Staff have reviewed comments received on the draft guidance entitled, “Water Quality Review Procedures For Additives” in March 2015. The Department greatly appreciates all of the feedback and comments that were submitted.

Various editorial changes and clarifications were made based on suggestions from commenters. The most significant changes made in response to comments include the addition of language in the introduction to clarify which types of products require an additive review, the references for procedures described in this document, and which follow-up procedures apply based on the type of additive under review.

This document is intended solely as guidance, and does not contain mandatory requirements except where requirements found in statute or administrative code are referenced. The Department intends to update this guidance to incorporate changes in procedures for deriving secondary values and/or allowable application rates when necessary.

If you have future questions or comments regarding this guidance document, please contact:

Sarah Yang
Environmental Toxicologist
Water Quality Bureau
Wisconsin Department of Natural Resources
Phone: (608) 266-9262
Email: Sarah.Yang@Wisonsin.gov

Department of Public Works
Engineering Division
Robert F. Phillips, P.E., City Engineer
City-County Building, Room 115
210 Martin Luther King, Jr. Boulevard
Madison, Wisconsin 53703
Phone: (608) 266-4751
Fax: (608) 264-9275
engineering@cityofmadison.com
www.cityofmadison.com/engineering

Assistant City Engineer
Michael R. Dailey, P.E.
Principal Engineer 2
Gregory T. Fries, P.E.
Principal Engineer 1
Christina M. Bachmann, P.E.
Eric L. Dundee, P.E.
John S. Fahrney, P.E.
Christopher J. Petykowski, P.E.
Facilities & Sustainability
Jeanne E. Hoffman, Manager
Operations Manager
Kathleen M. Cryan
Mapping Section Manager
Eric T. Pederson, P.S.
Financial Manager
Steven B. Danner-Rivers

March 20, 2015

Sarah Yang
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707-7921

RE: Draft Guidance for Additives in Surface Water Discharges

Dear Ms. Yang,

Thank you for the opportunity to comment on the Wisconsin Department of Natural Resources' (WDNR) draft guidance, entitled "Updates to Wisconsin's Guidance for Addressing the Use of Additives in Surface Water Discharges." We have the following comments and questions regarding this document, hereafter referred to as the Guidance.

We request that the Guidance more explicitly identify the chemicals to which it pertains. It is unclear whether this Guidance is to be used for evaluation of polymer additives only, or if is intended to be used for the evaluation of chemical salts (such as aluminum sulfate, sodium aluminate, ferric chloride, etc.) and/or other flocculating compounds in addition to polymers. All references in the Guidance appear to be specific to polymer.

This is confusing, as an existing standard for polymer additives already exists in the form of SOC Conservation Standard 1051. Despite the existence of this standard, no specific reference is made in the Guidance to the Conservation Standard 1051. Further, the existing SOC standard does not apply to chemical salts of other flocculating compounds making the compounds that the proposed Guidance applies to even more unclear.

The WDNR has already developed conservation practice standards (CPS) for land application of polymer for erosion control (CPS 1050) and for water application of polymers (CPS 1051). Given the existence of these standards, we question the necessity of this Guidance. However, if the finalization of the Additive Guidance is pursued, we believe that it should be made specific to polymer additives, and that chemical salt treatment systems and other similar systems would be better regulated under individual WPDES permits.

If you have any questions or comments, feel free to contact Lauren Striegl of my staff at 266-4094.

Sincerely,

Robert F. Phillips, P.E.
City Engineer

RFP:les

3/20/2015-Response to WDNR Surface Water FINAL.doc

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 3 1 2015

REPLY TO THE ATTENTION OF:

WN-16J

Ms. Sarah Yang
Water Evaluation Section, Division of Water
Wisconsin Department of Natural Resources
PO Box 7921
Madison, WI 53707-7921

Re: Comments on Proposed Revisions to the *Water Quality Review Procedures for Additives*

Dear Ms. Yang:

Thank you for the opportunity to provide comments on the proposed revisions to Wisconsin's *Water Quality Review Procedures for Additives* guidance. U.S. Environmental Protection Agency (EPA) has the following comments and recommendations:

1. When considering the toxicity of additives Wisconsin Department of Natural Resources (WDNR) should also consider the toxicity of any carriers used with the additives, product degradates, and other. This is appropriate when these materials are known and the concentrations remain consistent between batches. We note that WDNR discusses this on page 5 of the document.

2. There is evidence that the toxicity of additives changes if the additives are discharged intermittently. Total residual chlorine toxicity is lower in situations where it is discharged intermittently.

