



CR 92-80

State of Wisconsin | DEPARTMENT OF NATURAL RESOURCES

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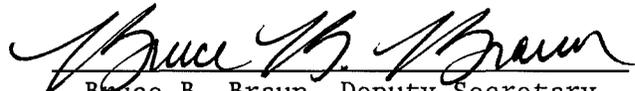
STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES) ss

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. WW-20-92 was duly approved and adopted by this Department on September 24, 1992. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have here-
unto set my hand and affixed the
official seal of the Department at
the Natural Resources Building
the City of Madison, this 2nd
day of December, 1992.

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Bruce B. Braun, Deputy Secretary

(SEAL)

2-1-93

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

IN THE MATTER of repealing s. NR 208.05(2)(k);
renumbering of ss. NR 208.03(1) to (4),
208.04(4)(g) to (k), 208.05(2)(f) to (j), (l) &
(m); amending ss. NR 208.03 (intro.), 208.04(2),
(4) (intro.) & (a), 208.05(2) (intro.), (k)
Table 6, 208.06(2)(b) & (c); repealing and
recreating s. NR 208.05(2)(c) to (e), (n); and
creating ss. NR 208.03(1), (3), (6), 208.04(4)(g)
& (h) and 208.05(2)(f) to (h), (m), (o) to (q) of
the Wisconsin administrative code pertaining to
compliance maintenance monitoring reports

WW-20-92

Analysis Prepared by Department of Natural Resources

Statutory authority: ss. 147.02 and 227.11(2)(a), Stats.

Statutes interpreted: s. 147.20, Stats.

Chapter NR 208 encourages and, where necessary, requires owners of publicly owned treatment works and privately owned domestic sewage treatment works to take necessary actions to avoid water quality degradation and prevent violations of WPDES permit effluent limits. This chapter encourages actions which promote the owner's awareness and responsibility for wastewater treatment needs, maximize the useful life of sewage systems through improved operation and maintenance and initiate formal planning, design and construction to prevent effluent violations.

The revisions to ch. NR 208 are needed to adequately evaluate the various types of treatment systems used in the state. The current code has questions that apply only to mechanical treatment plants. The proposed revisions are needed to help communities with lagoon treatment systems and communities that discharge to groundwater better assess their waste water treatment systems.

SECTION 1. NR 208.03 (intro.) is amended to read:

NR 208.03 DEFINITIONS. In addition to the definitions and abbreviations in chs. NR 110, 114, 140, 205, 206 and 210, and chs. 147 and 160, Stats., the following definitions apply to terms in this chapter.

SECTION 2. NR 208.03(1) to (4) are renumbered NR 208.03(2), (4), (5) and (7).

SECTION 3. NR 208.03(1), (3) and (6) are created to read:

NR 208.03 (1) "Alternative concentration limit" or "ACL" has the meaning in s. NR 140.05(1m) "Alternative concentration limit".

(3) "Enforcement standard" or "ES" has the meaning in s. NR 140.05(7.) "Enforcement standard".

(6) "Preventive action limits" or "PAL's" has the meaning in s. NR 140.05(17) "Preventive action limits".

SECTION 4. NR 208.04(2) SUBMITTAL TIMING AND OTHER REQUIREMENTS. ~~The CMAR shall be submitted to the department on or before June 30, 1987. Thereafter,~~ ~~the~~ The CMAR shall be submitted to the department on or before March 31 of each ~~subsequent~~ year. The CMAR shall be based on information and monitoring data collected in the previous calendar year. A duly authorized representative of the owner shall complete and sign the CMAR.

SECTION 5. NR 208.04(4)(intro.) and (a) are amended to read:

NR 208.04(4)(intro.) The CMAR shall be submitted on forms provided by the department. The owner shall supply and analyze the following information, as appropriate:

(a) Effluent quality and wastewater treatment facility performance and groundwater quality;

SECTION 6. NR 208.04(4)(g) to (k) are renumbered 208.04(4)(i) to (m).

