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October 11, 2016

Kevin Pierard, Branch Chief
USEPA Region 5
77 West Jackson Blvd
Chicago, Illinois 60604

Subject: Revised Wisconsin Administrative Codes-Rule Package 3 and 4

Dear Mr. Pierard:

The State of Wisconsin has promulgated revisions to its administrative rules related to the Wisconsin NPDES program in several rule packages. These rule packages grouped together similar issues and address some of the issues identified in EPA's July 18, 2011 letter and legal authority review. DNR's plans to adopt the rule packages were noted in the letter DNR sent to EPA on October 14, 2011, and in the letter DNR received from EPA dated December 5, 2012, which summarized efforts to resolve the issues identified in EPA's July 18, 2011 letter. The Department has completed Rule Package 3 and Rule Package 4. These final permanent rules have been published in Administrative Code and became effective on September 1, 2016. A link to the register is provided below. http://docs.legis.wisconsin.gov/code/register/2016/728B/register

Rule Package 3 (WT-31-10) relates to requirements for calculating and implementing water quality-based effluent limitations for discharges to surface waters included in WPDES permits. The Department believes these revisions resolve issues 8, 10, 17 and 71 raised in EPA's letter dated July 18, 2011 regarding potential inconsistencies with Wisconsin's National Pollutant Discharge Elimination System (NPDES) permit regulatory authority. Attached is a copy of the Natural Resources "Board Order" that contains the specific changes in the aforementioned rules.

Rule Package 4 (WT-11-12) relates to calculation and expression of water quality-based effluent limitations, WET limitations and reasonable potential, TMDL development and implementation, compliance schedules and clarification of variance procedures. The Department believes these revisions resolve issues 2, 28, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 70 and 74 raised in your letter dated July 18, 2011 regarding potential inconsistencies with Wisconsin's National Pollutant Discharge Elimination System (NPDES) permit regulatory authority. Attached is a copy of the Natural Resources "Board Order" that contains the specific changes in the aforementioned rules.

During the rule revision process the Department shared these draft rules with EPA to assure the revisions addressed the concerns raised in the referenced issues identified above.

Please let our agency know if EPA will be conducting a review of these rules or statutory changes pursuant to 40 CFR ss. 123.25(a) and 123.62. The Department also requests that the EPA formally respond in writing to confirm that the issues addressed by the above rule changes have been satisfactorily resolved.

If you or others at EPA have any questions regarding the rule changes or if you need any additional information or documents, please feel free to contact Adrian Stocks at adrian.stocks@wisconsin.gov.

Sincerely,

Sharon L. Gayan

Sharon Gayan, Bureau Director
Bureau of Water Quality-Environmental Management Division

Attachment:
Rule Package 3-final rule text
Rule Package 4-final rule text

CC: Barbara Wester- EPA
Patrick Kuefler-EPA
Pat Stevens-WY/3
James Zellmer-WY/3
Brian Weigel-WY/3
Cheryl Heilman-LS/8
Robin Nyffeler-LS/8

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING, RENUMBERING, RENUMBERING AND AMENDING, AMENDING, REPEALING AND RECREATING AND CREATING RULES

The statement of scope for this rule, WT-11-12, was approved by the Governor on May 29, 2012, published in Register 678 on June 14, 2012, and approved by the Natural Resource Board on June 27, 2012. The Governor approved this rule on March 17, 2016.

The Wisconsin Natural Resources Board proposes an order to **repeal** NR 106.03 (10), and (11), 106.05 (8) (note), 106.145 (9) (b) (note), 106.32 (2) (b) 2. (note) and (3) (a) 4. a. (note), 106.34, 106.36 (3) (note), and (4), 106.37 (1) (note), (2) (note), (3), and (3) (note), 106.38, 106.88 (1) (note), (4), and (6), 106.91 (note); to **renumber** NR 106.03 (1); to **amend** NR 106.03 (13), and (14), 106.04(1) (intro.), 106.05 (1) (c), 106.06 (3) (c) (intro.), 4, 5, and 7 (intro.), 106.07 (8), 106.09 (3) (b) (intro.) and 1, 106.115 Table 1 (title), and Table 2 (title), 106.32 (2) (b) (intro.), and 2, (3) (a) 4 .a., 106.36 (3) Table 1 (title), 106.37 (1), 106.55 (6) (a) Table 1 (title), 106.62 (intro.), 106.75, 106.83 (2) (c), 106.87 (1), 106.91, 212.01, 212.02 (2), 212.03 (intro.), (3), (12), (22), and (24), 212.12 (2) (d), 212.40 (2) (intro.), (b), and (c), 212.60 (1) (intro.), (b), (d), (e), and (g), 212.70 (1) (a), and (b), 212.70 Table 5m (title), 217.14 (2) and (3); to **repeal and recreate** NR 106.05 (8), 106.06 (3) (b), 106.07 (2), (3), (4), and (5), 106.08, 106.09 (2) (e), and (3) (c), 106.33, 106.37 (2), 106.88 (1), (2), (3), and (5), 106.89, 212.02 (1); and to **create** NR 106.03 (1g), (2m), (notes), (5m), and (13m), 106.04 (3m), 106.06 (3) (bm) and (e), and (4) (f), 106.07 (1) (title), and (6) (title), (7) (title), (8) (title), (9) (title), and (10), 106.09 (2) (e) (note), (2) (f), (3) (c) (note), and (3) (d), 106.11 (note), 106.32 (2) (e), 205.03 (9g), 205.065 and 205.066, NR 212 Subchapter I (title), NR 212 Subchapter II (title), NR 212 Subchapter III and (title) relating to WPDES permit implementation, TMDL implementation, and TMDL development and affecting small business.

WT-11-12

Analysis Prepared by the Department of Natural Resources

1. Statute Interpreted: Chapters 227 and 283, Stats.

2. Statutory Authority: Sections 227.11, 283.11, 283.13, 283.15, 283.31, 283.35, 283.41, and 283.45, Stats.

3. Explanation of Agency Authority:
Chapter 283, Stats., grants authority to the department to establish, administer and maintain a Wisconsin Pollutant Discharge Elimination System (WPDES) Permit Program consistent with the requirements of the federal water pollution control act of 1972, commonly known as the Clean Water Act. More specifically, s. 283.11(1), Stats., authorizes the department to promulgate by rule effluent limitations and standards for any category of point sources established by the U.S. Environmental Protection Agency (EPA) and for which EPA has promulgated effluent limitations and standards. In addition, s. 283.13, Stats., authorizes the department to establish technology-based effluent limitations as well as more stringent water quality-based effluent limitations to comply with any state or federal law, rule or regulation. Section 283.15, Stats., authorizes variances to water quality-based effluent limitations. Section 283.31, Stats., provides authority to issue permits that require compliance with effluent limitations and standards for point source discharges to surface waters. General permits conveying coverage to multiple point sources can be issued pursuant to s. 283.35, Stats. Section 283.45, Stats., grants authority to develop

permit fact sheets to accompany the WPDES permit. The department also has general authority to promulgate rules under s. 227.11 (2) (a), Stats., that interpret the specific statutory authority granted in ch. 283, Stats.

4. Related Statutes or Rules:
These rules relate directly to the WPDES permit program that regulates wastewater discharges. Chapters NR 106 and NR 212, Wis. Adm. Code, relate to permit processing and permit issuance procedures. Chapter NR 205, Wis. Adm. Code, contains general provisions applicable to the WPDES permit program. Chapters NR 106 and NR 205, Wis. Adm. Code, are also being updated in rule packages WT-13-12, WT-12-12, and WT-31-10. The following board order complements updates made in these other rule packages.

5. Plain Language Analysis:
The purpose of the proposed rule is to ensure that the state's regulations relating to WPDES permitting, total maximum daily load (TMDL) implementation, and TMDL development are consistent with federal regulations. On July 18, 2011, the department received a letter from the EPA identifying 75 issues and potential inconsistencies with Wisconsin's authority to administer its approved WPDES permit program. Modifications to chs. NR 106, NR 205, and NR 212 are necessary to address several issues identified in the EPA letter. Minor clarifications and corrections are also needed in these chapters.

Specifically, the proposed rule revisions perform six overall functions: modify the procedures used to calculate water quality-based effluent limitations for toxic substances; change how effluent limitations for toxic substances are expressed and when they are included in WPDES permits; modify the procedure used for determining when whole effluent toxicity (WET) limitations are required in WPDES permits; create a framework to develop and implement TMDLs; clarify and modify procedures for granting compliance schedules; and other modifications. The proposed changes are briefly described below.

<u>Calculation of Water Quality-Based Effluent Limitations (Issues 2, 28, and 35)</u>
The proposed rule creates a new methodology for calculating acute fish and aquatic life water quality-based effluent limitations for toxic substances to address issue 28 in EPA's July 18, 2011 letter. This change is necessary to conform to 40 CFR 122.44(d)(1)(vii)(A) and to ensure that Wisconsin's permitting program is adequately protecting fish and aquatic life from acute toxicity effects in low dilution situations. Specifically, the rule creates a mass balance approach to calculate acute fish and aquatic life water quality-based effluent limitations in low dilution conditions using 1-day 10-year hydrologically-based low flow data (1Q10).

This rule package also proposes changes to the specific provisions relating to the imposition of ammonia water quality-based effluent limits in permits to address issue 35 in EPA's letter. Under current laws, WPDES permits may not include ammonia limitations when they exceed 20 mg/L in the summer and 40 mg/L in the winter. This provision does not conform to the requirements in 40 CFR 122.44(d) and was determined invalid in MEA v. WDNR, Case No. 12CV3654. This rule revision proposes to delete this provision and base all permitting decisions for ammonia on a reasonable potential analysis in conformance with existing reasonable potential procedures for ammonia in ch. NR 106.

Other proposed changes are included that are clarifying in nature. Specifically, the rulemaking seeks to clarify DNR's ability to:

- Establish effluent limitations on internal waste streams (Issue 2 – 40 CFR 122.45 (h))
- Include mass limitations in addition to concentration based effluent limitations (Issue 2 – 40 CFR 122.45(f))
- Express water quality-based effluent limitations for metals as total recoverable (Issue 2- 40 CFR 122.45(c))

Expression and Inclusion of Effluent Limits in WPDES Permits (Issue 2, 30, 34, 40, 41 and 70)
The proposed rule modifies how water quality-based and technology-based effluent limitations are to be expressed in WPDES permits in order to comply with the requirements in 40 CFR 122.45(d) and applicable EPA guidance. Specifically, federal law and guidance requires that weekly average and monthly average limitations be included in WPDES permits for a given pollutant whenever limitations are determined to be necessary for continuous discharges subject to NR 210 - mainly publicly-owned treatment works (POTWs). Daily maximum and monthly average limitations are required in WPDES permits for a given pollutant whenever limitations are determined to be necessary for continuous discharges not subject to NR 210 (e.g. industrial discharges). Changes to s. NR 106.07 are made to address this issue. There is an exception to 40 CFR 122.45(d). The department may choose to not express limits as specified in 40 CFR 122.45(d) if it is impracticable. The department made a demonstration for phosphorus limitations that expression of water quality-based limits as specified in 40 CFR 122.45(d) was impracticable, and EPA approved the state's impracticability demonstration. Changes to NR 217.14 are proposed to conform to this impracticability demonstration.

This rule package does not change the reasonable potential procedures in s. NR 106.05, Wis. Adm. Code. However, clarification was provided to explicate that any water quality-based effluent limitation, which has the reasonable potential to be exceeded, will be included in the WPDES permit (Issue 40). This rule also clarifies the department's authority to include a water quality-based effluent limitation absent representative effluent data for a pollutant (Issue 70).

Whole Effluent Toxicity (WET) (Issue 2, 10, 42, and 74)
EPA over-promulgated Wisconsin's WET reasonable potential procedures used for discharges to the Great Lakes Basin on December 6, 2000 at 40 CFR 132.6(j). This issue was included in issues 10 and 74 of EPA's July 18th letter. To conform to the requirements of the Great Lakes Initiative (GLI) (40 CFR 132.6 (j), and 40 CFR part 132, Procedure 6 Appendix F, Paragraph D), the proposed rule modifies the reasonable potential process used for determining whether WET limitations are required in WPDES permits. Specifically, the proposed methodology utilizes a reasonable potential multiplication factor to convert the calculated effluent toxicity value to the estimated 95th percentile toxicity value. In addition to these changes, this rulemaking provides clarification to situations where chloride limitations are included in WPDES permits in lieu of WET limitations (Issue 42), and requires that WET permitting decisions be made whenever representative WET data is available (Issue 74). The proposed rule revision also seeks to clarify the averaging period of WET limitations (Issue 2). The WET procedures will apply statewide.

TMDL Development and Implementation (Issue 10)
In 2000, EPA disapproved of Wisconsin's TMDL development program for toxic compounds, and other pollutants subject to GLI regulations discharged into the Great Lakes Basin and promulgated 40 CFR 132.6(h). To conform to the requirements of 40 CFR 130.7 and the GLI at 40 CFR part 132, Appendix F, the proposed rule revision seeks to create NR 212 subchapter II to describe acceptable TMDL development procedures and to clarify procedures used to implement approved TMDLs in WPDES permits. Specifically, this rule provides general allocation procedures for TMDLs developed in the Great Lakes Basin as well as in other basins in the state, and provides procedures for deriving TMDL-based limitations, and public participation opportunities. These changes seek to address the TMDL component of issue 10 in EPA's comment letter.

Compliance Schedules (Issues 31, 32, 37, and 40)
This rule revision proposes several changes to compliance schedule provisions for chloride, ammonia, and secondary values. These adjustments are intended to address part of issues 31, 32, 37 and 40 in EPA's comment letter. These changes will clarify that a compliance schedule must be an enforceable sequence of actions or operations leading to compliance with an effluent limitation, and clarify that compliance

schedules can only be granted if it is demonstrated that an existing point source can't comply with a permit limitation upon permit reissuance.

Currently, Wisconsin law allows additional time to be added to an ammonia compliance schedule at ss. NR 16.332(2)(b)(2), NR 106.32(3)(a)4.a, and NR 106.37(2-3), Wis. Adm. Codes, for the purposes of gathering additional data. As currently written, these provisions do not conform to the requirements of 40 CFR 122.47 and were determined invalid in Court Case No. 12CV3654 MEA vs. WDNR. This rule revision proposes to delete portions of these sections so that time cannot be added to a compliance schedule for the purposes of collecting additional data. Revisions are also proposed to clarify that a WPDES permit may be modified if an alternative ammonia limitation is approved by WDNR during the term of the permit or at the time of permit application. These modifications are subject to antidegradation requirements in ch. NR 207, Wis. Adm. Code.

Although compliance schedules cannot be extended for the purposes of data collection in most instances, 40 CFR Part 132, Appendix F, Procedure 9, does allow time to be added to a compliance schedule for the purposes within the Great Lakes basin for limitations based on secondary criteria. Section NR 106.07(8), Wis. Adm. Code, which authorizes an extension in the compliance schedule for secondary values, is amended to clarify that this extension is only available for point sources within the Great Lakes Basin. This change addresses issue number 32 in EPA's letter.

Other (Issues 36, 38, 39 and 43)
Several changes are recommended to clarify EPA's role in the approval of variances to water quality standards and clarifications to variance procedures for chloride and ammonia water quality-based effluent limitations (issues 38, 39 and 43). These changes do not inhibit an individual permittee's ability to request a chloride or ammonia variance, but are solely meant for clarification purposes. This rule also repeals the initial variance procedures for ammonia water quality-based effluent limits as specified in s. NR 106.38, as these procedures are no longer applicable since the date for the initial variance has lapsed. Again, this change does not affect a point source discharger's ability to request an ammonia variance. This rule revision also clarifies that increases in permit limitations that have become effective in a WPDES permit are subject to antidegradation procedures in ch. NR 207, Wis. Adm. Code. The specific rule provisions regarding the application of antidegradation procedures to increased ammonia limits were also deleted to address issue 36 in EPA's comment letter. Other minor clarifications and corrections are also recommended in the proposed revisions.

6. Summary of, and Comparison with, Existing or Proposed Federal Statutes and Regulations:
The purpose of this rule package is to conform to existing federal regulations and improve continuity between state and federal requirements. No proposed federal regulations are applicable for this rule package. Specific federal laws that this rule seeks to conform with include:

- 40 CFR 122.44(d) which provides that water quality-based effluent limits (WQBELs) must be derived from and comply with water quality standards and designated uses;
- 40 CFR 122.45 which addresses a variety of issues including the duration over which effluent limitations are to be expressed, internal waste streams, and mass limitations;
- 40 CFR 122.47, which specifies the protocols and restrictions for establishing compliance schedules in WPDES permits for pollutants including ammonia and chloride;
- 40 CFR Part 132, Appendix F, Procedure 9, which authorizes compliance schedule extensions within the Great Lakes Basin;
- 40 CFR, Part 132, Appendix F, Procedure 3, pertaining to TMDLs in the Great Lakes Basin;
- 40 CFR, Part 132, Appendix F, Procedure 5, pertaining to establishing WQBELs in the Great Lakes Basin; and

- 40 CFR, Part 132, Appendix F, Procedure 6, pertaining to whole effluent toxicity in the Great Lakes Basin.

