COMM 2/82/83 98 WASTEWATER
TREATMENT - PRIVATE/ON-SITE
98-083

RV 10

State Senator
Robert T. Welch

FACSIMILE COVER PAGE

TO: Bob Conlin / J. Stolzenberg

Fax: 6-3830 **Phone:** 6-1304

FROM: Les Wakefield

*State Capitol * P.O. Box 7882 * Madison, WI 53707-7882 * 608/266-0751 * Fax 608/267-4350*

DATE: 9/23/98

Group
Co. Code Administrato

Pages w/cover: 3

COMMENTS:

Bio. for Dick Hansen - ADD To File

JOHNSON
INTERNATIONAL

Date:	September 22, 1998	Fax Time:	4:40 PM
Attention:	Senator Robert Welch Sent Via Fax: 608 267 4350	Pages to Follow:	1
From:	Dick Hansen	Fax Number: Phone Number:	414 681 4625 414 681 7599

Following is a revised biographical sketch for Dick Hansen. This is an updated version from bio dated 8-26-98.

Request for this bio was for the special Committee on the State Strategies for Economic Development.

Thank you

RICHARD A. HANSEN

BIOGRAPHICAL SKETCH

Richard A. Hansen is President and Chief Executive Officer of Johnson International, Inc. a $1.5 billion registered bank holding company with bank, trust, asset management and insurance operations in Wisconsin, Arizona, Illinois, Nevada, Switzerland and Grand Cayman Islands, B.W.I.

He served as president and chief executive officer of Firstar Bank Madison from 1990 to 1995 and senior vice president of Firstar Corporation of Minnesota and president of Firstar Metro Bank from 1989 until December 1990. Prior to his position in Minnesota, he served as president of First Wisconsin National Bank of Eau Claire. He has served as an executive in various other capacities at banks within the Firstar Corporation.

Hansen is a member and past Chairman of the Board of Directors of the Bank Administration Institute, a national education and policy research organization. He is on the Board of Directors for Venture Investors of Wisconsin, Inc., an early stage venture fund. He is Chairman of the Board of Future Wisconsin, Inc., a non-profit, low income-housing corporation. He is a member of the Community Bank Council, an advisory council on community bank issues to the Federal Reserve Bank of Chicago. He is a public member of the Special Committee on State Strategies for Economic Development that reports directly to Wisconsin's Joint Legislative Counsel. He is Chairman of Leadership Racine, co-chair of the Greater Racine Committee and a board member of the Downtown Racine Corporation.

Hansen is a native of Madison, Wisconsin and a graduate of the University of Wisconsin-Milwaukee.

9-18-98

Scott Gunderson

Wisconsin State Legislature

83rd Assembly District Representative

SEP 20 1998

September 18, 1998

Senator Robert Welch BOB
Co-Chairman JCRAR
1 East Main Street, Room 201

Representative Glenn Grothman
Co-Chairman JCRAR
125 West State Capitol

Re: Commerce Rule 83.03 Meeting

Dear Senator Welch and Representative Grothman,

Last week, I sent a letter requesting a hearing on Commerce Rule 83.03. In this letter, I stated the reasons that I believed the Joint Committee for Review of Administrative Rules should hold a hearing on suspending this specific rule. My letter was forwarded to Michael Corry, the Buildings and Safety Division Administrator at the Department of Commerce. After a conversation with Mr. Corry, we felt that it may be in the best interests of this committee to hold an informal meeting to discuss this issue and a number of others.

As you may know, the Department of Commerce is currently rewriting Commerce Rule 83. Because the completion and passage of this rewrite may take a considerable amount of time, Mr. Corry and I felt a meeting between this committee and representatives of the Department of Commerce was appropriate. In this meeting, we will be able to discus the suspension of Commerce Rule 83.03, as well as, a number of other specific Commerce Rules.

A specific date has not been set yet, but we are look at a date in the next two weeks.