SECTION 7. NR 208.04(4)(g) and (h) are created to read:

NR 208.04(4)(g) Lagoon line integrity;

(h) Land disposal system operation;

SECTION 8. NR 208.05(2)(intro.) is amended to read:

NR 208.05(2)(intro.) On an annual basis, the owner shall calculate a point total T which is based on information provided by the owner in the CMAR. The point total T shall be determined with the following equation:

~~$$T = (TBL + TQ + TBOD + TTSS + TAGE + TBYP + TBEF + TSTC + TSD + TND + TFD + TOC + TOT) \times EQ$$~~ which is defined as follows:

$$T = (TBL + TQ + TBOD + TTSS + TN + TPAL + TES + TAGE + TBYP + TBEF + TSTG + TSD + TIFM + TEFM + TFR + TLR + TLDS + TND + TOC + TOT)$$
 which is defined as follows:

SECTION 9. NR 208.05(2)(c) to (e) are repealed and recreated to read:

NR 208.05(2)(c) TBOD, the point sum relating to the effluent limit for 5-day biochemical oxygen demand, shall be determined by the appropriate method described as follows:

1. For systems which discharge continuously to surface water year round TBOD shall equal the sum of numbers appearing in Table 3 for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of monthly average effluent limits, weekly average effluent limits shall be used in the calculation.

Table 3
Point Assignments Related to the
Exceedances of Percentages of the BOD₅ Effluent Limits
in the Previous Calendar Year

| Number of Months that a Percentage of BOD ₅ Effluent Limit is Exceeded | Percent of BOD ₅ Effluent Limits | |
|---|---|------|
| | 90% | 100% |
| 0 | 0 | 0 |
| 1 | 0 | 5 |
| 2 | 10 | 5 |
| 3 | 20 | 10 |
| 4 | 30 | 10 |
| 5 or greater | 40 | 50 |

2. For systems which discharge intermittently to surface water by fill-and-draw operation TBOD shall equal the sum of numbers appearing in Table 3A for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of monthly average limits, weekly average limits shall be used in the calculation.

Table 3A
Point Assignments Related to the
Exceedances of Percentages of the BOD₅ Effluent Limits
in the Previous Calendar Year

| Number of Months in which discharge occurred that a percentage of the BOD ₅ limit is exceeded | Percent of the BOD ₅ Limit | |
|---|---------------------------------------|------|
| | 90% | 100% |
| 0% | 0 | 0 |
| Greater than 0% and less than or equal to 25% | 10 | 0 |
| Greater than 25% and less than or equal to 50% | 20 | 5 |
| Greater than 50% | 40 | 10 |

3. For systems which discharge to groundwater, TBOD shall equal the number appearing in Table 3B for exceedances of 90% of the monthly average effluent limits contained in the WPDES permit.

Table 3B
Point Assignments Related to the
Exceedances of 90 Percent of the BOD₅
Effluent Limits in the Previous Year

| Number of Months that 90% of the BOD ₅ Limit is Exceeded | Points |
|---|--------|
| 0 | 0 |
| 1 | 0 |
| 2 | 5 |
| 3 | 10 |
| 4 | 15 |
| 5 or greater | 20 |

4. For systems which have a permitted discharge to both surface water and groundwater, TBOD shall equal the sum of the numbers derived as specified in subd. 3., and either subd. 1. or 2.

(d) TTSS, the point sum relating to the effluent limit for total suspended solids, shall be determined by the appropriate method described as follows:

1. For systems which continuously discharge to surface waters year round TTSS shall equal the sum of the numbers appearing in Table 4 for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of monthly average effluent limits, weekly average effluent limits shall be used in the calculation.

Table 4
Point Assignments Related to the
Exceedance of Percentages of the Total Suspended Solids Effluent Limits
in the Previous Calendar Year

| Number of Months that a Percentage of TSS Effluent Limit(s) is Exceeded | Percent of TSS Effluent Limits | |
|---|--------------------------------|------|
| | 90% | 100% |
| 0 | 0 | 0 |
| 1 | 0 | 5 |
| 2 | 10 | 5 |
| 3 | 20 | 10 |
| 4 | 30 | 10 |
| 5 or greater | 40 | 10 |

2. For systems which discharge intermittently to surface water by fill-and-draw operation TSS shall equal the sum of the numbers appearing in Table 4A for exceedances of 90% and 100% of the monthly average effluent limits contained in the WPDES permit. In the absence of the monthly average limits, weekly average limits shall be used in the calculation.