Calculation of Water Quality-Based Effluent Limitations (Issue 28, 35, 36, 40, 42, 43, 70, and 74)
40 CFR 122.44(d)(1)(vii)(A) states that effluent limits must be established using a calculated numeric water quality criterion for the pollutant which will attain and maintain applicable narrative water quality criteria and will fully protect the designated use. Under existing Wisconsin law, acute water quality criteria may be exceeded in a stream or river in low stream flow situations. To address this apparent discrepancy, a new method is proposed for calculating water quality-based effluent limitations based on acute toxicity effects to fish and aquatic life. Additionally, adjustments to the limit calculation procedures for chloride and ammonia were made to conform to these requirements. These changes specify that chloride and ammonia limitations will be included in WPDES permits whenever these limitations are determined to be necessary through reasonable potential. The proposed rules also address how WET limitations and chloride limitation interact to meet the requirements of 40 CFR 122.44(d).

Expression and Inclusion of Effluent Limits in WPDES Permits (Issue 2)
40 CFR 122.45(d) stipulates that permit limitations be expressed as weekly average and monthly average limitations for continuous POTW discharges, and maximum daily limitations and monthly average limitations for all other continuous discharges, unless impracticable. Additionally, EPA provides a methodology for calculating and expressing limitations in conformance with 40 CFR 122.45(d) in the "Technical Support Document for Water Quality-based Toxic Control" (March 1991). The proposed rule revisions comply with these requirements by creating a methodology and process for calculating water quality-based effluent limits and expressing all permit limits in Wisconsin. This methodology draws from the Technical Support Document as well as the toxicological data and intent of the water quality criteria to ensure that permit limits are adequately protective of Wisconsin's surface water and designated uses, without being overly restrictive. This rule also maintains the ability to express limitations through other averaging periods if an impracticability demonstration is made. 40 CFR 122.45 also includes requirements for establishing effluent limitations for internal waste streams, mass limitations, and other issues. Revisions are proposed to include these federal requirements.

Whole Effluent Toxicity (Issue 10)
The GLI requires specific reasonable potential procedures be used to determine the need for WET limitations for point source discharges in the Great Lakes Basin at 40 CFR part 132, Procedure 6 of Appendix F. EPA over promulgated Wisconsin's WET reasonable potential procedures in the Great Lakes Basin on December 6, 2000 at 40 CFR 132.6(j) because Wisconsin's existing program does not comply with these requirements. Given this over promulgation, the Department has not been able to issue WPDES permits to permittees with the potential to cause WET concerns in the Great Lakes Basin since 2000. If this issue continues to be unresolved, EPA may need to issue permits to these entities. The proposed rule revision modifies the reasonable potential procedures used for WET limitations to address this over promulgation.

TMDL Development and Implementation (Issue 10)
The GLI requires specific procedures for developing and implementing TMDLs in the Great Lakes Basin at 40 CFR part 132, Procedure 3 of Appendix F. TMDL procedures are also specified at 40 CFR 130.7. In 2000, EPA disapproved of Wisconsin's TMDL development program for toxic compounds, and other pollutants regulated in the GLI and discharged into the Great Lakes Basin and consequently promulgated 40 CFR 132.6(h). The proposed rule revision creates a subchapter in NR 212 to address this over promulgation and to conform to the federal requirements in 40 CFR 132.6(h) and 40 CFR 130.7.

Compliance Schedules (Issues 31, 32, 37, and 40)
Section 502(17) of the Clean Water Act (CWA), 33 U.S.C. 1362(17), defines a compliance schedule as an

"enforceable sequence of actions or operations leading to compliance with an effluent limitation". 40 CFR 122.47 also establishes requirements for compliance schedules. A demonstration or data collection that is intended to justify a change in an effluent limitation is not an action leading to compliance with a final effluent limitation under the CWA. Therefore, the proposed rule revision recommends changes to the ammonia and chloride compliance schedule procedures to conform to these requirements. 40 CFR Part 132, Appendix F, Procedure 9, does allow time to be added to a compliance schedule for these purposes for dischargers within the Great Lakes basin that have limitations based on secondary criteria. Therefore, revisions are also recommended to the compliance schedule program for secondary values to limit this authority to only discharges in the Great Lakes Basin in conformance with federal law.

Other

A variance is a revision to a water quality standard that must be supported on the basis of one of the factors specified in 40 CFR 131.10(g), and requires EPA review and approval before it can be implemented (40 CFR 131.21(c)). This rule revision proposes to clarify EPA's role in reviewing variances, and also provides clarification on chloride and ammonia variance procedures.

7. Comparison with Similar Rules in Adjacent States:

All the other EPA Region 5 states (Illinois, Indiana, Michigan, Minnesota and Ohio) are subject to the EPA regulations. Iowa and portions of the EPA Region 5 states that do not drain to the Great Lakes are not subject to GLI requirements. Although Wisconsin's program is consistent with federal law, it is not directly comparable to the Iowa implementation program, as Wisconsin is subject to these additional federal requirements. A brief comparison of key states is provided below on the six key issues addressed in the proposed rule revision.

Calculation of Water Quality-Based Effluent Limitations

All EPA Region 5 states and Iowa appear to use the final acute value (FAV) and mass balanced approach for calculating water quality-based effluent limitations to protect from acute toxicity effects on fish and aquatic life. Iowa, Indiana, and Ohio use a 1Q10 mass balance based approach for calculating these types of water quality-based effluent limitations. Illinois, Michigan, and Minnesota also use a mass balance based approach for calculating these water quality-based effluent limitations but do not specify the specific stream flow data used in this equation in code. After a cursory review of available guidance, it appears that 7Q10 data are used or alternative flow based on best professional judgment. Additionally, none of these states have a 20 mg/L or 40 mg/L cap for ammonia limitations specified in code. It is noted, however, that Michigan does have specific ammonia limitations codified for categories of point source discharges. Therefore, repealing this provision would make Wisconsin's program consistent with EPA regulations, the other EPA Region 5 states, and Iowa.

Expression and Inclusion of Effluent Limits in WPDES Permits

Michigan, Illinois, Ohio, and Iowa express water quality-based effluent limitations derived from acute toxicity impacts on fish and aquatic life as daily maximum limitations, and water quality-based effluent limitations derived from chronic toxicity as monthly average limitations. Statistical methods are not specified in Ohio or Iowa for converting chronic water quality standards for toxic substances to monthly average permit limitations. Michigan and Illinois, on the other hand, chose to codify portions of EPA's Technical Support Document to convert chronic water quality standards to monthly average limitations. Human health limitations are solely expressed as monthly average limitations in these states.
These states do not provide a codified methodology for creating additional permit limitations if the triggered water quality-based effluent limitations are not sufficient to meet the requirements of 122.45(d). Minnesota and Indiana's approach for expression and inclusion of effluent limitations in permits is structured identically to 122.45(d). Minnesota does not provide a methodology in code for calculating these limitations. Indiana, on the other hand, chose to codify EPA's recommending methodology in the Technical Support Document. The proposed rule revisions closely mirror Indiana's approach for

calculating and expressing permit limits as this approach reflects the requirements of 122.45(d) and EPA guidance. However, the proposed methodology also considers the averaging period used for deriving the toxicity criteria and, therefore, differs slightly from the Indiana approach.

Whole Effluent Toxicity

Indiana, Michigan, and Ohio's WET reasonable potential procedures were also over promulgated by EPA on September 5, 2000 at 40 CFR 132.6(c). Indiana and Michigan updated their WET reasonable potential procedures to be consistent with the GLI since the over promulgation. Michigan also specifies when chloride or other pollutant limitations can be used in lieu of WET limitations similar to Wisconsin. Other states do not specify this authority in code. It is not clear whether this action has satisfied EPA at this time. Illinois chose to incorporate the requirements of Procedure 5 of Appendix F at 40 CFR 132 by reference. Illinois uses an alternative method for WET data outside of the Great Lakes basin, however. Wisconsin is proposing to apply the same procedure statewide. Iowa does not appear to have specific WET procedures in code. Iowa is not subject to the GLI and is, therefore, not subject to the same federal restrictions as Wisconsin.

TMDL Development and Implementation

TMDL develop and implementation procedures vary among the EPA Region 5 states. Minnesota, for example, does not have any procedures in code for specifying TMDL development or implementation at this time. Their current TMDL program relies solely on guidance. Michigan and Indiana have promulgated general principles and procedures for developing and implementing TMDLs that appear to align with the requirements of the GLI. Indiana's program solely applies to TMDLs within the Great Lakes Basin, and not to discharges outside of the Basin. Indiana does specify general provisions for calculating wasteload allocations in the absence of a TMDL and preliminary wasteload allocations for the entire state, however. Ohio's program incorporates by reference the requirements of 40 CFR 130.7. Additional specificity is provided in Ohio's TMDL procedures, but these do not align directly with the requirements for the GLI. The Illinois TMDL program in the Great Lakes Basin is not specific at this time, and was over promulgated by EPA on September 5, 2000 at 40 CFR 132.6(b). Iowa does not appear to have specific TMDL procedures in code. Iowa is not subject to the GLI and is, therefore, not subject to the same federal restrictions as Wisconsin.

Compliance Schedules

All EPA Region 5 states and Iowa specify their authority for granting compliance schedules for toxic substances in code, including ammonia and chloride. This authority aligns with the CWA, but these programs have varying specificity provided in code. For example, Michigan and Illinois have specific measures and time frames specified in code for their compliance schedules. They also provide that a "reopener" clause can be included in a NPDES permit to modify the permit pending new data, but these data collection efforts are not authorized as part of the compliance schedule. Additionally Michigan and Illinois allow time extensions for the purposes of data collection in compliance schedule for water quality-based effluent limitations derived secondary values. Illinois does not limit this extension to only Great Lake discharges, however. Indiana and Minnesota's compliance schedule authority, on the other hand, is more generically stated compared to Michigan and Illinois, and solely defines what a compliance schedule is and what the maximum duration of a compliance schedule may be.

Other

All water quality standard variances must be approved by EPA. Some states including Illinois, Iowa, and Minnesota do not specify this approval authority in code. Other states such as Michigan and Indiana do specify this authority.

8. Summary of Factual Data and Analytical Methodologies Used and How Any Related Findings Support the Regulatory Approach Chosen:

The methodology identified in this rule package is based on Clean Water Act and Great Lake Initiative requirements and on EPA guidance including the *Technical Support Document for Water Quality-based Toxics Control* (March 1991). PB91-127415.

9. Analysis and Supporting Documents Used to Determine the Effect on Small Business or in Preparation of an Economic Impact Report:
DNR's System for Wastewater Applications, Monitoring and Permits (SWAMP) was used to compile existing WET data by permittee. These data were then analyzed to determine which of these permittees would trigger a chronic or acute WET limitation based on the revised reasonable potential methodology. Quotes from WET laboratories frequently used by point source discharges in Wisconsin were used to provide a range of costs for WET testing and TRE studies. Shipping quotes were also gathered from frequently used shipping companies, which included overnight and weekend shipping rates. Other costs, such as staff time, are site-specific and difficult to approximate. Therefore, a 5% margin of safety was added to the total costs projected to account for other potential costs.

10. Effect on Small Business (initial regulatory flexibility analysis):
Of the 126 WPDES permit holders that are believed to be economically and fiscally impacted by the proposed rule revision, 43 dischargers are believed to be small businesses. The potentially impacted businesses include food processors, cheese makers, and other small businesses like metal finishing plants and manufacturers. WET laboratories are typically small business and would likely be positively impacted by the revisions. Costs incurred by these small businesses are the result of increased WET monitoring, and toxicity reduction evolution (TRE) studies. It is estimated that small cheese makers may incur a fiscal impact of $83,000-$109,000, the impact to food processors may range from $51,000-$65,500, and other small businesses may incur a cost between $24,000-$35,000. Flexibility has been built into this rule to help minimize these economic impacts. Specifically, the rule package clarifies what WET data should be used to make WET limitation determinations in WPDES permits. Additionally, this rule provides flexibility on monitoring and reporting requirements for WET.

11. Agency Contact Person:
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12. Place where comments are to be submitted and deadline for submission:
Written comments submitted at the public hearing, by regular mail, fax, or email during the public hearing comment period which ended on December 18, 2015. The department received comments from the Wisconsin Legislative Council Rules Clearing House on December 2, 2015. The department completed a response to comments received.

SECTION 1. NR 106.03 (1) is renumbered NR 106.03 (1r).

SECTION 2. NR 106.03 (1g), (2m) and (notes), and (5m) are created to read:

NR 106.03 (1g) "AMZ" means acute mixing zone concentration based on presence of a zone of initial dilution under s. NR 106.06 (3) (c).

(2m) "Deficiency toxicity" means a condition that exists when adverse effects occur to aquatic organisms because concentrations of common ions are too low.

Note: Changes in the concentration of ions in surrounding waters can cause organisms to expend too much energy trying to regulate the balance of water and dissolved materials in bodily fluids, and may result in death.

Note: Examples of common ions are sodium, calcium, magnesium, potassium, etc.

(5m) "IC50" means the point estimate of the concentration of a toxic substance, wastewater effluent or other aqueous mixture that would cause a 50% reduction in a nonlethal biological measurement, such as reproduction or growth, of the exposed test organisms in a given time period.

SECTION 3. NR 106.03 (10) and (11) are repealed.

SECTION 4. NR 106.03 (13) is amended to read:

NR 106.03 (13) "TUa" or "toxic unit acute" means a value that is equal to 100 divided by the LC50 ~~LC50~~ except as provided in s. NR 106.08 (6) (d).

SECTION 5. NR 106.03 (13m) is created to read:

NR 106.03 (13m) "TUc" or "toxic unit chronic" means a value that is equal to 100 divided by the IC25 or the IC50 except as provided in s. NR 106.08 (6) (d).

SECTION 6. NR 106.03 (14) is amended to read:

NR 106.03 (14) "Whole effluent toxicity" or "WET" means the aggregate toxic effect of an effluent as measured directly by a toxicity test.

SECTION 7. NR 106.04 (1) (intro.) is amended to read:

NR 106.04 (1) (intro.) General. ~~Water quality based~~ The department shall establish water quality-based effluent limitations ~~shall be established~~ whenever categorical effluent limits required under s. 283.13, Stats., are less stringent than necessary to achieve applicable water quality standards specified in chs. NR 102 to 105. Water ~~quality based~~ quality-based effluent limitations for a point source shall be specified in the permit for that point source.

SECTION 8. NR 106.04 (3m) is created to read:

NR 106.04 (3m) In lieu of imposing limitations at the point of discharge when imposition of limitations at the point source discharge location is impracticable or infeasible, the department may

impose water quality-based effluent limitations on an internal waste stream before that waste stream mixes with other waste streams or cooling water streams. Monitoring requirements as specified in s. NR 106.07 (1) shall also be applied to the internal waste streams in these instances.

SECTION 9. NR 106.05 (1) (c) is amended:

NR 106.05 (1) (c) If the department determines that a limitation based on an aquatic life acute or chronic secondary value should be established in a permit according to the provisions in this section, a permittee may request an alternative ~~wet~~ WET limit in accordance with s. NR 106.07 (7).

SECTION 10. NR 106.05 (8) is repealed and recreated to read:

NR 106.05 (8) If representative discharge data are not available for a substance, the department may include water quality-based effluent limitations in a permit if, in the judgment of the department, water quality standards will be exceeded if the discharge of the substance is not limited.

SECTION 11. NR 106.05 (8) (note) is repealed.

SECTION 12. NR 106.06 (3) (b) is repealed and recreated to read:

NR 106.06 (3) (b) To assure compliance with par. (a), the department shall calculate the water quality-based effluent limitation for a substance using the following procedures whenever the background concentration of the substance in the receiving water is less than the acute water quality criterion or secondary value:

1. A limitation shall be calculated using the following conservation of mass equation whenever sufficient site-specific data exist:

$$\text{Limitation} = \frac{(WQC)\,(Qs + (1-f)Qe) - (Qs - fQe)\,(Cs)}{Qe}$$

Where:

Limitation = Calculated limitation based on the acute toxicity criterion or secondary acute value (in units of mass per unit of volume).

WQC = The acute toxicity criterion appropriate for the receiving water as specified in chs. NR 102 to 105 or the secondary acute value determined according to ch. NR 105 or as referenced in sub. (1) (a)

Qs = Receiving water design flow (in units of volume per unit time) under par. (bm)

Qe = Effluent flow (in units of volume per unit time) as specified in s. NR 106.06 (4) (d)

f = Fraction of the effluent flow that is withdrawn from the receiving water, and

Cs = Background concentration of the substance (in units of mass per unit volume) as specified in

s. NR 106.06 (4) (e).

[NOTE to LRB: this is the same equation found in NR 106.06 (4) (b) (1) and formatted the same.]

2. A limitation shall be calculated equal to the final acute value or secondary value as determined in s. NR 105.05 for the respective fish and aquatic life subcategory for which the receiving water is classified.

3. The department shall use the more restrictive calculated effluent limitation derived in subds. 1. and 2. as the water quality-based effluent limitation. If the background concentration of the substance in the receiving water is greater than the acute water quality criterion or secondary value for the substance, then the procedure in sub. (6) shall be used to calculate the limitation.

SECTION 13. NR 106.06 (3) (bm) is created to read:

NR 106.06 (3) (bm) The value of Qs of the receiving water for calculating effluent limitations in par. (a) based upon the acute fish and aquatic life criteria or secondary values developed according to ch. NR 105 shall be determined on a case-by-case basis. In no case may the Qs exceed the average minimum 1-day flow which occurs once in 10 years (1-day Q10) or if the 1-day Q10 flow data is not available, 80% of the average minimum 7-day flow that occurs once in 10 years (7-day Q10).

