

NATURAL RESOURCES BOARD AGENDA ITEM

SUBJECT: Request for Adoption on Board Order WT-15-09, Watershed Mgt. Bureau housekeeping Rule Revisions to chs. NR 102, 103, 105, 106, 108, 110, 114, 200, 203, 205, 210, 214, 299, 328, 341, and 812 Wis. Adm. Code.

FOR: MARCH 2010 BOARD MEETING

TO BE PRESENTED BY: Susan Sylvester, Permit Section Chief; Bureau of Watershed Management

SUMMARY:

The Bureau of Watershed Management has not previously updated rules to correct typographical errors or common housekeeping changes needed to keep their rules current. The proposed rule revisions update rules to accommodate new technologies and construction methods, require electronic submittal of wastewater permit documents, ensure consistency with federal water program regulations, fix typographical errors, and make minor modifications or clarifications to a variety of rules affecting the Bureau of Watershed Management. There are many codes included in this rule revision package to provide an efficient and consolidated general clean-up. The changes are intended to be minor and are not anticipated to be controversial.

One hearing was held on January 28, 2010, two people attended, with no oral or written comments.

RECOMMENDATION: Adopt Board Order WT-15-09, revision to chs. NR 102, 103, 105, 106, 108, 110, 114, 200, 203, 205, 210, 214, 299, 328, 341, and 812 Wis. Adm. Code

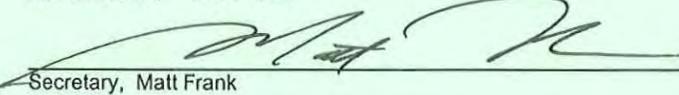
LIST OF ATTACHED MATERIALS:

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|----|-------------------------------------|---|-----|-------------------------------------|----------|
| No | <input type="checkbox"/> | Fiscal Estimate Required | Yes | <input checked="" type="checkbox"/> | Attached |
| No | <input checked="" type="checkbox"/> | Environmental Assessment or Impact Statement Required | Yes | <input type="checkbox"/> | Attached |
| No | <input type="checkbox"/> | Background Memo | Yes | <input checked="" type="checkbox"/> | Attached |

APPROVED:


Bureau Director, Russ Rasmussen


Administrator, Todd Ambs


Secretary, Matt Frank

2/18/2010
Date

2/25/10
Date

3-4-10
Date

cc: Laurie J. Ross - AD/8
Marney Hoefler-LS/8

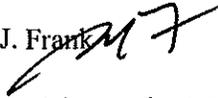
Linda Haddix-LS/8
Tom Mугan-WT/3

Julia Riley-WT/3

DATE: February 22, 2010

FILE REF: WT-15-09

TO: All Members of the Natural Resources Board

FROM: Matthew J. Frank 

SUBJECT: Proposed revision to chs. NR 102, 103, 105, 106, 108, 110, 114, 200, 203, 205, 210, 214, 299, 328, 341 and 812, Wis. Adm. Code to fix typographical errors, make minor modifications or clarification, ensure consistency with federal regulations, code reference update, or make technology updates for rules affecting the Bureau the Watershed Management.

1. Why These Rules are Being Revised

The Bureau of Watershed Management has not previously updated rules for clean-up of errors or common housekeeping changes needed to keep their rules current. There are many codes included in this package for that reason. Future housekeeping clean-up rule packages will be much smaller once these rules are updated.

2. Issues addressed by this rule

There are 145 proposed changes to the rules. These changes have been placed in the "Rationale Table" into categories. These categories include:

- a. Provide Clarity
- b. Typographical Errors
- c. Updates for Technological Advances
- d. Consistency with Federal Regulatory language/state statute/or other administrative rules
- e. Minor modifications

3. Summary of the Rules

NR 102 is the chapter that contains the listing of waterbodies for outstanding or exceptional resource waters. There are several recommended pages of changes (13 pages in the ORDER). This code has primarily been changed to reflect typographical errors in the original listing of these waters, or if the water exists in more than one county, we have added the other county. To be consistent with the addition of two Wild Rivers to State Statute s. 30.26 in early 2009, language was refined and portions of these two existing outstanding or exceptional resource waters (ORW/ERW) were moved to the Wild Rivers section of NR 102; however, this does not affect their status as ORW/ERW. With the exception of the 2009 statutory additions, there are no additions of new waterbodies, only corrections to the ones currently on the list.

NR 103 is the chapter that contains Water Quality Standards for Wetlands and the changes proposed are technical changes to reflect s. 281.36, Wis. Stat., a statute that was adopted after the rule went into effect.

NR 105 is the chapter that contains surface water quality criteria and secondary values for toxic substances. The changes proposed for this chapter are typographical errors or values that have been

updated because of new analytical methods. The changes to Table 9 in ch. NR 105 are done to reflect changes to federal drinking water standards and are consistent with changes that were made in ch. NR 809. All other numerical changes are typographical errors.

NR 106 is the chapter which contains procedures for Calculating Water Quality Effluent Limits for substances discharged to surface waters. Changes to this chapter are primarily for clarification or to correct typographical errors.

NR 108 is the chapter which outlines the Requirements for Plans and Specifications submittals for reviewable projects and operations of community water systems, sewerage systems and industrial wastewater facilities. The changes include technology updates requesting electronic submittals in addition to paper copies of final plans and specifications. To be consistent with federal regulations, the department proposes modification to s. NR 108.04 (5).

NR 110 is the chapter containing requirements for Sewerage Systems. Most of this rule package contains changes to this chapter (22 pages in the ORDER). Many changes are recommended to clarify the rule; other changes are because of technological updates. Revisions to this chapter are proposed to revise and clarify requirements for lift station design and to clarify language which has been commonly misunderstood. These changes reflect current practice and are not substantial; they are minor changes that make this rule more understandable and easier to implement. In 1997, the Department prepared draft code revisions for lift station requirements in ch. NR 110, and conducted a public hearing and obtained public comments. But the rule making effort was then placed on hold due to workload issues, and the code revision process was effectively terminated prior to promulgation. Many of the NR 110 code changes now being proposed were obtained from this 1997 work effort.

NR 114 is the chapter for Certification Requirements for Waterworks, Wastewater Treatment Plant, Septage Servicing and Water System Operations. Proposed changes to this chapter include adding a "Master Operator" category to the Septage Servicing subchapter II. This is a category that the stakeholders have asked for to develop a succession of responsibilities. This has been an issue for several years and this code change will help satisfy the needs of the stakeholders.

NR 200 is the chapter for Application for Discharge Permits and Water Quality Standards Variances. The proposed change to this rule is a technological update for the submission of permit applications on the web-based application system. The other changes are typographical or to be consistent with federal regulations.

NR 203 is the chapter for WPDES Public Participation Procedures. The proposed change to this code is to make it consistent with federal regulations.

NR 205 is the chapter for General Provisions in WPDES permits. The proposed technology update is to require electronic submission of discharge monitoring reports. Other changes are clarification of unscheduled bypassing of wastewater or to be consistent with federal regulations.

NR 210 is the chapter for Sewage Treatment Works. The minor clarification changes are to reflect date changes or clarification of terms. A modification is proposed to require that emergency operating provisions (such as stand-by generator or pump) be provided for all wastewater pumping stations.

NR 214 is the chapter for Land Treatment of Industrial Liquid Waste By-Product Solids and Sludges. One proposed change is to clarify subsurface systems to be consistent with ch. Comm 83.

NR 299 is the chapter containing the Water Quality Certification requirements. The proposed changes to this chapter are technical changes to reflect s. 281.36, Stats., a statute that was adopted after the rule went into effect and to provide clarity with respect to the original intent of the rule.

NR 328 is the chapter for Shore Erosion Control Structures in Navigable Waterways. The recommended changes are to provide clarification or typographical changes.

NR 341 is the chapter for Grading on the Bank of Navigable Waterways. The proposed changes to this rule are to provide typographical changes.

NR 812 is the chapter for Well Construction and Pump Installation. The proposed change to this rule is to correct the code reference to NR 110 made in this proposed rule package.

Proposed Changes: Changes were made to the proposed rule language and plain language analysis in response to comments. See Attachment 1 for a summary of the changes.

4. How this Proposal Affects Existing Policy

The Department has made a commitment to make administrative rules clear. These proposed changes will allow us to implement our rules more consistently and accurately. The proposed changes are minor modifications that are not intended to result in a change in existing policy.

5. Has the Board dealt with these issues before?

The Bureau of Watershed Management has not gone before the NRB to request “housekeeping” changes to rules affecting our program. Most of these rules have not been changed or updated for decades. This is not unique; other programs routinely bring “housekeeping” packages before the Board.

6. Who will be impacted by the proposed rules? How?

The proposed rules are minor modification, not intended to result in significant substantive change. These proposed changes will make the rules less confusing and easier to understand. None of these proposed rules will be burden to the regulated community or the public.

7. Environmental Analysis

The Bureau of Environmental Analysis and Review has determined that these rule revisions are a Type III action under ch. NR 150, Wis. Adm. Code, and no environmental analysis is required.

8. Final regulatory flexibility analysis

The proposed rule revisions are not expected to have a significant economic impact on small business.

9. Hearing Synopsis

On January 26, 2010, the Legislative Council Rules Clearinghouse reported to the Department on its review of this proposed rule. The Council had a few comments on form, style, and placement as well as clarity, grammar, punctuation, and use of plain language. All of these comments were incorporated into the final ORDER language, except for one comment which is explained in Attachment 1.

On January 28, 2010, the Department conducted a public hearing in Madison, WI on the proposed rule changes. The hearing was conducted by Margaret Hofer of DNR Legal Services. Susan Sylvester of the Watershed Management Bureau was also present. Two people attended the hearing; however, no oral or written comments were made. The comment period ended on February 5, 2010, written comments were submitted in support of the rule by the Wisconsin Liquid Waste Carriers Association, and by Duane Schuettpelz, former wastewater supervisor. Other comments were submitted by the Public Works Department of the City of Superior; Paul Kent on behalf of Municipal Environmental Group; USEPA, Water Division, and Midwest Environmental Advocates. The comments and the Department's response are included in Attachment 1. Minor changes to the proposed rule revisions were made in response to comments received.

Attachment 1

Department of Natural Resources Response to Public Comments on
Revisions to chs. 102, 103, 105, 106, 108, 110, 114, 200, 203, 205, 210, 214, 299, 328, 341, and
812 Wis. Adm. Code
Board ORDER WT-15-09

Overview

The Natural Resources Board authorized a public hearing on the proposed Watershed Bureau Housekeeping Rule Revisions at the December 2009 meeting. A public hearing was held in Madison, Wisconsin on January 28, 2010. The public comment period ended February 5, 2010.

At the hearing on January 28, 2010, two people attended this hearing, but no oral or written comments were presented. During the public comment period, written comments were submitted by U.S. Environmental Protection Agency-Region 5, City of Superior-Public Works Department, Midwest Environmental Advocates, Municipal Environmental Group, Wisconsin Liquid Waste Carriers Association, and Duane Schuettpelez. In addition, on January 26, 2010, the Legislative Council Rules Clearinghouse reported to the Department on its review of this proposed rule.

The Department originally proposed a number of technical code modifications within NR 110 that were considered to be "minor" in nature because, although not codified, the requirements were for design features that have become common practice in the wastewater industry or are commonly required by the Department in accordance with existing program guidelines. For example, providing telemetering of alarms at sewage pumping stations, instead of relying on an outside alarm light. Comments were received, however, indicating concerns about cost impacts about even the "minor" changes. As a result, the Department has further revised ss. NR 110.14 and NR 110.15 such that they closely accord with existing code language, removing nearly all of the "minor modifications". The remaining modifications are primarily for formatting and updating purposes.

Comments and Responses

Included below are the comments submitted (in italics) and the Department's responses.

Comment on s. NR 106.07 (2): DNR improperly proposes to remove from Wis. Admin. Code NR 106.07 (2) the requirement that WPDES permits contain water quality based mass limits for chlorine discharges. According to DNR, chlorine is exempt from EPA's Great Lakes Water Quality Initiative ("GLWQI") and, therefore, the requirement to calculate mass limits for chlorine when concentration limits are established in permits is not applicable.

While Chlorine is one of the fourteen pollutants listed as exceptions to certain requirements of the GLWQI, DNR must ensure that "any procedures applied in lieu of GLWQI implementation procedures shall conform with all applicable Federal, State, and Tribal requirements." 40 CFR 132.4 (e) (2). Additionally, Great Lakes States must apply specific implementation procedures or alternative procedures consistent with all applicable Federal, State, and Tribal laws. 40 CFR 132.4 (g) (2).

Response: The Department disagrees with this comment. In addition to the GLWQI exemption for chlorine, mass limits are not needed or appropriate for the protection of water quality. Except for zones of initial dilution, the chlorine criteria and effluent limits are, in most cases, below the expected level of detection for chlorine in a laboratory test. Therefore, chlorine is effectively a "no-detect" limit, which means if chlorine is detected in a discharge, the permittee will be in violation of the permit limit as a concentration because the level of detection is higher than the limit. For municipalities, s. NR 210.06(2)(b) contains a chlorine limit of 100 ug/L which is still the commonly accepted level of detection for chlorine, while the water quality based limits are in the range of 7 to 37 ug/L depending on dilution. Chlorine is unique because of the GLI exemption

and the level of detection is greater than the water quality based effluent limit. No change was made to the final rule.

Comment on ss. NR 106.10 (1) and NR 106.145 (2) (b) 2., (3), and (7) (b): *DNR must repeal Wis. Admin. Code NR 106.10 (1) and 106.145(2)(b)2.,(3), and (7)(b).*

Response: Repealing these codes would be very controversial and outside the scope of this "Housekeeping" rule package. The department is planning to revise ch. NR 106 this year and will take these comments under advisement for that rule package.

Comment on s. NR 106.33 (2): *This rule provides that ammonia effluent limitations may not be included in permits for sewage treatment works in cases when Wisconsin calculates limits that are greater than or equal to 20 milligrams per liter (mg/L) for the summer or 40 mg/L for the winter. EPA is concerned that this rule may be interpreted to mean that the State is prohibited from including appropriate limitations in permits in such circumstances. 40 CFR s. 122.44 (d) (made applicable to States by 40 CFR s. 123.25 (a) (15)) requires permit issuing agencies to include water quality-based effluent limitations in permits when a discharge has a reasonable potential to cause or contribute to excursions beyond water quality standards. It further requires that such limitations be derived from and comply with water quality standards. We request that Wisconsin strike NR 106.33 (2) from ch. NR 106.*

Response: The department disagrees with this comment. In order to qualify for the exception in s. NR 106.33 (2) the discharge must be "primarily domestic wastewater." If, in an unusual circumstance, there was an industrial discharger that led to a higher concentration being discharged to a municipal treatment plant, the wastewater would no longer be characterized as primarily domestic wastewater and therefore, would not be eligible for the exception. Municipal effluents that are primarily domestic wastewater do not exceed 20/40 and therefore higher permit limits than the 20/40 limits are not needed based on the reasonable potential results we would expect in a normal situation. This is a very conservative reasonable potential approach, since data dating back to the 1980's has shown that the influent total nitrogen from domestic wastes is less than 40 mg/L and in summer time incidental ammonia removed reduces discharge levels to well below 20 mg/L. To make a change to this rule would be considered significant and outside the scope of the "housekeeping rule" package. No changes to the proposed rules were made.

Comment on s. NR 110.03 (12g): *The word "flow" in this section means or is implied to mean a "rate of flow" (e.g., volume/time). In Section 23, and perhaps elsewhere, the word "flow" is used and expressed only as a volume without reference to time. The rules (both NR 100 and 200 series) should be consistent in terminology when using the term "flow" or "flow rate" or "rate of flow".*

Response: The word "flow" is currently used extensively in ch. NR 110 and other codes without making a distinction in terminology between "flow" and "flow rate". A valid definition of "flow" is the amount of discharge over time. The department is not proposing to revise s. NR 110.03 (12g) or to add a new definition, however, a revision to s. NR 110.15(4)(c) has been made to improve consistency in the use of these terms.

Comment on s. NR 110.05 (4): *In paragraph (b), it is stated that "...compliance with a compliance schedule..." in a permit is deemed compliance with applicable WQBELs for purposes of implementing this section of the rule. What happens if a compliance schedule is related to biosolids or some other issue other than WQBELs? Could the permittee argue that compliance with these unrelated compliance schedule items satisfy the conditions in this paragraph? Adding a sentence that says: "Compliance schedules for actions specifically unrelated to WQBELs shall not be considered in compliance with the conditions in this paragraph.*

Response: The sole intent of the proposed revision was to eliminate outdated language or references, and then to reorganize the subsection accordingly. The language referring to "...compliance with a compliance schedule..." is currently code language and its revision would constitute a more substantive change, which is considered to be beyond the scope of this

"housekeeping" revision package. The department does not propose any revision in response to this comment.

Comment on s. NR 110.09 (2) (j) 4. b.: *A new term – "initial average flow" – is introduced here, but not defined (unless there is a definition in another part of NR 110.) A definition should be provided, if not already in the code.*

Response: The department believes the proposed change to "initial average flow" is sufficiently clear and does not propose any revision in response to this comment.

Comment on s. NR 110.13 (1) (d): *In par. (1) (d), and elsewhere in the rule proposal (e.g., Section 55), there is reference to "community public water supply well." Please cross-check the contemporary terminology in the ch. NR 800 series to assure compatibility with the terms used in those rules. The ch. NR 800 series uses terms like "community systems", "non-community systems", "transient systems", etc.*

Response: In this Section and elsewhere in the code, the department has made revisions to provide consistent use of the term "community water system well" as it is currently defined and used in ch. NR 811.

Comment on s. NR 110.13 (1) (d) 1. and 2.: *The two sentences in subpar. 2 are incompatible. The first sentence compels compliance with the separation distance requirement in all cases. Therefore, there will never be an instance in which the condition in the second sentence will occur (i.e., a sewer within 15 meters of a private well).*

Response: The department agrees with this comment and is proposing to delete the second sentence in s. NR 110.13 (1) (d) 2.

Comment on s. NR 110.14 (3) – (5): *Sections NR 110.14 (3) to (5) are completely repealed and recreated. There are several new design requirements which may impose additional costs that have no stated rationale or implementation plan.*

- *For example, NR 110.14 (3) (b) includes structural design requirement and among other things requires "the exterior of steel factory built lift stations shall be provided with a suitable water proof epoxy coating or water proof painting system or protected using other appropriate methods." There is no reference to the time period in which existing facilities must comply with this new standard, if at all. Similar concerns exist with respect to the changes to the other subsections including changes to ventilation 3 (c), piping (3) (h), control (3) (i), and electrical equipment (5) (c).*
- *In particular, the changes to the control subsection may prove to be costly for some of our members. The proposal would require that "alarm signals shall be telemetered, to responsible authorities."*

Response: The Department has revised s. NR 110.14(3)(b), (c), (e), (h), (i), (4)(c), and (5)(c), (d), in order to more strictly accord with existing code language. Sections were removed that had new design requirements from the rule.

Comment on s. NR 110.14 (3) (b) 3.: *In subp. (3) (b) 3., the phrase "possible exception" is used in reference to stairways in build-in-place lift stations. The rule should specify the criteria the department might use to grant the "possible exception" to the general requirement of the paragraph.*

Response: The department agrees with this comment and is proposing additional language to clarify what is a "possible exception."

Comment on s. NR 110.14 (12): *This section changes the requirements for emergency operation. Paragraph (12) (b) addresses generator and pump backups at lift stations. Under the new requirement, portable pumps and generators cannot be used for more than three lift stations unless certain conditions are met. ...Many of our members from communities over 10,000 in population report that one to three portable generators have been more than adequate.*

Response: The Department has revised s. NR 110.14(12) to remove the reference to portable generators not serving more than three lift stations.

Comment on s. NR 110.15 (5) (c): *Imposing this new requirement on existing treatment facilities—particularly where plant design and/or hydraulic profile does not allow for installation of additional flow metering—will be costly, potentially very costly, and may offer little benefit.... The proposed changes to this Section do not consider Combined Sewage Treatment Plants (CSTPs), facilities that receive and discharge flow intermittently, only during significant events of rainfall or snowmelt. Placement of a second flow meter in these facilities is not technically reliable and is not cost-effective; therefore, this section, if implemented should not be applicable to CSTPs. The proposed changes should clarify that flow monitoring requirements apply only to secondary treatment facilities or facilities receiving continuous flow. We respectfully request that the proposed changes to Section NR 110.15 (5) (c) be withdrawn from the rule.*

Response: The proposed rule for s. NR 110.15 (5) (c) has been deleted from this rule package.

Comment on s. NR 114.18: *These proposed rules would create a master operator licensing category and also revise the continuing education requirements for certified septage operators. We are in favor of these changes and believe they would be beneficial to the industry. We request that DNR implement these changes as part of CR 09-123 package.*

Response: The Department has kept these proposed changes in the final rule.

Comment on s. NR 200.06 (2): *DNR is correct to require electronic submissions on permit reissuance applications and discharge monitoring reports.*

Response: The Department kept this part of the proposed rule in the final rule.

Comment on s. NR 203.02 (3): *This rule describes the required content of public notices of permit actions. On review, EPA found that the notice content as described in the rule does not include all the items that need to be included in a notice under 40 CFR s. 124.10 (d) (made applicable to States by 40 CFR s. 123.25 (a) (28)). Wisconsin should amend the rule such that notices include the following additional items: (1) the location of each sludge treatment works treating domestic sewage and use or disposal sites known at the time of permit application, and (2) requirements applicable to cooling water intake structures under 33 USC s. 1316 (b), in accordance with 40 CFR part 125, subparts I, J, and N.*

Response: The department agrees with this comment and has made the change in the rule package.