Sincerely,

Representative Scott Gunderson
83rd District
Wisconsin State Assembly

cc: JCRAR Members
Michael Corry, Division Administrator Department of Commerce

Office: P.O. Box 8952 • Madison, Wisconsin 53708-8952 • (608) 266-3363 • Hotline: 1 (800) 362-9472 • Rep.Gunderson@legis.state.wi.us
District: 28918 Kramer Drive • Waterford, Wisconsin 53185 • (414) 534-9015

Scott Gunderson

Wisconsin State Legislature

83rd Assembly District Representative

September 11, 1998

Senator Robert Welch
Co-Chairman JCRAR
1 East Main Street, Room 201

Representative Glenn Grothman
Co-Chairman JCRAR
125 West State Capitol

Re: Hearing request for Commerce Rule 83.03

Dear Senator Welch and Representative Grothman,

I would like to request a hearing by the Joint Committee for Review of Administrative Rules on Commerce Rule 83.03. Under the current rule, when public sewers approved by the Department of Natural Resources become available to a household, the use of a private sewage system must be discontinued.

Many homeowners have incurred great expenses installing their private septic systems, only to have a sanitary district annex the surrounding land. After public sewers become available, the homeowner has one year to disconnect his private sewage system, and connect to the public system. This rule is enforced upon the homeowner regardless of the age or operating condition of the private system. The private sewer systems can still in fine working condition never having experienced a malfunction, but the system still must be disconnected.

I feel it is in our best interest to address this issue because it will continue to gain in importance in the years to come. As rural subdivisions continue to be developed and our state's communities continue their outward growth, the current Commerce Rule will cause problems. I lookforward to hearing your response.

Sincerely,

Representative Scott Gunderson
83rd District
Wisconsin State Assembly

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LCRC FORM 2

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CLEARINGHOUSE REPORT TO AGENCY

[THIS REPORT HAS BEEN PREPARED PURSUANT TO S. 227.15, STATS. THIS IS A REPORT ON A RULE AS ORIGINALLY PROPOSED BY THE AGENCY; THE REPORT MAY NOT REFLECT THE FINAL CONTENT OF THE RULE IN FINAL DRAFT FORM AS IT WILL BE SUBMITTED TO THE LEGISLATURE. THIS REPORT CONSTITUTES A REVIEW OF, BUT NOT APPROVAL OR DISAPPROVAL OF, THE SUBSTANTIVE CONTENT AND TECHNICAL ACCURACY OF THE RULE.]

CLEARINGHOUSE RULE **98–083**

AN ORDER to repeal Comm 2.63, 16.28 (2) and (3), 82.10 (7) and (15) and Note, 82.11 and 84.60 and ILHR 20.09 (5) (b) 2. Note, 52.62 and 66.11 Note 2; to renumber Comm 5.02 Table 5.02 lines 17 to 64, 5.06 Table 5.06 lines 17 to 64, 16.28 (4) and 84.20 (5) (j) to (q) and ILHR 51.01 (71p) and 66.11; to renumber and amend Comm 2.67 (1) and 82.36 (3) (b) 3. a. and b.; to amend Comm Table 2.66 line 5, 2.66 (1) (d) 2., 2.67 (2), 82.01 Note, 82.10 (2), (8) and (13), 82.30 (11) (g) 2., 82.32 (4) (b) 1. b., 82.34 (5) (a) 2. (title) and (intro.) and 3. and (b) 2. (intro.), 82.40 (3) (e) and (8) (b) 1. to 3., 84.10 Table 84.10 line 5, 84.11, 84.30 Table 84.30–5 and 84.50 (3) (g) 1. and 7.; to repeal and recreate Comm 2.51 (5), 2.61 (3), 2.65 and Table 2.65, 2.66 (2) (a), 82.10 (3), chapter Comm 83, 84.10 (3) and 84.30 (2) (d) and chapter Comm 85 and ILHR 51.01 (103g), 52.61 and 52.63 (1); and to create Comm 2.67 (1) (b), 5.02 Table 5.02 line 17, 5.06 Table 5.06 line 17, 5.36, chapter Comm 81, 82.37, 82.40 (8) (j), 84.20 (5) (j) and (q) 1. Note, 84.25, 84.30 (6) (g) to (j) and Table 12, A–84.10 (3) (b) and chapter Comm 91 and ILHR 20.07 (19m), (40t) and (59t), 20.09 (5) (b) 3., 25.02, Appendix 20.09, 50.06 (3), 51.01 (19m) and (71p) and Appendix 50.06 (3), 66.11 (2) and Appendix 66.11 (2), relating to private onsite wastewater treatment systems.