SECTION 14. NR 106.06 (3) (c) (intro.), 4., and 5. are amended to read:

NR 106.06 (3) (c) (intro.) Except as provided ~~in par. (d)~~ sub. (2), water quality-based effluent limitations as derived in par. (b) may exceed the final acute value or the secondary acute value within a zone of initial dilution provided that the acute toxicity criteria or secondary acute values are met within a short distance from the point of discharge. A zone of initial dilution shall only be approved if the discharger demonstrates to the department that mixing of the effluent with the receiving water in the zone of initial dilution is rapid and all the following conditions are met:

4. The acute toxicity criteria or secondary acute values ~~must~~ shall be met within 10% of the distance from the edge of the outfall structure to the edge of a mixing zone which may be determined in accordance with s. NR 102.05 (3).

5. The acute toxicity criteria or secondary acute values shall be met within a distance of 50 times the discharge length scale in any direction. The discharge length scale is defined as the square root of the cross-sectional area of any discharge outlet. If a multiport diffuser is used, ~~this~~ the requirement ~~must~~ in this subdivision shall be met for each port using the appropriate discharge length scale for that port.

SECTION 15. NR 106.06 (3) (e) and (4) (f) are created to read:

NR 106.06 (3) (e) The department shall use the methodology in s. NR 106.07 (3) to (5) to express water quality-based effluent limitations derived in this subsection as permit effluent limitations.

(4) (f) The department shall use the methodology in s. NR 106.07 (3) to (5) to express water quality-based effluent limitations derived in this section as permit effluent limitations.

SECTION 16. NR 106.06 (7) (intro.) is amended to read:

NR 106.06 (7) (intro.) APPLICABILITY OF WATER QUALITY CRITERIA EXPRESSED AS DISSOLVED CONCENTRATIONS. Effluent limitations may be established in a permit under this subsection based upon the acute and chronic aquatic life toxicity criteria expressed as dissolved concentrations ~~which~~ that are determined using the procedures specified in ss. NR 105.05 (5) and 105.06 (8). Effluent limitations for metals calculated under this section shall be expressed as total recoverable in a permit. All of the following shall apply in establishing effluent limitations under this subsection:

SECTION 17. NR 106.07 (1) (title) is created to read:

NR 106.07 (1) (title) PERMIT MONITORING FREQUENCY.

SECTION 18. NR 106.07 (2) is repealed and recreated to read:

NR 106.07 (2) GENERAL. Except as provided in subs. (3) and (4), a chemical specific water quality-based effluent limitation that is calculated under this chapter shall be expressed in the permit as both a concentration limitation and a mass limitation unless the pollutant cannot appropriately be expressed by mass or a mass limitation is infeasible because the mass of the pollutant cannot be related to a measure of operation. Water quality-based mass limits for discharges of chlorine are not required in permits. The concentration limitation shall be expressed in units of mg/L or equivalent units. The mass limitation shall be expressed in units of kg/day or equivalent units. All of the following procedures shall be used when calculating mass limitations:

(a) For dischargers subject to ch. NR 210, an acute toxicity based concentration limitation that is derived by the procedure in s. NR 106.06 shall be converted to a mass limitation by using the discharger's maximum effluent flow, expressed as a daily total flow, that is anticipated to occur for 24 continuous hours during the design life of the treatment facility.

(b) For all other dischargers not subject to ch. NR 210, an acute toxicity based concentration limitation that is derived by the procedures in s. NR 106.06 shall be converted to a mass limitation by using the discharger's maximum effluent flow, expressed as a daily total flow, that has occurred for 24 continuous hours and represents normal operations. When calculating a mass limitation, the department

may consider a projected increase in effluent flow that will occur when production is increased or modified, or another wastewater source, including storm water, that is added to an existing wastewater treatment facility. Limitations calculated under this paragraph are subject to the antidegradation requirements of ch. NR 207.

(c) A chronic toxicity, human health, or wildlife-based concentration limitation that is determined by the procedures in s. NR 106.06 shall be converted to a mass limitation by using the same effluent flow rate that was used in s. NR 106.06 (4) (d) to calculate the concentration limitation.

(d) A chronic toxicity-based mass limitation that is determined by the procedures in s. NR 106.11 shall be converted to a concentration limitation by using an effluent flow rate from s. NR 106.06 (4) (d).

Note: An example of when a mass limitation is infeasible is water quality-based mass limits for discharges of temperature.

SECTION 19. NR 106.07 (3) is repealed and recreated to read:

NR 106.07 (3) EXPRESSION OF CONCENTRATION LIMITATIONS IN PERMITS FOR CONTINUOUS DISCHARGES SUBJECT TO CH. NR 210. (a) *Applicability.* The procedures for expressing limitations in permits in this subsection apply to continuous discharges subject to ch. NR 210 when there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation based on fish and aquatic life protection, human health, or wildlife protection that is calculated under s. NR 106.06. This subsection does not apply if another provision in this chapter or another Wisconsin administrative code chapter requires a different time period for expressing limits for a specific pollutant, type of discharge, or parameter, or if the department determines that expression of limitations in accordance with this subsection is impracticable under sub. (10).

Note: An example of a different time period for expressing limits for a specific pollutant or parameter is WET limitations as specified in s. NR 106.09.

(b) *Expression of water quality-based effluent limitations based on acute criterion.* If there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation calculated under s. NR 106.06 for a pollutant that is based on an acute criterion or secondary value, that limitation shall be expressed as a daily maximum and included in the permit.

(c) *Expression of water quality-based effluent limitations based on chronic criterion.* If there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation calculated under s. NR 106.06 for a pollutant that is based on a chronic criterion or secondary value that limitation

shall be expressed as a weekly average and included in the permit.

(d) *Expression of water quality-based effluent limitations based on human health or wildlife criterion.* If there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation calculated under s. NR 106.06 for a pollutant that is based on a human health or wildlife criterion or secondary value that limitation shall be expressed as a monthly average and included in the permit.

(e) *Additional permit limitations.* Both a weekly average and monthly average permit limitation shall be included in a permit for a pollutant whenever any water quality-based effluent limitation for that pollutant is determined necessary under pars. (b) to (d). A daily maximum limitation shall be included in a permit in addition to the weekly average and monthly average limitation if the daily maximum limitation is determined necessary under par. (b). The department shall use all of the following procedures to include weekly average and monthly average limitations in permits:

1. If a daily maximum limitation is the only limitation determined necessary for a pollutant under s. NR 106.05, a weekly average and monthly average limitation shall still be included in the permit and shall be set equal to the daily maximum limitation or the calculated weekly average and monthly average water quality-based effluent limitations, whichever is more restrictive.

2. If a weekly average limitation is determined necessary for a pollutant under s. NR 106.05, but a monthly average limitation is not determined necessary for that pollutant in the permit under s. NR 106.05, a monthly average limitation shall still be included in the permit and shall be set equal to the weekly average limitation or the monthly average water quality-based effluent limitation calculated under s. NR 106.06, whichever is more restrictive. A daily maximum limitation shall be included if deemed necessary under s. NR 106.05.

3. If a daily maximum and monthly average limitation are determined necessary in a permit for a pollutant under s. NR 106.05, but a weekly average limit is not necessary for that pollutant under s. NR 106.05, a weekly average limitation shall still be included in the permit for the pollutant and shall be set equal to the daily maximum limitation or the weekly average water quality-based effluent limitation calculated under s. NR 106.06, whichever is more restrictive.

4. If a monthly average limitation is the only limitation determined to be necessary for a pollutant under s. NR 106.05, a weekly average limitation shall still be included in the permit and shall be set equal to the weekly average water quality-based effluent limitation calculated under s. NR 106.06, or a weekly average limitation calculated using the following procedure, whichever is more restrictive:

Weekly Average Limitation = (Monthly Average Limitation x MF)

Where:

MF= Multiplication factor as defined in Table 1

CV= The coefficient of variation (CV) as calculated in sub. (5m)

n= the number of samples per month required in the permit

NR 106.07 (3) (e) 4. **Table 1 — Multiplication Factor**

CV	n=1	n=2	n=3	n=4	n=8	n=12	n=16	n=20	n=24	n=30
0.1	1.00	1.07	1.10	1.12	1.16	1.17	1.18	1.19	1.20	1.20
0.2	1.00	1.13	1.20	1.24	1.32	1.36	1.39	1.40	1.41	1.43
0.3	1.00	1.19	1.29	1.36	1.49	1.56	1.60	1.63	1.65	1.67
0.4	1.00	1.24	1.37	1.46	1.66	1.75	1.81	1.86	1.89	1.93
0.5	1.00	1.28	1.45	1.56	1.81	1.94	2.02	2.08	2.13	2.18
0.6	1.00	1.31	1.51	1.64	1.95	2.12	2.23	2.30	2.36	2.43
0.7	1.00	1.34	1.55	1.71	2.08	2.28	2.41	2.51	2.58	2.67
0.8	1.00	1.35	1.59	1.76	2.19	2.42	2.58	2.70	2.79	2.89
0.9	1.00	1.36	1.61	1.80	2.27	2.54	2.73	2.86	2.97	3.09
1.0	1.00	1.37	1.63	1.83	2.34	2.64	2.85	3.01	3.13	3.27
1.1	1.00	1.37	1.63	1.84	2.39	2.72	2.95	3.13	3.27	3.43
1.2	1.00	1.36	1.63	1.85	2.43	2.79	3.04	3.23	3.38	3.56
1.3	1.00	1.36	1.63	1.85	2.45	2.83	3.10	3.31	3.48	3.68
1.4	1.00	1.35	1.62	1.84	2.46	2.86	3.15	3.37	3.55	3.77
1.5	1.00	1.34	1.61	1.83	2.46	2.88	3.18	3.42	3.61	3.85
1.6	1.00	1.33	1.60	1.82	2.46	2.89	3.20	3.45	3.66	3.90
1.7	1.00	1.32	1.58	1.80	2.45	2.88	3.21	3.47	3.69	3.95
1.8	1.00	1.31	1.57	1.78	2.43	2.87	3.21	3.48	3.70	3.98
1.9	1.00	1.30	1.55	1.76	2.41	2.86	3.20	3.48	3.71	3.99
2.0	1.00	1.29	1.54	1.74	2.38	2.84	3.19	3.47	3.71	4.00

5. Limitations calculated under subds.1. to 4. shall be expressed in terms of concentration unless the department determines that a mass limitation is also necessary to protect fish and aquatic life, human health, or wildlife due to the variability of effluent flow or stream flow or other site-specific factors.

Note: This methodology is based on the *Technical Support Document for Water Quality-based Toxics Control* (March 1991). PB91-127415.

SECTION 20. NR 106.07 (4) is repealed and recreated to read:

NR 106.07 (4) EXPRESSION OF CONCENTRATION LIMITATIONS IN PERMITS FOR CONTINUOUS DISCHARGES NOT SUBJECT TO CH. NR 210. (a) *Applicability.* The procedures for expressing limitations in this subsection apply to continuous discharges that are not subject to ch. NR 210 and when there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation based on fish and aquatic life protection, human health, or wildlife protection that is calculated under s. NR 106.06. This subsection does not apply if another provision in this chapter or another Wisconsin administrate code chapter requires a different time period for expressing limits that is specific to a pollutant, type of discharge, or other parameter, or if the department determines that expression of limitations in accordance with this subsection is impracticable under sub. (10).

Note: An example of a different time period for expressing limits for a specific pollutant or parameter is WET limitations as specified in s. NR 106.09.

(b) *Expression of water quality-based effluent limitations based on acute criterion.* If there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation calculated under s. NR 106.06 for a pollutant that is based on an acute criterion or secondary value that limitation shall be expressed as a daily maximum and included in the permit.

(c) *Expression of water quality-based effluent limitations based on chronic criterion.* If there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation calculated under s. NR 106.06 for a pollutant that is based on a chronic criterion or secondary value that limitation shall be expressed as a weekly average and included in the permit.

(d) *Expression of water quality-based effluent limitations based on human health or wildlife criterion.* If there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation calculated under s. NR 106.06 for a pollutant that is based on a human health or wildlife criterion or secondary value that limitation shall be expressed as a monthly average and included in the permit.

(e) *Additional permit limitations.* Both a daily maximum and monthly average permit limitation shall be included in a permit for a pollutant whenever any water quality-based effluent limitation for that pollutant is determined necessary under pars. (b) to (d). A weekly average limitation shall be included in a permit in addition to daily maximum and monthly average limitation if the weekly average limit is determined necessary under par. (c). The department shall use all of the following procedures to include daily maximum and monthly average limitations in permits:

1. If a daily maximum limitation is the only limitation determined necessary for a pollutant under s. NR 106.05, a monthly average limitation shall still be included in the permit and set equal to the daily maximum limitation or the monthly average water quality-based effluent limitation calculated under s.

NR 106.06, whichever is more restrictive.

2. If a weekly average limitation is the only limitation determined necessary for a pollutant under s. NR 106.05 a monthly average limitation shall still be included in the permit and shall be set equal to the weekly average limitation or the monthly average water quality-based effluent limitation calculated under s. NR 106.06, whichever is more restrictive. A daily maximum limitation shall also be included in the permit and set equal to the daily maximum water quality-based effluent limitation calculated under s. NR 106.06 or a daily maximum limitation calculated using the following procedure, whichever is more restrictive:

Daily Maximum Limitation= WQBELc x DMF

Where:

WQBELc = water quality-based effluent limitation calculated based on chronic criteria under s. NR 106.06.

DMF= Daily Multiplication Factor as defined in Table 2, where

CV= The coefficient of variation (CV) as calculated in sub. (5m)

NR 106.07 (4) (e) 2. Table 2 — Daily Multiplication Factor

CV	Multiplying Factor
0.1	1.114
0.2	1.235
0.3	1.359
0.4	1.460
0.5	1.557
0.6	1.639
0.7	1.712
0.8	1.764
0.9	1.802
1.0	1.828
1.1	1.842
1.2	1.849
1.3	1.851
1.4	1.843
1.5	1.830
1.6	1.815

1.7	1.801
1.8	1.781
1.9	1.751
2.0	1.744

3. If a monthly average limitation is determined necessary, but a daily maximum limitation is not determined necessary for that pollutant under s. NR 106.05, a daily maximum limitation shall still be included in the permit and shall be set equal to the daily maximum water quality-based effluent limitation calculated under s. NR 106.06 or a daily maximum limitation calculated using the following procedure, whichever is more restrictive:

Daily Maximum Limitation = (Monthly Average Limitation x MF)

Where:

Multiplication Factor= Multiplication Factor as defined in sub. (3) (e) 4. Table 1, where

CV= The coefficient of variation (CV) as calculated in sub. (5m)

n= the number of samples per month required in the permit

4. Limitations calculated under subds. 1. to 3. shall be expressed in terms of concentration unless the department determines that a mass limitation is also necessary to protect fish and aquatic life, human health, or wildlife due to the variability of effluent flow or stream flow or other site-specific factors.

Note: This methodology is based on the *Technical Support Document for Water Quality-based Toxics Control* (March 1991). PB91-127415.

SECTION 21. NR 106.07 (5) is repealed and recreated to read:

NR 106.07 (5) EXPRESSION OF CONCENTRATION LIMITATIONS IN PERMITS FOR NONCONTINUOUS DISCHARGES. (a) *Applicability.* The procedures for expressing limitations in this subsection apply to seasonal discharges, discharges proportional to stream flow, or other unusual discharge situations that do not meet the definition of a continuous discharge under s. NR 205.03 (9g) when there is reasonable potential under s. NR 106.05 to exceed a water quality-based effluent limitation based on fish and aquatic life protection, human health, or wildlife protection. Water quality-based effluent limitations shall be calculated under s. NR 106.06.

(b) *Acute reasonable potential.* Pursuant to s. NR 106.05, if there is reasonable potential to exceed a water quality-based effluent limitation for a pollutant that is based on an acute criterion or secondary value then the acute concentration limitation calculated under s. NR 106.06 shall be expressed as a daily maximum and included in the permit.

(c) *Chronic and human health or wildlife reasonable potential.* Pursuant to s. NR 106.05, if

there is reasonable potential to exceed a water quality-based effluent limitation for a pollutant based on a chronic, a human health, or a wildlife criterion or secondary value, limitations shall be included in the permit and expressed on a case-by-case basis. The department shall consider all of the following factors:

1. Frequency and duration of discharge.
2. Total mass of discharge.
3. Maximum flow rate of discharge.
4. Whether the pollutant is subject to a technology-based limitation or other limitation expressed by mass, concentration, or other appropriate measure in the permit.

SECTION 22. NR 106.07 (5m) is created to read:

NR 106.07 (5m) COEFFICIENT OF VARIATION. (a) The coefficient of variation (CV) shall be calculated as the ratio of the standard deviation of the representative effluent data divided by the arithmetic average of the representative effluent data, except as provided in par. (b).

(b) If there are fewer than 10 representative data points the CV shall be set equal to 0.6.

(c) When calculating the CV in par. (a) a monitoring result less than the limit of detection may be assigned a value of zero. If the effluent limitation is less than the limit of detection, the department may substitute a value other than zero for results less than the limit of detection, after considering the number of monitoring results that are greater than the limit of detection and if warranted when applying appropriate statistical techniques.

SECTION 23. NR 106.07 (6) (title) is created to read:

NR 106.07 (6) (title) LIMITATIONS BELOW THE LEVEL OF DETECTION OR QUANTIFICATION.

SECTION 24. NR 106.07 (7) (title) is created to read:

NR 106.07 (7) (title) WHOLE EFFLUENT TOXICITY AS ALTERNATIVE LIMIT.