Comment on s. NR 203.03 (3) and (4): *These rules identify government agencies that are to receive notice of permit actions. They identify the information to be included in a notice, including that EPA should receive a copy of a draft permit. EPA found that the list of agencies in s. NR 203.03 (4) is not as comprehensive as required under 40 CFR s. 124.10 (c) (1) (iii) (made applicable to States by 40 CFR s. 123.25 (a) (28)). Wisconsin should amend these rules so they conform to 40 CFR s. 124.10 (c) and (e).*

Response: The department agrees to make this modification to our rule in this rule package to be consistent with federal rules.

Comment on s. NR 203.06 (2): *This rule describes the required content of a notice of a public hearing. EPA found that the notice content as described in the rule does not require a reference to previous public notices relating to the permit, as required by 40 CFR 124.10 (d) (2) (i). Wisconsin should amend the rule so that hearing notices include this information.*

Response: The department agrees to make this modification to our rule in this rule package to be consistent with federal rules.

Comment on s. NR 203.13 (2) (g): *EPA found that this rule does not meet 40 CFR s. 124.17 (a) and (c) (made applicable to States by 40 CFR s. 123.25 (a) (31)) because it does not require the State to: (1) describe and respond to significant comments on the draft permit, (2) explain the reasons for changes between the draft and final permit, and (3) make the response to comments*

available to the public. Wisconsin needs to amend the rule so it conforms to 40 CFR s. 124.17 (a) and (c).

Response: The department agrees that we need to conform to the federal rule and has made these changes in the final rule package.

Comment on s. NR 205.03 (27): *The term "point source" is defined in this rule. The rule includes a list of conveyances that qualify as point sources. Landfill leachate collection systems are not included in this list despite the fact that they are included in the 40 CFR s. 122.2 definition of "point source". Wisconsin should amend s. NR 205.03 (27) to expressly include landfill leachate collection systems in the definition of the term "point source"...*

The Wisconsin definition includes the following sentence: "point source does not include diffused surface drainage or any ditch or channel which serves only to intermittently drain excess surface water and is not used as a means of conveying pollutant into waters of the state." This sentence does not appear in the federal definition and the meaning of the words, "not used as a means of conveying pollutants," is not clear. ...We request that Wisconsin strike this sentence from the definition.

Response: Although the term "landfill leachate" may be in federal regulations, the term is not in the federal statute for the definition of a point source. There may be some federal case law that addresses the issue of landfill leachate as a point source, but the Department has received no specific explanation on why this change is needed and the Department does regulate point source discharges of landfill leachate. Accordingly, no change to our proposed rule package is made at this time.

As for the language in the point source definition that excludes "diffused surface drainage or any other ditch or channel which serves only to intermittently drain excess surface water", the Department does not intend to delete this language at this time. This language is intended to exclude nonpoint source pollution. If EPA has questions regarding the meaning of this language, the Department can provide EPA with a more detailed explanation of the scope of this language.

Comment on s. NR 205.07 (1) (b): *This rule allows Wisconsin to terminate a permit. EPA did not find companion rules that set out the criteria and procedures for termination. Federal criteria and procedures appear in 40 CFR s. 122.64 (made applicable to States by 40 CFR 123.25 (a) (23)). Wisconsin needs to establish such criteria and procedures.*

Response: The department believes this change to be significant and beyond the scope of the "housekeeping rule" change. No changes to proposed rules were made.

Comment on s. NR 205.07 (1) (g): *...Certification language in the Wisconsin rule is less stringent and therefore not equivalent to the certification required by 40 CFR s. 122.22(d). Wisconsin's rule does not establish conditions and procedures, as required by 40 CFR s. 122.23 (b) and (c), through which a person can sign as a duly authorized representative. Wisconsin needs to amend the rule to conform to 40 CFR s. 122.22 (b) through (d).*

Response: The recommended change would impose additional requirements on permittees and is more than a minor modification. Therefore, this change is outside the scope of the rule package. The Department will consider making this change in a future rule package.

Comment on s. NR 205.07 (1) (q): *This rule requires permittees to report to the State in certain circumstances. A time when a permittee anticipates noncompliance is not listed among the circumstances. Under 40 CFR s. 122.41 (1) (2), permittees must give advance notice to the Director of any planned changes which may result in noncompliance with permit conditions. Wisconsin needs to include this provision in its rules.*

Response: This is required under s. 283.59, Wis. Stats. We do not propose to make any revisions to our code at this time as it is required under our statute.

Comment on s. NR 205.07 (1) (u), 1 (v), and (2) (d): *I do not disagree that correcting the mistakes in the placement of certain items in the rule is a reasonable idea. However, I am*

concerned that these changes, without significant accompanying rule additions or modifications relating to sanitary sewer overflows, may result in some confusion in the regulated community and the public. Without these additional changes and additions, the proposed language may leave the impression that the department's longer-term approach to this subject is as stated here, when there is, I believe much more to resolution of this issue.

"Scheduled bypassing" does not appear in the federal rule. The prohibition on unscheduled bypassing in the State rule is not consistent with 40 CFR s. 122.41(m)(4).

Response: The proposed changes relating to sanitary sewer overflows ("unscheduled bypassing") certainly do not represent the department's long-term intentions which are being addressed by a separate rule revision effort. The language change in s. NR 205.07 (2) (d) is strictly intended to provide improved consistency with federal requirements and the current language already used in DNR WPDES permits. The department does not propose any revision in response to this comment.

Changing the language to be consistent with the federal rule would be a significant modification and is outside the scope of this "housekeeping" rule clean-up package.

Comment on s. NR 210.08 (1) (a) and (b): *Is this change necessary or compatible with other language in NR 210 or the definitions in NR 205 that govern the WPDES program? It may be helpful to cross-reference the term used here (sewage treatment facilities) to the definition in NR 110.*

Response: The department agrees with this comment and has added the definition for "sewage treatment facilities" to ch. NR 210.

Comment on s. NR 214.16 (6): *It may be helpful in implementing this subsection of the rule to be more explicit in defining what conditions will be considered in determining if alternative investigations "...certain types of conditions" will be acceptable.*

Response: The department agrees with this comment and has added additional language to clarify the meaning of the reference to "...certain types...of conditions".

Comment on s. NR 328.35 (3)(p)(1): *The notation "etc." should be replaced by a phrase such as "and similar materials." Also in sub. (3)(p)2., the note is substantive and should be placed in the text of the Administrative Code. Finally, because the introductory material in par. (p) does not grammatically lead into the following subunits, the introductory material should be renumbered as subd. 1.; the remaining subdivisions and internal cross-references should be renumbered accordingly; and the subdivisions should not be written in the imperative form.*

Response: The proposed revision is intended to make the rule language in s. NR 328.35 (3) (p) consistent with other sections of the code, i.e., chs. NR 320, 323, 328, 329, 341, 343, and 345. Therefore, no change was made in response to this comment.

Clearinghouse comments: All Clearinghouse comments not specifically responded to in this document have been incorporated into the rule language as suggested.

Bureau of Watershed Management
 Rule Revisions to Provide Clarity, Typographical or Location Corrections, Updates for Technology Advances, Consistency with
 Federal/State Language and Minor Modifications

Section	Action	Reason	Rationale
102.10 (1) (b) 1. and 2.	Amended	Clarity	Changed to better match the wild river language used in s. 30.26, Stats. and NR 302; which this section refers to.
102.10 (1) (b) 3. through 5.	Created	Consistency with State Statute	102.10 (1) (b) 3. Created to better reflect language in NR 302, which this section refers to. 102.10 (1) (b) 4. and 5. Created to be consistent with the addition of two wild rivers to state statute s.30.26 in 2009.
102.10(1)(d) 10., 17., 22., 29., and 30	Amended	Typos/ Location Correction	102.10 (1) (d) 10. Lamon Tanguie creek is incorrectly identified as LaMontagne in the current code. 102.10 (1) (d) 10. Location clarified, there are two Little Popple Rivers in Florence County; Little Popple River (T38N R19E S3) is the correct one. 102.10 (1) (d) 17. South Branch Miscauno creek is incorrectly identified as South Branch Miscauno river in the current code. 102.10 (1) (d) 17. Miscauno Creek is incorrectly identified as Micauno river in the current code. 102.10 (1) (d) 17. Shims Branch is incorrectly identified as Shims creek in the current code. 102.10 (1) (d) 22. Nace (Trout) creek is incorrectly identified as Trout creek in the current code. 102.10 (1) (d) 29. Little Wolf River (North Branch Little Wolf River) is incorrectly identified as North Branch Little Wolf River in the current code. 102.10 (1) (d) 30. Chaffee Creek is primarily located in Marquette County but has a short headwater segment in Waushara County; it is being added to the Waushara County listing.
102.10 (1) (f) 1d., 2p., 6., 8., 10., 20., 22., and 22m.	Amended	Typos/ Location Correction	102.10 (1) (f) 1d. Segments of the Brunsweller River listed in this portion of the code, include those currently in code as ORW, before their recent designation as wild river in state statute. Reworded to reflect new wild river status, but also to maintain protection of all previously protected ORW segments. 102.10 (1) (f) 2p. Segments of the Totagatic River listed in this portion of the code, include those currently in code as ORW, before their recent designation as wild river in state statute. Reworded to reflect new wild river status, but also to maintain protection of all previously protected ORW segments. 102.10 (1) (f) 6. Location clarified, there are two Otter Creeks in Forest County; North Otter Creek is being changed to Otter Creek (T37N R14E S23, North Otter Creek) to clarify which one the code refers to.

			<p>102.10 (1) (f) 8. The listing of No. Fork Flambeau River is redundant; the same water is listed as Flambeau River.</p> <p>102.10 (1) (f) 10. Evergreen Creek is incorrectly identified as Little Evergreen Creek in the current code.</p> <p>102.10 (1) (f) 20. McDermott Brook is incorrectly identified as McDermott Creek in the current code.</p> <p>102.10 (1) (f) 22. Alleguash Creek and Springs Class I and II portions are supposed to be listed in code; the current code only refers to Alleguash Springs Class I and II portions.</p> <p>102.10 (1) (f) 22m. Typo, "origin" was misspelled as "orign".</p>
<p>102.10 (1m) 2., 3., 4., 5., 6., 9m., 10., 13., 14., 17., 18., and 20.</p>	<p>Amended</p>	<p>Typos/ Location Correction</p>	<p>102.10 (1m) 2. and 102.10 (1m) 20. Bear Lake is located in both Barron and Washburn counties; it is only listed in Barron County in the current code.</p> <p>102.10 (1m) 2. and 102.10 (1m) 20. Red Cedar Lake is located in both Barron and Washburn counties; it is only listed in Barron County in the current code.</p> <p>102.10 (1m) 3. Owen Lake is incorrectly identified as Lake Owen in the current code.</p> <p>102.10 (1m) 3. and 102.10 (1m) 6. Lower Eau Claire Lake is located in both Bayfield and Douglas counties; it is only listed in Douglas County in the current code.</p> <p>102.10 (1m) 4. and 102.10 (1m) 20. McKenzie Lake is incorrectly identified as Big McKenzie lake in the current code; McKenzie Lake is located in both Washburn and Burnett counties; it is only listed in Burnett County in the current code.</p> <p>102.10 (1m) 4. and 102.10 (1m) 20 Middle McKenzie Lake is located in both Burnett and Washburn counties; it is only listed in Washburn County in the current code.</p> <p>102.10 (1m) 5. Location clarified. There are two Crystal Lakes in Columbia County; the correct one is Crystal Lake (T12N R10E S1).</p> <p>102.10 (1m) 6. Bardon Lake (Whitefish Lake) is incorrectly identified as Whitefish Lake (Bardon) in the current code.</p> <p>102.10 (1m) 6. Lake Nebagamon is incorrectly identified as Nebagamon Lake in the current code.</p> <p>102.10 (1m) 9m and 102.10 (1m) 10 Caldron Falls Flowage is located in both Marinette and Oconto counties; it is only listed in Marinette County in the current code.</p> <p>102.10 (1m) 13. Cochran Lake is incorrectly identified as Cochran Lake in the current code.</p> <p>102.10 (1m) 14. McCann Lake is incorrectly identified as McMann in the current code. Chain Lake is located in both Chippewa and Rusk counties; it is only listed in Rusk County in the current code.</p> <p>102.10 (1m) 17. Smith Lake is incorrectly identified as Camp Smith Lake in the current code.</p>

102.10 (1m) 4m.	Created	Location Correction	102.10 (1m) 18. Location typo clarified. White Sand Lake (T142N R7E S26) is incorrectly identified as White Sand Lake (T24N R7E S26) in the current code. 102.10 (1m) 4m. and 102.10 (1m) 14. Chain Lake is located in both Chippewa and Rusk counties, it is only listed in Rusk County in the current code.
102.11 (1) (b) 1., 5., 12., 15., 16., 23., 27., 33., 34., and 37.	Amended	Typos/ Location Correction	102.11 (1) (b) 1. Locanon clarified, should end at "upstream crossing of Oak Ridge Dr."; ends at "Abraham Coulee road bridge" in the current code. 102.11 (1) (b) 5. Location clarified, originates in section 19; listed as section 23 in the current code. 102.11 (1) (b) 12. Location clarified, originates in section 23, listed as section 22 in the current code. 102.11 (1) (b) 15. Spring Valley Creek is incorrectly identified as Spring Coulee Creek in the current code. 102.11 (1) (b) 16. Location clarified, should be "west in Trempealeau County" but is listed as "west of Trempealeau County" in the current code. 102.11 (1) (b) 23. Location clarified, originates in section 3; listed as section 10 in the current code. 102.11 (1) (b) 27. Location clarified; this stream is in Jackson County, it is listed as Trempealeau County in the current code. 102.11 (1) (b) 33. Location clarified, originates in section 18, listed as section 24 in the current code. 102.11 (1) (b) 34. Location clarified; "section 2, township 21 north, range 5 west"; it is listed as "section 2, township 20 north, range 6 west" in the current code. 102.11 (1) (b) 37. Location clarified; "section 33"; it is listed as "section 29" in the current code.
102.11 (1) (d) 5., 8., 15., 17., 28., 34., 39., and 42.	Amended	Typos/ Location Correction	102.11 (1) (d) 5. Location clarified; stream should be "all", it has an incorrect origin "T5N R8E S36" in the current code. 102.11 (1) (d) 5. The Sugar River is incorrectly identified as Sugar Creek in the current code. 102.11 (1) (d) 8. Typo "headquarters" should be "headwaters". Auburn Lake Creek (Lake Fifteen Creek) is incorrectly identified as Lake Fifteen Creek in the current code. 102.11 (1) (d) 15. Manitowish River is incorrectly spelled Maintowish River in the current code. 102.11 (1) (d) 17. Location clarified, stream is in both Jefferson and Rock Counties; it is only listed in Jefferson County in the current code. 102.11 (1) (d) 28. Location clarified, there are four Spring Brooks in Rock County, the correct one is Spring Brook (T2N R14E S27) 102.11 (1) (d) 34. Lake Mallilieu is incorrectly identified as Lake Mallileau in the current code. 102.11 (1) (d) 39. Location clarified, this stream is located in both Washington and Fond du Lac Counties; it is only listed in Washington County in the current code.

102.11 (1) (d) 26 b.	Created	Consistency with other code language	102.11 (1) (d) 42. Location clarified, this stream is located in Waupaca, Outagamie, and Shawano Counties; it is only listed in Waupaca and Shawano in the current code.
102.11 (1) (d) 26b.	Created	Consistency with other code language	102.11 (1) (d) 26b. Code clarification, the Exceptional Resource Waters segment of the St. Croix River in Polk county is referred to in section 102.10(1)(a)1. as "the portion of the St. Croix river from the northern boundary of the St. Croix Falls city limits to a distance one mile below the STH 243 bridge at Osceola shall be classified exceptional resource waters under s. NR 102.11." However, there is no listing in NR 102.11 in the current code; this change adds that listing.
103.05 (3)	Amended	Clarity	Added new statute that was passed after this code was written.
103.08 (1k) (e)	Amended	Clarity	Delete word final to clarify original intent of process provided in NR 299.
103.08 (1m) (Note)	Amended	Clarity	Updated with new information after code was originally written
105.06 (5) (h)	Amended	Typos/ Location Correction	Par. (h) refers to chronic toxicity criteria, but the table referenced in the existing rule (Table 2A) lists hardness values used to calculate acute criteria. Even if the chronic table is identical to the acute table, the rule needs a connection to chronic rather than acute.
105.06 (8) (a)	Amended	Technology Update	Conversion factor for mercury is in G/L.
105.06 Table 4B	Amended	Minor modification	1. Change in Limited Forage Fish formula – In the existing rule, there are two different formulas that would apply to limited forage fish waters with early life stages present, the second formula should be for early life stages "absent," not "present" and is therefore a typo. 2. Change in Limited Aquatic Life formula – Needs the lower boundary cutoff at 7 degrees C to be consistent with the other classifications in Table 4B.
105.06 Table 5 and (Note)	Amended	Typos	Change the superscript "1" after chlorine and in the Note following the table, instead of a superscript "1" both should be a superscript asterisk, or "**". These should be consistent with the other asterisked superscripts in Table 5, so these are typographical corrections.
105.08 (4) Table 8 2., 5., and 33.	Amended	Typos/ Location Correction	Items 2, 5, and 33: Public water supply criteria need to be amended as appropriate to be consistent with changes in drinking water standards in NR 809.
105.08 (4) Table 8 43.	Repealed	Typos	Item 43: The criteria listed for tetrachloroethene are actually human cancer criteria rather than human threshold criteria. In fact, the same criteria are also listed in Table 9, so their listing in Table 8 is a typo.
105.09 (3) Table 9 36., and 38.	Amended	Typos/ Location Correction	Public water supply criteria need to be amended as appropriate to be consistent with changes in drinking water standards in NR 809.
106.03 (6)	Repealed and recreated	Clarity	Add a formula or explanation of how to calculate IWC since it's not explained in the current rule. The definition of "Instream waste concentration" is being changed to be consistent with definitions given elsewhere and to include the equation used to determine this compliance endpoint.
106.05 (5) (a)	Amended	Typos/ Location Correction	Typographical error in the formula
106.06 (4) (c) (title)	Amended	Clarity	Language error in the title to be consistent with the title of NR 106, "toxic or

106.07 (2) (intro), (a) and (b)	Amended	Clarity, Minor modification	organoleptic". Since chlorine is exempt from EPA's GLWQL, the requirement to calculate mass limits for chlorine when concentration limits are established in permits based on NR 105 criteria is not applicable.
106.08 (5) (a)	Amended	Clarity	This section currently requires WET limits be given if the RPF > 0.3. Any numerical measurement < 0.34999 does not exceed 0.3 once significant figures are considered. To clarify, language will be changed to express this threshold using at least two significant figures (i.e. 0.30).
106.115 (1)	Amended	Typos/ Location Correction	Sub. (1) references NR 105 Table 7, but the additive effects of CDDs and CDFs were not intended to be applied to the wildlife criteria in NR 105 Table 7, as correctly stated in the remainder of NR 106.115.
106.88 (3)	Amended	Clarity	Changing language from metric units to pounds per day.
108.04 (2) Note	Amended	Code Correction	Updated the correct code reference to chapters.
108.04 (2) (b)	Amended	Technology Update	This language is to require electronic submittal of plans in addition to paper copies. Currently we hire a person to scan all plans into electronic format for permanent record retention and a submitted electronic copy will reduce the scanning time and costs.
108.04 (5)	Amended	Consistency with Fed. Regs.	Language added to be consistent with federal regulations on not approving project plans approvals after construction has commenced. Current NR 108.04 (5) language does not account for the situation where plans and specs are submitted prior to start of construction, but then the construction starts prior to obtaining Department approval. Per s. 281.41 (1) (c), construction shall accord to approved plans, so the revision is necessary to fix this discrepancy.
110.03 (3)	Repealed	Code Correction	The NR 110.03 (3) definition is no longer necessary due to other revisions that deleted use of the defined term.
110.03 (4) and Note	Repealed and Recreated	Update and correction	Updated address of ASTM office and corrected format by adding Note.
110.03 (5)	Repealed	Minor modification	To be replaced by proposed creation of NR 110.03 (12g)
110.03 (6) and Note	Repealed and Recreated	Code Correction	Corrected format by adding Note.
110.03 (9)	Amended	Minor modification	Subsection (9) is minor clarification of terms. No change to code intent.
110.03 (12g)	Created	Minor modification	Proposed new definition for "Design flow" is intended to provide clarification and to ensure flows used in design are consistent with flows that may be used for effluent limit setting, as addressed in NR 106.06 (4) (d). No change to code intent.
110.03 (20)	Repealed	Minor modification	Replaced by proposed NR 110.03 (12g) definition
110.03 (22)	Amended	Update and correction	Updated address.
110.03 (24)	Repealed	Minor modification	Replaced by proposed NR 110.03 (12g) definition
110.03 (33)	Repealed	Correction	The use of the defined term has been deleted from the context of the rule so the definition is unnecessary.
110.05 (2) (c)	Amended	Minor modification	Minor clarification of terms. No change to code intent.
110.05 (4)	Repealed and Recreated	Minor modification	Removes outdated reference to allowing communities to submit an improvement program with a 1983 date for completion of the improvements. No change to code

110.05 (5) (c)	Amended	Minor modification	Deletes unnecessary statement. No change to code intent.
110.05 (5) (g)	Repealed	Minor modification	Removes outdated reference to allowing communities to submit an improvement program with a 1983 date for completion of the improvements. No change to code intent.
110.05 (6)	Amended	Typo/Location Correction	Corrects typographical errors and corrects reference due to other deletions
110.08 (3) (a)	Amended	Clarity	Simple re-statement of requirement. No change to code intent
110.08 (3) (b)	Repealed	Clarity	Simple re-statement of requirement. No change to code intent
110.09 (2) (1) 2.	Amended	Minor modification	Revision to provide consistency with new 110.03 (12g) definition
110.09 (2) (f) 3. b.	Amended	Clarity	Minor language, grammar clarification. No change to code intent
110.09 (2) (j) 4. b.	Amended	Clarity	Minor language, grammar clarification. Revision to provide consistency with new NR 110.03 (12g) definition
110.09 (8) (b) 2.	Amended	Clarity	Minor language, grammar clarification.
110.09 (8) (c) 3. Note	Repealed	Minor modification	Removes unnecessary information.
110.13 (1) (d) 1. and 2.	Amended	Minor modification	Provides clarity and additional explanation of how lesser separation requirements may apply. This is consistent with water supply rules (NR 811) and is not a change to current code intent.
110.13 (2) (i)	Amended	Update	Updates reference to standards.
110.13 (2) (k) 1.	Amended	Update	Updates reference to standards.
110.13 (5) (a)	Amended	Minor modification	Adds new acceptable pipe material that Department has previously routinely approved (HDPE pipe). Deletes pipe material no longer in use.
110.13 (5) (e) through (h)	Amended	Update	Updates reference to standards.
110.14 (1) (b)	Amended	Minor modification	Revised for clarity and to indicate that design report is not required for minor maintenance upgrades.
110.14 (2) (a) 3.	Repealed and recreated	Minor modification	Provides clarity and additional explanation of how lesser separation requirements may apply. This is consistent with water supply rules (NR 811) and is not a change to current code intent.
110.14 (2) (b) 3.	Amended	Clarity/update	Provides consistency with new NR 110.03 (12g) definition. And minor modification to update correct terminology.
110.14 (3) through (5)	Repealed and recreated	Minor modification	Contains same requirements as currently in NR 110.14 (3) (a) but with extensive revisions for clarity and to allow additional options as based on currently accepted practices (code interpretations). The proposed revision does require an entry warning sign for wet wells, which is a new requirement. However, the current practice is that the signs are required per a Department Form developed for a "Fast-Track" plan review. Warning signs are a commonly recognized safety precaution.
110.14 (6) through (8)	Created	Minor modification	Clarifies what requirements apply to certain types of lift stations.
110.14 (6)	Renumbered and amended	Minor modification	Removes certain existing requirement that is now considered unnecessary. Clarifies how certain type pumps are treated in code. No changes to normal design practices are expected.