Table 4A
Point Assignments Related to the
Exceedances of Percentages of the TSS Effluent Limits
in the Previous Calendar Year

| Percentage of months in which discharge occurred that a percentage of the TSS limit is exceeded | Percent of the TSS Limit | |
|--|--------------------------|------|
| | 90% | 100% |
| 0% | 0 | 0 |
| Greater than 0% and less than or equal to 25% | 10 | 0 |
| Greater than 25% and less than or equal to 50% | 20 | 5 |
| Greater than 50% | 40 | 10 |

3. For systems which discharge to groundwater, TTSS shall equal 0 (zero).

(e) TN, the point sum relating to the total nitrogen content in the effluent discharged by a land disposal system, shall equal the number of

points appearing in Table 5, based upon the number of months in which the monthly average total nitrogen exceeds 10 mg/l.

Table 5
Point Assignments Related to the
Effluent Total Nitrogen Content

| Number of Months in which the monthly average effluent total nitrogen concentration exceeds 10 mg/l | Points |
|--|--------|
| 0 to 3 | 0 |
| 4 or 5 | 10 |
| 6 or more | 20 |

For systems which discharge to surface water TN shall equal zero.

SECTION 10. NR 208.05(2)(f) to (j) are renumbered 208.05(2)(i) to (l) and (r), respectively, and (2)(k)Table 6 as renumbered is amended to read:

Table 6
Point Assignments Associated with Sludge Storage

| <u>Sludge Storage Capacity</u> | <u>Point Total</u> |
|--|--------------------|
| <u>Greater Less than or equal to zero and less than one month 2 months</u> | 50 |
| <u>Greater Less than or equal to 2 months and greater less than one month 3 months</u> | 30 |
| <u>Greater Less than or equal to 3 months and greater less than 2 4 months</u> | 20 |
| <u>Greater Less than or equal to 4 months but greater less than 3 6 months</u> | 10 |
| Greater than or equal to 4 6 months | 0 |

SECTION 11. NR 208.05(2)(f) to (h) are created to read:

NR 208.05(2)(f) TPAL, the point sum relating to the exceedances of preventive action limits, PAL's, or alternative concentration limits, ACL's, shall equal 30 points if there were any PAL or ACL exceedances in any

downgradient groundwater monitoring well associated with an effluent land disposal system. If there were no exceedances of PAL's or ACL's, TPAL shall equal 0 (zero). For systems which discharge to surface water, TPAL shall also equal 0 (zero).

(g) TES, the point total relating to exceedances of enforcement standards or ACL's, shall equal 10 points if there were any exceedances of the enforcement standards or ACL's in any downgradient well associated with an effluent land disposal system. If there were no exceedances of enforcement standards or ACL's, TES shall equal 0 (zero). For systems which discharge to surface water, TES shall also equal 0 (zero).

(h) TAGE, the point sum relating to the facility age, shall be equal to the time period in years since the wastewater treatment facility was constructed or underwent major structural modification or major additions were placed in operation.

SECTION 12. NR 208.05(2)(k) is repealed.

SECTION 13. NR 208.05(2)(l) and (m) are renumbered (2)(s) and (t).

SECTION 14. NR 208.05(2)(m) is created to read:

NR 208.05(2)(m) TIFM, the point total relating to the provision of influent flow measurement at systems utilizing lagoons as the principal treatment process, shall equal 0 (zero) if influent flow measurement is provided. If no method of influent flow measurement is provided, TIFM shall equal 50 points. If lagoons are not utilized as the principal treatment process, TIFM shall equal 0 (zero).

SECTION 15. NR 208.05(2)(n) is repealed and recreated to read:

NR 208.05(2)(n) TEFM, the point total relating to the provision of effluent flow measurement at systems utilizing lagoons as the principal treatment process, shall equal 0 (zero) if effluent flow measurement is provided. If no method of effluent flow measurement is provided, TEFM shall equal 50 points, unless there is no discharge from the system, in which TEFM shall equal 0 (zero). If lagoons are not utilized as the principal treatment process, TEFM shall equal 0 (zero).

SECTION 16. NR 208.05(2)(o) to (q) are created to read:

NR 208.05(2)(o) TFR, the point total relating to the ratio of effluent flow measured to influent flow measured, shall equal the appropriate value from Table 8. If lagoons are not utilized as the principal treatment process TFR shall equal 0 (zero).