SECTION 25. NR 106.07 (8) (title) is created to read:

NR 106.07 (8) (title) SECONDARY VALUES AND STUDIES WITHIN THE GREAT LAKES BASIN.

SECTION 26. NR 106.07 (8) is amended to read:

NR 106.07 (8) If the effluent limitation based on a secondary value is established in a permit, ~~the permittee~~ a permittee discharging to the Great Lakes as defined in s. NR 102.22(5) may request that additional time be added to the compliance schedule, according to s. NR 106.117 (2), for the permittee to conduct studies, other than studies for site-specific criteria ~~pursuant to~~ under s. NR 105.02 (1), that are needed to propose a revision to the secondary value upon which the effluent limitation is based. During

this time, the permittee may provide additional data necessary to either refine the secondary value or calculate a water quality criterion.

SECTION 27. NR 106.07 (9) (title) is created to read:

NR 106.07 (9) (title) WET WEATHER MASS LIMITATIONS.

SECTION 28. NR 106.07 (10) is created to read:

NR 106.07 (10) (title) ALTERNATIVE METHODS FOR LIMIT EXPRESSION. The department may use an alternative method from the methodology specified in subs. (3) to (5) to express water quality-based effluent limitations in permits if the department determines that the methods in subs. (3) to (5) are impracticable and an alternative methodology is necessary and appropriate and adequately protective of the designated uses of the receiving and downstream waters as specified in ch. NR 102.

SECTION 29. NR 106.08 is repealed and recreated to read:

NR 106.08 (1) GENERAL. The department shall establish whole effluent toxicity testing requirements and limitations whenever necessary to meet applicable water quality standards as specified in chs. NR 102 to 105 as measured by exposure of aquatic organisms to an effluent and specified effluent dilutions. When considering the necessity for whole effluent toxicity testing requirements and limitations, the department shall consider in-stream biosurvey data and data from ambient toxicity analyses, whenever such data are available.

(2) DETERMINATION OF NECESSITY. If representative discharge data are available for an effluent being discharged from a point source, whole effluent toxicity testing requirements are necessary when any of the following apply:

(a) Existing aquatic life toxicity test data generated according to standard test protocols indicate a potential for an effluent from a point source discharge to adversely impact the receiving water aquatic life community.

(b) A water quality-based effluent limitation for a toxic substance is determined necessary in s. NR 106.05.

(3) REPRESENTATIVE DATA. Toxicity test data available to the department shall be considered representative when all of those data meet the following conditions:

(a) Data are representative of normal discharge conditions and current effluent quality.

(b) Data were produced by a lab certified or registered under ch. NR 149.

(c) Data were produced from toxicity test procedures specified in the permit.

(d) Data were produced from toxicity tests that met all applicable quality assurance or quality control requirements specified in the permit.

(4) NO REPRESENTATIVE DATA. If no representative discharge data are available for an effluent being discharged from a point source, whole effluent toxicity testing requirements are necessary if, in the judgment of the department, water quality standards may be exceeded. In such cases, all of the following factors shall be considered:

(a) Any relevant information that is available that indicates a potential for an effluent to impact the receiving water aquatic life community.

(b) Available dilution in the receiving water.

(c) Discharge category and predicted effluent quality.

(d) Proximity to other point source dischargers.

(5) OTHER CONSIDERATIONS. Regardless of the results of the analysis conducted under this section, the department may, whenever determined necessary, require whole effluent toxicity testing for a point source discharge. The department may use information submitted under s. 323.60 (5) (c) and (d), Stats., together with other information, in determining when whole effluent toxicity testing is necessary.

(6) REASONABLE POTENTIAL TO RECEIVE AN ACUTE OR CHRONIC WHOLE EFFLUENT TOXICITY LIMIT. (a) *General.* Whole effluent toxicity limits are established in a permit according to s. NR 106.09 whenever representative, facility-specific whole effluent toxicity data demonstrate that the effluent is or may be discharged at a level that will cause, have the potential to cause, or contribute to an excursion of a water quality standard. Whole effluent toxicity limits may also be imposed in the absence of facility-specific whole effluent toxicity test data, on a case-by-case basis, whenever facility-specific or site-specific data or conditions indicate toxicity to aquatic life that is attributable to the discharger.

(b) *Reasonable potential.* 1. If a zone of initial dilution has not been approved by the department, the potential to exceed an acute criterion shall be calculated using the following equation:

(TUa effluent) (B) > 1.0

Where:

TUa effluent= Maximum calculated TUa from the most sensitive species in the data set

B= Reasonable potential multiplication factor determined under par. (c)

1.0= Numeric acute WET limitation in acute toxic units (TUa) derived from narrative criterion in s. NR 102.04 (1) (d)

2. If a zone of initial dilution has been approved by the department, the potential to exceed an acute criterion shall be calculated using the following equation:

[(TUa effluent) (B) (AMZ)] > 1.0

Where:

TUa effluent= Maximum calculated TUa from the most sensitive species in the data set

B= Reasonable potential multiplication factor determined under par. (c)

AMZ= Acute mixing zone concentration based on presence of a zone of initial dilution as defined in s. NR 106.03 (1) expressed as a decimal

1.0= Numeric acute WET limitation in acute toxic units (TUa) derived from narrative criterion in s. NR 102.04 (1) (d)

3. The potential to exceed a chronic criterion shall be calculated using the following equation:

[(TUc effluent) (B) (IWC)]> 1.0

Where:

TUc effluent= Maximum calculated TUc from the most sensitive species in the data set

B= Reasonable potential multiplication factor determined under par. (c)

IWC= Instream waste concentration as defined in s. NR 106.03 (6) expressed as a decimal

1.0= Numeric chronic WET limitation in chronic toxic units (TUc) derived from narrative criterion in s. NR 102.04 (4) (d)

(c) *Reasonable potential multiplication factor.* The department shall use the reasonable potential multiplication factor in par. (b) to convert the calculated effluent toxicity value to the estimated 95th percentile toxicity value. The department shall use all of the following methods to select a reasonable potential multiplication factor:

1. When there are less than 10 individual toxicity detects, the multiplication factor shall be taken from Table 4 and based on a coefficient of variation of 0.6.

2. When there are 10 or more individual toxicity detects, the multiplication factor shall be taken from Table 4 and based on coefficient of variation calculated as the standard deviation of the WET test endpoints, IC25, IC50, or LC50, divided by the arithmetic mean of the WET tests.

NR 106.08 (6) (c) Table 4 — Reasonable Potential Multiplication Factor

	Coefficient of variation (CV)																			
Number of samples (n)	**0.1**	**0.2**	**0.3**	**0.4**	**0.5**	**0.6**	**0.7**	**0.8**	**0.9**	**1.0**	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**	**1.6**	**1.7**	**1.8**	**1.9**	**2.0**
1	-	-	-	-	-	6.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

4	-	-	-	-	-	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	1.1	1.2	1.3	1.5	1.6	1.7	1.9	2.0	2.2	2.3	2.4	2.6	2.7	2.8	3.0	3.1	3.2	3.3	3.4	3.6
11	1.1	1.2	1.3	1.4	1.6	1.7	1.8	1.9	2.1	2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.0	3.1	3.2	3.3
12	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.0
13	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.8	2.9
14	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.6	2.7
15	1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.4	2.5	2.5
16	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.3	2.4	2.4
17	1.1	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.2	2.2	2.3	2.3
18	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.2
19	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.1	2.1
20	1.1	1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.0
30	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5
40	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3
50	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
60	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
70	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
80	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8
90	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
100	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7

(d) *Maximum toxicity values.* The department shall set the TUc effluent and TUa effluent values in par. (b) equal to zero whenever toxicity is not detected or the LC50, IC25, or IC50 equals or exceeds 100% effluent.

(7) DATA EXCLUSIONS. The department may exclude data from a WET reasonable potential determination when those data meet any of the following conditions:

(a) Data are not representative under sub. (3).

(b) Positive WET results are caused by deficiency toxicity only.

(c) Positive WET results are caused by groundwater or surface water remediation needed to correct or prevent an existing surface or groundwater contamination situation or a public health problem.

SECTION 30. NR 106.09 (2) (e) is repealed and recreated to read:

NR 106.09 (2) (e) Acute whole effluent toxicity limits shall be expressed as 1.0 TU_a unless an AMZ is approved in which case these limits shall be expressed as a value that is 100 divided by the AMZ. Compliance with an acute whole effluent toxicity water quality-based limitation shall be determined by comparing the TU_a endpoint from each toxicity test to the limitation. Pursuant to s. NR 106.08 (6) (d) a calculated LC50 that exceeds 100% is set equal to zero.

SECTION 31. NR 106.09 (2) (e) (note) and (2) (f) are created to read:

NR 106.09 (2) (e) **Note**: A toxicity reduction evaluation study is not always required in the event an acute WET limit is imposed in a permit.

(2) (f) Whole effluent acute toxicity limitations shall be expressed in permits as daily maximum limitations.

SECTION 32. NR 106.09 (3) (b) (intro.) and 1. are amended to read:

NR 106.09 (3) (b) (intro.) To assure compliance with par. (a), an effluent, after dilution with an appropriate allowable quantity of receiving water flow equivalent to that provided by receiving water flows specified in s. ~~NR 106.06(4)(c)~~ NR 106.06 (3) (c) or implied in s. ~~NR 106.06(4)(b)2.~~ NR 106.06 (3) (b) 2., may not cause a significant adverse effect~~, as determined by subds. 1. and 2.,~~ to a test organism population when compared to an appropriate control~~.~~ , as determined by applying all of the following:

1. Using statistical interpretation methods appropriate to the toxicity test protocol, an adverse effect will be determined to be significant if the statistically derived IC25 or IC50, as specified for each species in the whole effluent toxicity test methods required in s. NR 219.04, Table A, from the whole effluent toxicity test, is less than the calculated IWC.

SECTION 33. NR 106.09 (3) (c) is repealed and recreated to read:

NR 106.09 (3) (c) Chronic whole effluent toxicity limits shall be expressed as a value that is 100 divided by the IWC. Compliance with a chronic whole effluent toxicity water quality-based limitation shall be determined by comparing the monthly average calculated TUc from all toxicity tests conducted during that month to the limitation. Pursuant to s. NR 106.08 (6) (d), a calculated IC25 or IC50 that exceeds 100% is set equal to zero.

SECTION 34. NR 106.09 (3) (c) (note) and NR 106.09 (3) (d) are created to read:

NR 106.09 (3) (c) **Note**: A toxicity reduction evaluation study is not always required in the event a chronic WET limit is imposed in a permit.

NR 106.09 (3) (d) Whole effluent chronic toxicity limitations shall be expressed in permits as monthly average limitations.

SECTION 35. NR 106.11 (note) is created to read:

NR 106.11 Note: The method of allocating the combined allowable load in s. NR 106.11 is not required to be based on the effluent flow rates specified in s. NR 106.04 (4) (d).

SECTION 36. NR 106.115 Table 1 (title) and Table 2 (title) are amended to read:

NR 106.115 Table 1 – Toxicity Equivalency ~~Factors~~ Factor for CDDs and CDFs

NR 106.115 Table 2 – Bioaccumulation Equivalency ~~Factors~~ Factor for CDDs and CDFs

[NOTE to LRB: title formatting change requested for consistency throughout tables in NR 106]

SECTION 37. NR 106.145 (9) (b) (note) is repealed.

SECTION 38. NR 106.32 (2) (b) (intro.) and 2. are amended to read:

NR 106.32 (2) (b) (intro.) To assure compliance with par. (a) and except as provided in ~~par.~~ pars. (c) and (e), water quality-based effluent limitations for ammonia shall equal the final acute value as determined in s. NR 105.05 for the respective fish and aquatic life subcategory for which the receiving water is classified. The water quality-based limitations based on acute toxicity shall be established ~~as follows~~ using all of the following methods:

2. If the permittee can demonstrate to the department through site specific information that the fish present in the receiving water are limited to those included in CW Category 2, CW Category 3, or CW Category 5, as described in ch. NR 105, Table 2C, then effluent limitations shall be established based on the criteria shown in ch. NR 105 Table 2C for the respective CW Category. ~~If the permittee intends to make a site-specific demonstration, the permittee shall notify the department prior to the end of the public comment period for permit reissuance. An additional period of time, not to exceed 6 months, shall be provided in the schedule of compliance under s. NR 106.37 to perform the demonstration.~~ If the department grants approval for an alternative limitation based on CW Category 2, 3, or 5, the department shall ~~propose a modification to the permit that includes~~ include the alternative limit in a modified or reissued permit provided antidegradation requirements in ch. NR 207 have been satisfied.

SECTION 39. NR 106.32 (2) (b) 2. (note) is repealed.

SECTION 40. NR 106.32 (2) (e) is created to read:

NR 106.32 (2) (e) To assure compliance with par. (a), the department may calculate acute water quality-based effluent limitations using the following procedure if the department concludes that limitations calculated in par. (b) or (c) are not sufficiently protective of fish and aquatic life. The department may include the calculated WQBEL in a permit if this limitation is more stringent than the limitation calculated in par. (b) or (c):

$$\text{Limitation} = \frac{(WQC)\,(Qs + (1-f)Qe) - (Qs - fQe)\,(Cs)}{Qe}$$

Where:

WQC = The acute ammonia toxicity criterion appropriate for the receiving water as specified in ch. NR 105 and par. (d).

Qs = Receiving water design flow (in units of volume per unit time) as defined in s. NR 106.06 (3) (bm)

Qe = Effluent flow (in units of volume per unit time) as specified in s. NR 106.06 (4) (d).

f = Fraction of the effluent flow that is withdrawn from the receiving water, and

Cs = Background concentration of the substance (in units of mass per unit volume) as specified in s. NR 106.06 (4) (e).

[NOTE to LRB: this is the same equation found in NR 106.06 (4) (b) (1) and formatted the same.]

SECTION 41. NR 106.32 (3) (a) 4. a. is amended to read:

NR 106.32 (3) (a) 4. a. Whenever the department determines that early life stage present ammonia criteria are applicable under this subdivision, the permittee may make a demonstration that the early life stages of burbot are not present at the discharge location and will not be affected by the discharge during the months of January and February. ~~If the permittee intends to perform the demonstration, the permittee shall notify the department prior to the end of the public comment period for permit reissuance. The department shall allow an extended compliance schedule in the permit not to exceed one year for the permittee to provide the demonstration.~~ If the department grants approval for an alternative limitation based on results of this study, the department shall include the alternative limitation in a permit modification or reissuance provided antidegradation requirements in ch. NR 207 have been satisfied.

SECTION 42. NR 106.32 (3) (a) 4. a. (note) is repealed.

SECTION 43. NR 106.33 is repealed and recreated to read:

NR 106.33 Determination of the necessity for and expression of water quality-based effluent limits for ammonia. (1) REASONABLE POTENTIAL. (a) For a permitted discharge that is not already subject to an ammonia water quality-based effluent limitation, the procedures specified in s. NR 106.05 shall be used to determine if water quality-based effluent limitations for ammonia are necessary in a reissued permit. When application of the procedures in s. NR 106.05 results in a determination that ammonia effluent limits are not necessary in a permit, the permit holder shall continue to be operated in a manner that optimizes the removal of ammonia within the design capabilities of the wastewater treatment plant. The department may require that the permittee monitor ammonia at a frequency established on a case-by-case basis in its permit for the purpose of determining representative discharge levels.

(b) If a permittee is subject to an ammonia limitation in an existing permit, the limitation shall be included in any reissued permit. Ammonia limitations shall be included in the permit if the permitted facility will be providing treatment for ammonia discharges.

(2) PERMIT LIMITATIONS FOR CONTINUOUS POTWS. The procedures for expressing limitations in permits in this subsection apply to continuous discharges subject to ch. NR 210 when there is reasonable potential under s. NR 106.05 to exceed an ammonia limitation. Both a weekly average and monthly average permit limitations shall be included in a permit for ammonia whenever any water quality-based effluent limitation for ammonia is determined necessary under sub. (1). A daily maximum limitation shall be included in permits in addition to weekly average and monthly average limitations if necessary under sub. (1). The department shall use all of the following procedures to include weekly average and monthly average limitations in permits:

(a) If a daily maximum limitation is the only ammonia limitation determined necessary under sub. (1), a weekly average limitation shall be set equal to the WQBEL based on the 4-day chronic toxicity criteria calculated under s. NR 106.32 (3) or the daily maximum limitation, whichever is more restrictive.

(b) If a weekly average ammonia limitation is determined necessary under sub. (1), and a monthly average limitation is not already determined necessary, a monthly average limitation shall be set equal to the WQBEL based on the 30-day chronic toxicity criteria calculated under s. NR 106.32 (3) or the weekly average limitation, whichever is more restrictive, except as provided under par. (c).

(c) The department may on a case-by-case basis use an alternative methodology for calculating monthly average limitations whenever historical flow data or real time data are used to calculate weekly

average limitations under s. NR 106.32 (3) (c) 2. and these limitations are determined to be necessary under sub. (1).

