



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

REPLY TO THE ATTENTION OF:

NOV 09 2017

WN-15J

MEMORANDUM

SUBJECT: Wisconsin Legal Authority Review - Review and Recommendation of Resolution for Issue 34

FROM: Candice Bauer, Chief 
NPDES Permits Branch Section 2

TO: File

Issue 34 (Expression of Limits, Acute/Chronic)

In EPA's July 11, 2011 letter to the Wisconsin Department of Natural Resources (WDNR), Issue 34 stated the following:

The Wisconsin rule at Wis. Admin. Code NR § 106.32(5)(c) provides that effluent limitations based on acute, four-day average chronic, and 30-day average chronic criteria must be expressed as daily maxima, weekly averages, and 30-day averages, respectively. For continuous dischargers, 40 C.F.R. § 122.45(d) provides that effluent limitations shall be expressed as seven-day average and average monthly limits for POTWs and maximum daily and average monthly limits for other dischargers. Under what authority can Wisconsin supplement limits that are expressed in accordance with Wis. Admin. Code NR § 106.32(5)(c) such that permits comply with the requirements of 40 C.F.R. § 122.45(d)? If such authority does not exist, the response must include the State's plan, with a schedule and milestones, for amending the rule so it conforms to 40 C.F.R. § 122.45(d).

Letter from Susan Hedman, Regional Administrator, U.S. EPA, to Cathy Stepp, Secretary, WDNR (July 11, 2011) (on file with U.S. EPA).

Comparison between the Federal and State Provisions

As shown in Table 1, Wisconsin repealed and recreated Wis. Admin. Code NR § 106.33 to address Issue 34 regarding the expression of ammonia effluent limitations for acute and chronic criteria.

Table 1: Comparison between Federal and Wisconsin Rules regarding Expression of Limits

Federal Rules	Wisconsin's Rules
<p>40 CFR § 122.45 provides:</p> <p>(d) Continuous discharges. For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as:</p> <p>(1) Maximum daily and average monthly discharge limitations for all dischargers other than publicly owned treatment works; and</p> <p>(2) Average weekly and average monthly discharge limitations for POTWs.</p> <p>(e) Non-continuous discharges. Discharges which are not continuous, as defined in § 122.2, shall be particularly described and limited, considering the following factors, as appropriate:</p> <p>(1) Frequency (for example, a batch discharge shall not occur more than once every 3 weeks);</p> <p>(2) Total mass (for example, not to exceed 100 kilograms of zinc and 200 kilograms of chromium per batch discharge);</p> <p>(3) Maximum rate of discharge of pollutants during the discharge (for example, not to exceed 2 kilograms of zinc per minute); and</p> <p>(4) Prohibition or limitation of specified pollutants by mass, concentration, or other appropriate measure (for example, shall not contain at any time more than 0.1 mg/l zinc or more than 250 grams (1/4 kilogram) of zinc in any discharge).</p>	<p>Wis. Admin. Code NR § 106.32(5)(c) provides:</p> <p><i>Maximum and average ammonia limitations.</i> Effluent limitations based on acute toxicity criteria shall be expressed in permits as daily maximum limitations. Effluent limitations based on 4-day chronic toxicity criteria shall be expressed in permits as weekly average limitations. Effluent limitations based on 30-day chronic toxicity criteria shall be expressed in permits as monthly average limitations.</p> <p>Wis. Admin. Code NR § 106.33 provides:</p> <p>Determination of the necessity for and expression of water quality-based effluent limits for ammonia.</p> <p>(1) REASONABLE POTENTIAL.</p> <p>(a) For a permitted discharge that is not already subject to an ammonia water quality-based effluent limitation, the procedures specified ins. 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 ins. 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.</p> <p>(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.</p> <p>(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.</p>

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 ins. 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 ins. 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.
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As shown above, Wis. Admin. Code NR § 106.32(5)(c) ensures that Wisconsin's regulations require maximum and average ammonia limits, but lacks some of the particular elements of the federal regulations. Wis. Admin. Code NR § 106.33 fills in the details of Wis. Admin. Code NR § 106.32(5)(c) so the limits are expressed in keeping with the federal regulations. Specifically, Wis. Admin. Code NR § 106.33(2) addresses the requirements for effluent limits for continuous discharges from POTWs and Wis. Admin. Code NR § 106.33(3) addresses the requirements for effluent limits for continuous dischargers from non-POTWs. The recreated Wis. Admin. Code NR § 106.33 gives Wisconsin the authority to express effluent limitations for continuous discharges from POTWs as seven-day average and average monthly limits, and for continuous discharges from non-POTWs as maximum daily and average monthly limits. These changes to Wis. Admin. Code NR § 106.33 align the State's requirements with their federal counterparts, 40 C.F.R. § 122.45(d), in regards to the expression of effluent limitations for acute and chronic criteria.

Rule Package 4, Public Notice, Hearing, and Comment

WDNR published a public hearing notice on proposed revisions to Wis. Admin. Code chapters NR 106, 205, and 212 on November 16, 2015 in the Wisconsin Administrative Register. 719A3 Wis. Admin. Register CR15-85 (November 16, 2015). The public comment period was open from November 17 through December 18, 2015, and a public hearing was held in Madison, Wisconsin on December 7, 2015. Wis. Nat. Res. Bd., Agenda Item No. 3.A.3 at 5, Jan. 4 2016, Correspondence/Memorandum, Attachment to Order WT-11-12. At the December 7, 2015 public hearing, two members of the public attended, one providing verbal testimony. *Id.* Additionally, during the comment period, written comments were received from the Wisconsin Legislative Council Rules Clearing House, EPA, Marshfield Wastewater Utility, Municipal Environmental Group – Wastewater Division, and Wisconsin Manufacturers and Commerce. Wis. Nat. Res. Bd., Agenda Item No. 3.A.3 at 1, Jan. 4 2016, Response to Comments on Rule Package WT-11-12 [Rule Package 4], Attachment to Order WT-14-12. WDNR responded to the written comments in a written response summary, which adequately explained the reasons why certain rule changes were made in response to comments received and why other comments did not warrant changes. *Id.*

Additional Considerations

During the course of EPA's review of Issue 34, EPA noted that WDNR's procedures for ammonia WQBEL expression are organized based on whether the regulated discharge is continuous—Wis. Admin. Code NR §§ 106.33(2) and (3)—or noncontinuous—Wis. Admin. Code NR § 106.33(4). Notably, continuous discharges are defined differently in the state and federal regulations. EPA noted in an email message to WDNR that the definition of "continuous" also factors into the regulations reviewed in LAR Issues 2,

30, 35, and 41. Email from Candice Bauer, EPA, to Adrian Stocks, WDNR (June 16, 2017). In its response to EPA's comment, WDNR expressed its desire to discuss this issue apart from the resolution of the original Wisconsin Legal Authority Review (LAR) issues. Email from Adrian Stocks, WDNR, to Candice Bauer, EPA (August 9, 2017). During a September 13, 2017 EPA-WDNR meeting in Madison, EPA and WDNR agreed to further discussion of this issue outside the LAR process. Email from Christopher Korleski, EPA, to James Zellmer and Mark Aquino, WDNR (September 29, 2017).

Conclusion

Based on EPA's review of Wisconsin's provisions above, EPA concludes that Issue 34 is resolved.