." Attachment p. 1, item 3.

The EPA also stated that although the operating limits were being set at low values which might seem to protect water quality, "there is nothing definitive in the permit or supporting information that justifies a conclusion that meeting these operational targets will result in meeting water quality standards for all the parameters in the permit application. This is especially a concern for mercury...." Attachment p. 2, item 5. The major concern was that the MPCA had simply not done the kind of pollutant by pollutant calculations needed to establish all of the specific needed permit limits at the actual point of discharge (see item 4 below). Another concern expressed by the EPA was that pollutants might be added to the wastewaters after meeting the operating limits but before the point of discharge. *See* Attachment p. 2, item 6.

In the final permit, the MPCA made no significant change to its approach. Rather, contrary to the EPA's recommendations, it continued to rely on internal operating limits rather than having water quality based permit limits. The final permit also continued to have much looser end of pipe technology based limits allowing much greater pollution than supposedly was going to be prevented by the internal operating limits. For example, the internal operating limit for mercury is 1.3 nanograms per liter monthly average,<sup>2</sup> but the federally enforceable end of pipe limit for mercury is 1,000 nanograms per liter monthly average, almost one thousand times more. *See* permit pages 426 and 352. The permit is contradictory, in seeming to require tight internal limits but providing looser end of pipe limits, as was also pointed out by the EPA in its April comments with respect to copper. Attachment, p. 4, item 2. There was no good reason for the MPCA not to include water quality based federally enforceable limits in the final permit, if it actually believed that such standards would be met through the plant having treatment that would meet the internal operating limits.

The MPCA did not include in the administrative record any record of the EPA comments (on this or other issues). There also is no response to the EPA comments in the MPCA's response to

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<sup>1</sup> Federal authority under the Clean Water Act generally is limited to regulating end of pipe discharges to receiving surface waters, rather than internal plant flows.

<sup>2</sup> This limit, unlike the end of pipe limit, is based on the Minnesota chronic water quality standard for mercury.

comments document. In its brief filed in the appeals court, the MPCA argues that this is not a problem, since in responding to other commenters, it responded to the concerns raised by EPA. Examining the response to comments document shows that at least with respect to the comments on the inadequacy of the operating limits, this is not the case.<sup>3</sup> For example, in response to comment water 719-A, the MPCA responded to a comment that the operating limits might not be enforceable, by simply declaring that they would be enforceable by the state, without addressing the concerns raised by the EPA that they would not be federally enforceable. In the other responses to comments on the operating limits issues, such as response to comments water 719, and 719-C, the MPCA made only similar general assertions that the operating limits would protect water quality, without addressing the specific EPA arguments that the full analysis necessary to show this had not been done.

3 – The EPA in its comments also stated that “[t]he permit lacks clear narrative effluent limitations such as an unqualified general prohibition on discharges that would cause exceedances of water quality standards.” Attachment, p. 1, item 2. It pointed to permit paragraph 6.16.4 which, while prohibiting toxic discharges that could violate water quality standards, then made an exception to this general requirement whenever the company met the permit’s (looser) technology based standards. The EPA stated that *two* things would be necessary to satisfy its concern: “EPA’s concern could be resolved if MPCA establishes WQBELs for the authorized discharge *and additionally* removes the qualifying language from paragraph 6.16.4 to clearly prohibit discharges that would cause exceedances of water quality standards.” *Id.* (emphasis added).

The final permit partially makes one of the two changes sought by the EPA. There are provisions in the permit that now state in general terms that water quality standards should not be violated. *See, e.g.*, conditions 5.1191 at p. 65 and 5.120.31 at p. 68. There is no provision 6.16.4 in the final permit. However, permit provision 5.183.251 (at p. 111) similarly continues to suggest that to avoid toxic discharges, it is sufficient for the company to meet the loose technology based standards. So the second part of the EPA’s suggestion has been addressed – but only partially. It seems that the MPCA responded to the EPA’s recommendation to change condition 6.16.4 by simply placing the problematic language objected to by the EPA elsewhere.