(d) If a monthly average limitation is the only ammonia limitation determined to be necessary under sub. (1), weekly average limitations shall be set equal to the WQBEL based on the 4-day chronic toxicity criteria calculated under s. NR 106.32 (3) or a weekly average limitation calculated using the following procedure, whichever is more restrictive:

Weekly Average Limitation = (Monthly Average Limitation x MF)

Where:

MF= Multiplication factor as defined in s. NR 106.07 (3) (e) (4) Table 1, where

CV= The coefficient of variation (CV) as calculated under s. NR 106.07 (5m)

n= the number of samples per month required in the permit

(3) PERMIT LIMITATIONS FOR OTHER CONTINUOUS DISCHARGES. The procedures for expressing limitations in this subsection apply to continuous discharges that are not subject to ch. NR 210 and when there is reasonable potential under s. NR 106.05 to exceed an ammonia limitation. Both a daily maximum and monthly average permit limitation shall be included in a permit for ammonia whenever any water quality-based effluent limitation for ammonia is determined necessary under s. NR 106.05. A weekly average limitation shall be included in permits in addition to a daily maximum and monthly average limitation if necessary under sub. (1). The department shall use all of the following procedures to include daily maximum and monthly average limitations in permits:

(a) If a weekly average limitation is the only ammonia limitation determined necessary under sub. (1), a monthly average limitation shall be set equal to the WQBEL based on the 30-day chronic toxicity criteria or the weekly average limitation, whichever is more restrictive except as provided in par. (c). A daily maximum limitation shall also be included in the permit and set equal to the daily maximum ammonia WQBEL under NR 106.32 (2) or a daily maximum limitation calculated using the following procedure, whichever is more restrictive:

Daily Maximum Limitation= Weekly Average Limitation x DMF

Where:

DMF= Daily multiplication factor as defined in NR 106.07 (4) (e) 2. Table 2, where

CV= The coefficient of variation (CV) as calculated in s. NR 106.07 (5m)

(b) If a daily maximum ammonia limitation is determined necessary under sub. (1), and a monthly average limitation is not already determined necessary, a monthly average limitation shall be set equal to the WQBEL based on the 30-day chronic toxicity criteria calculated according to s. NR 106.32 (3) or the daily maximum limitation, whichever is more restrictive, except as provided in sub. (c).

(c) The department may on a case-by-case basis use an alternative methodology for calculating daily maximum or monthly average limitations whenever historical flow data or real time data are used to calculate weekly average limitations under s. NR 106.32 (3) (c) 2. and these limitations are determined to be necessary under sub. (1).

(d) If a monthly average limitation is determined necessary and a daily maximum limitation is not already determined necessary under sub. (1), a daily maximum limitation shall be set equal to the daily maximum ammonia WQBEL under NR 106.32 (2) or a daily maximum limitation calculated using the following procedure, whichever is more restrictive:

Daily Maximum Limitation = (Monthly Average Limitation x MF)

Where:

MF= Multiplication factor as defined in s. NR 106.07 (3) (e) 4. Table 1, where

CV= The coefficient of variation (CV) as calculated in s. NR 106.07 (5m)

n= the number of samples per month required in the permit

(4) PERMIT LIMITATIONS FOR NONCONTINUOUS DISCHARGES. The department shall include ammonia water quality-based effluent permit limitations in permits for seasonal discharges, discharges proportional to stream flow, or other unusual discharge situations that do not meet the definition of a continuous discharge whenever ammonia water quality-based effluent limitations are determined necessary under sub. (1). Ammonia limitations shall be expressed in accordance with s. NR 106.32 (5) unless the department determines on a case-by-case basis that an alternative averaging period is appropriate. The department shall consider all of the following when making a case-by-case determination:

(a) Frequency and duration of discharge.

(b) Total mass of discharge.

(c) Maximum flow rate of discharge.

(d) Whether ammonia is subject to a technology-based limitation or other limitation expressed by mass, concentration, or other appropriate measure in the permit.

SECTION 44. NR 106.34 is repealed.

SECTION 45. NR 106.36 (3) (note) is repealed.

SECTION 46. NR 106.36 (3) Table 1 (title) is amended to read:

NR 106.36 (3) Table 1 — Ammonia Multiplier

[NOTE to LRB: title formatting change requested for consistency throughout tables in NR 106]

SECTION 47. NR 106.36 (4) is repealed.

SECTION 48. NR 106.37 (1) is amended to read:

NR 106.37 (1) Schedules of compliance. The department shall determine and specify a reasonable compliance schedule in the ~~WPDES~~ permit if the permittee is unable to meet the ammonia effluent limits determined according to this subchapter at the time of permit reissuance. The department shall establish the term of the compliance schedule on a case-by-case basis ~~and shall consider~~ consistent with the requirements in s. NR 106.117. When establishing a compliance schedule, the department shall consider factors such as necessary planning, complexity of wastewater treatment issues, scope of construction, equipment delivery time, and construction seasons in establishing a schedule. In no circumstance may the date of compliance with the limits extend more than 5 years after the date of permit reissuance~~, unless a variance has been granted pursuant to s. NR 106.38~~.

SECTION 49. NR 106.37 (1) (note) is repealed.

SECTION 50. NR 106.37 (2) is repealed and recreated to read:

NR 106.37 (2) If the department modifies or reissues the permit to adjust ammonia limitations based on an approval of demonstrations made under either ss. NR 106.32 (2) (b) 2. or 106.32 (3) (a) 4. the department may adjust the compliance schedule if necessary and appropriate.

SECTION 51. NR 106.37 (2) (note), (3) and (3)(note), and NR 106.38 are repealed.

SECTION 52. NR 106.55 (6) (a) Table 1 (title) is amended to read:

NR 106.55 (6) (a) Table 1 — Flow Ratio Categories

[NOTE to LRB: title formatting change requested for consistency throughout tables in NR

106]

SECTION 53. NR 106.62 (intro.) is amended to read:

NR 106.62 Compliance schedules. (intro.) ~~Compliance~~ The permittee shall attain compliance with the effluent limitations ~~shall be attained~~ as soon as reasonably possible, but no later than the expiration date of the permit. When a permit is issued or reissued with effluent temperature limitations established using the procedures in this subchapter and representative effluent temperature data are available at the time of permit issuance or reissuance, the permit may contain a compliance schedule consistent with the provisions in s. NR 106.117 when either of the following conditions is met:

SECTION 54. NR 106.75 is amended to read:

NR 106.75 Compliance schedules. Whenever the department issues or modifies a permit with alternative effluent limitations for temperature established using the procedures in this subchapter, the permit may contain a compliance schedule consistent with the provisions in s. NR 106.117 to attain such limitations. ~~Compliance with~~ The permittee shall achieve compliance with the limitations ~~shall be attained~~ as soon as reasonably possible, but no later than the expiration date of the permit.

SECTION 55. NR 106.83 (2) (c) is amended to read:

NR 106.83 (2) (c) *Department determinations.* The department shall review the application submitted by the permittee. The application shall be approved if the department agrees with the permittee's basis for concluding that the findings ~~in sub (2) (a)~~ under par. (a) for a chloride variance are applicable to its discharge. The department shall obtain U.S. environmental protection agency approval before a variance is included in a permit under this subsection.

SECTION 56. NR 106.87 (1) is amended to read:

NR 106.87 (1) CALCULATED LIMITATIONS. If water quality-based effluent limitations for chloride are ~~deemed~~ determined to be necessary, those limitations shall be derived under ~~s.~~ ss. NR 106.06 ~~and,~~ and 106.07, and for the purposes of this subchapter, shall be labeled "calculated limitations".

SECTION 57. NR 106.88 (1) is repealed and recreated to read:

NR 106.88 (1) CHLORIDE LIMITATIONS IN PERMITS. If chloride water quality-based effluent limitations are deemed to be necessary under s. NR 106.85, the department shall use all of the following

procedures to include the calculated limitations in the permit with an appropriate compliance schedule as necessary and appropriate:

(a) Effluent limitations based on an acute criterion shall be expressed in permits as daily maximum limitations, and effluent limitations based on a chronic criterion shall be expressed in permits as weekly average limitations.

(b) Effluent Limitations shall be expressed in a permit consistent with the protocols in s. NR 106.07 (3) to (5).

(c) Mass limitations calculated under s. NR 106.07 (2) and (9) shall be included in the permit in addition to concentration based effluent limitations whenever water quality-based effluent limitations are determined to be necessary.

(d) A compliance schedule for a water quality-based effluent for chloride may be granted in a permit if necessary and appropriate and shall be consistent with the requirements under s. NR 106.117.

SECTION 58. NR 106.88 (1) (note) is repealed.

SECTION 59. NR 106.88 (2) and (3) are repealed and recreated to read:

NR 106.88 (2) VARIANCE CONDITIONS. The department may include all of the following conditions in the permit instead of the conditions specified in sub. (1) whenever a chloride variance is granted under s. NR 106.83:

(a) Chloride monitoring.

(b) An interim limitation for chloride that is effective on the date of permit issuance.

(c) Tier 1 source reduction.

(d) A target value or a target limitation with an appropriate compliance schedule, which is effective on the last day of the permit.

(e) If appropriate, either tier 2 or tier 3 source reduction if the department believes that any of the additional conditions in the tier 2 or tier 3 source reduction activities are reasonable and practical within the term of the permit.

(3) UNITS FOR TARGET VALUES. Interim limitations, target values, and target limitations established under sub. (2) shall be expressed in the permit as a concentration limitation, in units of mg/L or equivalent units.

SECTION 60. NR 106.88 (4) is repealed.

SECTION 61. NR 106.88 (5) is repealed and recreated to read:

NR 106.88 (5) MONITORING. A determination of compliance with interim, target, and calculated limitations and comparison with target values shall be based upon 24-hour composite samples. The department shall determine on a case-by-case basis the monitoring frequency to be required for these limitations.

SECTION 62. NR 106.88 (6) is repealed.

SECTION 63. NR 106.89 is repealed and recreated to read:

NR 106.89 Alternative whole effluent toxicity monitoring and limitations for dischargers of chloride. (1) GENERAL. In addition to interim, target, and calculated water quality-based effluent limitations and target values for chloride, the department may establish whole effluent toxicity testing requirements and limitations under ss. NR 106.08 and 106.09.

(2) FINDINGS. The department finds all of the following:

(a) Acute whole effluent toxicity limitations cannot be attained if the effluent concentration of chloride exceeds 2,500 mg/L.

(b) Chronic whole effluent toxicity limitations cannot be attained if the effluent concentration of chloride exceeds 2 times the calculated chronic water quality-based effluent limitation.

(c) If chloride is the sole source of acute or chronic whole effluent toxicity it is appropriate that chloride limitations be used instead of WET limitations to attain and maintain narrative criteria in ss. NR 102.04 (1) (d) and 102.04 (4) (d).

(3) CHLORIDE LIMITS IN LIEU OF ACUTE WET LIMITS. Chloride limitations shall be included in the permit in lieu of acute whole effluent toxicity testing requirements and acute whole effluent toxicity limitations until source reduction actions are completed if any of the following apply:

(a) The permittee can demonstrate to the satisfaction of the department that the effluent concentration of chloride exceeds 2,500 mg/L.

(b) The permittee can demonstrate to the satisfaction of the department that the effluent concentration of chloride is less than 2,500 mg/L, but in excess of the calculated acute water quality-based effluent limitation, and additional data are submitted that demonstrate that chloride is the sole source of acute toxicity.

(4) CHLORIDE LIMITS IN LIEU OF CHRONIC WET LIMITS. Chloride limitations shall be included in the permit in lieu of chronic whole effluent toxicity testing requirements and chronic whole effluent toxicity limitations until source reduction actions are completed if either of the following applies:

(a) The permittee can demonstrate to the satisfaction of the department that the effluent concentration of chloride exceeds 2 times the calculated chronic water quality-based effluent limitation.

(b) The permittee can demonstrate to the satisfaction of the department that the effluent concentration of chloride is less than 2 times the calculated chronic water quality-based effluent limitation, but in excess of the calculated chronic water quality-based effluent limitation, and additional data are submitted which demonstrate that chloride is the sole source of chronic toxicity.

(5) DECISION DOCUMENTATION. The department shall specify the decision to include chloride limitations instead of whole effluent toxicity limitations in the permit fact sheet.

(6) REEVALUATION. The department shall reevaluate the need for whole effluent toxicity and chloride monitoring or limitations upon permit reissuance.

SECTION 64. NR 106.91 is amended to read:

NR 106.91 ~~Publicly owned treatment works~~ Variances for POTWs which accept wastewater from public water systems treating water to meet primary safe drinking water act standards. Publicly owned treatment works ~~which~~ that accept wastewater from a public water system treating water to meet the primary maximum contaminant levels specified in ch. NR 809, if not able to meet the calculated limitation, may apply to the department for a variance from the water quality standard used to derive the limitation following the procedure specified in this subchapter. The department shall seek U.S. environmental protection agency approval before a variance is included in a permit. Upon approval, the permittee may be given an interim limitation, a target value, a target limitation and appropriate source reduction requirements, ~~pursuant to~~ under s. NR 106.83 in the permit upon permit reissuance or modification. No calculated limitation, interim limitation, target value, target limitation, or source reduction requirement shall interfere with the attainment of the primary maximum contaminant levels specified in ch. NR 809.

SECTION 65. NR 106.91 (note) is repealed.

SECTION 66. NR 205.03 (9g) is created to read:

NR 205.03 (9g) "Continuous discharge" means a facility that discharges 24 hours per day on a year-round basis except for temporary shutdowns for maintenance or other similar activities.

SECTION 67. NR 205.065 and 205.066 are created to read:

NR 205.065 Effluent Limitations. (1) EFFLUENT LIMITATIONS IN PERMITS. The department shall impose permit effluent limitations or effluent standards for discharges of pollutants on the discharge point of the permitted facility except as provided in sub. (2).

(2) INTERNAL WASTE STREAMS. The department may impose permit effluent limitations or effluent standards for discharges of pollutants on an internal waste stream when all of the following are true:

(a) Imposing effluent limitations or standards at the point of discharge is impractical or infeasible.

(b) The internal waste stream has not mixed with other waste streams or cooling water streams.

(c) The fact sheet under ch. NR 201 states the reasons why it is necessary to impose effluent limitations or standards on an internal waste stream.

(3) CALCULATION OF EFFLUENT LIMITATIONS FOR POTWS. For continuous dischargers as defined in s. NR 205.03 (9g) and subject to ch. NR 210, effluent limitations shall be based on the

maximum effluent flow, expressed as a daily average, that is anticipated to occur for 12 continuous months during the design life of the treatment facility unless it is demonstrated to the department that such a design flow rate is not representative of projected flows at the facility.

(4) CALCULATION OF EFFLUENT LIMITATIONS FOR OTHER CONTINUOUS DISCHARGES. For all other discharges not subject to ch. NR 210, effluent limitations shall be calculated based on actual representative flow values except as provided in pars. (a) and (b).

(a) For new discharges, production-based effluent limitations shall be estimated using projected production.

(b) If a facility is expanding or decreasing production levels, the department may use an estimated alternative production value to calculate production-based effluent limitations.

(5) INTAKE WATER CREDIT. If requested by the permittee in the permit application for issuance or reissuance, technology-based effluent limitations shall, for each substance or parameter, be adjusted to reflect the discharger's intake water if all of the following conditions are met:

(a) Antidegradation requirements in ch. NR 207 are satisfied, if applicable.

(b) The permittee does not discharge raw water clarifier sludge generated from the treatment of intake water.

(c) The permittee demonstrates that the applicable technology-based effluent limitation for the pollutant would be met in the absence of the pollutant in the intake water.

(d) The permittee demonstrates that the constituents of the pollutant in the effluent are substantially similar to the constituents of the pollutant in the intake water. The permittee shall also demonstrate that the intake water is drawn from the same waterbody as defined in s. NR 106.03 (11m) from into which the discharge is made.

(6) MAXIMUM INTAKE WATER CREDIT. If intake credit is granted pursuant to sub. (5), that intake credit cannot exceed the maximum value equal to the influent value, and shall be no greater than the value necessary to comply with the applicable permit effluent limitation. Additional monitoring may be included in the permits to determine eligibility for credits and compliance with the applicable limits.

(7) EFFLUENT LIMIT EXPRESSION. Effluent limitations shall be expressed in accordance with this subsection except if the department determines it is impracticable, or if the department determines that different time periods for expressing limitations are needed to ensure compliance with the applicable water quality standard and different time periods are established in another rule provision for a specific pollutant. Water quality-based effluent limitations for toxic pollutants shall be expressed in a permit in accordance with ch. NR 106. Effluent limitations shall be expressed in accordance with all of the following:

(a) For continuous dischargers as defined in s. NR 205.03 (9g) and subject to ch. NR 210,

limitations shall be expressed as average weekly and average monthly discharge limitations.

(b) For continuous discharges as defined in s. NR 205.03 (9g) and not subject to ch. NR 210, limitations shall be expressed as daily maximum and average monthly discharge limitations.

(c) For seasonal discharges, discharges proportional to stream flow, or other unusual discharge situations that do not meet the definition of a continuous discharge in s. NR 205.03 (9g), limitations shall be expressed on a case-by-case basis. When determining limitations the department shall consider all of the following factors:

1. Frequency and duration of discharge.

2. Total mass of discharge.

3. Maximum flow rate of discharge.

4. Whether the pollutant is subject to other limitations expressed by mass, concentration, or other appropriate measure in the permit.

Note: An example of a different time period for expressing limits for a specific pollutant or parameter is phosphorus limitations as specified in s. NR 217.14.

(8) MASS LIMITATIONS. (a) All pollutants limited in permits shall have limitations, standards, or prohibitions expressed in terms of mass, except for any of the following situations:

1. Pollutants limited in permits that cannot be appropriately expressed by mass such as pH, chlorine, temperature, radiation, or other pollutants.

2. When applicable standards and limitations are expressed in terms of other units of measurement.

3. If limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation.

(b) If a mass limit is included in the permit for a pollutant, the pollutant may also be limited in terms of other units of measurement in the permit, and the permit shall require the permittee to comply with both limitations.