110.14 (7)	Renumbered and amended	Minor modification	Clarification.
110.14 (10) and (11)	Created	Minor modification	Current code does not specifically address simplex grinder pumps. The requirements being added are currently used for the Department's fast-track review process and reflect normal industry standards.
110.15 (2)(a)	Amended	Code Reference Correction	Corrects code reference
110.15 (3)(e)	Created	Minor modification	Existing code neglects to address separation of wastewater structures from water supply wells. However, the water supply codes require these same separation distances for wells from wastewater structures. So this language provides consistency with that and essentially clarifies the existing interpretation of requirements. New requirements are not created.
110.15 (4)(c)	Amended	Minor modification	Provides consistency with new NR 110.03 (12g) definition.
110.18 (2)(d)	Amended	Minor modification	Provides more detailed explanation and clarification of code language. No change to code intent.
110.19 (5)(b) 2.	Amended	Clarify	Provides consistency with new NR 110.03 (12g) definition and clarification that recirculated flows are included.
110.19 (6)(b) 1.	Amended	Minor modification	Deletes unnecessary information.
110.21 (4)(b)	Amended	Clarify	Clarifies current practice of applying requirements based on average conditions.
110.21 (4) Table 5 (title)	Amended	Minor modification	Clarifies units in table
110.21 (4)(d) 5.	Amended	Minor modification	Provides consistency with new NR 110.03 (12g) definition
110.21 (5)(b) and (c)	Amended	Minor modification	Clarifies current practice
110.21 (6)(a) 2.	Amended	Clarify	Clarifies that "peak diurnal" is peak hour.
110.21 (6)(b) 1.	Amended	Clarify	Clarifies that "peak diurnal" is peak hour.
110.22 (5)(b) 3.	Amended	Clarify	Clarifies that "maximum" means peak hour.
110.22 (5)(c) 4.	Amended	Clarify	Clarifies terms.
110.22 (6)(c)	Amended	Minor modification	Removes unnecessary design requirement for recirculation tank
110.22 (7)(c)	Amended	Clarify	Clarifies current interpretation
110.23 (2)(d)	Amended	Clarify	Provides consistency with new NR 110.03 (12g) definition
110.23 (2)(e) 2.	Amended	Clarify	Provides consistency with new NR 110.03 (12g) definition
110.24 (2)(b)	Amended	Clarify	Clarifies current interpretation and adds reference. No change to code intent.
110.24 (3)(d) 3.	Amended	Minor modification	Updates code standards. Current code is out of date.
110.24 (4)(d)	Amended	Minor modification	Updates code standards. Current code is out of date.
110.24 (4)(d) 3.	Amended	Minor modification	Updates code standards. Current code is out of date.
110.24 (4)(d) 4.	Amended	Minor modification	Updates code standards. Current code is out of date.
110.24 (4)(d) 4.	Amended	Minor modification	Updates code standards. Current code is out of date.
110.24 (4)(d) 5.	Amended	Minor modification	Updates code standards. Current code is out of date.
110.24 (6)(a) through (c)	Amended	Clarify	Clarifies current interpretation
110.25 (5)(b) 1. and 3.	Amended	Minor modification	Adds flexibility (already used to certain extent) for required number of down gradient monitoring wells.
110.25 (5)(c) 3. and 5.	Amended	Code Reference Correction	Corrects code reference and clarification
114.153 (4m)	Created	Minor modification	The regulated community has requested this additional classification of operator.

114.153 (5)	Amended	Minor modification	This language cleans up code language for consistency.
114.16 (1)	Amended	Minor modification	This included the new category into the rule.
114.18 (title) and (1)	Amended	Minor modification	This language spells out what the new category requirements are.
114.18 (2)	Repealed	Minor Modification	Removes dated language
114.18 (3)	Renumbered and amended	Minor modification	Clarifies requirements with new classification of operator
114.18 (3)	Created	Minor modification	Reinserts language from a repealed paragraph NR 114.23 (4)
114.18 (4) and (5)	Repealed	Minor modification	Removes dated language
114.18 (6)	Renumbered	Minor modification	Renumbered final code
114.19 (8)	Amended	Minor modification	This language of the code references a renumbered change.
114.20 (1) (e)	Created	Minor modification	This provides the fee for the new category consistent with the other current levels.
114.23 (1) and (2)	Amended	Minor modification	This language clarifies the title and training requirements for the new category.
114.23 (4)	Repealed	Minor modification	Removes unnecessary language
114.23 (5)	Renumbered and amended	Minor modification	Clarifies requirements with new classification of operator
114.24 (1)	Amended	Minor modification	This language adds an additional code reference for clarity.
200.03 (1)	Amended	Consistency with Fed. Regs.	Language changed to reflect federal regulations
200.06 (2) and Note	Amended	Technology Update	We have required electronic web application of WPDES permits for two years and this codifies this requirement to file a web-based application.
203.02 (3) (j) and (k) and Note	Created	Consistency with Fed. Regs	Language added to be consistent with federal regulations.
203.03 (3)	Amended	Consistency with Fed. Regs.	Language added to be consistent with federal regulations.
203.03 (4) (g)	Created	Consistency with Fed. Regs.	Language added to be consistent with federal regulations.
203.06 (2) (o)	Created	Consistency with Fed. Regs.	Language added to be consistent with federal regulations.
203.13 (2) (g) and (j)	Amended	Consistency with Fed. Regs	Language added to be consistent with federal regulations.
203.13 (3) (b)	Amended	Consistency with Fed. Regs.	Language added to be consistent with federal regulations.
205.07 (1) (m) and Note	Amended	Technology Update	The language change will update the code to require electronic submission of WPDES permit applications
205.07 (1) (r) 1. and Note and 2.	Amended	Technology Update	The language change will require electronic submittal of WPDES monthly discharge monitoring reports. The Department has been requesting this information electronically for 3 years through WPDES permits.
205.07 (1) (r) 4. and Note	Repealed	Technology Update	This requirement is moved to NR 205.07 (1) (r), so there is no need for this paragraph.
205.07 (1) (u)	Repealed	Code Correction	This portion of code was previously printed in wrong location (being moved to NR 205.07 (2) (d) to correct
205.07 (1) (v)	Amended	Minor modification	Clarifies that requirement applies to any bypass rather than just from treatment system. This is consistent with federal regulations.
205.07 (2) (d)	Amended	Minor modification	Relocation of language from NR 205.07 (1) (u) correction and revision of the language to provide consistency with federal regulations.
210.03 (9m)	Created	Minor modification	Addition of new definition to provide clarity for 210.08 (1) revisions.
210.08 (1) (a) and (b)	Amended	Clarity	To clarify that emergency operation provision applies to sewage treatment

210.08 (2)	Repealed and recreated	Minor modification	facilities. This requires that all lift stations, not just "main" lift stations maintain emergency operation provisions. This is a change in code intent and has more substantial effects than other "minor modifications". This is still considered relatively minor because emergency provisions are commonly provided by responsible management agencies, regardless of code requirements.
210.11	Amended	Clarity	Clarifies date for submitting CMAR reports. The CMAR applicable requirements are included in ch. NR 208.
214.02 (2)	Amended	Clarity	Clarifies code requirements and assess responsibility on parties using land treatment systems without a permit.
214.12 (4) (c)	Created	Technology Update	As the department programs our databases to collect electronic data, this gives us the ability to collect the reports electronically from the facilities.
214.13 (4) (c)	Created	Technology Update	As the department programs our databases to collect electronic data, this gives us the ability to collect the reports electronically from the facilities.
214.14 (4) (c)	Created	Technology Update	As the department programs our databases to collect electronic data, this gives us the ability to collect the reports electronically from the facilities.
214.15 (4) (c)	Created	Technology Update	As the department programs our databases to collect electronic data, this gives us the ability to collect the reports electronically from the facilities.
214.16 (2) (d)	Repealed and recreated	Typos/ Location Correction, Clarify	Simplifies language and updates code reference. No change to code intent.
214.16 (2) (e) and (f), and (3) (c)	Repealed	Clarity, Minor modification	Removes unnecessary and conflicting requirement. Any system, regardless of loading rate is regulated to comply with groundwater standards.
214.16 (4) (c)	Created	Technology Update	As the department programs our databases to collect electronic data, this gives us the ability to collect the reports electronically from the facilities
214.16 (6)	Amended	Minor modification	NR 214 addresses systems for non-domestic wastewater but DNR practice has been that when the water is non-domestic but equivalent to domestic wastewater in character, DNR accepts the Commerce methods or rules developed for domestic wastewater systems. This change codifies this practice.
214.17 (5) (c)	Created	Technology Update	As the department programs our databases to collect electronic data, this gives us the ability to collect the reports electronically from the facilities.
214.18 (5) (d)	Created	Technology Update	As the department programs our databases to collect electronic data, this gives us the ability to collect the reports electronically from the facilities.
299.04 (1) (b) 7.	Amended	Clarity	The cross reference clarifies all applicable statutory standards by adding statutes that were adopted after the rule went into effect.
299.05 (3) (f)	Amended	Clarity, Minor modification	Clarifies original intent of the procedure for NR 299 by providing greater detail that will avoid a possible inconsistent interpretation between this subsection and subsection (5) of this section.
299.05 (3) (fm)	Created	Clarity, Minor modification	Clarifies original intent of the procedure for NR 299 by providing greater detail that will avoid a possible inconsistent interpretation between the previous subsection (3) and subsection (5) of this section.

328.03 (9)	Amended	Typos/ Location Correction	Typographical error in original rule drafting led to inconsistent language between definitions of high, medium and low energy sites
328.03 (15)	Amended	Typos/ Location Correction	Typographical error in original rule drafting led to inconsistent language between definitions of high, medium and low energy sites
328.05 (6)	Amended	Typos/ Location Correction	The way the language is currently written, it incorrectly references NR 328.04 when it should be referencing NR 328.05
328.35 (3) (p)	Created	Minor modification	NR 328.35 (3) got inadvertently overlooked in the adoption of clearing house rule number CR07-094 in the fact that it does not list the invasive species decontamination standards that were recently added by rule to NR 328.04. To make subchapter III consistent with subchapter I we recommend that the language found in 328.04 (3) (i) be added to NR 328.35 (3) as subd. (p)
341.09 (1) (b) and (c)	Amended	Clarity	Typographical errors occurred during original rule drafting, due to concurrent drafting of NR 341 and NR 343.
NR 812.08 (4) (b) 11.	Amended	Citation correction	With the revisions to NR 110, this cross reference was corrected.
NR 812.08 (4) (b) 11. Note	Repealed	Clarity	With the revisions to NR 110, this is no longer needed.

Fiscal Estimate — 2009 Session

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Updated	LRB Number	Amendment Number if Applicable
<input type="checkbox"/> Corrected	<input type="checkbox"/> Supplemental	Bill Number	Administrative Rule Number WT-15-09

Subject
 Rules for plans and specifications for wastewater treatment plants and for application of a WPDES permit and submitting electronic monitoring reports

Fiscal Effect
 State: No State Fiscal Effect
 Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

<input type="checkbox"/> Increase Existing Appropriation	<input type="checkbox"/> Increase Existing Revenues	<input type="checkbox"/> Increase Costs — May be possible to absorb within agency's budget. <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Decrease Existing Appropriation	<input type="checkbox"/> Decrease Existing Revenues	
<input type="checkbox"/> Create New Appropriation	<input checked="" type="checkbox"/> Decrease Costs	

Local: No Local Government Costs

1. <input type="checkbox"/> Increase Costs <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	3. <input type="checkbox"/> Increase Revenues <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	5. Types of Local Governmental Units Affected: <input type="checkbox"/> Towns <input type="checkbox"/> Villages <input type="checkbox"/> Cities <input type="checkbox"/> Counties <input type="checkbox"/> Others <input type="checkbox"/> School Districts <input type="checkbox"/> WTCS Districts
2. <input type="checkbox"/> Decrease Costs <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	4. <input type="checkbox"/> Decrease Revenues <input type="checkbox"/> Permissive <input type="checkbox"/> Mandatory	

Fund Sources Affected <input checked="" type="checkbox"/> GPR <input checked="" type="checkbox"/> FED <input type="checkbox"/> PRO <input type="checkbox"/> PRS <input type="checkbox"/> SEG <input type="checkbox"/> SEG-S	Affected Chapter 20 Appropriations
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Assumptions Used in Arriving at Fiscal Estimate

This rule revision requires submittal of an electronic version of all plans and specifications, and the electronic submittal of discharge monitoring reports and web-based wastewater permit applications by all Wisconsin Pollutant Discharge Elimination System (WPDES) permittees. Permittees are now required to submit monthly discharge operating reports as part of their WPDES permit requirements. A few WPDES permittees may incur some one-time costs to comply with the electronic form submittal requirements, but the requirements will also provide significant annual cost savings for the Department.

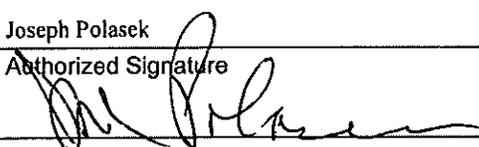
I. STATE FISCAL EFFECT

Electronic submission of forms to the Department requires the permittee/operator to do the quality control on the document prior to submission, thereby releasing Department staff from this effort, and also eliminating the need for the Department to contract with a third-party entity that converts paper copy submittals to the Department's electronic database.

Cost savings associated with the electronic submission of forms are summarized as follows:

- A. Printing cost savings of \$6,300 for no longer having to process 100,000 double-sided pages of monthly discharge monitoring reports.
- B. LTE cost savings of \$22,900 (1040 hours x \$22/hr = \$22,880) for no longer having to review the quality control of the documents before sending them to the third-party contractor that converts paper copy submittals to the Department's electronic database.
- C. Contractual savings of \$45,000 for no longer needed to contract with a third-party entity for paper-to-electronic information conversion.

Long-Range Fiscal Implications

Prepared By: Joseph Polasek	Telephone No. 266-2794	Agency Department of Natural Resources
Authorized Signature 	Telephone No. 266-2794	Date (mm/dd/ccyy) 11-02-09

Fiscal Estimate — 2009 Session

Page 2 Assumptions Narrative Continued

LRB Number	Amendment Number if Applicable
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Assumptions Used in Arriving at Fiscal Estimate – Continued

D. Postage savings of \$6,000.

E. LTE cost savings of \$22,900 (1040 hours x \$22/hr = \$22,880) for no longer having to scan WPDES facility plans and specifications to electronic copies for our database.

In total, annual cost savings are estimated to be \$103,100. State expenditures for staff will not increase to cover the program revisions, and there will be no reduction in state revenues associated with state cost decreases.

For Plans and Specification submittals, most facilities hire consultants to do this work and they should have a computer or they could scan the documents and submit a CD of the plans with their paper copy submittal. Minor costs may be passed on to the permittee for this additional service.

II. LOCAL GOVERNMENT FISCAL EFFECT

All municipal WPDES permittees (979) are currently submitting their Compliance Maintenance Annual Report (CMAR) electronically as part of NR 208; therefore, this rule change has no fiscal effect at the local government level.

III. PRIVATE SECTOR IMPACT

The proposed rule package would require all industrial permittees to submit monthly reports electronically to our database.

A. One-Time Costs

1. The Department estimates that 50 industrial permittees do not have a computer and will be required to incur one-time costs to buy a computer. Estimated costs for the computer are \$1,500 x 50 facilities = \$75,000.

2. Once the industrial permittees go on-line and begin electronic report submittals, the Department estimates that they will achieve overall postal cost savings of \$1,200 in the first year.

B. Annualized Costs

1. Annualized internet access costs for a new computer user to prepare electronic submittals are based on the estimated use per year: \$360 year/facility x 50 facilities = \$18,000.

2. Form completion costs should be the same as sending in a paper copy. It is estimated that it will take the same amount of time for the operator to fill out an electronic submission as they spend on a paper copy.

Fiscal Estimate Worksheet — 2009 Session
 Detailed Estimate of Annual Fiscal Effect

Original Updated
 Corrected Supplemental

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number WT-15-09

Subject

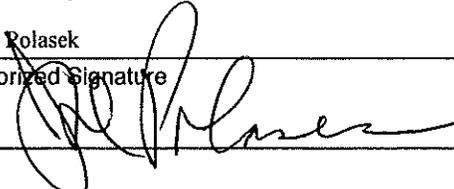
Rules for plans and specifications for wastewater treatment plants and for application of a WPDES permit and submitting electronic monitoring reports

One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

Annualized Costs:		Annualized Fiscal Impact on State Funds from:	
		Increased Costs	Decreased Costs
A. State Costs by Category			
State Operations — Salaries and Fringes		\$	\$ - 45,800
(FTE Position Changes)		(FTE)	(- FTE)
State Operations — Other Costs			- 57,300
Local Assistance			-
Aids to Individuals or Organizations			-
Total State Costs by Category		\$	\$ - -103,100
B. State Costs by Source of Funds			
GPR		\$	\$ - 45,800
FED			- 57,300
PRO/PRS			-
SEG/SEG-S			-
State Revenues	Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Revenue	Decreased Revenue
GPR Taxes		\$	\$ -
GPR Earned			-
FED			-
PRO/PRS			-
SEG/SEG-S			-
Total State Revenues		\$	\$ -

Net Annualized Fiscal Impact

	State	Local
Net Change in Costs	\$ -103,100	\$
Net Change in Revenues	\$	\$

Prepared By: Joe Rolasek	Telephone No. 266-2794	Agency Department of Natural Resources
Authorized Signature 	Telephone No. 266-2794	Date (mm/dd/ccyy) 11-02-09

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

The Wisconsin Natural Resources Board adopts an order to repeal NR 105.08 (4) Table 8 43., NR 110.03 (3), NR 110.03 (5), NR 110.03 (20), NR 110.03 (24), NR 110.03 (33), NR 110.05 (5) (g), NR 110.08 (3) (b), NR 110.09 (8) (c) 3. (Note), NR 114.18 (2), NR 114.18 (4) and (5), NR 114.23 (4), NR 205.07 (1) (r) 4., and (Note), NR 205.07 (1) (u), NR 214.16 (2) (e), (f), and (3) (e), NR 812.08 (4) (b) 11. (Note), to renumber NR 114.18 (6), to renumber and amend, NR 110.14 (6), NR 110.14 (7), NR 114.18 (3), NR 114.23 (5), to amend NR 102.10 (1) (b) 1. and 2., NR 102.10 (1) (d) 10., 17., 22., 29., and 30., NR 102.10 (1) (f) 1d., 2p., 6., 8., 10., 20., 22., and 22m., NR 102.10 (1m) 2., 3., 4., 5., 6., 9m., 10., 13., 14., 17., 18., and 20., NR 102.11 (1) (b) 1., 5., 12., 15., 16., 23., 27., 33., 34., and 37., NR 102.11 (1) (d) 5., 8., 15., 17., 28., 34., 39., and 42., NR 103.05 (3), NR 103.08 (1k) (e), NR 103.08 (1m) (Note), NR 105.06 (5) (h), NR 105.06 (8) (a), NR 105.06 Table 4B, NR 105.06 Table 5 and (Note), NR 105.08 (4) Table 8 2., 5., and 33., NR 105.09 (3) Table 9 36., and 38., NR 106.05 (5) (a), NR 106.06 (4) (e) (title), NR 106.07 (2) (intro), (a) and (b), NR 106.08 (5) (a), NR 106.115 (1), NR 106.88 (3), NR 108.04 (2) (Note), NR 108.04 (2) (b), NR 108.04 (5), NR 110.03 (9), NR 110.03 (22), NR 110.05 (2) (c), NR 110.05 (5) (c), NR 110.05 (6), NR 110.08 (3) (a), NR 110.09 (2) (j) 2., NR 110.09 (2) (j) 3. b., NR 110.09 (2) (j) 4. b., NR 110.09 (8) (b) 2., NR 110.13 (1) (d) 1. and 2., NR 110.13 (2) (i), NR 110.13 (2) (k) 1., NR 110.13 (5) (a), NR 110.13 (5) (e) through (h), NR 110.14 (1) (b), NR 110.14 (2) (b) 3., NR 110.15 (2) (a), NR 110.15 (4) (c), NR 110.18 (2) (d), NR 110.19 (5) (b) 2., NR 110.19 (6) (b) 1., NR 110.21 (4) (b), NR 110.21 (4) Table 5 (title), NR 110.21 (4) (d) 5., NR 110.21 (5) (b) and (c), NR 110.21 (6) (a) 2., NR 110.21 (6) (b) 1., NR 110.22 (5) (b) 3., NR 110.22 (5) (c) 4., NR 110.22 (6) (c), NR 110.22 (7) (c), NR 110.23 (2) (d), NR 110.23 (2) (e) 2., NR 110.24 (2) (b), NR 110.24 (3) (d) 3., NR 110.24 (4) (d), NR 110.24 (4) (d) 3., NR 110.24 (4) (d) 4., NR 110.24 (4) (d) 5., NR 110.24 (6) (a) through (c), NR 110.25 (5) (b) 1. and 3., NR 110.25 (5) (c) 3. and 5., NR 114.153 (5), NR 114.16 (1), NR 114.18 (title) and (1), NR 114.19 (8), NR 114.23 (1) and (2), NR 114.24 (1), NR 200.03 (1), NR 200.06 (2) and (Note), NR 203.03 (3), NR 203.13 (2) (g) and (j), NR 203.13 (3) (b), NR 205.07 (1) (n) and (Note), NR 205.07 (1) (r) 1. and (Note) and 2., NR 205.07 (1) (v), NR 205.07 (2) (d), NR 210.08 (1) (a) and (b), NR 210.11, NR 214.02 (2), NR 214.16 (6), NR 299.04 (1) (b) 7., NR 299.05 (3) (f), NR 328.03 (9), NR 328.03 (15), NR 328.05 (6), NR 341.09 (1) (b) and (c); NR 812.08 (4) (b) 11., to repeal and recreate NR 106.03 (6), NR 110.03 (4) and (Note), NR 110.03 (6) and (Note), NR 110.05 (4), NR 110.14 (2) (a) 3., NR 110.14 (3) through (5), NR 210.08 (2), NR 214.16 (2) (d), and to create NR 102.10 (1) (b) 3. through 5., NR 102.10 (1m) 4m., NR 102.11 (1) (d) 26. b., NR 110.03 (12g), NR 110.14 (6) through (8), NR 110.14 (10) and (11), NR 110.15 (3) (e), NR 114.153 (4m), NR 114.18 (3), NR 114.20 (1) (e), NR 203.02 (3) (j) and (k) and (Note), NR 203.03 (4) (g), NR 203.06 (2) (o), NR 210.03 (9m), NR 214.12 (4) (c), NR 214.13 (4) (c), NR 214.14 (4) (c), NR 214.15 (4) (c), NR 214.16 (4) (c), NR 214.17 (5) (c), NR 214.18 (5) (d), NR 299.05 (3) (fm), and NR 328.35 (3) (p) relating to revisions to fix typographical errors, make minor modifications or clarification, ensure consistency with federal regulations, code reference update or make technological updates for rules affecting the Bureau of Watershed Management.

