County of Erie

DANIEL CASTLE, AICP
COMMISSIONER

DEPARTMENT OF ENVIRONMENT & PLANNING
DIVISION OF SEWERAGE MANAGEMENT

JOSEPH FIEGL, P.E., BCEE
DEPUTY COMMISSIONER

November 21, 2025

New York State Department of Environmental Conservation
Division of Water – Bureau of Water Permits
625 Broadway – 4th Floor
Albany, New York 12233-4500

Re: Comments – Draft Technical and Operational Guidance Series (TOGS) 1.3.10 – Mercury State Pollutant Discharge Elimination System (SPDES) Permitting and Multiple Discharge Variance (MDV)

To Whom It May Concern,

The Erie County Division of Sewerage Management presents the following comments on the draft TOGS 1.3.10 associated with the MDV for mercury. These comments are presented recognizing that regulating mercury presents challenges, and the NYSDEC is attempting to balance the technical barriers associated with addressing this ubiquitous pollutant with a need to make progress towards reducing concentrations in the environment:

- The proposed general level currently achievable (GLCA) limitation for publicly owned treatment works (POTWs) would be 25 nanograms per liter (ng/L) if draft TOGS 1.3.10 were issued as proposed. This would represent a 50% reduction in the GLCA when compared to the current TOGS document, with increased testing frequency and other requirements. It is important to note that as recently as five (5) years ago, the GLCA limitation was 200 ng/L. This is a substantial change in a short period of time.

- The Division of Sewerage Management has reviewed mercury sampling data for its two (2) POTWs with the largest mercury testing datasets, and found that 53 out of 54 mercury samples tested were below the proposed GLCA limitation of 25 ng/L. Therefore, under most conditions it appears this proposed GLCA limit would be met by these POTWs. However, the proposed decrease in the GLCA limit, while well intended, does not consider the inherent variability of influent sewage and the lack of control a POTW has over all upstream sources. At these low levels, the contents from a single old thermometer being placed down the drain by a residential customer could lead to a SPDES permit violation – particularly at POTWs with lower permitted flow limits.

- The significant changes in TOGS 1.3.10 related to the existing effluent quality (EEQ) limitation presents additional concerns. For demonstration purposes, the Division of Sewerage Management reviewed the historical mercury results for the Big Sister Creek Water Resource Recovery Facility (WRRF) to ascertain what the proposed EEQ limit would have been if it was implemented during the current SPDES permit cycle. Please see the data summary in Attachment A. Using the first ten (10) data points (beginning of the sampling program through the second to last 2020 result) and performing an analysis with the 95th lognormal percentile, it is our interpretation of proposed TOGS 1.3.10 that an EEQ limit of approximately 7.0 ng/L would have been established. That EEQ limitation is a fraction of proposed GLCA limitation and well below the 12 ng/L of mercury introduced to New York State waterways by atmospheric deposition alone.

- Note – that while the Big Sister Creek WRRF is referenced in this letter due to it having an established mercury testing dataset, these comments apply generally to the application of proposed TOGS 1.3.10 to any POTW.

- To highlight a concern with the proposed EEQ limit methodology, the same analysis was completed with sampling results for the Big Sister Creek WRRF starting in 2021. Using the ten (10) data points in 2021 and 2022, and performing an analysis with the 95th lognormal percentile, it is our interpretation of proposed TOGS 1.3.10 that an EEQ limit of approximately 1.7 ng/L would have been established. That is more than a four-times difference when compared to the calculation using data starting in 2018. A SPDES permit limitation should not vary to this great extent based merely on when sampling commenced.

- The Big Sister Creek WRRF and other POTWs follow required mercury minimization protocols, but influent loadings are still variable because mercury can be discharged from any connection and cannot be controlled by a POTW. Establishment of a low EEQ limit, based on ten (10) grab samples for some POTWs, may not truly represent the range of mercury loadings, yet permit compliance will be based on these data. The data in Attachment A demonstrates that, through simply the timing of when grab sampling commenced, an EEQ limit could be established without capturing some of this variability. The Division of Sewerage Management questions if these EEQ limits would then truly be characteristic of "existing effluent quality".

- This analysis reveals the overall challenges POTWs will have with managing proposed EEQ limitations in SPDES permits. One will note from the data in Attachment A that the Big Sister Creek WRRF had samples above the calculated theoretical EEQ limits noted above. The Division of Sewerage Management estimates that the 12-month rolling average would have exceeded the theoretical EEQ limit of 1.7 ng/L for eight (8) quarters. These theoretical exceedances would have occurred during a period where the highest measurement is less than a third of the proposed GLCA limit. In this example, a single mercury value of 6.3 ng/L would lead to a violation of a 12-month rolling average limit even if samples are collected quarterly and all others were at the method detection limit of 0.2 ng/L.

- One (1) elevated mercury result does not necessarily indicate a problem with upstream source control or facility performance. There are many influential factors.
  - It may simply be that POTWs are passive recipients of mercury from discharges throughout their upstream sewersheds, including residences that can introduce mercury.
  - There are not operational adjustments that can be made at most POTWs that can result in more effective removal of mercury.
  - When testing based off grab samples, a single particulate with absorbed mercury within a sample can skew a result considering the very low concentrations being monitored.
  - Mercury sampling and testing, particularly at these low concentrations, can be easily contaminated in a way that would impact the results.

- There are concerns the lower GLCA limitation and the proposed EEQ limitation methodology will have few positive environmental impacts, while placing POTWs in danger of violating SPDES permit limits based on factors outside of their control. The Big Sister Creek WRRF has a well-established industrial pretreatment program; it has robust protocols to manage dental facilities; sampling is performed at key locations in the collection systems; there are procedures in place to replace equipment with mercury free alternatives, etc. The same can be said at many other POTWs. The Division of Sewerage Management wholeheartedly believes these mercury minimization measures have been a great step in addressing potential discharges of mercury into surface waters. Source control and track down, along with mercury product bans and similar strategies employed over time, should be the focus. These steps positively impact the environment.

- That said, for many POTWs mercury minimization programs have already been implemented. This, coupled with the phase out of mercury containing products and other existing source control strategies, results in the low theoretical EEQ concentrations previously noted. Adding low EEQ limits to SPDES permits in these instances will not likely lead to POTWs removing more mercury. Instead, if future sampling has a slightly higher concentration it will give the impression that POTWs are not doing their job, when it is likely more attributed to the manner the limits were established and factors outside their control.

- While the Division of Sewerage Management understands the goals of draft TOGS 1.3.10, it questions the need to make these changes. As noted in the draft TOGS document, 98% of the mercury load to surface waters is the result of atmospheric deposition. Adding and/or ratcheting down SPDES permit limitations for well-run POTWs with established mercury minimization programs would have little-to-no impact on water quality.

- For all the reasons stated above, it is the Division of Sewerage Management's recommendation that, at a minimum, either deletion or significant modification to the EEQ limit protocols proposed in draft TOGS 1.3.10 be implemented to address these concerns.

Thank you for your consideration. If you have any questions, please contact me at (716) 858-7537.

Sincerely,

Joseph Riegl, P.E., BCEE
Deputy Commissioner

Encl.

Cc: ECSD Nos. 2, 3, 5, 6, and 8 Boards of Managers

ATTACHMENT A – BIG SISTER CREEK WRRF LOW LEVEL MERCURY DATA