Submitted by **DEPARTMENT OF COMMERCE**

06–05–98 RECEIVED BY LEGISLATIVE COUNCIL.

07–02–98 REPORT SENT TO AGENCY.

RS:MCP:jt;ksm

LEGISLATIVE COUNCIL RULES CLEARINGHOUSE REPORT

This rule has been reviewed by the Rules Clearinghouse. Based on that review, comments are reported as noted below:

1. STATUTORY AUTHORITY [s. 227.15 (2) (a)]

   Comment Attached YES ☑ NO ☐

2. FORM, STYLE AND PLACEMENT IN ADMINISTRATIVE CODE [s. 227.15 (2) (c)]

   Comment Attached YES ☑ NO ☐

3. CONFLICT WITH OR DUPLICATION OF EXISTING RULES [s. 227.15 (2) (d)]

   Comment Attached YES ☐ NO ☑

4. ADEQUACY OF REFERENCES TO RELATED STATUTES, RULES AND FORMS [s. 227.15 (2) (e)]

   Comment Attached YES ☑ NO ☐

5. CLARITY, GRAMMAR, PUNCTUATION AND USE OF PLAIN LANGUAGE [s. 227.15 (2) (f)]

   Comment Attached YES ☑ NO ☐

6. POTENTIAL CONFLICTS WITH, AND COMPARABILITY TO, RELATED FEDERAL REGULATIONS [s. 227.15 (2) (g)]

   Comment Attached YES ☐ NO ☑

7. COMPLIANCE WITH PERMIT ACTION DEADLINE REQUIREMENTS [s. 227.15 (2) (h)]

   Comment Attached YES ☐ NO ☑

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CLEARINGHOUSE RULE 98–083

Comments

[NOTE: All citations to "Manual" in the comments below are to the Administrative Rules Procedures Manual, prepared by the Revisor of Statutes Bureau and the Legislative Council Staff, dated October 1994.]

1. Statutory Authority

a. Section Comm 83.01 provides that ch. Comm 83 establishes "minimum" standards and criteria for the regulation of private on-site wastewater treatment systems (POWTS). The statutory authority for ch. Comm 83, in ss. 145.02 (2) and 145.13, Stats., does not include the word "minimum" in relation to the Plumbing Code. These statutes have for many years been interpreted by the department and its predecessors to require a uniform statewide plumbing code. This interpretation of the statute is made clear and unambiguous by the legislative history, in which the word "minimum" was stricken from both of these statutes by Ch. 194, Laws of 1971. This provision of the rule and ss. Comm 83.32 (2) (b) and 83.40 (intro.), are contrary to the statutory mandate.

b. The department has included a determination in s. Comm 83.03 (4) (b) that it is not technically or economically feasible for a POWTS to comply with the preventive action limits for chloride. This determination may be relevant for several different purposes under ch. 160, Stats. The department should clearly state the regulatory consequence of this determination within the statutory framework of the groundwater law.

c. In s. Comm 83.22 (5), the department is attempting to limit any responsibility it may have based on its decisions in the process of approving plans. Under existing statutory and case law, the department, as a state agency, enjoys a number of limitations on liability, including for actions of its employes or agents done within the scope of their responsibility. If this provision is a restatement of current law, it is unnecessary. If this provision is an attempt to extend the department's immunity for its actions, the department should determine clearly whether it has statutory authority to do so.

d. The rule establishes a "range of responses" for purposes of the groundwater law in Table 83.29. Has the department considered, in preparation of this range of responses, the mandatory requirements of s. 160.21 (3) and (4), Stats.? The responses listed in Table 83.29 are expressed in general terms and do not reflect any of the details called for in the statute.