Summary Prepared by the Department of Natural Resources

Statutory Authority: ss 30.12, 30.19, 227.11, 281.11, 281.12, 281.15, 281.17, 281.41, 283.11, 283.13, 283.31, 283.37, 283.39, 283.49, and 283.55, Stats.

Statutes Interpreted: ss 30.12, 30.19, 281.15, 281.17, 281.41, 283.13, 283.31, 283.37, 283.39, 283.49 and 283.55, Stats

Explanation of Agency Authority: The Department has the general authority to promulgate rules under s. 227.11(2)(a) to implement the statutory authority granted in chs. 30, 281 and 283, Wis. Stats. The following statutes grant the Department specific authority to develop rules.

- S. 281.15(1) provides authority to the Department to promulgate rules to establish water quality standards that are contained in chs. NR 102, 103 and 105.
- S. 283.13 provides authority to the Department to establish water quality based effluent limitations as established in ch. NR 106.
- S. 281.41 provides authority to the Department to require plans and specifications for reviewable facilities as established in chs. NR 108 and 110.
- S. 281.17(3) provides authority to the Department to develop rules governing the certification of waterworks and wastewater treatment plant operators as established in ch. NR 114.
- S. 283.37 provides authority for the Department to establish rules governing the application requirements for discharge permits. These rules are established in ch. NR 200.
- Ss. 283.39 and 283.41 provide authority to establish rules governing public participation for discharge permit applications. These rules are established in ch. 203.
- S. 283.31 provides authority to the Department to create a permitting program. Chapter NR 205 contains the general provisions of discharge permits.
- S. 283.13 provides authority to establish effluent limits for categories such as sewage treatment works and land applications of wastewater. S. 283.55 provides authority to establish monitoring and reporting requirements. These rules are established in chs. NR 210 and 214.
- S. 30.12 provides authority to the Department to develop rules regarding structures and deposits in navigable waters. These rules are established in ch. NR 328.
- S. 30.19 provides authority to the Department to develop rules regarding activities needing grading permits. These rules are established in ch. NR 341.

Related statute or rule: These rules relate directly to regulation of activities in wastewater discharge permits or in navigable waters under ch. 30, Stats., waters designations in ch. NR 1, and the chs. NR 100, 200, and 300 series rules.

Plain Language Analysis: The purpose of this rule update is to modify the existing rules to clarify, make consistent with federal regulations, clean up typographical errors, incorporate technology advances, or make minor modifications. The Bureau of Watershed Management has

not undertaken the effort to clean up our rules and therefore this rule package is fairly large since several rules affect the Bureau and need to be updated and corrected.

In ch. NR 102, clarifications and typographical corrections are proposed. In addition, an update to provide consistency with the revised state statute has been made. Chapter NR 102 contains the listing of waterbodies for outstanding or exceptional resource waters. There are several recommended pages of changes (13 pages in the ORDER). This code has primarily been changed to reflect typographical errors in the original listing of these waters, or if the water exists in more than one county, we have added the other county. To be consistent with the addition of two Wild Rivers (Brunsweler and Totagatic Rivers) to State Statute s. 30.26 in early 2009, language was refined and portions of these two existing outstanding or exceptional resource waters (ORW/ERW) were moved to the Wild Rivers section of NR 102; however, this does not affect their status as ORW/ERW. With the exception of the 2009 statutory based additions, there are no additions of new waterbodies, only corrections to the ones currently on the list.

Chapter NR 103 contains Water Quality Standards for Wetlands and the changes proposed are technical changes to reflect s. 281.36, Wis. Stats., a statute that was adopted after the rule went into effect.

Chapter NR 105 contains surface water quality criteria and secondary values for toxic substances. The changes proposed for this chapter are typographical errors or values that have been updated because of new analytical methods. The changes to Table 9 in ch. NR 105 are proposed to reflect changes to federal drinking water standards and are consistent with changes that were made in ch. NR 809. All other numerical changes are typographical errors.

Chapter NR 106 contains procedures for Calculating Water Quality Effluent Limits for substances discharged to surface waters. Changes to this chapter are primarily for clarification or typographical errors.

Chapter NR 108 outlines the Requirements for Plans and Specifications submittals for reviewable projects and operations of community water systems, sewerage systems and industrial wastewater facilities. The changes include technology updates requesting electronic submittals in addition to paper copies of final plans and specifications. To be consistent with federal regulations, the department proposes modification to s. NR 108.04 (5).

Chapter NR 110 contains requirements for Sewerage Systems. Most of this rule package contains changes to this chapter. Many changes are recommended to clarify the rule; other changes are because of technological updates. Revisions to this chapter are proposed to revise and clarify requirements for the design of sewers, sewage pumping (lift) stations, and sewage treatment processes. These changes reflect current practice and are not substantial; they are minor changes that make this rule more understandable and easier to implement.

One proposed “minor change” is a new requirement that an entrance warning sign be attached to a confined space wet well (containing sewage). A new subsection on simplex grinder or effluent pump stations is also proposed because the existing code does not adequately address this type of

lift station. Both of these changes are premised on applying current and commonly accepted, design practices that the department already employs in plan review.

The Department proposes to amend s. NR 110.05 to delete the numerous references to correction programs providing compliance by July 1, 1983. This change will not affect the current authorities or implementation of this rule in any way, but will remove outdated rule language.

A new definition of “design flow” is proposed to clarify the basis of various ch. NR 110 design criteria or methods. This revision will not affect the design flow used in the calculation of effluent limits which is established under other separate rules.

Chapter NR 114 contains the Certification Requirements for Waterworks, Wastewater Treatment Plant, Septage Servicing and Water System Operations. Proposed changes to this chapter include adding a “Master Operator” category to the Septage Servicing subchapter II. This is a category that the stakeholders have asked for to develop a succession of responsibilities. This has been an issue for several years and this code change will help satisfy the needs of the stakeholders.

Chapter NR 200 contains procedures for the Application for Discharge Permits and Water Quality Standards Variances. The proposed change to this rule is a technological update for the submission of permit applications on the web-based application system. The other changes are typographical or to be consistent with federal regulations.

Chapter NR 203 contains the WPDES Public Participation Procedures. The proposed change to this code is to make it consistent with federal regulations.

Chapter NR 205 contains the General Provisions in WPDES permits. The proposed technology update is to require electronic submission of discharge monitoring reports. Other changes are clarification of unscheduled bypassing of wastewater or to be consistent with federal regulations.

NR 210 is the chapter for Sewage Treatment Works. The minor clarification changes are to reflect date changes or clarification of terms. A modification is proposed to require that emergency operating provisions (such as stand-by generator or pump) be provided for all wastewater pumping stations. The proposed change to s. NR 210.08(2) would require that sewerage system owners maintain emergency operating provisions for lift stations (such as standby pumps or generators). Currently, these emergency provisions are required when lift station are upgraded or constructed new, but the current ch. NR 210 requirement is that only “Main” lift stations must maintain emergency operating provisions.

NR 214 is the chapter for Land Treatment of Industrial Liquid Waste By-Product Solids and Sludges. One proposed change is to clarify that certain subsurface systems may be evaluated in a manner to be consistent with ch. Comm 83.

Chapter NR 299 contains the Water Quality Certification requirements. The proposed changes to this chapter are technical changes to reflect s. 281.36, Stats., a statute that was adopted after the rule went into effect and to provide clarity with respect to the original intent of the rule.

NR 328 is the chapter for Shore Erosion Control Structures in Navigable Waterways. The recommended changes are to provide clarification or typographical changes.

NR 341 is the chapter for Grading on the Bank of Navigable Waterways. The proposed changes to this rule are to provide typographical changes.

NR 812 is the chapter for Well Construction and Pump Installation. The proposed change to this rule is to correct the code reference to ch. NR 110 made in this proposed rule package.

Comparison with Rules in Adjacent States

The proposed rule revisions to Ch. 102 are to fix typographical errors, clarify waterbodies that are limited to Wisconsin and add statutorily defined waters. The remaining revisions are being proposed in order to be consistent with federal law, to update technical requirements, to provide clarity and fix typographical errors. Minnesota, Illinois, Michigan and Iowa are generally required to be consistent with federal law.

Summary of Factual Data and Analytical Methodologies

The proposed rule revisions are minor modifications and typographical corrections and are not intended to change the substance of the rules so no factual data or analytical methodologies were developed.

Analysis and Supporting Documents Used to Determine Effect on Small Business or in Preparation of Economic Impact Report.

The proposed rules revisions are not anticipated to have an effect on small business as the revisions are minor modification in order to clarify rule language, fix typographical errors, and make Wisconsin's rules consistent with federal law.

Federal Regulatory Analysis: Some of the revisions are to make current regulations more consistent with federal regulations under the federal Clean Water Act.

Anticipated Private Sector Costs: No significant fiscal effect on the private sector is anticipated.

Effect on Small Business: The proposed rule changes are not expected to have a significant effect on small business. There are no significant changes to these rules that would affect small businesses.

Agency Contact Person: Susan Sylvester, Dept. of Natural Resources; Bureau of Watershed Management WT/3; Phone: 608-266-1099; Fax: 608-267-2800; Susan.Sylvester@wisconsin.gov

SECTION 1. NR 102.10 (1) (b) 1. and 2. are amended to read:

NR 102.10 (1) (b) *State wild and scenic rivers*. All state wild and scenic rivers designated under s. 30.26, Stats., including:

1. Pike river and its headwater branches in Marinette county.
2. Pine river and its ~~tributary Popple river~~ headwater branches in Florence and Forest counties.

SECTION 2. NR 102.10 (1) (b) 3. through 5. are created to read:

NR 102.10 (1) (b) 3. Popple River and its headwater branches in Florence and Forest counties.

4. The portion of the Brunswailer River (Martin Hanson Wild River) from the point in Ashland County at which it leaves T44N R4W S22 QSW QQSW downstream to the point at which it crosses the boundary of the Chequamegon–Nicolet National Forest at T45N R4W S22 QNW.

5. Portions of the Totogatic River in Bayfield, Sawyer, Washburn, Douglas, and Burnett Counties as described in the following table:

SEG 1: From the outlet of Totogatic Lake located in Bayfield County to the upstream end of Nelson Lake at the southern edge of the walleye spawning refuge located in Sawyer County.

SEG 2: From a point 500 feet below the dam in the Totogatic Wildlife Area located in Washburn County to the upstream end of the Colton Flowage located in Washburn County.

SEG 3: From a point 500 feet below the dam that forms the Colton Flowage located in Washburn County to the point where the river crosses the Washburn–Douglas County line immediately above the upstream end of the Minong Flowage.

SEG 4: From the bridge on CTH “I” that crosses the river located in Washburn County to the confluence of the river with the Namekagon River located in Burnett County.

Note: Section NR 302.02 (1) contains a detailed description of the extent of the Pike, Pine, and Popple river systems designated as Wild Rivers.

SECTION 3. NR 102.10 (1) (d) 10., 17., 22., 29., and 30. are amended to read:

NR 102.10(1)(d)10. Florence county — Brule river including Montagne creek and Riley creek tributaries; tributaries to the Pine–Popple rivers including Chipmunk, Cody, Haley, Haymarsh, ~~LaMontagne~~ Lamon Tangué, Lepage, Lunds, Martin, Olson, Patten, Pine, Riley, Rock, Simpson, Seven Mile, Wakefield and Woods creeks; Little Popple river (T38N R19E S3)

17. Marinette county — Cedarville creek, Otter creek, Holmes creek, East Thunder creek, North fork Thunder river, Eagle creek, Little Eagle creek, Plumadore creek, Meadow brook, Upper Middle Inlet creek, Middle Inlet creek, Wausaukee river, Little Wausaukee creek, Coldwater brook, Medicine brook, South Branch Miscauno ~~river~~ creek, Miscauno ~~river~~ creek, Swede John creek, South Branch Pemebonwon river, Spikehorn creek, Silver creek, Little Silver creek, Sullivan creek; tributaries to the Pike river including Little South Branch Pike river, Camp D creek, Camp F creek, Camp 9 creek, Cole creek, Glen creek, Harvey creek, North Branch Harvey creek, South Branch Harvey creek, Hemlock creek, Holloway creek, K.C. creek, Little Harvey creek, Lost creek, MacIntire creek, Phillips creek, Sackerson creek, Shinns ~~creek~~ branch, Sidney creek, Smeesters creek, Springdale brook, Whiskey creek

22. Portage county — Emmons creek, Radley creek, Sannes creek, Tomorrow river, ~~Trout~~ Nace (Trout) creek

29. Waupaca county — Emmons creek, Griffin creek, Jackson creek, Leers creek, Peterson creek, Radley creek, Sannes creek, Spaulding creek, Trout creek, Whitcomb creek, ~~North Branch~~ Little Wolf river (North Branch Little Wolf river)

30. Waushara county — Chaffee creek, Willow creek north of Redgranite, Mecan river north of Richford, Little Pine creek, West Branch White river

SECTION 4. NR 102.10 (1) (f) 1d., 2p., 6., 8., 10., 20., 22., and 22m. are amended to read:

NR 102.10 (1) (f) 1d.
Ashland

Bad River

SEG 1: Origin to Outfall in Mellen at NW ¼ SW ¼ S6 T44N R2W

Brunswweiler River

SEG 1: Origin to Inlet of Spider Lake

SEG 2: Outlet of Moquah Lake to ~~Inlet of Mineral Lake~~ origin of Wild River designation under par. (b) 4. at T44N R4W S22 SW ¼ of SW ¼

SEG 3: ~~Outlet of Mineral Lake to Inlet of Beaverdam Lake~~ All portions included as Wild River under par. (b) 4.

SEG 4: ~~Outlet of Beaverdam Lake (at the dam)~~ End of Wild River segment under par. (b) 4. at the boundary of the Chequamegon–Nicolet National Forest (T45N R4W S22 ¼ NW) to the Bad River Indian Reservation Boundary

2p. Bayfield,

Sawyer,
Washburn,
Douglas
& Burnett

Totagatic River

~~SEG 1: Origin (Confluence of West Fork Totagatic River and East Fork Totagatic River) to Inlet of Nelson Lake~~ All portions included as Wild River under SEG 1 of par. (b) 5.

~~SEG 2: Outlet of Totagatic Flowage to Inlet of Colton Flowage~~ All portions included as Wild River under SEG 2 of par. (b) 5., and the 500 feet immediately downstream of the dam in the Totagatic Wildlife Area in Washburn County

~~SEG 3: Outlet of Colton Flowage to Inlet of Minong Flowage~~ All portions included as Wild River under SEG 3 of par. (b) 5., the 500 feet immediately downstream of the dam that forms the Colton Flowage, and from the end of the Wild River designation at the Douglas/Washburn County line to the inlet of Minong Flowage

~~SEG 4: Outlet of Minong Flowage to Confluence with Namekagon River~~ All portions included as Wild River under SEG 4 of par. (b) 5.

6.	Forest	Allen Creek	All
		Brule Creek	All
		Elvoy Creek	All
		Jones Creek	Class I & II portions
		<u>North Otter Creek (T37N R14E S23, North Otter Creek)</u>	All
8.	Iron, Ashland & Price	Flambeau River	SEG 1: Turtle-Flambeau Flowage (Outlet @ Turtle-Flambeau Dam) to Inlet of Upper Park Falls Flowage
		No. Fork Flambeau River	From Turtle Flambeau Flowage Dam downstream to Park Falls

10.	Langlade	Elton Creek	Class I Portion
		Little Evergreen Creek	All
		Mayking Creek	All
		Michelson Creek	All
		Mid Branch Embarrass River	Class I Portion
20.	Sawyer	Benson Creek	All-Class I Portion
		Couderay River	SEG 1: Origin at Outlet of Billy Boy Flowage to Inlet of Grimh Flowage (Including Waters within Lac Courte Oreilles Indian Reservation)
		Eddy Creek	All-Class I Portion
		Grindstone Creek	All-Class I Portion
		Knuteson Creek	SEG 1: Outlet of Wise Lake to Inlet of Knuteson Lake
			SEG 2: Outlet of Knuteson Lake to Inlet of Lake Chetek
		Little Weirgor Creek & Tribs	All-Class I & II Portions
		McDermott Creek Brook	All
		Mosquito Brook	All-Class I Portion

		Teal River	Outlet of Teal Lake to Confluence with West Fork Chippewa River
22.	Vilas	Allequash <u>Creek & Springs</u>	Class I & II Portions
		Brule Creek	All
		East Br. Blackjack Cr.	All
		Elvoy Creek & Springs	Class I & II Portions
		Manitowish River	SEG 1: Adjacent to Dam Road Downstream to Inlet of Boulder Lake SEG 2: Outlet of Boulder Lake to Inlet of Island Lake
		Mishonagon Creek	Class I & II Portions
		Siphon Creek	All
		Spring Meadow Creek	Class I Portion
		Tamarack Creek	All
		Trout River	SEG 1: Outlet of Trout Lake to Lac Du Flambeau Indian Reservation Eastern Boundary
22m.	Vilas & Oneida	Wisconsin River	SEG 1: Origin <u>Origin</u> (Outlet of Lac Vieux Desert) to Inlet of Watersmeet Lake

SECTION 5. NR 102.10 (1m) 2., 3., 4., 5., 6., 9m., 10., 13., 14., 17., 18., and 20. are amended to read:

NR 102.10(1m)

2. Barron Bear Lake (T36N R12W S2); also in Washburn County)

Red Cedar Lake (also in Washburn County)

Sand Lake

Silver Lake

3. Bayfield Bark Bay Slough

Diamond Lake

Lake Owen

Lake Superior within ¼ mile of the shoreline of the islands within the Apostle Island National Lakeshore

Lower Eau Claire Lake (also in Douglas County)

Middle Eau Claire Lake

Namekagon Lake

~~Owen Lake~~

Pike Chain of Lakes (Pike, Millicent, Buskey Bay, Hart, Twin Bear, Eagle, Flynn and Hildur Lakes)

Star Lake

Upper Eau Claire Lake

4. Burnett ~~Big Mckenzie Lake~~

Big Sand Lake

McKenzie Lake (also in Washburn County)

Middle McKenzie Lake (also in Washburn County)

Sand Lake (T40N R15W S25)

5. Columbia Crystal Lake (T12N R10E S1)

6. Douglas Bardon Lake (Whitefish Lake)

Bond Lake

Lake Nebagamon

Lower Eau Claire Lake (also in Bayfield County)

~~Nebagamon Lake~~

St. Croix (Gordon) Flowage

Upper St. Croix Lake

~~Whitefish Lake (Bardon)~~

9m. Marinette Caldron Falls Flowage (also in Oconto County)

10. Oconto Archibald Lake

Bass Lake (T32N R15E S9)

Bear Paw Lake

Boot Lake

Caldron Falls Flowage (also in Marinette County)

Chain Lake

13. Price ~~Cochran~~ Cochran Lake

Tucker Lake

14. Rusk Bass Lake (T34N R9W S16)

Fish Lake

Island Chains of Lakes (Chain {also in Chippewa County}, Clear, ~~McMann-McCann~~, and Island Lakes)

Three Lakes No. 1 (T36N R9W S25)

17. Sawyer Barker Lake

Blaisdell Lake

~~Camp Smith Lake~~

Evergreen Lake

Grindstone Lake

Lac Court Oreilles

Lake Chippewa (Chippewa Flowage)

Nelson Lake

Osgood Lake

Perch Lake (T42N R6W S25)

Round Lake (Big Round)

Sand Lake

Smith Lake

Spider Lake

Teal Lake

Whitefish Lake

18. Vilas Black Oak Lake

Crab Lake

Crystal Lake (T41N R7E S27)

Lac Vieux Desert

North Twin Lake

Palette Lake (Clear)

Partridge Lake

Plum Lake

South Twin Lake

Star Lake

Stormy Lake

Trout Lake

White Sand Lake (~~T24N R7E S26~~) (T42N R7E S26)

20. Washburn Bass Lake (T40N R10W S17)

Bear Lake (T36N R12W S2; also in Barron County)

Long Lake

McKenzie Lake (also in Burnett County)

Middle McKenzie Lake (also in Burnett County)

Red Cedar Lake (also in Barron County)

Shell Lake

Stone Lake (T39N R10W S24)

SECTION 6. NR 102.10 (1m) 4m. is created to read:

NR 102.10 (1m)

4m. Chippewa Chain Lake (also in Rusk County)

SECTION 7. NR 102.11 (1) (b) 1., 5., 12., 15., 16., 23., 27., 33., 34., and 37. are amended to read:

NR 102.11 (1) (b) Other Class 1 trout waters:

1. Abraham Coulee creek in section 29, township 20 north, range 8 west from its headwaters to the ~~Abraham Coulee road bridge~~ upstream crossing of Oak Ridge Drive in Trempealeau county.
5. Bufton Hollow creek originating in section ~~23~~19, township 12 north, range 2 west in Richland county.
12. Martin creek originating in section ~~22~~23, township 6 north, range 2 east in Iowa county.
15. Spring ~~Coulee~~ Valley creek from the headwaters to SE 1/4, SE 1/4, section 33, township 16 north, range 1 east in Monroe county.
16. Unnamed creek 2-12 originating in section 36, township 20 north, range 7 west ~~of~~ in Trempealeau county.
23. Unnamed creek 10-8 originating in section ~~10~~3, township 11 north, range 1 west in Richland county.
27. Unnamed creek 13-3a originating in section 19, township 20 north, range 6 west in ~~Trempealeau~~ Jackson county.
33. Unnamed creek 24-3a originating in section ~~24~~18, township 11 north, range 1 west in Richland county.
34. Unnamed creek 26-7 originating in section 2, township ~~20~~21 north, range ~~6~~5 west in Jackson county.
37. Unnamed stream originating in section ~~29~~33, township 10 north, range 3 east in Sauk county.