3. The draft guidance document describes the method for developing water quality values that appears to be modeled after the Great Lakes Initiative Tier 2 method (40 C.F.R. Part 132, appendix A. Sections XII through XVI). However, draft guidance is not clear as to the actual method used. EPA notes the following:

    a. To calculate an acute to chronic ratio (ACR) using toxicity the tests used should be done using conditions as similar as possible. Ideally, the tests would be done in the same lab at the same time. Tests done by different labs under different test conditions should not be paired to calculate an ACR. The draft guidance is silent as to how tests will be evaluated to determine their utility in calculating ACRs.

    b. The draft guidance states that if no lab measured ACRs are available then a default ACR of 18 will be used. Under 40 C.F.R. Part 132, appendix F a

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (100% Post-Consumer)

minimum of three ACRs are required. If there are less than three then a value of 18 is substituted in for the missing values. The final ACR is the geometric mean of the test ACRs and the default ACRs (if used). For example, if there is one measured ACR of 8.6, it appears that Wisconsin would use that value as the Final ACR. However, 40 C.F.R. Part 132 would calculate the final ACR as the geometric mean of 8.6, 18, and 18, or 14.1.

4. EPA recommends a minimum of two whole effluent toxicity tests be required in permits where additives are used.

5. If there is a change in the product used as an additive or a change in the product formulation EPA recommends the permit be modified prior to authorizing the discharge. to incorporate appropriate limits and controls for the new product or formulation.

EPA encourages WDNR to consider further modification to the subject guidance to address the issues raised above. Should you have any questions please do not hesitate to contact Robert Pepin at (312) 886-1505 or pepin.robert@epa.gov.

Sincerely,

Kevin Pierard, Chief
NPDES Programs Branch

Re: **WDNR - Water Quality Review Procedures for Additives**

Background

The Wisconsin Department of Natural Resources (WDNR) made *Water Quality Review Procedures for Additives,* Draft Guidance Number 3400-2015-OX available for public review and comment. This guidance was developed to inform WDNR staff and others about the additive review process. Examples of additives include boiler and cooling tower treatments, corrosion inhibitors, settling flocculent logs, soil stabilizers, and stormwater clarification products.The guidance document is intended to assist WDNR staff in calculating secondary values for additives applied to either water or land, in order to insure that water quality is being protected when such products are discharged. The guidance document combines the following existing documents:

- Chapter 1.7 of the Whole Effluent Toxicity (WET) Guidance Document – Discharges with Water Quality Additives
- Water Quality Review procedures for Water Applied Biocides, Additives, Polymers, & Sediment control products
- Water Quality Review Procedures for land applied Erosion Control Products

Products requiring additive reviews generally fall into two main categories:

1. **Runoff Management.** For runoff management, an additive review occurs when the product is proposed for sediment control or erosion control. WDNR Water resources Engineer Jan Kucher will take the lead for runoff additive reviews.
2. **Wastewater.** For wastewater, requests for additive reviews occur most often during the permit application/reissuance process. WDNR permit drafters will take the lead for wastewater additive reviews.

Significance of Guidance Document for WisDOT

New products considered for placement on the WisDOT Product Acceptablity Lists (PAL) will need to be submitted to WDNR for water quality review if they contain any "additives" that are applied to either water or land. The WDNR will calculate the allowable usage rate and provide this information to WisDOT. The submittal must include toxicity test results for active ingredients and all carriers, buffering agents, binding agents, and additional materials – the entire product as used. If Material Safety Data Sheets (MSDS) do not contain the toxicity data and test parameters required to calculate secondary values, official toxicity test results will be required. Data must include all ingredients; not only the active ingredients.

For runoff management, the guidance document states that an additive review generally occurs when the product is proposed for sediment control and erosion control including, but not limited to, storm water clarification, and sediment removal. This could conceivably include every product on the PAL.

Potential Concerns:

From my review of the guidance document, it was not clear that products currently on the PAL would be exempt from water quality review. WisDOT could consider requesting that the guidance document be more explicit regarding products currently on the PAL. Are they approved? If not, could they be approved over a time period acceptable to WisDOT and WDNR? It would seem virtually impossible to have submittals completed for review, analysis performed, and applicable rates calculated without a major disruption of construction schedules. If products currently listed on the PAL were not approved,

there could be cost implications. If current products do not need review, then the guidance document should state that.

The guidance document states that the proposed process would assist with timely evaluation of the information related to additives. What is the definition of “timely”? Would WDNR consider adding a time limit for initial completeness review of the new product submittal and a time limit for completing the analysis and determining the allowable usage rate?