The range of responses in Table 83.29 is a single list, which presumably applies to concentrations of substances in excess of either a preventive action limit or an enforcement standard. Although the groundwater law does not require separate lists of responses, the department may wish to consider whether the mandate of the groundwater law can better be met with a separate range of responses for concentrations of substances in excess of a preventive action limit and an enforcement standard. The statute suggests the appropriateness of this by requiring regulatory responses for attaining or exceeding a preventive action limit or an enforcement standard in separate paragraphs in s. 160.21 (1), Stats. Also, the regulatory responses required by ss. 160.23 and 160.25, Stats., are not the same.

When an enforcement standard is attained or exceeded, s. 160.25 (1) (a), Stats., requires, as the primary regulatory response, prohibition of the activity or practice. This requirement is not explicitly included in Table 83.29.

The reason for promulgation of regulatory responses under s. 160.21, Stats., is to determine, in advance, the responses that the regulatory agency may take under ss. 160.23 and 160.25, Stats., if a preventive action limit or an enforcement standard is attained or exceeded. Only two of the responses in the table (related to issuing orders) can be said to constitute a regulatory response for a specific facility, although those provisions are expressed in such general terms that they do not provide information about the potential actions that must be taken by a property owner if a POWTS causes the concentration of a substance in groundwater to attain or exceed a preventive action limit or an enforcement standard.

Chapter 160, Stats., does not explicitly require groundwater monitoring for individual facilities, although regulatory agencies often require monitoring. Section Comm 83.54 (2) (b) and (e) authorize the department to require monitoring, but these provisions do not indicate the conditions under which monitoring may be required and are not clear as to whether the monitoring is to be required for contaminants in groundwater. If monitoring is not required, how will the department determine if a POWTS complies with the groundwater law? Has the department consulted with the Department of Natural Resources concerning management practice monitoring under s. 160.27, Stats., with respect to a POWTS?

The point of standards application under s. Comm 83.29 (2) corresponds with the point of standards application in s. 160.21 (2) (b), Stats., in which monitoring is not required for the facility. However, s. Comm 83.54 (2) provides that the department may require monitoring. If monitoring is required for a facility, the point of standards application provisions of s. 160.21 (2) (a), Stats., should apply.

2. Form, Style and Placement in Administrative Code

a. Table 2.65 sets fees for the plan review of private on-site wastewater treatment systems. There should be no gaps between the categories. For example, the table sets a fee for

a proposed system that treats 1,000 gallons per day or less and sets a separate fee for a system that treats 1,001 to 2,000 gallons per day. The second category should be labeled as a system that treats more than 1,000 gallons per day and not more than 2,000 gallons per day in order to avoid any controverseys regarding the rounding of figures between 1,000 and 1,001 when imposing a fee.

b. The definition in s. Comm 81.01 (89) refers to "the code." Should this be a reference to the defined term, the "state plumbing code"?

c. In s. Comm 83.02 (2) (c), the cross-reference should read "chs. NR 108, 110, 206 and 218." Also, in sub. (2) (f) 1. c., the notation "ss." should be replaced by the notation "s."

d. In s. Comm 83.21 (3) (c) 2., the first sentence should be renumbered as sub. (a) and the remaining subparagraphs should be renumbered accordingly.

e. The Note after s. Comm 83.23 (3) (b) appears to establish a substantive statement that should be included in the rule.

f. The defined term "failing private on-site wastewater treatment system" should be used in s. Comm 83.24 (2) (b).

g. Section Comm 83.44 (3) (b) 2. provides information, rather than establishes a regulatory requirement, and should be redrafted as a note.

h. In s. Comm 83.45 (5), the notation "s." should be inserted before the reference to "Comm 83.22."

i. In s. Comm 84.10 (3) (c) (intro.), the cross-reference should read "chs. Comm 81, 82 and 83, this chapter and ch. 145, Stats." [See also sub. (3) (e) 1. and (f).]

j. In s. Comm 85.20 (1) (b) Note, the underscoring should be removed. Also, in sub. (2) (b) 1. b., c. and d., the notation "s." should be inserted before the cross-references to "Comm 85.30 (1) (c)."

k. In s. Comm 85.60 (3), the first sentence should be renumbered as par. (a) and the remaining paragraphs renumbered accordingly. Also, in the first sentence, the word "through" should be replaced by the word "to."

l. Section Comm 85.60 (3) contains two paragraphs numbered par. (g).

m. Section Comm 85.60 (4) (d) 4. and (d) 3. refer to an appendix. Where is the appendix? Also, sub. (5) (intro.) should conclude with a colon rather than a period.