SECTION 8. NR 102.11 (1) (d) 5., 8., 15., 17., 28., 34., 39., and 42. are amended to read:

NR 102.11 (1) (d)

- | | | |
|-----------------|-------------------------|--|
| 5. Dane & Green | Little Sugar River | Above New Glarus |
| | Story Creek (Tipperary) | All, originating in T5N R8E S36 |

	Sugar Creek <u>River</u>	All
8. Fond du Lac	Feldner's Creek	From headquarters <u>headwaters</u> to Mischo's Millpond
	<u>Auburn Lake Creek (Lake Fifteen Creek)</u>	Entire Creek above & below <u>Auburn Lake Fifteen</u>
15. Iron	Maintowish <u>Manitowish</u> River	All
17. Jefferson & <u>Rock</u>	Allen Creek	All
28. Rock	Bass Creek	All
	East Fork Raccoon Cr.	All
	Little Turtle Creek	All
	Raccoon Creek	All
	Spring Brook (<u>T2N R14E S27</u>)	All
	Turtle Creek	All
	Unnamed Creek T2N R14E S31	All
34. St. Croix	Apple River	From NSP plant below CTH I to Mouth
	Cady Creek	All

	Willow River	Extend Class II Portion into Delta in Lake Mallileau <u>Mallilieu</u>
39.	<u>Washington & Fond du Lac</u>	E. Branch Milwaukee R. From Long Lake outlet to STH 28
42.	<u>Waupaca, Outagamie, & Shawano</u>	Embarrass River From Wolf River upstream to dam at Pella

SECTION 9. NR 102.11 (1) (d) 26 b. is created to read:

NR 102.11 (1) (d)

26b. Polk ^{St.Croix} River From the northern boundary of the St. Croix Falls city limits to a distance one mile below the STH 243 bridge at Osceola

SECTION 10. NR 103.05 (3) is amended to read:

NR 103.05 (3) These procedures are promulgated under ss. 281.11, 281.12 (1), 281.15, 281.36, 281.37, and 283.001, Stats.

SECTION 11: NR 103.08 (1k) (e) is amended to read:

NR 103.08 (1k) (e) For all activities that meet the criteria listed in sub. (4) (c) 3. and that do not require authorization under ch. 30, Stats., the department shall make a ~~final~~ decision on an application within 60 working days of receipt of a complete application from the project proponent.

SECTION 12. NR 103.08 (1m) (Note) is amended to read:

NR 103.08 (1m) **Note:** This guide is based upon the "Corps of Engineers Wetlands Delineation Manual, 1987" ~~which has been regionalized for Wisconsin, and Final Regional Supplements.~~ Copies of "Basic Guide to Wisconsin's Wetlands and Their Boundaries" may be obtained from Wisconsin Department of Administration, Document Sales Unit, 202 S. Thornton Ave., P.O. Box 7840, Madison, WI 53707-7840.

SECTION 13. NR 105.06 (5) (h) is amended to read:

NR 105.06 (5) (h) Chronic toxicity criteria for the fish and aquatic life subcategories listed in s. NR 102.04 (3) that are calculated using acute-chronic ratios are listed in Table 5 for substances with acute toxicity unrelated to water quality parameters and in Table 6 for substances with acute toxicity related to water quality parameters. Equations listed in Table 6 are applicable over the same range of water quality parameters as contained in Table 2A4A. Table 2A should be used where no range is listed in Table 4A.

SECTION 14. NR 105.06 (8) (a) is amended to read:

NR 105.06 (8) (a) The conversion of the water quality criterion expressed as total recoverable ($WQC_{Total R.}$) to the water quality criterion expressed as dissolved (WQC_D) shall be performed as follows:

$$WQC_D = (CF)(WQC_{Total R.})$$

Where: $WQC_{Total R.}$ = Criteria from NR 105, Table 5 or 6.

CF = Conversion factor for total recoverable to dissolved.

Conversion factors are as follows:

Arsenic 1.000
Cadmium 0.850
Chromium (III) 0.860
Chromium (VI) 0.962
Copper 0.960
Lead 0.792
Mercury 0.85
Nickel 0.997
Selenium 0.922
Zinc 0.986

SECTION 15. NR 105.06 Table 4B is amended to read:

NR 105.06 **Table 4B**
Chronic Toxicity Criteria for Ammonia with Toxicity Related to Water Quality (all in mg/L)

Substance: Ammonia (as N)

Water Quality Parameters: Temperature in degrees Celsius, pH

30-Day CTC:

$$CTC = E \times ((0.0676/(1 + 10^{(7.688 - pH)})) + (2.912/(1 + 10^{(pH - 7.688)}))) \times C$$

Fish (Early Life Stages Absent):

@ 25 degrees Celsius	2.22	1.24	0.55
@ 7 degrees Celsius or less	7.09	3.95	1.77

Limited Forage Fish (Early Life Stages Present):

@ 27 degrees Celsius or less	5.54	3.09	1.38
------------------------------	------	------	------

Limited Forage Fish (Early Life Stages Absent):

@ 25 degrees Celsius	6.69	3.73	1.67
@ 7 degrees Celsius or less	21.34	11.90	5.33

Limited Aquatic Life:

@ 25 degrees Celsius	14.50	8.09	3.62
@ 7 degrees Celsius or less	46.29	25.82	11.56

Note: The terms "early life stage present" and "early life stage absent" are defined in subch. III of ch. NR 106.

SECTION 16. NR 105.06 Table 5 and (note) are amended to read:

NR 105.06

Table 5
Chronic Toxicity Criteria Using Acute-Chronic Ratios for Substances
with Toxicity Unrelated to Water Quality (all in ug/L)

Substance	Cold Water	Warm Water Sportfish and Warm Water Forage	Limited Forage Fish and Limited Aquatic Life
Arsenic (+3)*	148	152.2	152.2
Chromium (+6)*	10.98	10.98	10.98
Mercury (+2)*	0.44	0.44	0.44
Cyanide, free	5.22	11.47	11.47
Chloride	395,000	395,000	395,000
Selenium	5.0	5.0	46.5

Chlorine ^{†*}	7.28	7.28	7.28
Dieldrin	0.055	0.077	0.077
Endrin	0.036	0.050	0.050
Parathion	0.011	0.011	0.011

Note: [†] *Criterion listed is applicable to the "total recoverable" form except for chlorine which is applicable to the "total residual" form.

SECTION 17. NR 105.08 (4) Table 8 2., 5., and 33. are amended to read:

NR 105.08 (4)

Table 8

Human Threshold Criteria
(ug/L unless specified otherwise)

	Substance	Public Water Supply		Non-Public Water Supply		
		Warm Water Sport Fish Communities	Cold Water ⁴ Communities	Warm Water Forage, Limited Forage, and Warm Water Sport Fish Communities	Cold Water Communities	Limited Aquatic Life
2.	Antimony ²	5.6	5.6	373	373	1,120
5.	Cadmium ²	4.4	4.4	370	370	880
33.	*gamma-BHC (lindane) ²	0.20	0.20	0.84	0.25	1,900

SECTION 18. NR 105.08 (4) Table 8 43. is repealed.

SECTION 19. NR 105.09 (3) Table 9 36., and 38., are amended to read:

NR 105.09 (3)

Table 9

Human Threshold Criteria
(ug/L unless specified otherwise¹)

	Substance	Public Water Supply		Non-Public Water Supply		
		Warm Water Sport Fish Communities	Cold Water ⁴ Communities	Warm Water Forage, Limited Forage, and Warm Water Sport Fish Communities	Cold Water Communities	Limited Aquatic Life
36.	Tetrachloroethene ²	5.8 <u>5.0</u>	4.6	46	15	1300
38.	1,1,2—Trichloroethane ²	6.0 <u>5.0</u>	6.0 <u>5.0</u>	195	87	1200

SECTION 20. NR 106.03 (6) is repealed and recreated to read:

NR 106.03 (6) "IWC" or "Instream waste concentration" means an estimate of the proportion of effluent to total volume of water (receiving water + effluent). The IWC is calculated according to the following equation:

$$\text{IWC (as \%)} = 100 \times \frac{Q_e}{(1 - f) Q_e + Q_s}$$

where:

Q_e = effluent flow

f = fraction of the Q_e withdrawn from the receiving water

Q_s = receiving water flow (in most cases $\frac{1}{4}$ of a low flow value, such as the $Q_{7,10}$, is used in order to allow a free zone of passage for aquatic organisms).

SECTION 21. NR 106.05 (5) (a) is amended to read:

NR 106.05 (5) (a) When available daily discharge concentrations of the substance are not serially correlated and at least 11 concentrations are greater than the limit of detection, the upper 99th percentile of the daily average, the 4-day average and the 30-day average discharge concentrations may be calculated as follows:

$$P_{99} = \exp(\mu_{dn} + Z_p \sigma_{dn})$$

Where:

- P_{99} = Upper 99th percentile of n-day average discharge concentrations.
- d = Ratio of the number of daily discharge concentrations less than the limit of detection to the total number of discharge concentrations.
- n = Number of discharge concentrations used to calculate an average over a specified monitoring period ($n=1$ for daily concentrations, 4 for 4-day averages and 30 for 30-day averages).
- \exp = Base e (or approximately 2.718) raised to the power shown between the parentheses in the original equation.
- Z_p = Z value corresponding to the upper p^{th} percentile of the standard normal distribution.
- P = $(0.99 - d^n) / (1 - d^n)$.
- μ_{dn} = $\mu_d + [(\sigma_d)^2 - (\sigma_{dn})^2] / 2 + \ln[(1-d)/(1-d^n)]$ = estimated log mean of n-day average discharge concentrations greater than the limit of detection.
(Note: $\mu_{dn} = \mu_d$ if $n = 1$).
- $(\sigma_{dn})^2$ = $\ln [(1-d^n) (1 + (s/m)^2) / (n(1-d)) + (n-1)/n]$ = estimated log variance of n-day average discharge concentrations greater than the limit of detection.

- (Note: $(\sigma_{dn})^2 = (\sigma_d)^2$ if $n = 1$.)
- $\mu_d = \ln m - 0.5 (\sigma_d)^2$ = estimated log mean of discharge concentrations greater than the limit of detection.
- $(\sigma_d)^2 = \ln [1 + (s/m)^2]$ = estimated log from variance of discharge concentrations greater than the limit of detection.
- \ln = Natural logarithm.
- m = Mean of discharge concentrations greater than the limit of detection.
- s = Standard deviation of discharge concentrations greater than the limit of detection.

SECTION 22. NR 106.06 (4) (e) (title) is amended to read:

NR 106.06 (4) (e) *Background concentrations of ~~toxicant~~ toxic or organoleptic substances (Cs).* The representative background concentration of a toxic or organoleptic substance shall be used in deriving chemical specific water quality based effluent limitations. Except as provided elsewhere in this paragraph, the representative background concentration shall equal the geometric mean of the acceptable available data for a substance. Background concentrations may not be measured at a location within the direct influence of a point source discharge.

SECTION 23. NR 106.07 (2) (intro), (a), and (b) are amended to read:

NR106.07 (2) A chemical specific water quality based effluent limitation that is established according to this chapter shall be expressed in the permit as both a concentration limitation (in units of mg/L or equivalent units) and a mass limitation (in units of kg/day or equivalent units). Water quality based mass limits for discharges of chlorine are not required in permits.

(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 average 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 average 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 stormwater, is added to an existing wastewater treatment facility. This paragraph does not waive the requirements of ch. NR 207.

SECTION 24. NR 106.08 (5) (a) is amended to read:

NR 106.08 (5) REASONABLE POTENTIAL TO RECEIVE 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. In evaluating the potential of a water quality standard to be exceeded, a reasonable potential factor (RPF) shall be calculated for a discharger with 5 or more representative toxicity tests according to par. (b). Whole effluent toxicity limits shall be imposed in a WPDES permit whenever the RPF calculated according to par. (b) exceeds 0.30. Whole effluent toxicity limits may be imposed, on a case-by-case basis, whenever facility-specific whole effluent toxicity test data indicate toxicity to aquatic life as determined in s. NR 106.09. 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.

SECTION 25. NR 106.115 (1) is amended to read:

NR 106.115 (1) For the chlorinated dibenzo-p-dioxins (CDDs) listed in Tables 7, 8 and 9 in ch. NR 105, the potential adverse additive effects of all dioxin (CDD) and chlorinated dibenzofuran (CDF) congeners in effluents shall be accounted for as specified in this section.

SECTION 26. NR 106.88 (3) is amended to read:

NR 106.88 (3) Interim limitations, target values and target limitations established according to this subchapter shall be expressed in the permit as a concentration limitation, in units of mg/L or equivalent units, ~~Pursuant to s. NR 106.07 (2), calculated limitations established in accordance with this subchapter shall be expressed in the permit both as a concentration limitation, in units of mg/L or equivalent units,~~ and as a mass limitation, in units of ~~Kg/d~~ lbs/d or equivalent units.

SECTION 27. NR 108.04 (2) Note is amended to read:

NR 108.04 (2) **Note:** The necessary accompanying design data for sewerage systems and waterworks can be found in ~~ss. NR 110.06 to 110.11~~ Chs. NR 110 and 811.11 811, respectively.

SECTION 28. NR 108.04 (2) (b) is amended to read:

NR 108.04 (2) (b) Three sets of final plans and specifications shall be submitted for all reviewable projects except water main and sanitary sewer extensions in which case only ~~1 set~~ needs 2 sets need to be submitted. One of the plan sets shall be submitted electronically and the remainder as paper unless the department determines an alternate submittal is acceptable for its review and records retention purposes. Additional sets of plans and specifications may be required for sewerage improvements that are eligible for state or federal grants-in-aid.

SECTION 29. NR 108.04 (5) is amended to read:

NR 108.04 (5) POST START OF CONSTRUCTION SUBMITTALS. The department ~~shall~~ may not approve plans and specifications ~~which are submitted after~~ for any project for which construction has commenced. The department may review the plans and specifications and require changes to components which may adversely affect public health, the operation of the proposed or existing facility and the determination of permit compliance. This review does not prohibit the department from taking enforcement action under s. NR 108.03.

SECTION 30. NR 110.03 (3) is repealed.

SECTION 31. NR 110.03 (4) and Note are repealed and recreated to read:

NR 110.03 (4) "ASTM" means standards developed by ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

Note: Copies of ASTM standards referenced in this chapter are available for inspection at the office of the department of natural resources, the secretary of state's office, and the office of the revisor of statutes, and may be obtained for personal use from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

SECTION 32. NR 110.03 (5) is repealed.

SECTION 33. NR 110.03 (6) and Note are repealed and recreated to read:

NR 110.03 (6) "AWWA" means the American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

Note: Copies of AWWA standards referenced in this chapter are available for inspection at the offices of the department of natural resources, the secretary of state's offices, and the office of the revisor of statutes, and may be obtained for personal use from the American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

SECTION 34. NR 110.03 (9) is amended to read:

NR 110.03 (9) "Controlled diversion" means the ~~discharge~~ re-routing of untreated or partially treated wastewater around the entire sewage treatment facility, or treatment processes therein, which is recombined with the treated effluent prior to the effluent sampling location.

SECTION 35. NR 110.03 (12g) is created to read:

NR 110.03 (12g) “Design flow” means the anticipated wastewater discharge rate to a sewerage system component, which is used to design the sewerage system component to provide compliance with WPDES permit limits and other performance objectives, during the most critical operating conditions anticipated within the design planning period. Specific design flow terms used in this chapter, include the following:

(a) “Average daily base flow” means the average of the daily flow volumes anticipated to occur for a continuous 12-month period, less infiltration and inflow, and expressed as a daily average.

(b) “Average design flow” means the average of the daily flow volumes anticipated to occur for a continuous 12-month period, expressed as a daily average.

(c) “Maximum month design flow” means the largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

(d) “Maximum week design flow” means the largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

(e) “Maximum day design flow” means the largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

(f) “Maximum hour design flow” means the largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

(g) “Peak instantaneous design flow” means the maximum anticipated instantaneous flow.

(h) “Peak design flow” and “maximum design flow” mean the largest volume of flow anticipated to occur on an infrequent basis, expressed as a daily average. The “peak design flow” or “maximum design flow” may be equal to any one of the design flows defined in pars. (c) to (g).

SECTION 36. NR 110.03 (20) is repealed.

SECTION 37. NR 110.03 (22) is amended to read:

NR 110.03 (22) “NEC” means the ~~1984~~ NFPA 70 National Electrical Code. Copies of the National Electrical Code are available for inspection at the offices of the department of natural resources, the secretary of state’s office, and the ~~legislative reference bureau~~. office of the revisor of statutes. Copies may be obtained for personal use from the National Fire Protection Association, ~~470 Atlantic Avenue, Boston, Mass. 02210.~~ 1 Batterymarch Park, Quincy, Mass. 02169-7471.

SECTION 38. NR 110.03 (24) is repealed.

SECTION 39. NR 110.03 (33) is repealed.

SECTION 40. NR 110.05 (2) (c) is amended to read:

NR 110.05 (2) (c) "Category 2 bypasses and overflows" means those bypasses and overflows occurring under abnormal circumstances. They may include an inadvertent bypass or overflow resulting from unanticipated equipment damage or failure, or temporary power interruption; a bypass or overflow necessary to prevent loss of life or severe property damage; or a bypass or overflow of excessive storm drainage or runoff resulting from a precipitation event having a probable recurrence frequency of once in 5 years or ~~less~~ lesser recurrence frequency. For the purposes of determining sewer extension eligibility in the case of combined sewer systems, the bypass or overflow frequency necessary to achieve compliance with the applicable requirements derived from an applicable state court-approved stipulation, order or judgment shall be used in lieu of the 5-year storm frequency when that frequency is less stringent than the 5-year storm frequency; and in all other cases the 5-year storm frequency is used. If there is no state court-approved stipulation, order or judgment applicable to a combined sewer system, then the bypass or overflow frequency necessary to achieve compliance with all applicable requirements of ch. 283, Stats., shall be used in lieu of the 5-year storm frequency when that frequency is less stringent than the 5-year storm frequency; and in all other cases, the 5-year storm frequency is used. When using the 5-year storm to define category 2 bypasses and overflows, other factors besides storm frequency shall be ~~taken into account~~ considered, including local storm patterns, snow melt and snow cover, soil types and soil conditions, and frost depth.

SECTION 41. NR 110.05 (4) is repealed and recreated to read:

NR 110.05 (4) DENIAL OF SEWER EXTENSION APPLICATIONS. (a) Applications for sanitary sewer extensions shall be denied if the sewer will be tributary to any of the following:

1. A sewage treatment plant which discharges an effluent not in compliance with the monthly average effluent limitations for biochemical oxygen demand (BOD₅) and total suspended solids contained in ch. NR 210 or 214, or with any more stringent water quality related effluent limitations required to achieve applicable water quality standards derived from chs. NR 102 to 104 or from any federal water quality standard promulgated pursuant to 33 USC 1313 for any waters of the state.

