

Barr Engineering Co.

See attached.

To: Minnesota Pollution Control Agency
From: Barr Engineering Co.
Subject: Comments on MPCA Remediation Division PFAS Guidance (Draft)
Date: 10/06/2023

Barr Engineering Co. respectfully submits the comments below in response to the Minnesota Pollution Control Agency's (MPCA or Agency) request for comments on the Agency's draft Remediation Division PFAS Guidance. The comments are based on our initial review of the draft guidance and are focused on particular areas where additional clarity and guidance may be broadly beneficial and have the greatest impact.

Life-Cycle Stages

Stage 1 of the Life-Cycle evaluation suggests there should be off-site receptor sampling if potential PFAS sources are identified on site and/or in nearby potential sites from the desktop radius evaluation. Since the list of industries and known PFAS impacts identified in the desktop stage is potentially long, especially for urban areas, this concern may rise frequently. It could be challenging to start accelerating early Stage 2 field investigations at receptors beyond each site, as most projects are focused on specific geographies/sites/administrative boundaries. In some cases where known PFAS impacts are widespread, there could be multiple independent sites being tasked with the same effort before a more comprehensive understanding of individual site's conceptual model is advanced. For example, an innocent buyer of a Brownfield site may take on the evaluation of nearby receptors from nearby industries, both of which (the nearby receptors and nearby industries) do not have connections to the Brownfield Site.

Consider this screenshot from MPCA What's in My Neighborhood for the area of St. Paul around the MPCA's St. Paul office (Graphic 1). This suggests over time many urban sites would each canvas off-site land use for industries and consider sampling receptors or conduct site specific risk assessments as the science advances (see later comments). There is risk the collective efforts over time lead to confusion and inconsistencies.



Graphic 1: Snapshot from MPCA's What's in My Neighborhood.

It is unclear if/when sampling for the presence or absence of PFAS in suspected source areas would be completed during the Site Investigation stage. This would likely be a beneficial first step to "determine if there is an identified release of PFAS" prior to extending sampling to off-site areas. As written, it appears for example, that sampling of drinking water wells and off-site sampling may precede on-site investigation of

suspected source areas identified in the Desktop Review. Characterizing PFAS concentrations in suspected point sources areas would be beneficial in determining “if there is an identified release of PFAS”.

The draft guidance document states that analytical results should be compared to Risk Based Values (RBVs) for the Risk Assessment Stage and that when RBVs are not available for a PFAS, that the party will work with MPCA staff to determine a path forward for assessing risk for that PFAS in that media. The MPCAs guidance¹ includes a required list of 34 individual PFAS; at present, RBVs are available for seven of these PFAS with some lacking any media or pathway criteria. Historically, risk assessments have been performed without available RBVs, however, this is a potentially very large and challenging effort given the evolving nature of the science on the topic, inherent complexities of assessing risk, and anticipated frequency of detected PFAS at sites. Given the anticipated complexity and magnitude of PFAS risk assessments, it should be recognized that a complex risk assessment completed now could come to different conclusions for a similar nearby risk assessment completed next year, and so on.

It has been our experience that multimedia risk assessments can be time consuming, sometimes requiring long schedules and large efforts by both regulators and the project teams working with regulators. This can especially be the case when the science around the toxicity is rapidly evolving. Relying on a risk assessment as an incremental step to advance a project may lead to unanticipated and significant schedule and cost impacts to project completion.

Background Concentrations

The draft guidance document may benefit from clarity on definitions, discussion, and examples around PFAS background concentrations. This draft guidance, and the MPCA’s May 2023 document entitled PFAS ambient background concentrations, appear to provide a potentially limiting definition of and discussion on background concentrations. The draft guidance document uses the term “ambient background” in almost all cases and defines this as being due to “diffuse or non-point sources by general anthropogenic activity”, and further clarifies that, “If a site is close to a local (point) source of pollution, the chemical concentrations would not be representative of ambient background conditions.”

The draft guidance document states “PFAS are subject to long-range transport and are often detected in areas far away from point sources”. Given this, it is also notable that short range transport, closer to point sources, may also require consideration for some sites. The USEPA definition of background² is inclusive of “localized anthropogenic background”, “ubiquitous anthropogenic background”, and “naturally occurring background”. It is possible that background will be a key consideration in delineating PFAS at many sites. A broader definition, inclusive of localized anthropogenic background (e.g. a local upwind source, local upgradient source, or others), may be beneficial for assessing PFAS that may be present at a site, but unrelated to the site.

¹ MPCA. Guidance for Per- and Polyfluoroalkyl Substances: Analytical. October 2022.

² USEPA OLEM Directive 9200.2-141-A. Frequently Asked Questions About the Development and Use of Background Concentrations at Superfund Sites: Part One, General Concepts. March 2018

The draft guidance document states that ambient background samples should be collected where they are unlikely to have been affected by point sources, where the only potential PFAS source is atmospheric deposition. This is likely to be very challenging or infeasible for sites in urban settings. Broader and more clear guidance regarding site-specific background evaluation, including consideration of urban sites, may be beneficial for many sites.

PFAS as a Hazardous Waste

The MPCA has previously carefully detailed³ the many “hazardous” terms used in Minnesota (i.e., hazardous chemical, hazardous material, etc.), noting that they cannot be used interchangeably, and that understanding the use context of the “hazardous” terms is critical. The draft guidance document first states on page 52 of 60 that “PFAS are classified as a hazardous waste under MERLA”. The draft guidance document defines hazardous substance, but does not define “hazardous waste”, and notes the PFAS is not listed as a hazardous waste under the federal RCRA law. More clarity, including a definition and examples in context, on this would be beneficial given the importance and implication of these terms. As an example, will MPCA allow any (e.g. up to specific concentrations) PFAS impacted media to be disposed in Minnesota’s RCRA Subtitle D landfills that are not permitted to accept RCRA Subtitle C Hazardous Waste? The implications of calling PFAS a hazardous waste are significant for the storage, transportation, and disposal associated with many public and private projects.

The guidance states that IDW sample results should be screened against available criteria for groundwater, drinking water, soil and leaching values. It appears that the guidance is directing the use of the same criteria for screening drinking water and classifying something as a “hazardous waste”. More clarity on “hazardous waste” characterization, including examples of screening, would be beneficial.

³ MPCA. *“Hazardous” Terms – What They Mean*. May 2017.