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NORTH CAROLINA
Environmental Quality

March 21, 2022

Subject: Headworks Analysis Calculation- REVISION (PQL Data Handling)

Dear Pretreatment Professionals:

With the reorganization of Pretreatment and NPDES Permitting into a NPDES Municipal Permitting Unit, we have reviewed our current pretreatment guidance for appropriate modifications. We have modified the process related to handling data when the reported results are below the practical quantitation level (PQL).

1) When POTWs utilize detection levels that are equal to or below the PQL set for an analyte, then any data reported as below detection level (BDL) may be assigned a value of zero (0) in certain circumstances, which are outlined below. If a higher detection limit than the PQL is used due to matrix interference, you may still use zero (0) as the value— if the lab analysis report identifies the sample, qualifies the result with qualifier code and detailed explanation of interference. Generic matrix interference notations in lab reports or notes are not technically defensible without additional documentation.

2) We recognize these changes must also be reflected in the State Model for the LTMP/STMP and for all HWA training materials. To use the new options, you must begin analyzing all parameters at the NC DEQ Published Detection Limit Values. Until such changes are made, please use the link below to identify appropriate PQLs:

   https://files.nc.gov/ncdeq/Water%20Quality/Chemistry%20Lab/Operations/Quality%20Assurance/NCDEQ_DWR_WSS_LAB_PQLs.pdf

   (Note: If there are multiple aqueous PQLs listed above for a pollutant, the **lowest PQL** with an existing 40 CFR Part 136 test method and a NC Certified lab must be used to implement this procedure.)

   If you have been inconsistent in the past collecting data using the PQL, we will allow additional time to collect the necessary information (typically twelve to eighteen months). This additional time, however, does not alter required compliance with any existing effluent limits.

3) Uncontrolled/Uncontrollable Loading- Current HWA calculations allow the use of the Mass Balance Spreadsheet in lieu of providing monitoring data from a specific Uncontrolled sampling site (e.g., a location in the pretreatment collection system with no SIU loading). The spreadsheet calculates the Uncontrolled loading by subtracting the total SIU loading from the Influent loading. If the facility has evaluated all waste streams entering the plant (influent, effluent, sludge) and the results are all below the PQL, then you may also use zero (0) for your uncontrolled loading for any parameter.

4) Maximum Allowable Headworks Loading (MAHL) – If influent, effluent, and sludge results are all below the PQL for a pollutant, **then headworks calculations are not required for that pollutant,** unless it is required by the NPDES permit as a monitoring requirement or limit (this means that the pollutant triggered Reasonable Potential Analysis protocols and may be present sporadically); or the pollutant is identified as needing an MAHL as part of a local limits review.

5) In situations where it appears there may be a MAHL overallocation (e.g., silver); for pollutants requiring headworks calculations, if all influent, effluent, and sludge results are all below the PQL, then the MAHL calculation may use the next most limiting factor to determine the MAHL loading. If this situation changes due to new detectable influent, effluent, or sludge data the calculated MAHL will need to be adjusted.

6) Toxicity Testing Failures - If you fail effluent toxicity testing (more than two per quarter) and the cause for the failure is unknown, then pretreatment staff reserves the right to require the POTW to calculate a MAHL for all parameters until a TRE or TIE is completed and the pollutant causing toxicity is identified.

7) The option of conducting a Water Effect Ratio (WER) for any facility with a MAHL loading issue is also available (except for a toxicity failure situation until the pollutant of concern is known) and can be discussed with pretreatment staff.

As always, please contact your pretreatment staff member(s): Keyes McGee (keyes.mcgee@ncdenr.gov, 919-707-3626) or Kristin Litzenberger (kristin.litzenberger@ncdenr.gov, 919-707-3699) with any additional questions or comments.

Regardless of this guidance, this does not preclude DEQ from taking compliance action(s), special requests for data collection and/or permit modifications pursuant to existing rules. You are also required to comply with all existing pretreatment rules found in 15A NCAC 02H .0900 and existing NPDES permit conditions.

DocuSigned by:
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