Table 8
Point Assignments Related to the Ratio of
Effluent Flow to Influent Flow

| Total Annual Effluent Flow Divided by Total Annual Influent Flow | Points |
|---|--------|
| 0.80 or greater | 0 |
| Less than 0.80 and greater than or equal to 0.65 | 10 |
| Less than 0.65 and greater than or equal to 0.5 | 20 |
| Less than 0.5 | 30 |

(p) TLR, the point total relating to the leakage rate, shall be determined as follows. The leakage rate shall be computed by first subtracting the total annual effluent flow in gallons from the total annual influent flow in gallons, then dividing that difference by 365 to yield gallons per day of leakage, and finally dividing that leakage by the water

surface area of the lagoons in acres. TLR shall be equal to the appropriate number of points from Table 9 below.

Table 9
Point Assignments Relating to the
Leakage Rate from Lagoon Systems

| Leakage Rate in Gallons per Acre per Day | Points |
|---|--------|
| Less than or equal to 1,000 | 0 |
| Greater than 1,000 and less than or equal to 7,000 | 10 |
| Greater than 7,000 | 20 |

(q) TLDS shall equal the appropriate value from Table 10 below, based upon the number of negative responses to the following questions.

1. Is there more than one seepage cell?
2. Were the seepage cells able to absorb all of the effluent discharged so no seepage cells ever overtopped, overflowed or had to be pumped out?
3. Is the seepage cell or cells operated on a load and rest basis?
4. Does the wastewater cover the entire seepage cell bottom to a uniform depth before completely infiltrating?
5. Is the hydraulic loading rate less than 90,000 gallons per acre per day?
6. If the design flow is greater than 15,000 gallons per day, is there an approved groundwater monitoring well system?
7. Do you have an approved land disposal management plan that is followed?

Table 10
Point Assignments Relating to the
Operation of the Land Disposal Systems

| Number of Negative Responses to Questions 1 thru 7 above | Points |
|---|--------|
| 0 | 0 |
| 1 or 2 | 5 |
| 3 or 4 | 20 |
| 5 or 6 | 35 |
| 7 | 50 |

For systems which discharge to surface waters TLDs shall equal 0 (zero).

SECTION 17. NR 208.06(2)(b) and (c) are amended to read:

NR 208.06(2)(b) Department recommendation range. For point totals greater than 70 but less than or equal to ~~200~~ 120 for all CMAR's submitted ~~pursuant to the June 30, 1987 deadline,~~ the department shall notify the owner that an operation and needs review, ONR, is recommended. ~~Thereafter, the department recommendation range shall be greater than 70 points and less than or equal to 120 points.~~ Alternatively, the department may recommend that the owner undertake specific actions to maintain compliance. A facility plan shall be recommended if the ONR indicates the existing system is not capable of providing adequate wastewater treatment in the next 5 years.

(c) Department action range. For point totals greater than 120 for all CMAR's submitted ~~pursuant to the June 30, 1987 deadline,~~ the department shall require the owner to complete an operation and needs review within a time period which the department prescribes or a facility plan. ~~Thereafter, the department action range shall be greater than 120 points.~~ A facility plan shall be required if the department determines that consistent future compliance with effluent limitations will not result from improved system operation maintenance and efficiency or that growth within areas served by the owner's sewerage system jeopardizes future compliance. A work plan shall be submitted as a part of the facility plan or operations and needs review. If necessary, the department shall modify the owner's WPDES permit to require one

or more of the referenced reports. All procedures used in the modification of a WPDES permit shall conform with requirements in ch. NR 203.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on September 24, 1992.

The 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.

Dated at Madison, Wisconsin

December 2, 1992
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
By Carroll D. Besadny
Carroll D. Besadny, Secretary

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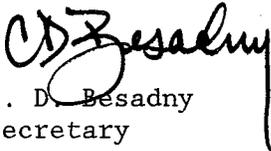
Mr. Gary L. Poulson
Assistant Revisor of Statutes
119 Martin Luther King, Jr., Blvd.

Dear Mr. Poulson:

Enclosed are two copies, including one certified copy, of State of Wisconsin Natural Resources Board Order No. WW-20-92. These rules were reviewed by the Assembly Committee on Environmental Resources, Utilities and Mining and the Senate Committee on Urban Affairs, Environmental Resources and Elections pursuant to s. 227.19, Stats. Summaries of the final regulatory flexibility analysis and comments of the legislative review committees are also enclosed.

You will note that this order takes effect following publication. Kindly publish it in the Administrative Code accordingly.

Sincerely,


C. D. Besadny
Secretary

Enc.