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March 31, 2008

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**Office of Science and Technology, Office of Water**

**Ariel Rios Building (4303T)**

**1200 Pennsylvania Avenue, N.W.**

**Washington, DC 20460**

**Subject: Draft Clarification Memo on the Use of EPA's 50 POTW Study in Establishing Maximum Allowable Headworks Loading for Local Limits**

Over the past several years, the National Association of Clean Water Agencies (NACWA) has engaged in a dialogue with the U.S. Environmental Protection Agency (EPA) about a collaborative effort between EPA and NACWA to update EPA's 1982 *Fate of Priority Pollutants in Publicly Owned Treatment Works*, commonly referred to as the "50 POTW Study."<sup>1</sup> The POTW pollutant removal data from the 50 POTW Study is frequently used as the basis for deriving appropriate local limits, which are the backbone of a successful pretreatment program. However, the 50-POTW Study is now more than 20 years old, and the removal efficiencies, physical parameters, and process data are no longer valid. Treatment technologies at most POTWs have vastly improved since the Study was completed, and pretreatment programs have significantly reduced concentrations of pollutants, which impact treatment plant removal efficiency values.

As you are aware, a collaborative effort to update the 50 POTW Study is very complex, and we do not envision that a project can be initiated or completed in the short-term. Consequently, NACWA is asking for EPA's assistance to come up with an alternative solution to resolve an imminent issue regarding the continued use of the data from the original 50 POTW Study in developing local limits.

As we learned from a survey conducted at the 2006 NACWA *Pretreatment and Pollution Prevention Workshop*, some states (including North Carolina, South Carolina, and Rhode Island) mandate that POTWs use data from the 50 POTW Study in calculating maximum allowable headworks loadings (MAHLs) when developing local limits for their pretreatment programs. This requirement occurs in several cases: when a POTW does not have its own site-specific data; when the POTW does have data, but more than 50 percent of site-specific data for a particular pollutant are below the detection limit; or for other reasons often not clearly articulated by these states. This practice has resulted in the development of overly

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<sup>1</sup> EPA 440/1-82/303, September 1982.

stringent local limits, which are unnecessary to attain the local goals of the impacted agency's pretreatment program. This practice is also contrary to EPA's 2004 Local Limits Development Guidance on what data to use in deriving local limits.

An example of how the 50 POTW Study data can inappropriately impact local limits was provided by Martie Groome, Laboratory and Industrial Waste Section Supervisor for the City of Greensboro Water Resources Department, in her presentation at the 2006 *Pretreatment Workshop* as part of a panel discussion, "Meeting the Future Data Needs of the National Pretreatment Program." For Greensboro, North Carolina, using the old mercury method (with a 0.2 ug/L method detection limit) resulted in POTW influent and effluent data which were below detection levels. North Carolina requires that if a POTW has more than 50 percent of its data below detection levels, it must use the removal rates from the 50 POTW Study. A comparison of how this impacted MAHLs for the City's two plants is shown in Tables 1 and 2.

**Table 1.** Pass Through Calculation for POTW #1, Design Flow 16 MGD, NPDES Mercury Limit 12 ng/L.

Removal Rate Source	Influent ng/L	Effluent ng/L	% Removal	MAHL
EPA Method 245.1	< 200	< 200	N/A	N/A
50-POTW Study	N/A	N/A	67	0.0045
EPA Method 1631	265	5.8	97.8	0.0728

**Table 2.** Pass Through Calculation for POTW #2, Design Flow 40 MGD, NPDES Mercury Limit 12 ng/L.

Removal Rate Source	Influent ng/L	Effluent ng/L	% Removal	MAHL
EPA Method 245.1	< 200	< 200	N/A	N/A
50-POTW Study	N/A	N/A	67	0.012
EPA Method 1631	51.1	5.9	88.4	0.0345

For both of the examples in Tables 1 and 2, the City of Greensboro believed it had sufficient information to reasonably calculate mercury removals using a sensitive method and recent data, but was forced to use the outdated percent removal value from the 50 POTW study, resulting in local limits for mercury that were overly stringent.

To avoid this type of situation, NACWA is requesting that EPA develop a Clarification Memo to elucidate the hierarchy of data that should be used in calculating MAHLs and the appropriate role for use of the 50 POTW Study data. EPA has previously used Clarification Memos to provide updates or further amplification for technical or policy guidance. For example, in 2006, EPA issued a memo clarifying what was meant by "phased" Total Maximum Daily Loads in the 1991 "Guidance for Water Quality-Based Decisions: The TMDL Process."<sup>2</sup>

<sup>2</sup> Memo from Benita Best-Wong, Director Assessment and Watershed Protection Division, to Water Division Directors, entitled "Clarification Regarding 'Phased' Total Maximum Daily Loads, August 2, 2006.

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NACWA believes that a similar memo is needed in cases where states have elected to inappropriately mandate the use of the data from the 50 POTW Study when deriving local limits.

To facilitate the development of a memo, NACWA has prepared the attached draft memo for your consideration. We would be glad to meet with you to discuss the draft memo and steps that can be taken to develop a final version.

If you have any questions, please contact me at 202/296-9836 or [cfinley@nacwa.org](mailto:cfinley@nacwa.org).

Sincerely,

A handwritten signature in black ink, reading "Cynthia A. Finley". The signature is written in a cursive, flowing style.

Cynthia A. Finley  
Director, Regulatory Affairs