(9) METALS. All permit effluent limitations, standards, or prohibitions for a metal shall be expressed in terms of total recoverable in a permit unless any of the following conditions apply:

(a) An applicable effluent standard or limitation has been promulgated and specifies the limitation for the metal in dissolved or valent or total form.

(b) In establishing permit limitations on a case-by-case basis, it is necessary to express the limitation for the metal in the dissolved or valent or total form to carry out the provisions of the federal Clean Water Act or ch. 283, Stats.

(c) All approved analytical methods for the metal inherently measure only the dissolved form of the pollutant.

NR 205.066 Permit Conditions. (1) MONITORING. The department shall determine on a case-by-case basis the monitoring frequency to be required for each effluent limitation in a permit. Monitoring shall occur at the point of discharge or at the internal waste stream if the permit limitations are imposed on the internal waste stream under s. NR 205.065 (2) unless an alternative location is established by the department in the permit.

(2) PRODUCTION LIMIT DOCUMENTATION. If limits are calculated under s. NR 205.065 (4) (a) or (b) the permittee shall submit with the DMR the level of production that actually occurred during each month limits are effective.

(3) EXCEEDANCE OF PRODUCTION LIMITS. The permittee shall comply with the limitations, standards, and prohibitions calculated under s. NR 205.065 (4) (b) unless the permittee has notified the department in writing of an anticipated exceedance of the estimated alternative design flow used to calculate limits, in which case the permittee may comply with an alternative design flow, not to exceed the production level specified in the notice. Written notifications must be submitted to the department at least two business days prior to a month in which the permittee expects to operate at a level higher than the lowest production level identified in the permit and shall specify the anticipated level, period during which the permittee expects to operate at the alternate level, and the reasons for the anticipated production level increase. Notice of increased discharge must be submitted to the department for all exceedances not covered in previous notifications.

SECTION 68. NR 212 Subchapter I (title) is created to read:

SUBCHAPTER I

GENERAL

SECTION 69. NR 212.01 is amended to read:

NR 212.01 Purpose. The purpose of this chapter is to establish the procedures, methodologies, and requirements to be used by the department for determining total maximum pollutant loadings and corresponding water quality related effluent limitations in accordance with ss. 283.13 (5), ~~283.15~~ 283.31 (3) (d) 3., and 283.83 (1) (c), Stats. Such restrictions are established to attain and maintain the designated uses specified in the water quality standards appearing in chs. NR 102, 103, and 104.

SECTION 70. NR 212 Subchapter II (title) is created to read (insert before NR 212.02):

SUBCHAPTER II

EFFLUENT LIMITATIONS FOR BIOCHEMICAL OXYGEN DEMAND DEVELOPED THROUGH WASTELOAD ALLOCATIONS FOR SPECIFIC STREAM SEGMENTS

SECTION 71. NR 212.02 (1) is repealed and recreated to read:

NR 212.02 (1) The provisions of this subchapter are applicable to water quality related effluent limitations for biochemical oxygen demand developed through wasteload allocations for the Lower Fox River from milepoints 0-40.0, Upper Wisconsin River from milepoints 171.9-341.4, and Peshtigo River from milepoints 0-12, and established under s. 283.13 (5), Stats.

SECTION 72. NR 212.02 (2) is amended to read:

NR 212.02 (2) Nothing in this ~~chapter~~ subchapter shall in any way inhibit, override, preclude, or prevent the department from issuing any permit with toxic effluent limits even if such permit limitations would result in more stringent limitations than provided in this ~~chapter~~ subchapter.

SECTION 73. NR 212.03 (intro.), (3), (12), (22), and (24) are amended to read:

NR 212.03 Definitions. (intro.) In addition to the definitions and abbreviations in ss. NR 205.03 and 205.04, the following definitions are applicable to terms used in this ~~chapter~~ subchapter:

(3) "Conventional pollutant" means those pollutants identified in section 304 (a) (4) of the federal clean water act amendments of 1977. These pollutants are~~;~~ : ~~biological~~ biochemical oxygen demand (BOD), total suspended solids (TSS), pH, fecal coliform, and oil and grease.

(12) "New point source", for the purposes of this ~~chapter~~ subchapter, means a point source which commenced operation after January 1, 1980.

(22) "~~Waste load~~ Wasteload allocation" means the allocation resulting from the process of distributing or apportioning the total maximum load to each individual point source~~, nonpoint sources, reserve capacity, and margin of safety~~ discharge.

(24) "Water quality related effluent limitation" means a point source effluent limitation designed to meet applicable water quality standards and which is more restrictive than the categorical effluent limitations. For the purposes of this ~~chapter~~ subchapter, water quality related effluent limitations refer to those determined as a result of a ~~waste load~~ wasteload allocation.

SECTION 74. NR 212.12 (2) (d) is amended to read:

NR 212.12 (2) (d) No bypasses ~~exist~~ occur ~~which~~ that are not ~~authorized~~ approved by the department; and

SECTION 75. NR 212.40 (2) (intro.), (b), and (c) are amended to read:

NR 212.40 (2) (intro.) ~~Determine~~ The department shall determine baseline loads for each point source subject to the ~~waste load~~ wasteload allocation~~.~~ in accordance with all of the following:

(b) Nonpublicly–owned point sources between milepoints 40.0 and 19.2. The baseline load expressed in pounds per day for each nonpublicly–owned point source shall be calculated as follows:

Baseline Load = (BPT) (Production) (0.85)

Where: BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ~~chs.~~ ch. NR 284 ~~and 285,~~ or ~~217~~ 220, when applicable, expressed in pounds of BOD5 per ton of production.

Production = The maximum weekly off–machine production during 1973 expressed as tons per day.

0.85 = Adjustment factor to approximate daily average off–machine production.

(c) Nonpublicly–owned point sources between milepoints 7.2 and 0.0. The baseline load expressed in pounds per day for each nonpublicly–owned point source shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where: BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ~~chs.~~ ch. NR 284 ~~and 285~~ or ~~217~~ 220, when applicable, expressed in pounds of BOD5 per ton of production.

Production = 1977 average daily off–machine production.

SECTION 76. NR 212.60 (1) (intro.), (b), (d), (e), and (g) are amended to read:

NR 212.60 (1) (intro.) ~~Determine~~ The department shall determine baseline loads for each point source subject to the ~~waste load~~ wasteload allocation~~.~~ in accordance with all of the following:

(b) The baseline load for each nonpublicly–owned point source located between milepoints 205.3 and 171.9 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ~~chs.~~ ch. NR 284 ~~and 285~~, expressed as pounds of BOD5 per ton of production. If

~~chs.~~ ch. NR 284 ~~and 285~~ ~~do~~ does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR ~~217~~ 220~~,~~ shall apply.

Production = The annual average off–machine production during 1978 expressed as tons per day.

(d) The baseline load for each nonpublicly–owned point source with best practicable waste treatment effluent limitations of less than 500 pounds per day located between milepoints 271.1 and 240.0 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ~~chs.~~ ch. NR 284 ~~and 285~~, or ~~217~~ 220, when applicable, expressed as pounds of BOD5 per ton of production.

Production = The maximum weekly off–machine production during 1981 expressed as tons per day.

(e) The baseline load for each nonpublicly–owned point source with best practicable waste treatment effluent limitations of BOD5 equal to or exceeding 500 pounds per day located between milepoints 271.1 and 240.0 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ~~chs.~~ ch. NR 284 ~~and 285~~or ~~217~~ 220, when applicable, expressed as pounds of BOD5 per ton of production.

Production = The average weekly off–machine production expressed as tons per day from March to December 1973 for point sources located between milepoints 271.0 and 258.5 and the BPT ~~WPDES~~ permit limits for 1978 for point sources located between milepoints 258.4 and 258.2 and the average weekly off–machine production expressed as tons per day during 1974 for point sources located between milepoints 258.19 and 249.0 and the average weekly off–machine production expressed as tons per day during 1973 plus the woodroom allowance for sources located between milepoints 248.9 and 240.0.

(g) The baseline load for each nonpublicly–owned point source located between milepoints 341.4 and 305.9 shall be calculated as follows:

Baseline Load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source as provided in ~~chs.~~ ch. NR 284 ~~and 285~~, expressed as pounds of BOD5 per ton of production. If ~~chs.~~ ch. NR 284 ~~and 285 do~~ does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR ~~217~~ 220 shall apply.

Production = The annual average off–machine production during 1978 expressed as tons per day.

SECTION 77. NR 212.70 (1) (a) and (b) are amended to read:

NR 212.70 (1) (a) The baseline load for each publicly–owned point source located between milepoints 9.6 and 0.0 shall be calculated as follows:

Baseline load = (Q) (8.34) (60) + (BPT) (Production)

Where Q = The year 2000 flow projection of the domestic contribution of the influent to the treatment plant expressed in millions of gallons per day

8.34 = Conversion factor

60 = Concentration of BOD5 expressed in milligrams per liter

BPT = The final best practicable waste treatment effluent limitations for the industrial contribution of the influent to the treatment plant as provided in ~~chs.~~ ch. NR 284 ~~and 285~~expressed as pounds of BOD5 per ton of production. If ~~chs.~~ ch. NR 284 ~~and 285 do~~ does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR ~~217~~ 220 shall apply.

Production = The annual average off–machine production during January 1 to December 1, 1978 expressed as tons per day

(b) The baseline load for each nonpublicly–owned point source located between milepoints 12.0 and 9.7 shall be calculated as follows:

Baseline load = (BPT) (Production)

Where BPT = The final best practicable waste treatment effluent limitations for the point source which is not discharged to a publicly–owned treatment system as provided in ~~chs.~~ ch. NR 284

~~and 285~~expressed as pounds of BOD5 per ton of production. If ~~chs.~~ ch. NR 284 ~~and 285 do~~ does not apply, the best practicable waste treatment effluent limitations as determined under ch. NR ~~217~~ 220 shall apply.

Production = The annual average off–machine production during January 1 to December 1, 1978 expressed as tons per day.

SECTION 78. NR 212.70 Table 5m (title) is amended to read:

LBS PER DAY OF BOD5

(river mile ~~238.9~~ 248.9 to 240.0)

SECTION 79. NR 212 Subchapter III and (title) are created to read (insert after NR 212.70):

SUBCHAPTER III
DEVELOPMENT OF TOTAL MAXIMUM DAILY LOADS AND EFFLUENT LIMITATIONS DEVELOPED THROUGH WASTELOAD ALLOCATIONS

NR 212.71 Applicability. This subchapter establishes the procedures, methodologies, and requirements to be used for determining total maximum daily loads and water quality-based effluent limitations developed through wasteload allocations for pollutants except as provided in subch. II.

NR 212.72 Definitions. In addition to the definitions and abbreviations in ss. NR 205.03 and 205.04 the following definitions are applicable to the terms of this subchapter:

(1) "EPA" means the United States environmental protection agency.

(2) "Impaired water" has the meaning given in s. NR 151.002 (16m).

(3) "Increased discharge" means any increase in the concentration or mass loading of a pollutant of concern that exceeds an effluent limitation that is in effect in a current permit.

(4) "Load allocation" means the nonpoint source allocation as defined in s. NR 212.03 (14).

(5) "Loading capacity" means the greatest amount of loading that a water can receive without violating water quality standards.

(6) "Margin of safety" means a required component of the TMDL that accounts for the uncertainty in the response of the waterbody to loading reductions.

(7) "Natural background load" means loads emanating from natural sources, including but not limited to forested and undeveloped lands and from natural processes such as weathering and dissolution, which would exist in the absence of measurable impacts from human activity or influence.

(8) "New discharge" means a point source that discharges the pollutant of concern that commenced operation after the TMDL was approved by EPA and was not given a wasteload allocation in the TMDL.

(9) "Pollutant of concern" means any pollutant discharged that has an applicable TBEL, a wasteload allocation from a TMDL or watershed analysis, or is identified as needing a WQBEL to meet water quality standards.

(10) "TBEL" means technology-based effluent limitation.

(11) "TMDL" means total maximum daily load and is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, natural background, and a margin of safety. TMDLs can be expressed in terms of mass per time, toxicity, or other appropriate measures that relate to a state water quality standard.

(12) "Wasteload allocation" refers to the point source allocation as defined in s. NR 212.03 (22).

(13) "WQBEL" means water quality-based effluent limitation.

NR 212.73 TMDL development requirements for impaired waters. (1) PURPOSE. This section establishes the procedure, methodologies, and requirements to be used for developing TMDLs.

(2) PRIORITIZATION. The department shall create and maintain an impaired waters list of waters that fail to meet water quality standards and, therefore, require the development of TMDLs or alternative remediation plans. The impaired waters list shall include a priority ranking for the development of a TMDL for all listed waters. The priority ranking shall consider the severity of the pollution, the uses to be made of such waters, and whether implementing existing TBELs and WQBELs in permits are sufficient to achieve water quality standards. By April 1 of each even-numbered year, the Department shall submit to the EPA a prioritized ranking of waters on the impaired waters list targeted for TMDL development for a two-year period. Impaired waters addressed by alternative remediation plans may be

assigned a low priority for TMDL development on the impaired waters list.

Note: The impaired waters listing and priority setting process is specified in the Wisconsin Consolidated Assessment and Listing Methodology (WisCALM).

Note: Examples of remediation plans include, but are not limited to, lake protection and restoration plans, remedial action plans, environmental accountability projects, area-wide water quality management plans, adaptive management plans, and nine key element watershed plans.

(3) TMDL DEVELOPMENT. (a) The department shall establish TMDLs for impaired waters in accordance with the prioritization in sub. (1). TMDLs shall be established at levels necessary to attain and maintain applicable numeric and narrative water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.

(b) TMDLs shall be established to ensure attainment of all designated uses and applicable numeric and narrative water quality standards for the pollutant of concern including applicable numeric and narrative criteria under chs. NR 102 and 105.

(c) TMDLs may be established using a pollutant-by-pollutant or biomonitoring approach. In many cases both techniques may be needed. Site specific information should be used whenever possible.

(d) TMDLs shall include wasteload allocations for point sources and load allocations for nonpoint sources such that the sum of the allocations is not greater than the loading capacity of the water for the pollutants addressed by the TMDL, minus the sum of natural background loads, the reserve capacity and, if specified, an explicit margin of safety. Allocations shall meet the following requirements:

1. Allocations shall be distributed to sources using a baseline loading condition that is defined in the TMDL.

2. If allocations in the TMDL are expressed as a concentration, the TMDL shall also indicate the flows, including effluent flows, assumed in the analyses.

3. If multiple EPA-approved TMDLs are prepared for impaired waters, and the TMDLs include allocations for the same pollutant for one or more of the same sources, then the applicable allocations that are protective of both immediate and downstream segments shall be used for TMDL implementation,

including permitting.

4. Pollutant degradation and transport may be considered when developing allocations.

5. Natural background loads may be accounted for in a TMDL through an allocation to a single category or through individual allocations to applicable sources of natural background loads.

6. Nonpoint sources may be accounted for in a TMDL through an allocation to a single category or through individual load allocations to various nonpoint sources.

7. Point source dischargers covered through individual permits shall be assigned individual waste load allocations. Point source dischargers covered through general permits may be accounted for through an allocation to a single category or through individual wasteload allocations.

(e) TMDLs shall include a margin of safety sufficient to account for technical uncertainties in establishing the TMDL and shall describe the manner in which the margin of safety is determined and incorporated into the TMDL. The margin of safety may be provided explicitly by leaving a portion of the loading capacity unallocated, implicitly by using conservative modeling assumptions to establish wasteload allocations and load allocations, or a combination thereof. If a portion of the loading capacity is left unallocated to provide a margin of safety, the amount left unallocated shall be documented. If conservative modeling assumptions are relied on to provide a margin of safety, the specific assumptions providing the margin of safety shall be described.

(f) A portion of the TMDL may be allocated to a reserve capacity to account for new or increased discharges, or other sources not allocated in the TMDL. When such reserve allocations are not included in a TMDL, any increased loadings of the pollutant for which the TMDL was developed that are due to a new or expanded discharge may not be allowed unless the TMDL is revised to include an allocation for the new or expanded discharge or the new or expanded discharge is offset by a reduction of the pollutant in the watershed covered by the TMDL.

(4) MONITORING DATA. Monitoring data shall be collected to support the development of the TMDL and track implementation of a TMDL. Monitoring data shall be used for all of the following:

(a) To demonstrate progress towards achieving water quality standards such as quantifying pollutant reductions made through implementation of the TMDL and evaluating the effectiveness of controls being used to implement the TMDL.

(b) To validate the assumptions and scientific analysis used to establish the TMDL or revise the TMDL, if necessary.

(5) REASONABLE ASSURANCE. A TMDL, implementation plan for a TMDL, or remediation plan shall provide reasonable assurances that water quality standards will be attained within a reasonable timeframe. Determining the reasonable period of time in which water quality standards will be met is a case-specific determination considering a number of factors including, but not limited to: receiving water characteristics including persistence, behavior, and ubiquity of pollutants of concern; the types of remedial activities necessary; and available regulatory and non-regulatory controls.

NR 212.74 Developing TMDLs for nearshore and open waters of the Great Lakes. This section describes requirements for deriving TMDLs for waters of the Great Lakes system as defined in s. NR 102.22(5) and inland lakes within the Great Lakes system with no appreciable flow relative to their volumes. This section applies to TMDLs for all pollutants excluding the following: alkalinity, ammonia, bacteria, biochemical oxygen demand, chlorine, color, dissolved oxygen, dissolved solids, pH, phosphorus, salinity, temperature, total and suspended solids, turbidity, and whole effluent toxicity. In addition to the requirements specified in s. NR 212.73, TMDLs in this section shall also meet all of the following:

(1) TMDLs shall reflect, when appropriate and when sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones. TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife, and aquatic life.