More fundamentally, the first part of the EPA’s suggestion has not been addressed. There still are no specific pollutant by pollutant water quality based conditions in the permit. It is the specific pollutant by pollutant permit standards that companies typically rely on to determine what they must do, and which are readily enforceable. The MPCA failed in this permit to tell the company what are the more stringent end of pipe limits that must be complied with to meet the permit’s general language. It will be difficult to take enforcement action against the company for violating only the general language. This is particularly so since the specific end of pipe effluent limits that are in the permit for the various pollutants continue to be only the looser technology based limits. Giving the company loose specific limits at minimum causes confusion about the

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<sup>3</sup> The brief cites to response to comment water 718-C as in effect addressing the EPA comments regarding operating limits. There is no such response to comment section, so I have examined the other relevant responses to comments including water 719-C.

meaning of the general language, and could be read to imply that the general language can be ignored so long as the company complies with the loose limits.

4 - The EPA regulations (which authorized states must follow in their own regulations) specify that any permit issuer must examine whether any pollutants planned to be discharged have the “reasonable potential” to cause water quality violations, and then must include water quality based permit limits for each pollutant for which there is such a reasonable potential. 40 C.F.R. §122.44(d). See also 40 C.F.R. Part 132, Appendix 5, which sets out various details regarding how to do reasonable potential analyses correctly. The MPCA did what they said was the required reasonable potential analysis in the permit fact sheet (pages 31 – 39) which they submitted to the EPA along with the draft permit early in 2018.

In the April comments, the EPA pointed to various problems with this reasonable potential analysis. The major issue – as already discussed above, was the EPA’s view that the MPCA needed to use end of pipe water quality based permit limits rather than internal operating limits to prevent “reasonable potential.” Attachment, p. 2, item 5. The EPA also noted in its comments that the “[p]ermitting record does not appear to demonstrate that MPCA considered all the pollutants that were disclosed in the permit application as being present in the proposed discharge when evaluating the need for WQBELs .... MPCA should, therefore, consider in its analysis all the pollutants that were presented in the application materials as potentially present in the proposed discharge to determine those WQBELs that are needed in the permit.” Attachment, p.1, item 3. The EPA also stated that, “[t]he fact sheet’s reasonable potential analysis relies on the assumption that data provided in the application are maximum values without taking into account the potential variability and uncertainty in the discharge from this new source.... To resolve EPA’s concern, MPCA should consider that the data provided in the application materials are estimates based on assumptions and modeling outputs and ensure that its reasonable potential analysis is consistent with the procedures in 40 C.F.R. Part 132, Appendix F, Procedure 5.” Attachment, p.2, item 4.

In response to these EPA concerns, the MPCA should have done a supplemental reasonable potential analysis, which would have involved supplementing the fact sheet. It did not. It also did not respond to any of the specific EPA concerns about its reasonable potential analysis in the response to comments document. The responses to other commenters simply repeated the MPCA’s general views that any concerns were being addressed by the operating limits and general permit language prohibiting the violation of water quality standards. See responses to comments water-719, 720-C, 729, 752,719, 719-A, 719-C, and 752.

My own analysis of the MPCA’s reasonable potential analysis confirms that it is inadequate. It consistently relies on the company’s planned treatment system as being sufficient to prevent reasonable potential if it is properly operated and this results in “removal efficiencies” as expected by the company. See , e.g., Fact Sheet pp. 34 (re: sulfate), and 38 (re: metals). But NPDES permits do not impose legally enforceable requirements as to what treatment system a company must operate. Rather, they impose effluent limits which the company must meet. Companies typically must employ effective treatment systems and properly operate them to meet effluent limits, but *how* the effluent limits must be met is left under federal law to the companies.