2. A sewerage system in which any category 1 bypasses or overflows occur.

(b) If the WPDES permit for a sewage treatment plant currently discharging an effluent in accordance with ch. NR 210 establishes a compliance schedule for achievement of any more stringent water quality related effluent limitations applicable to such treatment plant, compliance

with the schedule of compliance in the discharge permit shall be deemed to be compliance with the applicable water quality related effluent limitations.

SECTION 42. NR 110.05 (5) (c) is amended to read:

NR 110.05 (5) (c) That the sewers to be installed will result in the elimination of existing category 1 bypasses or overflows ~~which occur during dry weather flow conditions~~ or will result in the abandonment of an existing inadequate sewage treatment plant;

SECTION 43. NR 110.05 (5) (g) is repealed.

SECTION 44. NR 110.05 (6) is amended to read:

NR 110.05 (6) CONNECTIONS RESTRICTIONS. As a condition of any approval granted under sub. (4) ~~or~~ (5), the department may require ~~that~~ that an applicant for a sewer extension restrict the number of connections made to the sewer system in accordance with a prescribed schedule.

SECTION 45. NR 110.08 (3) (a) is amended to read:

NR 110.08 (3) WISCONSIN ENVIRONMENTAL POLICY ACT REVIEW. ~~(a) Facilities plans, other than those excluded in s. 150.03 (2) (d) 17., (1978), shall be screened reviewed by the department to determine whether it is required to prepare an environmental impact statement in accordance with ch. NR 150, (1978) in accordance with ch. NR 150.~~

SECTION 46. NR 110.08 (3) (b) is repealed.

SECTION 47. NR 110.09 (2) (j) 2. is amended to read:

NR 110.09 (2) (j) 2. Wastewater flow estimates. In determining total average ~~daily~~ flow for the design of sewerage systems, the flows to be considered include the average daily base flows (ADBF) expected from each of the following: residential sources, commercial sources, institutional sources, and industries the system will serve plus allowances for future industries and nonexcessive infiltration ~~or~~ inflow.

SECTION 48. NR 110.09 (2) (j) 3. b. is amended to read:

NR 110.09 (2) (j) 3. b. While many uncertainties accompany forecasting future industrial flows, there is still a need to allow for some unforeseeable future industrial growth. Thus, design capacity of the treatment works may include (in addition to the existing industrial flows and future documented industrial flows) a nominal flow allowance for future nonidentifiable

industries or for unplanned industrial expansions, provided that areawide waste treatment management plans, land-use plans and zoning provide for ~~such~~ the industrial growth. This additional allowance for future unplanned industrial flow ~~shall~~ may not normally exceed 5%, (or 10% for towns with less than 10,000 population), of the total average design flow of the treatment works exclusive of the allowance or 25% of the total industrial flow, (existing plus documented future), whichever is greater.

SECTION 49. NR 110.09 (2) (j) 4. b. is amended to read:

NR 110.09 (2) (j) 4. b. The staging period ~~shall~~ may not exceed the period which is appropriate according to the following table.

Staging Periods for Treatment Facilities	
Flow Growth Factors (20 yrs)	Maximum Initial Staging Period
1. Design <u>Average design</u> flow less than 1.3 times initial <u>average</u> flow	20 years
2. Design <u>Average design</u> flow 1.3 to 1.8 times initial <u>average</u> flow	15 years
3. Design <u>Average design</u> flow greater than 1.8 times initial <u>average</u> flow.	10 years

SECTION 50. NR 110.09 (8) (b) 2. is amended to read:

NR 110.09 (8) (b) 2. The following site-specific groundwater information ~~shall~~ may be required as part of the facilities plan for land disposal facilities:

SECTION 51. NR 110.09 (8) (c) 3. (Note) is repealed.

SECTION 52. NR 110.13 (1) (d) 1. and 2. are amended to read:

NR 110.13 (1) (d) *Protection of water supplies*. 1. Sanitary sewers ~~which shall be laid less than located with a minimum separation distance of 60 meters (200 feet) from a public any community water supply system well shall be approved on a case-by-case basis. in accordance with ch. NR 811. A lesser separation distance may be allowed where the sanitary sewer main is constructed of water main materials and joints and pressure tested in accordance with ch. NR 811 requirements.~~ When sanitary sewers are proposed to be laid within 60 meters (200 feet) of a ~~public community water supply system well~~ the location of the well shall be shown on the design plans. The separation distance between a community water system well and a sanitary sewer main may not be less than 50 feet.

2. Sanitary sewers shall be ~~isolated~~ located with a minimum separation distance of 15 meters (50 feet) from private water supply system wells or any other wells subject to ch. NR 812. ~~When sanitary sewers are proposed to be laid within 15 meters (50 feet) of a private water supply well the location of the well shall be shown on the design plans.~~

SECTION 53. NR 110.13 (2) (i) is amended to read:

NR 110.13 (2) (i) *Bedding*. 1. Bedding classes A, B, or C, as described in ASTM ~~C12 (1981)~~ or ~~WPCF Manual of Practice (MOP) No. 9 (ASCE MOP No. 37) (1976)~~ C12-09 shall be used for all rigid pipe provided the proper strength pipe is used with the specified bedding to support the anticipated load.

2. Bedding classes I, II, or III, as described in ASTM ~~D2321 (1980)~~ D2321-08 shall be used for all flexible pipe provided the proper strength pipe is used with the specified bedding to support the anticipated load.

SECTION 54. NR 110.13 (2) (k) 1. is amended to read:

NR 110.13 (2) (k) *Construction quality testing*. 1. Groundwater infiltration into sanitary sewer systems shall be minimized. Tests for infiltration shall be specified in the construction specifications. This may include appropriate water or low pressure air testing. The leakage outward or inward (exfiltration or infiltration) may not exceed 0.19 cubic meters per centimeter pipe diameter per kilometer per day (200 gallons per inch of pipe diameter per mile per day) for any section of the system. An exfiltration or infiltration test shall be performed with a minimum positive head of 60 centimeters (2 feet). The air test, if used, shall, at a minimum, conform to the test procedure described in ASTM ~~C828 (1980)~~, entitled "~~Tentative Recommended Practice for Low Pressure Air Test of Vitrified Clay Pipe Lines~~", C828-06 for clay pipe, ASTM C924-02 (2009) for concrete pipe, or ASTM F1417-92 (2005) for plastic pipe. The testing methods selected should take into consideration the range in groundwater elevations projected and the situation during the test.

SECTION 55. NR 110.13 (5) (a) is amended to read:

NR 110.13. (5) (a) *Materials*. Materials used in the construction of sanitary sewers shall be restricted to the following: ~~asbestos cement, cast iron,~~ concrete, vitrified clay, steel, ductile iron, polyvinyl chloride (PVC), acrylonitrile-butadiene-styrene (ABS) composite, ~~and~~ fiberglass reinforced-PVC composite, and high density polyethylene (HDPE) pipe. Other pipe material will be considered on its merit and may be approved by the department. Where an approval is issued for a restricted or experimental use, the department may require a construction inspection report and annual reports including television inspection of the system as a condition of its approval.

SECTION 56. NR 110.13 (5) (e) through (h) are amended to read:

NR 110.13 (5) (e) *Nonpressure pipe*. All nonpressure sewer pipe shall have sufficient strength to withstand the loads which will exist. The following are minimum standards for nonpressure pipe:

1. ~~Asbestos cement pipe and fittings shall meet the requirements of ASTM C428 (1981);~~

2. Cast iron pipe and fittings shall be of the commercial grade known as "extra heavy" and shall meet the requirements of ASTM C100 (1977);

~~3. 1.~~ Concrete pipe shall meet the requirements of ASTM C14 (1981) C14-07, C76 (1982) C76-08a, or C655 (1981) C655-09;

~~4. 2.~~ Vitrified clay pipe shall meet the requirements of ASTM C700 (1978) C700-09;

~~5. 3.~~ Steel pipe shall meet the requirements of AWWA C200 (1980) C200-05;

~~6. 4.~~ Ductile iron pipe and fittings shall meet the requirements of ASTM A746 (1977) or AWWA C100 (1977) A746-09;

~~7. 5.~~ Polyvinyl chloride sewer pipe shall meet the requirements of ASTM D3033 (1980), D3034 (1981), or ASTM F679 (1980) D3034-08, or ASTM F679-08;

~~8. 6.~~ ABS composite sewer pipe shall meet the requirements of ASTM D2680 (1980) D2680-01(2009).

(f) *Joints for nonpressure pipe.* The method of making joints and the materials used shall be included in the specifications and meet the minimum standards in subds. 1. to 5. Sewer joints shall be designed to minimize infiltration and to prevent the entrance of roots. Joint material shall be of such a composition as not to be adversely affected by the sewage.

~~1. Asbestos cement pipe joints shall consist of an asbestos cement sleeve and 2 neoprene or rubber type gaskets.~~

~~2. Cast iron pipe joints shall consist of rubber gasket joints or mechanical joints meeting the requirements of AWWA C100 (1977).~~

~~3. 1.~~ Rubber gasket joints for concrete sewer pipe shall meet ASTM C443 (1979) C443-05a1.

~~4. 2.~~ Resilient joints for vitrified clay sewer pipe shall meet ASTM C425 (1977) C425-04 (2009).

~~5. 3.~~ Steel pipe joints shall meet the requirements of AWWA C200 (1980) C200-05.

~~6. Ductile iron pipe joints shall meet the requirements of AWWA C100 (1977).~~

~~7. 4.~~ Polyvinyl chloride sewer pipe shall be joined by solvent weld joints or by elastomeric joints which have been approved by the department.

~~8. 5.~~ ABS composite sewer pipe shall be joined by solvent weld joints or by type OR mechanical-seal joints meeting the requirements of ASTM D2680 (1980) D2680-01 (2009).

(g) *Pressure sewer pipe and joints.* All pressure sewer pipe 10 centimeters (4 inches) or larger shall meet the following minimum requirements:

~~1. Asbestos cement pipe and joints shall meet the requirements of AWWA C400 (1980).~~

~~2. Cast iron pipe and joints shall meet the requirements of AWWA C100 (1977).~~

~~3. 1.~~ Ductile iron pipe and joints shall meet the requirements of AWWA C100 (1977) C151.

~~4. 2.~~ Steel pipe and joints shall meet the requirements of AWWA C200 (1980) C200-05.

~~5. 3.~~ Concrete pipe and joints shall meet the requirements of AWWA C300 (1974) C300-04.

~~6. 4.~~ Polyvinyl chloride pipe and joints shall meet the requirements of AWWA C900 (1981) C900-07 (minimum class 150) or ASTM D2241 (1980) D2241-09 (minimum class 250). Solvent weld joints may not be used.

~~7. 5.~~ Fiberglass reinforced-polyvinyl chloride composite pipe and joints shall meet the requirements of AWWA C950 (1981) C950-07 (minimum class 250). Eight and 10-inch pipe

shall have minimum category 3 stiffness as defined in ASTM ~~D2996~~ D2996-01 (2007) e1. Four and 6-inch pipe shall have a minimum category 2 stiffness as defined in ASTM ~~D2996 (1977)~~ D2996-01 (2007).

(h) *Small diameter pressure sewer pipe and joints.* All pipe and joints 8 centimeters (3 inches) in diameter or smaller to be used in grinder pumps shall meet the following minimum requirements:

1. Polyethylene pipe and joints which meet the requirements of ASTM ~~D2239 (1974)~~ D2239-03 (minimum class 160) may be approved on a case-by-case basis depending on the expected system pressure relative to the pipe working strength. Solvent weld, butt fusion, or elastomeric joints will be acceptable.

2. For ABS pipe and joints shall meet the requirements of ASTM ~~D2282 (1977)~~ (minimum class 160), solvent weld or elastomeric joints will be acceptable.

3. Polyvinyl chloride pipe and joints shall meet the requirements of ASTM ~~D2241 (1980)~~ D2241-09 (minimum class 160). Solvent weld or elastomeric joints will be acceptable.

SECTION 57. NR 110.14 (1) (b) is amended to read:

NR 110.14 (1) (b) *Design report.* A design report shall be submitted with plans and specifications for all new sewage lift stations as well as the major rehabilitation of existing lift stations. Major lift station rehabilitation may include, but is not limited to, replacing pumps with larger units or changing the type of lift stations. The design report shall comply with the facilities planning requirements of s. NR 110.11, ~~as well as detailing the~~ and shall contain the detailed design calculations of ~~for~~ the lift station design capacity.

SECTION 58. NR 110.14 (2) (a) 3. is repealed and recreated to read:

NR 110.14 (2) (a) 3. Lift stations shall be located with a minimum separation distance of 60 meters (200 feet) from community water system well, and a minimum separation distance of 30 meters (100 feet) from a private water well or any other well subject to ch. NR 812. A lesser separation distance from a community water system well may be approved if hydrogeologic information is provided to the department to indicate the lesser separation distance would provide adequate protection of a well from contamination. When a lift station is proposed within 60 meters (200 feet) of a community water system well, or 30 meters (100 feet) of private water wells or any other well subject to ch. NR 812, the location of the well shall be shown on the engineering plans. Gravity or pressure sewers connecting to lift stations shall be separated from water supply wells in accordance with s. NR 110.13 (1)(d).

SECTION 59. NR 110.14 (2) (b) 3. is amended to read:

NR 110.14. (2) (b) 3. Where possible, the pumping rate shall be designed to approximate the peak hour influent design flow rate to the lift station. For main ~~pumping lift~~ lift stations pump or lift stations associated with treatment facilities, or in cases where large fluctuations of flow are

known to occur, the use of variable speed pumps, or multiple constant speed pumps may be required by the department.

SECTION 60. NR 110.14 (3) through (5) are repealed and recreated to read:

NR 110.14 (3) GENERAL DESIGN REQUIREMENTS. (a) *Type.* Sewage lift stations in general use fall into 7 types: wet well/dry well, submersible, suction lift, screw pump, pneumatic ejector, grinder pump and septic tank effluent pump.

(b) *Structural features.* 1. Dry wells, including their superstructure, shall be completely separated from wet wells. Common walls shall be gas tight.

2. Provisions shall be made in all types of lift stations to facilitate removal of pumps, motors, and other mechanical and electrical equipment without entry into the wet well.

3. Permanent ladders or steps may not be provided in the wet wells with the possible exception of built-in place lift stations, in which stairways in the wet wells may be approved if there are special maintenance needs or physical conditions that prevent the provision of necessary access by any other reasonable means. A safe means of access shall be provided to dry wells containing equipment requiring inspection or maintenance. If a dry well is over 6 meters (20 feet) deep, an offset shall be made in the entrance ladder with an intermediate landing at approximately mid-depth. Where an intermediate landing is used, the diameter of the landing area shall be at least 1.5 meters (5 feet), or an equivalent landing area shall be provided. Landings shall be provided with a suitable barrier to prevent an individual from falling past the intermediate landing to the lower level.

4. A caution sign shall be installed at top of entrances to wet wells. The caution sign shall provide a warning of the potential for hazardous gases in a confined space and indicate that there shall be no entry without proper equipment and supervision.

5. A sump pump shall be provided in a dry well to remove leakage or drainage. The sump pump discharge line shall be equipped with a check valve, and shall discharge above the maximum high water level of the wet well. A siphon break shall be provided when the sump pump discharge line enters at the high water level in the wet well. Pump seal water leakage shall be piped or channeled directly to the sump pit.

6. All floors and walkways shall be sloped to a point of drainage.

7. All wet wells shall be designed based on fill time and minimum pump cycle time. With any combination of influent flows and pumping rate, the minimum pump cycle time shall be greater than or equal to 5 minutes. The total fill time between pump on and off elevations in the wet well, at average design flow, may not exceed 30 minutes to prevent septicity.

8. The wet well floor shall have a minimum slope of one to one to the hopper bottom. The horizontal area of the hopper bottom may not be greater than necessary for proper installation and function of suction pipe intake or pump inlet.

9. There may not be a connection between any potable water system and sewage lift station which could potentially cause contamination of the potable water system.

10. Exteriors of steel factory built lift stations shall be provided with cathodic protection against corrosion.

11. Interior of steel wet wells shall be coated with a suitable water proof epoxy coating or water proof painting system or other appropriate methods to protect against corrosion.

(c) *Ventilation.* 1. All covered wet wells shall be vented to the atmosphere using an inverted "j" tube or other means. Adequate ventilation shall also be provided for all dry wells. Where the dry well is below the ground surface, permanent mechanical ventilation shall be provided.

2. A permanent mechanical ventilation system shall be provided in wet wells and submersible lift stations where routine entrance is required to inspect or maintain equipment. In all other cases, portable mechanical ventilation equipment shall be available for wet wells as required for entry to a confined space.

3. There shall be no interconnection between the wet well and dry well ventilation systems. Switches for operation of ventilation equipment shall be marked and conveniently located. All intermittently operated ventilating equipment shall be interconnected with the respective wet well or dry well lighting system. Consideration shall be given to automatic controls where intermittent operation is used. The manual lighting and ventilation switches shall override the automatic controls.

4. The fan wheel for ventilating hazardous areas shall be fabricated from nonsparking material.

5. Mechanical ventilation for wet wells shall provide at least 12 complete air changes per hour if ventilation is continuous and at least 30 complete air changes per hour if ventilation is intermittent. Air shall be forced into the wet well by mechanical means rather than exhausted from the wet well.

6. Mechanical ventilation for dry wells shall provide at least 6 complete air changes per hour if ventilation is continuous and at least 30 complete air changes per hour if ventilation is intermittent. For conserving heat in large lift stations, the department may approve the following 2 exceptions:

a. Intermittent ventilation with an initial ventilation rate of 30 complete air changes per hour for 10 minutes and automatic switch over to 6 complete air changes per hour.

b. A continuous ventilation system at a rate of 6 complete air changes per hour when the dry well is occupied and at a rate of 2 complete air changes per hour when not occupied.

(d) *Auxiliary equipment.* All of the following auxiliary equipment shall be installed in lift stations:

1. All dry wells shall be equipped with automatic heaters. The department may waive this requirement if it can be demonstrated that the heat output from the pump motors or controls is sufficient to keep equipment in the dry well from freezing.

2. The installation of dehumidifiers shall be considered for all underground dry wells.

3. Running time meters shall be installed for each pump in all lift stations. Where the department determines that flow measurement is necessary for the proper operation of the collection system or treatment system, suitable devices for measuring, totalizing, and recording flow shall be installed.

(e) *Electrical equipment.* Electrical systems and components including motors, lights, cables, conduits, switchboxes, and control circuits, which will be located in wet wells, or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors may be present, shall comply with the NEC requirements for Class I, Group D, Division 1 locations. In addition, equipment located in the wet well shall be suitable for use under corrosive conditions. Each flexible cable shall be provided with a watertight seal and separate strain relief. A fused disconnect switch or equivalent circuit breaker located above ground shall be provided for the main power feed for all lift stations. When the equipment is exposed to weather, it shall meet the requirements of weatherproof equipment.

(f) *Duplicate units.* At least 2 pumps or pneumatic ejectors shall be provided in each lift station. Each pump or ejector shall be capable of pumping the design pumping rate as determined by sub. (2) (b). If 3 or more pumps are provided, they shall be designed to meet expected flow conditions and shall be capable of pumping the peak hour design pumping rate as determined by sub. (2) (b), with the largest unit out of service. Where the lift station will serve not more than 25 residential units, a single pump or ejector may be used, provided that the station is designed to permit the installation of a future duplicate pump or ejector with no structural changes.

(g) *Pumps.* 1. All pumps, except grinder and effluent pumps, shall be capable of passing spheres of at least 7.6 centimeters (3 inches) in diameter, and pump suction and discharge piping shall be at least 10 centimeters (4 inches) in diameter. The department may allow the use of pumps with a lesser solids handling ability provided the pump is protected by a comminutor, a mechanically cleaned bar screen, or other suitable equipment.

2. All pumps shall be nonclogging. Where a potential for clogging exists, protection in the form of manual bar screens, mechanically cleaned bar screens, comminutors or other suitable means shall be provided. Bar screens and comminutors shall be installed in accordance with s. NR 110.16.

3. Each pump shall be located so that under normal operating conditions it will operate under a positive suction head. Self-priming or vacuum primed pumps with adequate suction lift capability are exempted from this requirement.

(h) *Piping.* 1. Each pump, except submersible, screw, grinder and effluent pumps, shall be equipped with individual suction piping. Suction piping shall be as straight as possible.

2. When suction elbows are used, the bell shall be placed above the floor of the wet well at a distance which is not greater than 1/2 nor less than 1/3 the diameter of the bell.

3. A suitable shutoff valve shall be placed on each discharge line, except for screw pumps. A shutoff valve shall be placed on each suction line of the dry well pump. A check valve shall be placed on each discharge line between the shutoff valve and the pump, except for screw pumps. Check valves shall be placed in horizontal sections of the discharge pipe, except for ball check valves which may be placed in the vertical run.

4. Valves may not be located in wet wells.

(i) *Controls.* 1. Control systems shall be of the air bubbler type, the encapsulated float or displacement type, the ultrasonic type, the pressure transducer type or capacitance probe type.

2. The control system shall be located away from the turbulence of incoming flow and pump suction.

3. Provisions shall be made to automatically alternate the pumps in use where multiple equivalent capacity pumps are installed.

4. All lift stations shall be equipped with an alarm system. The alarm system shall include audible and visual signals. The alarm system shall be activated in cases of power failure, pump failure, and at a predesignated high water level. It is also recommended that alarm systems be activated in the event of unauthorized entry or other lift station malfunction. The department may require that alarm systems be telemetered to responsible authorities for large or main lift stations.

(j) *Force mains.* 1. At the design pumping rate, a cleansing velocity of at least 61 centimeters per second (2 feet per second) shall be maintained.

2. A combination automatic air relief and vacuum valve or an automatic or manual air relief valve shall be placed at each high point in the force main to prevent air locking.

3. When a force main enters the gravity sewer manhole, it shall discharge at a point not more than 60 centimeters (2 feet) above the spring line of the receiving sewer.