(2) TMDLs shall reflect, when appropriate and when sufficient data are available, discharges resulting from wet weather events.

(3) TMDLs shall reflect, when appropriate and when sufficient data are available, background concentrations of pollutants stemming from atmospheric deposition, sediment release or resuspension, or as a result of chemical reactions.

NR 212.75 Developing TMDLs for Great Lakes systems tributaries and connecting channels. This section describes conditions for deriving TMDLs for tributaries and connecting channels of the Great Lakes system as defined in s. NR 102.12(1) that exhibit appreciable flows relative to their volumes. This section applies to TMDLs for all pollutants excluding the following: alkalinity, ammonia, bacteria, biochemical oxygen demand, chlorine, color, dissolved oxygen, dissolved solids, pH,

phosphorus, salinity, temperature, total and suspended solids, turbidity, and whole effluent toxicity. In addition to the requirements specified in s. NR 212.73, TMDLs in this section shall also meet all of the following:

(1) TMDLs shall reflect, when appropriate and when sufficient data are available, contributions to the water column from sediments inside and outside of any applicable mixing zones. TMDLs shall be sufficiently stringent so as to prevent accumulation of the pollutant of concern in sediments to levels injurious to designated or existing uses, human health, wildlife, and aquatic life.

(2) TMDLs shall reflect, when appropriate and when sufficient data are available, discharges resulting from wet weather events.

(3) TMDLs shall reflect, when appropriate and when sufficient data are available, background concentrations of pollutants stemming from atmospheric deposition, sediment release or resuspension, or as a result of chemical reactions.

(4) Design flows shall be used unless data exist to demonstrate that an alternative stream design flow is appropriate for stream-specific and pollutant-specific conditions. For purposes of calculating a TMDL, the stream design flows shall be all of the following:

(a) The 7-day, 10-year stream design flow (7Q10), or the 4-day, 3-year biologically-based stream design flow for chronic aquatic life criteria or values.

(b) The 1-day, 10-year stream design flow (1Q10), for acute aquatic life criteria or values.

(c) The harmonic mean flow for human health criteria or values.

(d) The 90-day, 10-year flow (90Q10) for wildlife criteria.

(e) TMDLs, calculated using dynamic modeling are not required to incorporate the stream design flows specified in pars. (a) to (d) of this procedure.

(5) The loading capacity is initially calculated at the farthest downstream location for the impaired reach by multiplying the applicable criterion or target value by the flow condition described in sub. (4). The loading capacity is then compared to the loadings at sites within the basin to assure that applicable numeric criteria or values for a given pollutant are not exceeded at all applicable sites. The lowest load is then selected as the loading capacity to be consistent with the attainment of each applicable numeric criterion or value for a given pollutant.

NR 212.76 Establishing WQBELs for publicly and privately owned wastewater facilities or treatment works. (1) WQBEL CALCULATION PROCEDURES. Calculation of WQBELs derived from TMDL wasteload allocations shall be derived consistent with the wasteload allocation and assumptions of an EPA-approved TMDL. The department shall use scientifically defensible methods to calculate these WQBELs. All of the following conditions shall apply when calculating WQBELs derived from TMDL wasteload allocations:

(a) WQBELs shall be expressed as mass limitations unless the pollutant cannot appropriately be expressed by mass or a mass limitation is infeasible because the mass of the pollutant cannot be related to a measure of operation.

(b) When establishing WQBELs in permits the department shall ensure that substances are not present in amounts that are acutely toxic to animals, plants, or aquatic life in all surface waters including those portions of the mixing zone normally habitable by aquatic life and effluent channels as required by s. NR 102.04 (1).

(c) When establishing WQBELs in permits the department shall ensure that substances are not exceeding applicable chronic toxicity criteria, wildlife criteria, taste and odor criteria, human threshold criteria, human cancer criteria, and secondary values, as specified in chs. NR 102 to 105, after dilution with an appropriate allowable quantity of receiving water flow unless the conditions specified in s. NR 102.05 (3) or the TMDL wasteload allocation require less dilution or no dilution be allowed. WQBELs may be more restrictive than the applicable water quality criteria in order to be consistent with the wasteload allocation and assumptions of an EPA-approved TMDL.

(2) WQBEL CALCULATION PROCEDURES IN GREAT LAKES BASIN. In addition to the requirements in sub. (1), WQBELs derived from TMDLs under ss. NR 212.74 and 212.75 shall also meet all of the following:

(a) WQBELs shall be sufficiently stringent to ensure that accumulation of the pollutant of concern cannot occur in sediments at levels injurious to designated or existing uses, human health, wildlife, or aquatic life.

(b) When establishing WQBELs in permits the department shall assume that the pollutant of concern does not degrade over time unless any the following conditions are met:

1. Scientifically valid field studies or other relevant information demonstrate that degradation of the pollutant is expected to occur under the full range of environmental conditions expected.

2. Scientifically valid field studies or other relevant information address other factors that affect the level of pollutants in the water column including suspension of sediments, chemical speciation, and biological and chemical transformation.

(3) MIXING ZONES FOR BIOACCUMULATIVE CHEMICALS OF CONCERN (BCCs). WQBELs derived from TMDL wasteload allocations for BCCs shall be consistent with and no less stringent than the mixing zone provisions under s. NR 106.06 (2).

(4) EXPRESSION OF LIMITS. WQBELs derived from TMDL wasteload allocations shall be expressed consistent with the provisions specified in s. NR 205.065 unless impracticable or an alternative expression of limitations is determined appropriate by the department and is consistent with the assumptions of the TMDL.

(5) COMPLIANCE SCHEDULES. When a permit is issued, reissued, or modified with new WQBELs based on a TMDL established using the procedures in this subchapter, the department may include a compliance schedule to achieve compliance with the TMDL based limitation if the permittee's treatment system is unable to immediately comply with the limitation. The compliance schedule shall meet all of the following conditions:

(a) The schedule of compliance will lead to compliance with the water quality based effluent limitation as soon as possible.

(b) The compliance schedule may not extend beyond the expiration date of the permit unless extended compliance schedules are authorized in ch. NR 217, other Wisconsin administrative code chapters, or a TMDL schedule in an approved areawide water quality management plan under ch. NR 121. Compliance schedules for toxic and organoleptic substances shall be consistent with the requirements of s. NR 106.117.

(c) Dates between interim compliance steps in the compliance schedule may not exceed one year.

(d) Development and implementation of an optimization plan or pollution minimization plan may be included as part of the compliance schedule as a means of complying with the effluent limitation.

(6) RELATIONSHIP OF WQBELS DERIVED FROM TMDL WASTELOAD ALLOCATIONS AND OTHER WQBELS. The department may include WQBELs derived from TMDL wasteload allocations in a permit in addition to, or in lieu of, other WQBELs.

NR 212.77 Public Participation. (1) The department shall conduct an informational public hearing and provide an opportunity for the public to comment on a proposed TMDL before the TMDL is submitted to EPA for approval. The minimum time period for written comments shall be 30 days from the date of public notice of a TMDL. The department shall post notice of a proposed TMDL on the department's website.

(2) Once a TMDL is approved by EPA, the TMDL is automatically incorporated into all applicable areawide water quality management plans, lake management plans, or remedial action plans.

(3) The department may not impose a WQBEL based on a TMDL in a permit under s. NR 212.76 (6), until the TMDL has been approved by EPA.

(4) The department shall provide public notice and provide an opportunity for comment on a calculated WQBEL that is derived from the EPA-approved TMDL during the public notice and comment period on the permit as provided in ch. NR 203 and ch. 283, Stats.

SECTION 80. NR 217.14 (2) and (3) are amended to read:

NR 217.14 (2) CONCENTRATION BASED LIMITS. Concentration effluent limitations calculated under s. NR 217.13 shall be expressed as a monthly average in permits, except for concentrations of less than or equal to 0.3 mg/L ~~where~~ for which limitations may be expressed as ~~annual averages~~ six-month averages. If a concentration limitation expressed as ~~an annual average~~ a six-month average is included in a permit, a monthly average concentration limitation equal to three times the water based effluent limitation calculated under s. NR 217.13 shall also be included in the permit.

(3) MASS BASED LIMITATIONS. Concentration effluent limitations ~~as~~ calculated under s. NR 217.13 shall be converted into mass effluent limitations using the effluent flow identified in s. NR 217.13 and an appropriate conversion factor, and expressed as a monthly average in the permit, except for concentration based limitations of less than or equal to 0.3 mg/L ~~where~~ for which mass limitations may be expressed as ~~annual averages~~ six-month averages.

SECTION 81. EFFECTIVE DATE. This rule takes effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 82. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on January 27, 2016.

Dated at Madison, Wisconsin July 14, 2016.

STATE OF Wisconsin DNR

DEPARTMENT OF NATURAL RESOURCES

BY _____

Cathy Stepp, Secretary

(SEAL)

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD REPEALING; CONSOLIDATING, RENUMBERING, AND AMENDING; AMENDING; REPEALING AND RECREATING; AND CREATING RULES

The statement of scope for this rule, WT-31-10 was published in Register No. 662 on February 28, 2011.

The Wisconsin Natural Resources Board proposes an order to **repeal** NR 106.06 (2) (a) and (b) and (Note) and 106.145 (2) (b) 2. and (Note); to **consolidate, renumber and amend** NR 106.145 (2) (b) (intro.) and 1.; to **amend** NR 106.145 (1) (b) and (2) (title); to **repeal and recreate** NR 106.06 (6) and 106.10; and to **create** NR 106.03 (4g), (4r), and (11m) and 106.06 (2) (am) and (Note), (bg), and (br); relating to calculating water quality based effluent limitations for point source discharges to surface waters.

WT-31-10

Analysis Prepared by the Department of Natural Resources

1. **Statutes interpreted**: ss. 283.01, 283.11(2), 283.13(5), 283.31, Stats.

2. **Statutory authority:** ss. 227.11(2)(a), 283.11(2), 283.13(5) and 283.31(3), (4), Stats.

3. **Explanation of agency authority:** Chapter 283, Stats., grants authority to the department to establish, administer and maintain a Wisconsin Pollutant Discharge Elimination System (WPDES) Permit program consistent with the requirements of the federal water pollution control act of 1972, commonly known as the Clean Water Act, and amendments to the act. Section 283.11 requires that rules promulgated by the department as they relate to point source discharges must comply with the Clean Water Act and regulations adopted under that act. Section 283.13(5), Stats., authorizes the department to establish more stringent water quality based effluent limitations (WQBELs) and to require compliance with such limitations if these limitations are necessary to comply with any state or federal law, rule or regulation.

Section 283.31(3), and (4), Stats., provides authority to issue permits that require compliance with effluent limitations and standards for point source discharges to surface waters and any more stringent limitations needed to comply with state or federal water quality standards or any applicable federal law or regulation. The department also has general authority to promulgate rules under s. 227.11 (2) (a), Stats., that interpret the specific statutory authority granted in ch. 283, Stats.

4. Related statute or rule:

These rule changes relate directly to the WPDES Permit program and the regulation of wastewater discharges. Chapter NR 106, Wis. Adm, Code, contains the procedures used by the Bureau of Water Quality to calculate water quality based effluent limitations for WPDES permits issued to point source discharges to surface waters under ch. 283, Stats. Related statutes and rules include: s. 281.15, Stats., which authorizes the department to promulgate water quality standards for waters of the state. Water quality standards for surface waters are set in chs. NR 102 to 105, Wis. Adm. Code.

5. Plain language analysis:

The primary purpose of these proposed rule changes to ch. NR 106, Wis. Adm. Code, is to be consistent with federal requirements for calculating and implementing water quality based effluent limitations for point source discharges to surface waters included in WPDES permits.

In a letter dated July 18, 2011, U.S. Environmental Protection Agency (EPA) identified 75 potential issues or deficiencies in Wisconsin's statutory and regulatory authority for the WPDES permit program. EPA directed the department to either make rule changes to address these inconsistencies or deficiencies or address these issues through other avenues. The proposed rules address four of the 75 issues identified in EPA's July 18, 2011, letter.

In addition to making some minor clarifications and cross-referencing corrections to the Administrative Code for uniformity, these proposed rule changes will:

- Revise s. NR 106.06(2) to phase out (with some exceptions) mixing zone allowances for discharges of bioaccumulative chemicals of concern (BCCs) in the Great Lakes system. While Wisconsin is already adhering to the requirements of the federal Great Lakes Water Quality Initiative (GLI), the proposed rules formally adopt the GLI requirements. When Wisconsin last made changes to NR 106, a footnote in the rule indicated that such changes would be promulgated.

- Modify s. NR 106.06(6) provisions that regulate pollutant discharges when a pollutant is present in the intake water used as the water supply for industrial and municipal dischargers. The proposed rules adopt the federal requirements for establishing effluent limitations.

- Remove the exemption from regulation in s. NR 106.10(1) and (2) for noncontact cooling water (NCCW) containing chlorine or other chemical additives present at levels consistent with those in public water supplies, as required by a Dane County Circuit Court Stipulation and Order in Case No. 12-CV-0569, *Midwest Environmental Defense Center v. WDNR* (March 2, 2012) and federal regulations.

- Remove the special definition of "representative data" for purposes of determining reasonable potential to exceed effluent limitations for mercury in s. NR 106.145(1) and (2), as required by a Dane County Circuit Court Order in Case No. 12-CV-3654, *Midwest Environmental Defense Center v. WDNR,* (July 1, 1014) and federal regulations.

6. Summary and comparison with existing and proposed federal regulations:

The table below sets forth the sections of ch. NR 106 that the department is proposing to revise, the issue number in EPA's July 18, 2011, letter that identifies the need for the proposed revision, and the issue and corresponding federal regulation that the department has considered in proposing these rules:

Wis. Adm. Code Section	EPA Issue Number	Issue	Federal Code Section
106.06(2)	71	BCC Mixing Zone Phase-outs	40 C.F.R. Part 132, Appendix F, Procedure 3, paragraph C (Mixing Zones for Bioaccumulative Chemicals of Concern (BCCs))
106.06(6) 106.03(11m)	10	Pollutants in Intake Water	40 C.F.R. 132.6, Appendix F, Procedure 5, paragraphs D and E (Consideration of Intake Pollutants) 40 C.F.R. 122.44(d)(1)(vii)(A) (Requiring that limits on point sources must comply with all applicable water quality standards)
106.10(1) & (2)	17	Non-contact Cooling Water Exemption	40 C.F.R. 122.44(d)(1)(i) (Requiring WQBELs for all pollutants which cause or have the reasonable potential to cause or contribute to an excursion above any state water quality standard)

106.145(1) & (2)	8	Mercury Reasonable Potential Determination	40 C.F.R. Part 132, Appendix F, Procedure 5 (Reasonable potential determination procedures)

In 1995, EPA issued Final Water Quality Guidance for the Great Lakes System. The federal Guidance conforms with key treaty provisions agreed to by the United States and Canada in the Great Lakes Water Quality Agreement, a binational agreement establishing common water quality objectives for the Great Lakes. Section 118(c) of the Clean Water Act, 33 U.S.C. 1268(c), requires all Great Lakes states, including Wisconsin, to adopt procedures consistent with the federal Water Quality Guidance for the Great Lakes System. If a Great Lakes state fails to adopt the federal guidance, EPA must promulgate the federal standard for the state.

In 2000, EPA overpromulgated sections of ss. NR 106.06 and 106.10 at 40 C.F.R. 132.6. In Issue 10 of EPA's letter, EPA directed Wisconsin to amend state rules to cure the disapproval of the provisions of s. NR 106.06 regarding consideration of intake pollutants in determining reasonable potential. In Issue 17, EPA directed Wisconsin to revise s. NR 106.10 so it conforms to 40 C.F.R. 122.44(d) regarding reasonable potential determinations.

In a February 17, 2009 letter, EPA objected to Wisconsin's existing mercury reasonable potential rule in s. NR 106.145 as inconsistent with federal requirements. In Issue 8 of EPA's letter, EPA directed Wisconsin to amend the rule to cure EPA's 2009 disapproval.

Section NR 106.06(2) currently contains a note expressing the State's intent to develop a rule to phase out mixing zones for existing dischargers of bioaccumulative chemicals of concern (BCCs) to comply with the federal Great Lakes Water Quality Initiative (GLI). In Issue 71 of EPA's letter, EPA directed Wisconsin to establish a rule to phase out mixing zones for BCCs for discharges within the Great Lakes basin.

The department believes adoption of the proposed rules will address EPA's concerns. The department received comments from the EPA on December 18, 2015 and additional clarifications on December 23, 2015. The department revised s. 106.06 in response to EPA's comments. The department's complete response to all comments received can be found in the Summary of Responses to Comments.

7. Comparison of similar rules in adjacent states:

All of the neighboring states (Illinois, Iowa, Michigan, and Minnesota) are subject to the federal Clean Water Act and EPA regulations. Like Wisconsin, the states of Illinois, Michigan, and Minnesota are subject to the GLI requirements for those portions of the state that are within the Great Lakes system (defined in 40 CFR 132.2 as "all the streams, rivers, lakes, and other bodies of water within the drainage system of the Great Lakes within the United States"). Because Iowa is not within the Great Lakes system,

the GLI requirements do not apply to the Iowa implementation program. The proposed rules will align Wisconsin's WPDES regulations with federal regulations and are consistent with the procedures used in neighboring GLI states (Illinois, Michigan and Minnesota).