Thus the MPCA's reliance throughout its analysis that there will be no reasonable potential because it can simply be assumed that the company will always properly operate its treatment system is misguided. The federal regulations specify that when doing a reasonable potential analysis, the permit writer must take account of "existing controls" – not simply what is expected from a treatment system – and must then specify "effluent limits" if the existing controls are not sufficient. 40 C.F.R. §122.44(d)(ii) and (iii). Thus what the MPCA should have done was to calculate – pollutant by pollutant – whether the existing federally enforceable technology based controls in the permit would be sufficient to prevent reasonable potential – e.g., the 1,000 nanograms per liter effluent limit for mercury. Given the low dilution in the nearby receiving waters, it seems clear that these technology based limits would have been determined to be insufficient if a proper analysis had been done. This should have resulted in findings that there needed to be tighter federally enforceable end of pipe water quality based permit limits.

The Fact Sheet also engages in circular reasoning. On page 38, the MPCA first states that "there is no reasonable potential to exceed the water quality standard applicable to each [toxic metal] parameter" based on the "design modeling values and the pilot testing results" of the company's planned treatment system. This would indicate that no further controls would be needed – not even operating limits. But then the MPCA goes on to say that operating limits have been added to the permit "to ensure that actual WWTS [company waste water treatment system] removal efficiencies for these parameters are as expected." *Id.* If there was doubt about whether the company's treatment system could meet the tight limits needed to avoid reasonable potential (as the MPCA apparently realized), then the MPCA should have added federally enforceable water quality based permit limits to the permit, rather than only internal operating limits. Instead, what the MPCA seemed to be saying was that there was no need for having any additional limits because, after all, it was adding additional operating limits.

Note that the EPA in its comments indicated that there was doubt about whether the company's treatment system could meet the needed tight limit for mercury. Attachment p. 3, item 7 ("the pilot study states that the effectiveness of the treatment system to remove mercury is unknown"). While the MPCA addressed this issue by putting in a tight operating limit for mercury, if that limit is violated, there may be no remedy available to the EPA or citizens at the federal level, since an internal operating limit might not be federally enforceable. It will be left to the MPCA to determine whether it will become uncharacteristically aggressive and then will require corrective measures by the company.

### Conclusion

The various statements being made by MPCA and some Trump Administration EPA officials that all of the concerns stated by the EPA in its April 2018 comments were resolved in a fall 2018 meeting are all false. As this memorandum demonstrates, the key EPA comments were not even addressed in the final permit by the MPCA.

EPA officials also may be mischaracterizing the current views of the EPA career staff. On April 2, 2018 EPA Administrator Andrew Wheeler testified to the House Appropriations Committee,

subcommittee on Interior, Environment and Related Agencies, regarding the Poly Met matter as follows:

“And it's my understanding in talking to my regional administrator, and in she talking to the career staff who participated in the action day with the state of Minnesota. Was that all the issues that were raised in the letter were raised in the meeting face to face with the state regulators **and they resolved all the issues.**” (emphasis added).<sup>4</sup>

This statement by Mr. Wheeler appears to have been misleading. While Mr. Wheeler may have merely passed on what he had been told by the Regional Administrator, the information that he passed on likely was false.

It may be the case that the Regional Administrator considered the issues to have been resolved. But it is not credible that after the MPCA failed to respond to the major comments read by EPA career staff to MPCA staff in the spring, that the EPA career staff considered the issues all to have been resolved in the fall. I understand that the career staff created a memorandum to the file dated December 18, 2018 which documents how many of the issues were not resolved. This memorandum should be promptly released by the EPA, to demonstrate conclusively whether or not the statements made by the Regional Administrator and Administrator Wheeler (and others) are accurate. Pending the release of this memorandum, EPA officials should refrain from making further potentially inaccurate statements.

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<sup>4</sup> See 1.42.24 and after at link: <https://www.congress.gov/committees/video/house-appropriations/hsap00/SK2M61g47EQ>