4. Friction losses through force mains shall be based on the Hazen and Williams formula or other acceptable method. The roughness coefficient "C" value used for design shall be noted on the design report.

Note: When the Hazen and Williams formula is used, the department recommends a "C" value between 100 and 125 be used for all pipe except plastic pipe. A "C" value between 120 and 140 is recommended for plastic pipe. When initially installed, force mains may have a significantly higher "C" value. The lower "C" value (higher coefficient of friction) should be considered when calculating the head at design conditions. The higher "C" value should be considered when calculating the minimum head in the pump operating range power requirements.

(4) SUCTION LIFT PUMPS OR WET WELL MOUNTED LIFT STATIONS. (a) *Priming.* Suction lift pumps shall be of the self-priming or vacuum primed type and shall comply with applicable requirements of sub. (3), except as modified in this subsection.

(b) *Lift.* The total dynamic suction lift may not exceed 6.0 meters (20 feet), unless the department approves pumps which exceed this specified limit based on certified pump performance curves and detailed calculations which justify the higher heads.

(c) *Compartment separation.* The pump equipment compartment shall be above grade, partially recessed in the ground or offset and shall be isolated from the wet well in a manner which will prevent the humid and corrosive sewer atmosphere from entering the equipment compartment. Wet well access may not be through the equipment compartment and shall be at least 61 centimeters (24 inches) in diameter or equivalent area.

(d) *Electrical.* Float type displacement switches and electronic transducers which are used in wet wells shall comply with the applicable requirements of sub. (5).

(5) SUBMERSIBLE LIFT STATIONS. (a) *Construction.* Submersible pumps and motors shall be designed specifically for raw sewage use, and for total submergence during operation, and shall comply with the applicable requirements of sub. (3), except as modified in this subsection.

(b) *Pump removal.* Submersible pumps shall be readily removable and replaceable without dewatering the wet well or disconnecting any piping in the wet well. Removal of one submersible pump from the lift station may not interrupt the operation of other pumps in the station.

(c) *Electrical equipment.* 1. Electrical supply, control, and alarm circuits shall be designed to provide strain relief appurtenances. All junction boxes containing terminals and connectors shall be protected from corrosion by being located outside the wet well or through the use of a watertight seal. Junction boxes for motor power cable connections and for intrinsically safe control circuits shall meet the requirements of weatherproof equipment.

2. The motor control center shall be located outside the wet well and be protected by conduit seals or other appropriate measures meeting the requirements of the NEC to prevent the atmosphere of the wet well from gaining access to the control center. The explosion proof seals shall be located so the pump motor and the level control float switches or transducers can be removed and electrically disconnected at the respective junction box without destroying the seal.

3. Pump motor power cables shall be designed for flexibility and serviceability. Ground fault interruption protection shall be provided in accordance with the NEC requirements. Power cord terminal fittings shall be corrosion-resistant and constructed in a manner to prevent the

entry of moisture into the cable, shall be provided with strain relief appurtenances, and shall be designed to facilitate field connecting.

(d) *Explosion prevention.* In order to minimize the potential for ignition of explosive gases in submersible lift stations, one of the following requirements shall be met:

1. Low water level controls may be set such that the pump motor will remain totally submerged at all times. The lift station shall be equipped with a low water alarm in addition to meeting the requirements of sub. (3) (i) 4., and which is distinguishable from the high water alarm.

2. The pump motor may be rated for compliance with the NEC explosion proof requirements of Class 1, Group D, Division 1 locations.

SECTION 61. NR 110.14 (6) through (8) are created to read:

NR 110.14 (6) WET WELL AND DRY WELL LIFT STATIONS. (a) *Construction.* The wet well and dry well lift stations shall be designed specifically for raw sewage use and shall comply with applicable requirements of sub. (3), except as otherwise provided in this subsection.

(b) *Electrical.* When float type displacement switches or electronic transducers are used to control the liquid level in the wet well, they shall comply with the applicable requirements of sub. (5).

(7) SCREW PUMP STATIONS. (a) *Applicability.* Screw pumps may be approved by the department on a case-by-case basis upon submission of appropriate manufacturer's data and the detailed design calculations.

(b) *Construction.* Screw pumps and motors shall be designed specifically for raw sewage use, and shall comply with applicable requirements of sub. (3).

(8) PNEUMATIC EJECTOR LIFT STATIONS. (a) *Applicability.* Pneumatic ejectors may be approved by the department on a case-by-case basis upon submission of appropriate manufacturer's data and the detailed design calculations.

(b) *Construction.* Pneumatic ejectors shall be designed specifically for raw sewage use, and shall comply with the applicable requirements of sub. (3).

(c) *Compressors.* Multiple compressors shall be provided. The compressors shall be sized to handle the maximum hour design flow with the largest compressor out of service.

SECTION 62. NR 110.14 (6) is renumbered and amended to read:

NR 110.14 (6 9) GRINDER PUMPS PUMP LIFT STATIONS - DUPLEX. ~~(a) *Applicability.* The department may approve the use of duplex grinder pumps in pump lift stations, if the following requirements are met.~~

- ~~1. No more than 12 residential units may ultimately be served by one lift station; and~~
- ~~2. The total motor horsepower requirement for each pump shall be 2 horsepower or less.~~

~~(b) *Duplicate units.* Grinder pump lift stations serving more than 3 residential units shall be equipped with duplicate pumping units.~~

~~(c) *Construction.* Grinder~~ All duplex grinder pump lift stations shall be designed specifically for raw sewage use. Submersible duplex grinder pump lift stations shall meet the submersible pump requirements of sub. (5), and the non-submersible type duplex grinder pump lift stations shall comply with applicable requirements of sub. (6), except that each grinder pump shall have a minimum 1¼-inch pump opening and discharge piping. The total motor horsepower requirement for each pump shall be 5 horsepower or less.

SECTION 63. NR 110.14 (7) is renumbered and amended to read:

NR 110.14 (7 12) EMERGENCY OPERATION. (a) *General.* Provisions for emergency operation of lift stations shall be provided to prevent the discharge of raw or partially treated sewage to a surface water or to a ground surface and to prevent sewage backups into basements.

(b) *Lift station requirements.* One of the following provisions shall be made to insure continued operation of each lift stations station:

1. An on-site generator, with automatic switching and starting equipment may be installed. The generator shall have sufficient capacity to meet the total electrical demands of the pumps, controls, and auxiliary equipment; ~~or,~~

2. An on-site gasoline or diesel engine driven pump, with automatic switching and starting equipment may be installed. The pump shall have a capacity equal to or greater than the lift station peak design pumping rate; ~~or,~~

3. A portable generator may be available for use at the lift station. The generator shall have sufficient capacity to meet the total electrical demands of the pumps, controls, and auxiliary equipment. Electrical connections shall be accessible without maintenance personnel having to enter the lift station; ~~or,~~

4. A portable pump with a pumping capacity equal to or greater than the lift station peak design pumping rate may be available for use at the lift station. Connections for the portable pumping equipment Quick disconnect fittings shall be used to connect the portable pump to the suction and the discharge line, and shall be accessible without maintenance personnel having to enter the lift station; or,

5. The lift station electrical system may be connected to 2 independent electrical transmission routes which receive power from the same electrical grid network which supplies power to the lift station service area; ~~or~~.

6. The lift station may be equipped with a holding facility which has a capacity to hold the ~~daily~~ average design flow for a minimum period of 24 hours.

(c) *Grinder pump and effluent pump lift stations.* 1. Emergency operation of duplex grinder pump and effluent pump lift stations which serve more than 3 residential units shall be provided by one of the methods described in par. (b).

2. Emergency operation provisions for duplex grinder pump and effluent pump lift stations may be waived for those stations which serve homes with private water supply systems provided it is demonstrated to the department that the lift station wet well has the capacity to hold the residual water volume of the private water system.

SECTION 64. NR 110.14 (10) and (11) are created to read:

NR 110.14 (10) GRINDER PUMP LIFT STATIONS – SIMPLEX. (a) *Applicability.* The department may approve simplex or individual grinder pump lift stations if no more than 3 residential units are ultimately served by 1 pump.

(b) *Construction.* All simplex grinder pump lift stations shall be designed specifically for raw sewage use. The submersible grinder pump shall be designed for total submergence during operation. Both the submersible and the non-submersible type simplex grinder pump stations shall comply with all of the following requirements:

1. 'Location.' The location of the grinder pump stations and pressure service laterals shall be shown on the plans.

2. 'Flood proofing.' Grinder pump stations located in the floodplain shall be flood proofed by constructing 2 feet above the 100 year flood elevation or by providing watertight covers.

3. 'Pump removal.' Grinder pumps shall be readily removable without entry into the wet well or dewatering the wet well.

4. 'Valving.' a. All valving shall be accessible without entry into the wet well or dewatering the wet well.

b. If a grinder pump station discharges to a common pressurized sewer, a redundant check valve shall be provided. All valves including redundant check valves shall be installed at the grinder pump station. If a grinder pump station discharges to a gravity sewer, the redundant check valve is not required.

5. 'Ventilation.' All grinder pump stations shall be vented to the atmosphere either from the wet well or from the service lateral.

6. 'Accessibility.' No permanent ladders or steps shall be provided in the wet wells.

7. 'Pump size.' All grinder pumps shall have a minimum 1¼-inch pump inlet opening and discharge piping.

8. 'Velocity.' A minimum velocity of 61 centimeters (2 feet) per second shall be maintained in the discharge piping during pump operation.

9. 'Separation.' A minimum separation distance of 25 feet shall be maintained between the grinder pump lift station and a private well or any other well subject to ch. NR 812. A minimum separation of 200 feet shall be maintained between the grinder pump station and a community water system well in accordance with ch. NR 811.

10. 'Alarm.' Audible and visual high water alarm system shall be provided.

11. 'Electrical.' a. The motor control unit shall be located outside the wet well.

b. All junction boxes shall be located outside the wet well, and shall meet the requirements of weather proof equipment. Electrical supply, control and alarm circuits shall be designed to allow disconnection at the junction box, without destroying the conduit-seal.

c. Level controls using float type displacement switches shall be suspended in the wet well to facilitate maintenance.

12. 'Explosion prevention.' a. In order to reduce the potential for ignition of explosive gases in submersible grinder pump lift stations, one of the following conditions shall be met: the low water level alarm shall be set such that the pump motor will remain totally submerged at all times; the pump motor shall be rated explosion proof in accordance with NEC requirements of Class I, Group D, Division 1 locations; or the motor shall be listed as safe and appropriate for residential use by the Underwriters Laboratories, Inc.

b. In order to reduce the potential for ignition of explosive gases in non-submersible grinder pump lift stations with non-explosion proof pump motors, the pump motor shall be completely isolated from the wet well atmosphere in a separate gas tight housing.

(11) EFFLUENT PUMPS. The department may approve the duplex and simplex effluent pump lift stations for septic tank effluent in accordance with the applicable requirements of subs (9) and (10), respectively.

SECTION 65. NR 110.15 (2) (a) is amended to read:

NR 110.15 (2) EFFLUENT QUALITY. (a) *Design.* Sewage treatment facilities shall be designed to achieve compliance with the monthly and weekly average effluent limitations for biochemical oxygen demand (BOD) and total suspended solids contained in ch. NR 210, or other WPDES permit requirements, as appropriate, or with any more stringent water quality related effluent limitations required to achieve appropriate water quality standards derived from chs. NR ~~102 to 104~~ 102 to 106, or from any federally promulgated water quality standard for any waters of the state.

SECTION 66. NR 110.15 (3) (e) is created to read:

NR 110.15 (3) (e) *Protection of water supply wells.* Wastewater lagoons or storage structures shall be located with a minimum separation distance of 1,000 feet from a community water system well, and 100 feet from a private water system well or any other well subject to ch. NR 812. Wastewater treatment plant effluent pipes shall be located with a minimum separation distance of 50 feet from a private water system well or any other well subject to ch. NR 812.

SECTION 67. NR 110.15 (4) (c) is amended to read:

NR 110.15 (4) (c) *Hydraulic loading.* The design wastewater flow ~~rate~~ shall be estimated in accordance with s. NR 110.09 (2) (j). When flow or water use records do not exist, the maximum hour design flow rate shall be estimated by multiplying the average design flow ~~rate~~ by the appropriate peaking factor shown in Table 2.

SECTION 68. NR 110.18 (2) (d) is amended to read:

NR 110.18 (2) (d) *Design parameters.* 1. Operating design parameters for settling facilities may not exceed the values given in Table 3. The surface settling rate for primary settling tanks shall be calculated with all flows received at the settling tank. The surface settling rate for final settling tanks shall be based on influent flow. The maximum hour solids loading shall be computed based on the maximum day design flow plus the maximum design return sludge rate requirement and the design mixed liquor suspended solids (MLSS) under aeration.

SECTION 69. NR 110.19 (5) (b) 2. is amended to read:

NR 110.19 (5) (b) 2. The underdrains shall have a minimum slope of 1%. Effluent channels shall be designed to produce a minimum velocity of 60 centimeters per second (2 feet per second) at the average daily rate design flow of application to the filter including recirculated flows.

SECTION 70. NR 110.19 (6) (b) 1. is amended to read:

NR 110.19 (6) (b) *Quality*. 1. Rock and slag media shall be durable, resistant to spalling or flaking, and be relatively insoluble in sewage. Slag media may not contain iron. ~~The top 46 centimeters (18 inches) of natural aggregate shall have a loss of not more than 10% as measured by the 20 cycle, sodium sulfate soundness test, with the balance passing a 10 cycle test. The test shall be done in accordance with ASCE Manual of Engineering Practice, Number 13.~~

SECTION 71. NR 110.21 (4) (b) is amended to read:

NR 110.21 (4) (b) *Permissible loadings*. In lieu of the design calculation requirements of par. (a), the parameters shown in Table 5 may be used to design aeration tank capacities. The volumetric loadings in Table 5 shall be based on the organic load influent to the aeration tank at the average design BOD₅ loading rate.

SECTION 72. NR 110.21 (4) Table 5 (title) is amended to read:

NR 110.21 (4)

Table 5

Process	F/M mg BOD applied/ <u>Ratio mg BOD₅/d/mg</u> MLVSS.d	Volumetric Loading kg BOD ≅ applied/m ³ /d (lbs. BOD -applied/1000ft ³ /d)	MLSS mg/l
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SECTION 73. NR 110.21 (4) (d) 5. is amended to read:

NR 110.21 (4) (d) 5. Inlets and outlets for each aeration tank unit shall be equipped with valves, gates, stop plates, weirs or other devices to permit controlling the flow to each tank and to maintain a constant liquid level. The hydraulic properties of the system shall permit the maximum peak instantaneous design flow to be carried with any single aeration tank unit out of service.

SECTION 74. NR 110.21 (5) (b) and (c) are amended to read:

NR 110.21 (5) (b) *Oxygen demand*. 1. Aeration equipment shall be capable of maintaining a minimum mixed liquor dissolved oxygen concentration of 2 milligrams per liter.

2. In the absence of experimentally determined values, the design oxygen requirements for all activated sludge processes shall be 1.1 kilograms oxygen per kilogram peak hour BOD

BOD₅ (1.1 pounds oxygen per pound peak ~~BOD₅~~ hour BOD₅) removed in the aeration tanks, with the exception of the extended aeration process, for which the value shall be ~~1.8~~ 1.5 kilograms oxygen per kilogram peak ~~BOD₅~~ hour BOD₅ (~~1.8~~ 1.5 pounds oxygen per pound peak ~~BOD₅~~ hour BOD₅) to include endogenous respiration requirements.

3. To provide nitrification, the oxygen requirement for oxidizing ammonia shall be added to the requirement in subd. 2. for carbonaceous BOD₅ removal and endogenous respiration requirements. In the absence of experimentally determined values, the nitrogen oxygen demand (NOD) shall be 4.6 kilograms of oxygen per kilogram removed peak hour total Kjeldahl nitrogen (TKN) (4.6 pounds oxygen per pound removed peak hour TKN).

(c) *Air supply to meet oxygen demands.* 1. The design of the aerator system to provide the oxygen requirements calculated in accordance with par. (b) shall be done using standard design equations for diffused and mechanical aeration systems. Calculations shall incorporate such factors as tank depth, alpha factor of the waste, beta factor of the waste, certified aerator oxygen transfer efficiency, minimum aeration tank dissolved oxygen concentration, critical wastewater temperature and altitude of the wastewater treatment facility.

2. In the absence of specific design information, the air requirements for diffused aerators shall be calculated using an oxygen transfer efficiency of 7% for diffused aerators, or a in clean water under standard test conditions. The air requirements for mechanical aerators shall be based on a transfer rate of 1.2 kilograms oxygen per kilowatt-hour (2 pounds oxygen per horsepower-hour) for mechanical aerators in clean water under standard test conditions.

SECTION 75. NR 110.21 (6) (a) 2. is amended to read:

NR 110.21 (6) (a) 2. Diffusers and air piping shall be capable of supplying the ~~diurnal~~ peak hour air demand or 200% of the design average air demand, whichever is larger.

SECTION 76. NR 110.21 (6) (b) 1. is amended to read:

NR 110.21 (6) (b) *Mechanical aerators.* 1. Multiple mechanical aeration units shall be designed and located so as to meet the ~~diurnal~~ peak hour oxygen demand or 200% of the design average oxygen demand, whichever is larger, with one unit out of service.

SECTION 77. NR 110.22 (5) (b) 3. is amended to read:

NR 110.22 (5) (b) 3. ~~Filtration rates~~ For high rate effluent filtration, the filtration rate at maximum daily hour design flow may not exceed 3.4 liters per second per square meter (5 gallons per minute per square foot) with one filter out of service. The filtration rate shall be calculated on the total available filter area with one filter unit out of service.

SECTION 78. NR 110.22 (5) (c) 4. is amended to read:

NR 110.22 (5) (c) 4. Spent backwash shall be individually treated or returned to the head of the treatment facility. The return rate of backwash to the head of the treatment facility may not exceed 15% of the ~~design~~ average ~~daily~~ design flow rate.

SECTION 79. NR 110.22 (6) (c) is amended to read:

NR 110.22 (6) (c) *Recirculation tanks*. ~~1.~~ Recirculation tanks shall be equipped with a highwater and pump failure alarm.

~~2. Recirculation tanks shall have a minimum detention time of 24 hours.~~

SECTION 80. NR 110.22 (7) (c) is amended to read:

NR 110.22 (7) (c) *Loading*. 1. The loading rate for installations which operate with significant rest periods may not exceed 41 liters per square meter (one gallon per square foot) per day, at the average design flow.

2. The loading rate for filters which operate on a continuous basis may not exceed 20 liters per square meter (0.5 gallons per square foot) per day, at the average design flow, for total bed area.

SECTION 81. NR 110.23 (2) (d) is amended to read:

NR 110.23 (2) (d) *Chlorine control systems*. In all systems with an average design flow of greater than 945 cubic meters per day (0.25 million gallons per day), the chlorine feed mechanism shall be provided with either an automatic flow proportional control or an automatic residual control. Chlorine residual analyzers shall be located near the chlorine contact tank. The total response time for automatic residual control systems may not exceed 3 minutes.

SECTION 82. NR 110.23 (2) (e) 2. is amended to read:

NR 110.23 (2) (e) 2. A chlorine contact tank shall be provided and shall be sized to provide a detention time of 60 minutes at average design flow or 30 minutes at maximum hour design flow.

SECTION 83. NR 110.24 (2) (b) is amended to read:

NR 110.24 (2) (b) *Stabilization ponds*. 1. Stabilization ponds may be used to treat domestic wastewater. Combined domestic and industrial wastewater may be treated in stabilization ponds only if the treatability of the industrial wastewater is demonstrated through pilot testing.

2. ~~Pond design for~~ The BOD₅ loading to any one stabilization pond may not exceed 23 kilograms per hectare (20 pounds per acre) per day.

3. A minimum hydraulic detention time of 150 days at the average design flow shall be provided in the entire stabilization pond system. In accordance with s. NR 210.06 (3) (h), a stabilization pond system which discharges to surface water, and has a hydraulic detention time of 180 days or longer at average design flow, does not require disinfection except in extenuating circumstances.

SECTION 84. NR 110.24 (3) (d) 3. is amended to read:

NR 110.24 (3) (d) 3. Soil sampling shall be performed in accordance with ASTM ~~D1586 (1974)~~ or ASTM D1587 (1974) D1586-08a or ASTM D1587-08.

SECTION 85. NR 110.24 (4) (d) is amended to read:

NR 110.24 (4) (d) *Sampling and testing standards.* 1. Core samples taken to determine soil texture, grain size distribution or permeability shall be taken in accordance with ASTM ~~D1586 (1974), ASTM D1587 (1974), or ASTM D 3350 (1977)~~ D1586-08a, ASTM D1587-08, or ASTM 3550-01 (2007).

SECTION 86. NR 110.24 (4) (d) 3. is amended to read:

NR 110.24 (4) (d) 3. Sieve analyses performed to determine grain size distribution shall be performed in accordance with ASTM ~~D422 (1972)~~ D422-63 (2007).

SECTION 87. NR 110.24 (4) (d) 4. is amended to read:

NR 110.24 (4) (d) 4. Plasticity index shall be determined in accordance with ASTM ~~D424 (1971)~~ D4318-05.

SECTION 88. NR 110.24 (4) (d) 5. is amended to read:

NR 110.24 (4) (d) 5. Standard procter densities shall be determined in accordance with ASTM ~~D698 (1978)~~ D698-07 e1.

SECTION 89. NR 110.24 (6) (a) through (c) are amended to read:

NR 110.24 (6) AERATION EQUIPMENT. (a) *Air requirements.* Air shall be provided to the aerated lagoons at a rate of not less than 1.5 kilograms oxygen per kilogram (1.5 pounds of oxygen per pound) of peak hour BOD removed.

(b) *Surface aeration equipment.* 1. The department may approve the use of surface aeration equipment only in those cases in which the equipment can be properly maintained and operated during the winter.