8. Summary of factual data and analytical methodologies:

A discussion of EPA's reasons for issuing the federal Water Quality Guidance for the Great Lakes System and the data underlying EPA's analysis are included in "Final Water Quality Guidance for the Great Lakes System: Supplementary Information Document" (SID) (EPA 1995). See also 60 Fed. Reg. 15366 to 15385 (1995) (concerning the history of the Great Lakes Water Quality Initiative and EPA's adoption of Final Water Quality Guidance for the Great Lakes System).

9. Analysis and supporting documentation used to determine effect on small business or in preparation of an economic impact analysis:

A notice soliciting comments regarding potential economic impacts of these proposed rule changes was sent to all industrial and municipal facilities currently regulated by a Wisconsin Pollutant Discharge Elimination System (WPDES) permit. Many of the provisions of the proposed rule revision are already implemented by the department when setting water quality based limits as required by EPA under federal law.

DNR's System for Wastewater Applications, Monitoring and Permits (SWAMP) was used to compile existing WPDES permit holders with non-contact cooling water discharge outfalls. These data were used to determine which facilities may have impact from this rule.

The proposed revisions to ch. NR 106.06, Wis. Adm. Code contain provisions relating to discharges within the Great Lakes system and outside the Great Lakes system. The proposed rule contains different standards for determining permit limits for certain discharges outside the Great Lakes system, to allow permittees outside the Great Lakes system greater flexibility than is required by federal law for dischargers within the Great Lakes system. The department sought cost estimates for dechlorination from a number of consutlants. Cost estimates range widely for meeting provisions of s. NR 106.06 (10), Wis. Adm. Code because of site specific conditions of industrial facilities. This rule does not specify monitoring frequency or compliance schedule timelines to allow for case by case assessment to ensure adequate environmental protection and reasonable reporting requirements.

10. Effect on small business:

The department is currently required to use the procedures in the federal law when developing water quality based effluent limits. The proposed rules are consistent with and no more restrictive than federal law. As a result, many of the facilities impacted by these proposed rule changes have already had permits reissued in compliance with the proposed rules. While some small businesses with noncontact cooling water outfalls or certain substances present in their intake water may have economic impacts from

changes required to meet WPDES permit limits, these impacts will be no greater than those that would be required to comply with the federal law.

11. A copy of any comments and opinion prepared by the Board of Veterans Affairs under s. 45.03 (2m), Stats., for rules proposed by the Department of Veterans Affairs:

Not Applicable.

12. Agency contact:

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Bureau of Water Quality
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13. Public Hearing and comments:
The department received comments from the Wisconsin Legislative Council Rules Clearing House on December 4, 2015. The department public noticed the proposed rules on November 10, 2015 and held a public hearing on December 7, 2015. The public comment period ended on December 18, 2015. The department received written comments from EPA and Wisconsin Manufacturers & Commerce (WMC) on December 18, 2015. The department also received additional comments from EPA on December 23, 2015.

Wisconsin Manufacturers & Commerce (WMC) provided written comments regarding the statutory requirements of the promulgation of administrative rules. WMC expressed concern over the original scope statement and compliance with s. 227.135 (4), State Stats., and compliance with s. 227.14 (2) (a) (4) requiring the department complete an analysis in the Economic Impact Analysis of state regulations is Illinois, Iowa, Michigan and Minnesota. The department has reviewed the scope statement for WT-31-10 and believes the proposed rule changes fall within the scope identified in 2010 when the scope statement was approved. The department provided additional documentation of state regulations in Illinois, Iowa, Michigan and Minnesota in the Responses to Comments on Rule Package 3. The provisions of this proposed rule align Wisconsin's WPDES regulations with federal regulations.

EPA provided written comments seeking clarification on the rule repealing specific sampling requirements before a determination of reasonable potential can be made for mercury and on compliance with TMDL implementation language in 40 CFR 132. EPA provided additional comments seeking clarification on provisions in ss. NR 106.06 (2) and 106.06 (6), Wis. Adm. Code. Rule package 3 repeals the minimum data set requirement for determination of reasonable potential in Section 9. Rule package 3 mentions TMDL as a portion of the procedures in ch. NR 106.06 (6), Wis. Adm. Code but does not include TMDL implementation procedures. TMDL implementation procedures are found in Rule package 4. The changes in Rule package 4 seek to address key implementation concerns as well as EPA's disapproval of the TMDL program within the Great Lakes Basin. The department modified Section 4 of the proposed rule,

repealing and recreating s.106.06 (6), Wis. Adm. Code, in response to EPA's comments regarding effluent limitations based on elevated background concentrations outside the Great Lakes basin. In addition, the department modified the definition of expanded discharge to provide additional clarity. EPA provided written confirmation that the changes made address the concerns and EPA is in agreement that the proposed language is consistent with federal law.

The Wisconsin Legislative Council Rules Clearinghouse provided comments on the rule package including style, rule referencing or language clarity. The majority of these comments were to address form, style or grammar. The department made the suggested changes with some exceptions. A complete summary of these exceptions is in the Response to Comments on Rule Package 3 document.

SECTION 1. NR 106.03 (4g), (4r), and (11m) are created to read:

NR 106.03 (4g) "Great Lakes" means the open Wisconsin waters of Lake Superior, Lake Michigan, Green Bay and Chequamegon Bay, as well as adjoining open waters that exhibit characteristics of Lake Superior, Lake Michigan, Green Bay and Chequamegon Bay, or in other ways are determined by the department to be equivalent to these waters.

(4r) "Great Lakes system" means all the surface waters within the drainage basin of the Great Lakes.

(11m) "Same waterbody" means hydrologically connected waters of the State with similar water quality characteristics in which a pollutant can travel between in a reasonable period of time without significantly changing chemically or physically. Hydrological connections can include surface and groundwater connections.

SECTION 2. NR 106.06 (2) (a) and (b) and (Note) are repealed.

SECTION 3. NR 106.06 (2) (am) and (Note), (bg), and (br) are created to read:

NR 106.06 **(2)** (am) In this subsection, the following definitions apply:

1. "New discharge" means any discharge from a point source that first received WPDES permit coverage from the department after November 6, 2000. "New discharge" does not include a discharge from a publicly owned treatment works if the discharge from the treatment works is caused by a project that is correcting or preventing a public health problem.

2. "Existing discharge" means any discharge from a point source that currently has a WPDES permit and that has continually had WPDES permit coverage since November 6, 2000 or earlier. "Existing discharge" includes a discharge from a publicly owned treatment works that becomes permitted after November 6, 2000 if the discharge from the treatment works is caused by a project that is correcting or preventing a public health problem.

3. "Expanded portion of an existing discharge" means any increase in concentration, level, or loading of a BCC, which would exceed a limitation specified in a current WPDES permit, or which according to the procedures in s. NR 106.05, would result in the establishment of a new limitation in a reissued or modified WPDES permit. "Expanded portion of an existing discharge" does not include an expanded discharge from a publicly owned treatment works if the expanded discharge from the treatment works is caused by a project that is correcting or preventing a public health problem.

Note: An example of a project that is preventing or correcting a public health problem is a situation where a community with failing septic systems connects to a POTW, as defined in s. 106.59, to avert a potential public health threat from the failing systems.

(bg) Notwithstanding any other provisions in chs. NR 102 and 106, mixing zones may not be used for effluent limitations for new discharges of BCCs or for the expanded portion of an existing discharge of BCCs into the Great Lakes system. Effluent limitations for new discharges of BCCs and for expanded portions of existing discharges shall equal the most stringent applicable water quality criterion or secondary value for the BCC. Effluent limitations for an expanded portion of an existing discharge of BCCs shall be determined by means of a mass balance where the limitation for the existing portion of a permitted discharge that meets the provisions of par. (br) 1. or 2. shall be determined using the requirements of sub. (4) and the limitation for any expanded portion of the discharge may not exceed the most stringent criterion or value for that BCC.

(br) Effluent limitations for existing discharges of BCCs into the Great Lakes system may not include a mixing zone or exceed the most stringent applicable water quality criteria or secondary values for BCCs, except as provided under subd. 1. or 2.

1. *Water conservation.* A mixing zone may be granted and an effluent limitation may exceed the most stringent water quality criterion or secondary value for a discharged BCC if the permittee demonstrates in the permit application that failure to grant a mixing zone for the BCC would preclude water conservation measures that would lead to an overall load reduction of the BCC, even though a higher concentration of the BCC occurs in the effluent.

2. *Technical and economic considerations.* A mixing zone may be granted and an effluent limitation may exceed the most stringent water quality criterion or secondary value for the discharged BCC, if the permittee demonstrates and the department concurs that all the following conditions are met:

a. For the BCC discharged, the permittee is in compliance with and will continue to comply with the WPDES permit requirements and this chapter.

b. The permittee has reduced and will continue to reduce loadings of the BCC for which a mixing zone is requested to the maximum extent possible, such that any additional controls or pollution prevention measures to reduce or ultimately eliminate the BCC discharged would result in unreasonable economic effects on the discharger or the affected community because the controls or measures are not feasible or cost-effective.

3. *Approval Requirements.* If the department approves a mixing zone for a BCC under this paragraph, the following requirements shall be met:

a. The approved mixing zone is no larger than necessary to account for the technical constraints and economic effects identified under subd. 2.

b. All water quality criteria or secondary values for the BCC shall be met at the edge of an approved mixing zone or be consistent with the applicable U.S. environmental protection agency (EPA) approved total maximum daily load (TMDL).

c. The permit shall contain a numeric effluent limitation for the BCC, determined using the requirements of sub. (4) and the limit shall not be less stringent than the limit that was effective on November 6, 2000.

d. The permit shall include requirements for an ambient water quality monitoring plan if the department determines these requirements are appropriate to ensure compliance with water quality criteria and consistency with any applicable TMDL.

e. The permit shall include requirements for an evaluation of alternative means for reducing the BCC from other sources in the watershed if the department determines these requirements are appropriate to ensure compliance with water quality criteria and consistency with any applicable TMDL.

f. Any mixing zone for a BCC approved by the department pursuant to this paragraph shall be limited to one permit term unless the permittee applies for a mixing zone approval at the next reissuance and the department approves the mixing zone in the subsequent permit applications in accordance with the requirements of this paragraph.

g. The corresponding permit fact sheet for an approved mixing zone shall specify the mixing provisions used in calculating the permit limits and shall identify each BCC for which a mixing zone is approved.

SECTION 4. NR 106.06 (6) is repealed and recreated to read:

NR 106.06 (6) EFFLUENT LIMITATIONS BASED UPON ELEVATED BACKGROUND CONCENTRATIONS. Whenever the representative background concentration for a toxic or organoleptic substance in the receiving water is determined to be greater than any applicable water quality criterion or secondary value for that substance, the calculation of an effluent limitation and the determination of the need for the limitation in a permit shall be performed subject to all of the following:

(a) If the department has developed an EPA approved TMDL for the toxic or organoleptic substance in the receiving water, an effluent limitation for that substance shall be consistent with the TMDL.

(b) If no EPA approved TMDL has been developed and if the intake source of the wastewater is all from the same waterbody as the receiving water of the discharge, the department may determine that the discharge does not have a reasonable potential to cause or contribute to an excursion above the applicable water quality criterion or secondary value for the substance, and may determine that a numeric limitation is not necessary, provided the permittee has demonstrated that all of the following conditions are met:

1. The permittee withdraws 100 percent of the intake water containing the substance from the same waterbody into which the discharge is made.

2. The permittee does not contribute any additional mass of the identified intake substance to its wastewater.

3. The permittee does not alter the identified intake substance chemically or physically in a manner that would cause adverse water quality impacts to occur that would not occur if the substance were left in-stream.

4. The permittee does not contribute to a statically significant increase in the identified intake substance concentration, as determined by the department, at the edge of the mixing zone or at the point of discharge if a mixing zone is not allowed, as compared to the concentration of the substance in the intake water, unless the increased concentration does not cause or contribute to an excursion of water quality standard for that substance.

5. The timing and location of the discharge would not cause adverse water quality impacts to occur that would not occur if the identified intake substance were left in the receiving waterbody.

(c) If no TMDL has been developed and the conditions in par. (b) are not met, an effluent limitation shall be included in the permit if the department determines that the discharge has a reasonable potential to cause or contribute to an excursion above the applicable water quality criterion or secondary value for the substance. The limitation shall be applied as follows:

1. For discharges within the Great Lakes system, the effluent limitation for that substance shall be equal to the most stringent applicable water quality criterion or secondary value.

2. For discharges outside of the Great Lakes system:

a. When all of the intake source of the wastewater is from the same waterbody as the receiving water of the discharge and the permittee has demonstrated that the conditions in par. (b) 3. to 5. are met the effluent limitation for that substance shall equal the representative background concentration of that substance in the receiving water. If the conditions in par. (b) 3. to 5. are not met, the effluent limitation for that substance shall be equal to the most stringent applicable water quality criterion or secondary value for that substance.

b. When all of the intake source of the wastewater is from a waterbody that is different than the receiving water of the discharge, the effluent limitation for that substance shall be equal to the lowest applicable water quality criterion or secondary value.

c. When the intake source of the wastewater is in part from the same waterbody as the receiving water and in part from a different waterbody, the effluent limitation may be derived using subd. 2.a and b. to reflect the flow-weighted average of each source of the wastewater, provided that adequate monitoring to determine compliance can be established and is included in the permit.

(d) The determination of representative background concentrations for toxic or organoleptic substances in this subsection shall be statistically ($P \leq 0.01$) or otherwise appropriately determined as the reasonably expected maximum background concentration for that substance.

(e) For purposes of this subsection, an intake pollutant in the source water is considered to be from the same waterbody as the receiving water of the discharge if the permittee successfully demonstrates all of the following to the department:

1. That the pollutant would have reached the outfall point in the receiving water within a reasonable period had it not been withdrawn by the permittee.

2. That the background concentration of the pollutant in the receiving water is at a similar concentration level to that in the intake water.

3. That other water quality characteristics, including temperature, pH and hardness are similar in the intake water and the receiving water.

Note: The term "same waterbody" may include a hydrologic connection between groundwater and surface water. See definition in s. NR 106.03 (11m).

SECTION 5. NR 106.10 is repealed and recreated to read:

NR 106.10 Noncontact cooling water additives. The department shall establish water quality based effluent limitations for toxic and organoleptic substances in noncontact cooling water discharges as follows:

(1) For toxic and organoleptic substances commonly added by suppliers of drinking water systems and present in the noncontact cooling water, a water quality based effluent limitation calculated under s. NR 106.06 that is based on the applicable water quality criterion or secondary value shall be included in the permit unless the permittee demonstrates at least one of the following:

(a) The concentration of the substance in the intake water is dissipated within the system that supplies the intake water to the permittee and is consistently less than the water quality based effluent limitation.

(b) An effluent limitation is not necessary as determined using the reasonable potential procedures in s. NR 106.05.

(c) Prior to reaching the receiving water, the substance dissipates or is removed to a level that is below the water quality based effluent limitation.

(2) For other toxic and organoleptic substances intentionally added to noncontact cooling water by the permittee, the department shall follow the procedures specified in s. NR 106.05 and s. NR 106.06 to calculate a water quality based effluent limitation and determine whether the limitation is necessary in the permit. If there is no water quality criterion for an additive and there are potential water quality impacts from the additive, the department shall establish a secondary value for the additive in accordance with ch. NR 105 and calculate a limitation based on that value. All of the following requirements apply to the use and discharge of additives:

(a) A permittee shall obtain written approval from the department prior to use of the additive.

(b) A permittee shall provide the department with dosage information and safety data sheets and toxicological data, as requested by the department to meet minimum data requirements specified in ss. NR 105.05(4) and 105.06(6) for each additive for which approval is sought.

(c) Prior to increasing the usage of an additive in amounts greater than authorized by the department, a permittee shall get written approval from the department for the increased usage.

(d) After reissuance, if a permittee wants to use a new additive not previously approved by the department, the permittee shall get written approval from the department prior to use of the additive.

(e) A permittee may only use additives in accordance with the conditions of the department approval and any applicable permit terms. If the department does not approve use of the additive, the additive may not be discharged.

SECTION 6. NR 106.145 (1) (b) is amended to read:

NR 106.145 (1) (b) Representative data on the relatively low concentrations of mercury in wastewater are ~~rare and methods for collecting that data have only recently been developed~~ difficult to obtain due to specialized sample collection methods required and the precision and sensitivity of laboratory analyses.

SECTION 7. NR 106.145 (2) (title) is amended to read:

NR 106.145 (2) DETERMINING THE NECESSITY ~~OF~~ FOR MERCURY EFFLUENT LIMITATIONS.

SECTION 8. NR 106.145 (2) (b) (intro.) and 1. are consolidated, renumbered NR 106.145 (2) (bm) and amended to read:

NR 106.145 (2) (bm) For the determination under par. (a), the department shall use representative data that ~~comply with all of the following:~~

1. ~~Data shall~~ meet the sampling and analysis requirements of subs. (9) and (10).

SECTION 9. NR 106.145 (2) (b) 2. and (Note) are repealed.

SECTION 10. **Effective Date:** This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22 (2) (intro.), Stats.

SECTION 11. **Board Adoption:** This rule was approved and adopted by the State of Wisconsin Natural Resources Board on January 27, 2016.

Dated at Madison, Wisconsin 7-21-16.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By Ed Eberle
for Cathy Stepp, Secretary

(SEAL)