2. Surface aeration equipment shall be so designed and placed to provide optimum mixing of pond lagoon contents and dispersion of oxygen to the waste. Unless sufficient justification is presented to the contrary, surface aerators shall be designed using an oxygen transfer rate of 1.2 kilograms of oxygen per kilowatt-hour (2.0 pounds of oxygen per horsepower-hour) in clean water under standard conditions.

(c) *Subsurface aeration equipment.* 1. Flexible tubing containing air release slits shall be provided across the lagoon bottom in accordance with the manufacturer's recommendations. Air tubing shall be securely anchored to prevent floating. To prevent clogging of the air lines, provision shall be made to accommodate cleaning.

2. Air tubing and anchors shall be constructed of materials which resist corrosion.

3. Air shall be supplied to the lagoon system at a rate sufficient to meet the oxygen requirements of par. (a) assuming an oxygen transfer efficiency of 7% in clean water under standard conditions.

4. Tubular aeration units shall be provided in sufficient number to supply adequate air to the pond system based on a maximum transfer rate of 0.6 kilograms (1.25 pounds) of oxygen per unit per hour in clean water under standard conditions.

5. Where data is presented to the department to justify oxygen transfer rates varying from the requirements of this paragraph the department may approve such design transfer rates.

SECTION 90. NR 110.25 (5) (b) 1. and 3. are amended to read:

NR 110.25 (5) (b) *Well locations.* 1. A minimum of 3 monitoring wells per land disposal system shall be installed to monitor groundwater quality in accordance with s. NR 206.10 (2), to determine flow ~~direction(s)~~ directions and for a flow rate determination. At a minimum, one well will be upgradient and ~~2~~ one well ~~well~~ downgradient of the land disposal system.

3. ~~Two or more downgradient~~ Downgradient wells shall be located so as to intercept any groundwater impacted by the land disposal system, considering the vertical and horizontal gradients of flow. The wells shall be no closer than 30 feet for rapid infiltration systems, and at a minimum, one well shall be located between the application area and the design management zone (DMZ) or property boundary. It is recommended that one well be located at or beyond the

DMZ or property boundary. If the well is located beyond the property boundary, an easement for access shall be obtained prior to installation of a well.

SECTION 91. NR 110.25 (5) (c) 3. and 5. are amended to read:

NR 110.25 (5) (c) 3. All groundwater monitoring systems shall be sampled in accordance with department published groundwater sampling procedures contained in the “groundwater sampling guidelines,” WDNR, Feb. 1987, or as referenced in s. NR 140.16.

5. Documentation of well construction, well development and abandonment shall be submitted to the department in accordance with ss. NR ~~141.21~~ 141.23 and 141.25. A location map shall also be provided in accordance with s. NR 141.065.

SECTION 92. NR 114.153 (4m) is created to read:

NR 114.153 (4m) “Master Operator” means a certified operator who has been issued a master operator certificate by the department.

SECTION 93. NR 114.153 (5) is amended to read:

NR 114.153 (5) “Operator-in-charge” means the ~~certified~~ master operator who has been designated by the owner to be in direct responsible charge of the septage servicing business.

SECTION 94. NR 114.16 (1) is amended to read:

NR 114.16 General requirements. (1) Only a certified operator, master operator, operator-in-training or a portable restroom servicing assistant, may engage in septage servicing.

SECTION 95. NR 114.18 (title) and (1) are amended to read:

NR 114.18 Operator-in-charge or master operator. (1) The owner of a licensed business shall designate to the department the operator-in-charge of the business based upon their type of business and method of septage disposal as follows:

(a) If a septage servicing business does not conduct any land application of septage, the operator-in-charge shall be a grade T or a grade L master operator.

(b) If a septage servicing business does conduct any land application, the operator-in-charge shall be a grade L master operator.

SECTION 96. NR 114.18 (2) is repealed.

SECTION 97. NR 114.18 (3) is renumbered and amended to read:

NR 114.18 ~~(3)~~ ~~Any person not designated as an operator in charge in sub. (2) or not exempted in sub. (4) or (5)~~ Persons shall accrue at least 1600 hours of experience working in their designated grade certification over at least one calendar year, participate in a mandatory training class sponsored by the department and pass an examination associated with that class in order to become ~~designated an operator in charge in the future.~~ certified as a master operator. The class and examination may be taken prior to obtaining the required experience. The time and experience requirements shall be documented by the applicant through submittal of a notarized certification statement. The department may verify information submitted on a case-by-case basis. Master operator grade certification shall be consistent with their operator certification grade.

SECTION 98. NR 114.18 (3) is created to read:

NR 114.18 (3) The mandatory training class for designation as a master operator shall be offered at least twice a year and will cover topics relevant to the septage servicing business and will cover both land application and disposition of septage at wastewater treatment facilities.

SECTION 99. NR 114.18 (4) and (5) are repealed.

SECTION 100. NR 114.18 (6) is renumbered NR 114.14 (4).

SECTION 101. NR 114.19 (8) is amended to read:

NR 114.19 (8) The requirements of sub. (6) notwithstanding, applicants who fail the examination associated with the mandatory class required in s. NR 114.18 ~~(3)~~ (2) may retake the examination at a regional office whenever a mutually agreed time can be scheduled.

SECTION 102. NR 114.20 (1) (e) is created to read:

NR 114.20 (1) (e) Master operator -- \$100.00

SECTION 103. NR 114.23 (1) and (2) are amended to read:

NR 114.23 Continuing education and training requirements. (1) Grade T and grade L certified septage operators shall obtain 3 hours of certified operator continuing education credits every 3 years.

(2) All grade T and grade L ~~operators-in-charge~~ master operators shall obtain 18 hours of continuing education credits every 3 years.

SECTION 104. NR 114.23 (4) is repealed.

SECTION 105. NR 114.23 (5) is renumbered and amended to read:

NR 114.23 (~~5~~ 4) Any certified operator may voluntarily participate in the mandatory training class required under s. NR 114.18 (~~2~~) and (3), even if not required to, and may receive the associated continuing education credit.

SECTION 106. NR 114.24 (1) is amended to read:

NR 114.24 Sanctions. (1) The department shall revoke an operator's certification and may not issue or renew a certificate for septage servicing for a period of 2 years if an operator has accumulated 6 or more violations of Chs. NR 113, NR 114, or s. 29.601, Stats., in any 3 year certification period. Enforcement may be taken against the operator, the operator-in-charge responsible for the operator, or both. Each violation shall count against the business for purposes of license renewal as specified in s. NR 113.05 (3).

SECTION 107. NR 200.03 (1) is amended to read:

NR 200.03 Applicability and exclusions. (1) An application for a discharge permit shall be filed by any person who discharges or ~~intends~~ proposes to discharge any pollutant from a point source to the waters of the state, or who land applies or disposes of sludge as specified in ch. NR 204, unless the discharge is excluded under sub. (3). Discharges for which applications are required include, but are not limited to:

SECTION 108. NR 200.06 (2) and (Note) are amended to read:

NR 200.06 (2) The application for reissuance of a permit shall be submitted ~~in a form approved by the department~~ electronically using the department's web-based application system and shall be signed in accordance with s. NR 200.07 (4).

Note: The department's web-based application system can be accessed at:

<http://dnr.wi.gov/environmentprotect/switchboard/>

SECTION 109. NR 203.02 (3) (j) and (k) and (Note) are created to read:

NR 203.02 (3) (j) If applicable, the location of each sludge treatment works treating domestic sewage including those for “sludge only facilities”, the sludge use, the sludge disposal practices, and the location(s) of each sludge use or disposal site(s) known at the time of permit application.

(k) The requirements applicable to cooling water intake structures under 33 USC s. 1316 (b), in accordance with 40 CFR part 125, subparts I, and J.

Note: A sludge use site includes a site for land application. Sludge disposal sites include surface disposal sites (not permitted in Wisconsin), landfills and incineration sites.

SECTION 110. NR 203.03 (3) is amended to read:

NR 203.03 (3) CONTENT. All government agency notices shall contain a copy of the public notice as described in s. NR 203.02, a copy of the fact sheet where available as described in s. NR 201.01, and a cover letter stating the purpose of the notice, the 30 day period for submitting comments and for requesting a public hearing pursuant to s. 283.49, Stats. In addition, the US EPA shall receive a copy of the permit application and draft permit and be provided a comment period not to exceed 90 days unless it agrees to a shorter comment period.

SECTION 111. NR 203.03 (4) (g) is created to read:

NR 203.03 (4) (g) Federal and State agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management plans, the Advisory Council on Historic Preservation, State Historic Preservation Officers, including any affected States, or American Indian tribes or bands.

SECTION 112. NR 203.06 (2) (o) is created to read:

NR 203.06 (2) (o) Reference to the date of previous public notices relating to the permit.

SECTION 113. NR 203.13 (2) (g) and (j) are amended to read:

NR 203.13 (2) (g) A statement of any significant changes which have been made from terms and conditions in the draft permit. This statement contain all of the following:

1. A description and response to significant comments on the draft permit.
2. Explanation of the reasons for change between the draft and final permit.

(j) The address and phone number where interested persons may obtain further information and the department’s response to comments, inspect and copy forms and related documents.

SECTION 114. NR 203.13 (3) (b) is amended to read:

NR 203.13 (3) (b) All persons filling out appearance slips at the public informational hearing, or who submitted written ~~statements~~ comments with respect to issuance of the permit even if a public informational hearing was not held.

SECTION 115. NR 205.07 (1) (n) and (Note) are amended to read:

NR 205.07 (1) (n) *Duty to reapply.* If the permittee wishes to continue an activity regulated by the permit after the expiration date of the permit, the permittee shall apply electronically, using the department's web-based application system, for a new permit.

Note: The department's web-based application system can be accessed at:

[http://dnr.wi.gov/environmentprotect/switchboard/.](http://dnr.wi.gov/environmentprotect/switchboard/)

SECTION 116. NR 205.07 (1) (r) 1. and (Note) and 2. are amended to read:

NR 205.07 (1) (r) 1. Monitoring results shall be reported on a an electronic discharge monitoring report (eDMR) or in a form approved by the department for reporting results of monitoring of sludge use or disposal practices.

Note: eDMRs are submitted at: <http://dnr.wi.gov/org/water/wm/ww/wwedmr.htm>.

2. If the permittee monitors any parameter more frequently than required by the permit, using test procedures specified in ch. NR 204 or 219, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the eDMR or sludge reporting form submitted to the department.

SECTION 117. NR. 205.07 (1) (r) 4. and (Note) are repealed.

SECTION 118 NR 205.07 (1) (u) is repealed.

SECTION 119. NR 205.07 (1) (v) is amended to read:

NR 205.07 (1) (v) *Scheduled bypassing.* Any construction or normal maintenance which results in a bypass of wastewater ~~from a treatment system~~ is prohibited unless authorized by the department in writing. If the department determines that there is significant public interest in the proposed action, the department may schedule a public hearing or notice a proposal to approve the bypass. Each request shall specify all of the following minimum information:

1. Proposed date of bypass;
2. Estimated duration of the bypass;

3. Alternatives to bypassing, ~~and,~~
4. Measures to mitigate environmental harm caused by the bypass.
5. Estimated volume of the bypass.

SECTION 120. NR 205.07 (2) (d) is amended to read:

NR 205.07 (2) (d) *Unscheduled bypassing*. Any unscheduled ~~diversion or bypass or overflow~~ of wastewater at the treatment ~~work works~~ or from collection system is prohibited ~~except in the following cases:~~, unless all of the following occur:

1. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.
2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.
3. The permittee notifies the department of the unscheduled bypass or overflow. The permittee shall notify the department within 24 hours of initiation of the bypass or overflow occurrence by telephone, voicemail, fax or e-mail. Within 5 days of conclusion of the bypass or overflow occurrence, the permittee shall submit to the department in writing, all of the following information:
 - a. Reason the bypass or overflow occurred, or explanation of other contributing circumstances that resulted in the overflow event. If the overflow or bypass is associated with wet weather, provide data on the amount and duration of the rainfall or snow melt for each separate event.
 - b. Date the bypass or overflow occurred.
 - c. Location where the bypass or overflow occurred.
 - d. Duration of the bypass or overflow and estimated wastewater volume discharged.
 - e. Steps taken or the proposed corrective action planned to prevent similar future occurrences.
 - f. Any other information the permittee believes is relevant.

SECTION 121. NR 210.03 (9m) is created to read:

NR 210.03 (9m) "Sewage treatment facilities" has the meaning specified under s. NR 110.03 (29).

Note: Subsection NR 110.03 (29) reads: "Sewage treatment facilities" means sewerage systems defined in sub. (30) exclusive of interceptor sewers and sewage collection systems.

SECTION 122. NR 210.08 (1) (a) and (b) are amended to read:

NR 210.08 (1) (a) All sewage treatment facilities shall, at a minimum, be able to maintain primary settling and effluent disinfection under all design conditions.

(b) All sewage treatment facilities discharging to class I, II, or III trout streams, or other critical stream segments as determined by the department, shall be able to operate all units critical to meeting the effluent limits as set forth in the WPDES permit for a minimum emergency period of 24 hours under all design flow conditions.

SECTION 123. NR 210.08 (2) is repealed and recreated to read:

NR 210.08 (2) Lift stations shall be provided with emergency operation in accordance with s. NR 110.14 (12).

SECTION 124. NR 210.11 is amended to read:

NR 210.11 Compliance maintenance annual report (CMAR). The CMAR ~~shall be submitted on or before June 30, 1987. Thereafter, the CMAR shall be submitted to the department on March 31 or before June 30 of each subsequent year and shall meet all applicable requirements. The content of the CMAR is described in ch. NR 208. The CMAR shall be completed and signed by a duly authorized representative of the owner. In the case of a publicly owned treatment works, a resolution from the municipality's governing body shall accompany the CMAR and shall include the information specified in s. NR 208.04 (3).~~

SECTION 125. NR 214.02 (2) is amended to read:

NR 214.02 (2) RESPONSIBILITY. The generator of these wastes shall be responsible for their handling and land application, except when an independent land application contractor has been issued a WPDES permit for the land treatment of these wastes. When the contractor is issued the WPDES permit, the independent contractor shall be responsible for the handling and application of these wastes to the land. A person may not land apply industrial waste or discharge industrial waste to a land treatment system unless the land application or discharge is authorized by a WPDES permit.

SECTION 126. NR 214.12 (4) (c) is created to read:

NR 214.12 (4) (c) The department may require electronic or paper submittal of discharge monitoring reports and land application forms.

SECTION 127. NR 214.13 (4) (c) is created to read:

NR 214.13 (4) (c) The department may require electronic or paper submittal of discharge monitoring reports and land application forms.

SECTION 128. NR 214.14 (4) (c) is created to read:

NR 214.14 (4) (c) The department may require electronic or paper submittal of discharge monitoring reports and land application forms.

SECTION 129. NR 214.15 (4) (c) is created to read:

NR 214.15 (4) (c) The department may require electronic or paper submittal of discharge monitoring reports and land application forms.

SECTION 130. NR 214.16 (2) (d) is repealed and recreated to read:

NR 214.16 (2) (d) A subsurface soil absorption system including a subsurface pressure distribution system or a subsurface mound system shall be constructed in accordance with design criteria contained in ch. Comm 83.

SECTION 131. NR 214.16 (2) (e) and (f), and (3) (e) are repealed.

SECTION 132. NR 214.16 (4) (c) is created to read:

NR 214.16 (4) (c) The department may require electronic or paper submittal of discharge monitoring reports and land application forms.

SECTION 133. NR 214.16 (6) is amended to read:

NR 214.16 (6) SOIL INVESTIGATION AND GROUNDWATER MONITORING REQUIREMENTS. The soil investigation and groundwater monitoring requirements for subsurface absorption systems are specified in ss. NR 214.20 and 214.21 or the department may accept soil investigations as required in ch. Comm 83 for discharge proposals for wastewater that is similar in quality to domestic wastewater and where the site conditions are adequate to ensure groundwater protection.

SECTION 134. NR 214.17 (5) (c) is created to read:

NR 214.17 (5) (c) The department may require electronic or paper submittal of discharge monitoring reports and land application forms.

SECTION 135. NR 214.18 (5) (d) is created to read:

NR 214.18 (5) (d) The department may require electronic or paper submittal of discharge monitoring reports and land application forms.

SECTION 136. NR 299.04 (1) (b) 7. is amended to read:

NR 299.04 (1) (b) 7. Any other appropriate requirements of state and federal law as provided in ss. 281.17(10), 281.36, and 281.37, and 33 USC 1341 (d).

SECTION 137. NR 299.05(3)(f) is amended to read:

NR 299.05 (3) (f) All ~~grants, conditional grants or denials~~ or revocations of certification shall include a statement that unless a written request for a hearing is filed with the department within 30 days after mailing of the ~~notice~~ decision, the department's decision will become final without public hearing at the end of the 30-day period.

SECTION 138. NR 299.05 (3) (fm) is created to read:

NR 299.05 (3) (fm) All grants or conditional grants of certification shall include a statement that unless a written request for hearing is filed with the department within 30 days after publication of the decision, the department's decision will become final without public hearing at the end of the 30-day period.

SECTION 139. NR 328.03 (9) is amended to read:

NR 328.03 (9) "High energy site" means a site where the storm-wave height calculated under s. NR 328.08 (1) is greater than or equal to 2.3 feet, or where the erosion intensity score calculated under s. NR 328.08 (2) has a score of greater than 67.

SECTION 140. NR 328.03 (15) is amended to read:

NR 328.03 (15) "Moderate energy site" means a site where the storm-wave height calculated under s. NR 328.08 (1) is greater than or equal to 1.0 foot but less than 2.3 feet, or where the erosion intensity score calculated under s. NR 328.08 (2) has a score of 48 to 67.

SECTION 141. NR 328.05 (6) is amended to read:

NR 328.05 (6) REPLACEMENT OF AN EXISTING SEAWALL WITH RIPRAP OR VEGETATED ARMORING. Replacement of an existing seawall with riprap or vegetated armoring on the bed or bank of a lake or flowage may be authorized under this general permit if it meets all of the requirements of sub. (5) (c) to (j) and s. NR 328.04 (3) and sub. (5) (e) to (j), with the exception that it may be located in an area of special natural resource interest, and may not exceed 500 linear feet.

SECTION 142. NR 328.35 (3) (p) is created to read:

NR 328.35 (3) (p) To stop the spread of invasive species and viruses from one navigable waterway to another navigable waterway, all equipment or portions of equipment used for constructing, operating, or maintaining the project, including tracked vehicles, barges, boats, silt or turbidity curtains, hoses, sheet piles, and pumps, shall be decontaminated for invasive species and viruses before and after use or prior to use within another navigable waterway. Decontamination activities shall be performed by taking all actions specified in either subd. 1. to 3. or 8. Decontamination shall include either subd. 4., 5., 6., 7., or 8. for any equipment, or portions of equipment, that is used in non-frozen navigable waters when the air temperature is above 19 degrees Fahrenheit at the time the decontamination procedures take place.

1. Inspect all equipment used for constructing, operating, or maintaining the project and remove all plants and animals, and other mud, debris, and similar materials.
2. Drain all water from equipment used in navigable waters.

Note: This does not apply to water in closed engine cooling systems or water tanks, or containers of potable drinking water or other beverages meant for human consumption. If a tanker truck discharges water collected from navigable waters in upland areas, the tank does not require disinfection.

3. Dispose of plants and animals in the trash. An operator may not transfer plants or animals or water from one navigable waterway to another.
4. Wash equipment at a temperature of not less than 212 degrees Fahrenheit water (steam clean).
5. Wash equipment with soap and water or high pressure water of not less than 2000 pounds per square inch.
6. Allow equipment to dry thoroughly for not less than 5 days.

Note: Additional drying techniques including drying through natural or mechanical means or changes in drying duration may be submitted to the department for review and approval.

7. Disinfect equipment with 200 parts per million (0.5 ounces per gallon) chlorine for not less than 10 minute contact time. Every effort should be made to keep the disinfection solution and rinse water out of surface waters.

Note: Chlorine refers to either household bleach solution (5.25% chlorine) or granular chlorine (70% calcium hypochlorite).

8. Follow the most recent department approved disinfection protocols or department approved best management practices for infested waters. The department shall maintain on its website and make available at its offices a list of the most recent disinfection protocols or department approved best management practices for invasive species and viruses.

Note: See the department's website at: dnr.wi.gov under the topic "Waterway and Wetlands." Recommendations for additional disinfection or decontamination protocols or department approved best management practices may be submitted to the department for review and approval to be added to this list.

SECTION 143. NR 341.09 (1) (b) and (c) are amended to read:

NR 341.09 (1) (b) If the department determines that a ~~pond or artificial water body~~ grading application submitted under this section has the potential to impact an endangered or threatened species in accordance with s. 29.604, Stats., the application shall be deemed incomplete until the applicant submits documentation to demonstrate one of the following:

1. The ~~pond or artificial water body~~ grading project avoids impacts to the endangered or threatened species in accordance with s. 29.604, Stats.

2. The ~~pond or artificial water body~~ grading project has received an incidental take authorization under s. 29.604, Stats.

(c) If the applicant modifies their ~~pond or artificial water body~~ grading project plans to meet the requirements of par. (b), the modified plans shall be submitted before the department can consider the application complete or issue an individual permit.

SECTION 144. NR 812.08 (4) (b) 11. is amended to read:

NR 812.08 (4) (b) 11. Buried pressurized sewer pipe conveying manure provided that the pipe meets ASTM specification D-2241, with standard dimension ratio of 21 or less or pressure pipe meeting the requirements of s. NR 110.13 ~~(6) (f)~~ or 811.62.

SECTION 145. NR 812.08 (4) (b) 11. (Note) is repealed.

SECTION 146. EFFECTIVE DATE. The rule shall take effect the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

SECTION 147. BOARD ADOPTION. The rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Matthew J. Frank, Secretary

(SEAL)