4. Adequacy of References to Related Statutes, Rules and Forms

a. Cross-references to chs. 144 and 147, Stats., such as in s. Comm 81.01 (13) and other places in the rule, should be changed to reflect current statutory numbering.

b. Does the term "interim" in s. Comm 81.20 (3) have a precise meaning? Are there amendments other than "interim" amendments that will take effect before the Plumbing Code is revised?

c. Section Comm 85.60 refers to various forms. The department should ensure that the requirements of s. 227.14 (3), Stats., are met.

5. Clarity, Grammar, Punctuation and Use of Plain Language

a. Typographical errors noted:

(1) Comm 2.66 Table 2.66, line 5: "wastewater" is misspelled.

(2) Comm 5.36 (3) (b): "as a" is duplicated.

(3) Comm 81.01 (117): "that" should be replaced by "which."

(4) Comm 82.10 (8): a space should be inserted before "treatment."

(5) Comm 83.02 (2) (d) 2.: "engineered" is misspelled.

b. Should "registration" be inserted after "provider" in s. Comm 5.36 (3) (intro.)?

c. In s. Comm 5.36 (3) (a) (intro.), "are relative" should be replaced with "relate."

d. "Humus" is used in s. ILHR 20.07 (19m) and several provisions in the rule. This term is defined in the rule as the product of bacterial digestion of human wastes and organic kitchen wastes, although this term, in geographical science as well as common usage, means a component of soil.

e. The definition in s. Comm 81.01 (3) refers to the treatment of "wastewater" and the definition in s. Comm 81.01 (8) refers to the treatment of "waste and wastewater." Is there any reason for the difference?

f. "Application rate" does not appear to be a technical term and is not a term that should ordinarily require a definition. The definition in s. Comm 81.01 (10) is confusing, because the definition refers to the movement of liquid ***into*** a soil surface, which suggests a term such as "absorption," rather than "application."

g. The definition of "appurtenance" in s. Comm 81.01 (11) is not particularly clear, because "adjunct" is no more precise than "appurtenance."

h. The term "backflow" includes the reverse flow of liquids, solids or gases. However, as this term is used in the rule, it appears to apply only to the reverse flow of liquids. Are there in fact provisions in the rule that refer to the reverse flow of solids or gases?

i. The definition of "dispersal" in s. Comm 81.01 has the same problem as the definition of "application rate." The defined term does not match the definition. [See also, s. Comm 81.01 (180).]

j. In Note 3 after s. Comm 83.02 (1), in the statutory quotation, "department" should be followed by "[of natural resources]."

k. The phrase "require that the modification" in s. Comm 83.03 (1) (b) is superfluous. Also, in the Note after that paragraph, "impact" should be replaced by "affect" and the department should consider whether some guidance should be included on how to determine what is the "appropriate edition" of the "code."

l. Section Comm 83.03 (2) (a) should commence: "This chapter does not apply . . . ."

m. "Entities" is used in s. Comm 83.20 (1) (b). It is not clear what this word means.

n. It appears that "format" should be replaced by "form" in s. Comm 83.21 (6) (a) 1. and the Note after that subdivision. Also, should the Note refer to "a copy of" the application rather than "further information relative to" the application?

o. Section Comm 83.32 (1) (a) 2. and 3. repeat provisions that are included earlier in the rule.

p. "Frequency" should be deleted in s. Comm 83.54 (3) (b).

q. In s. Comm 83.55 (1) (a), the word "their" should be replaced by the phrase "the owner's." [See also sub. (1) (b) and s. Comm 85.60 (1) (a) 1.]

State of Wisconsin \ Department of Commerce

HEARING DRAFT of PROPOSED RULES

Rule No.: Chapters Comm 83, 85 and 91

Relating to: Private Onsite Wastewater Treatment Systems

The Wisconsin Department of Commerce proposes an order to repeal Comm 2.63, Comm 16.28 (2) and (3), ILHR 20.09 (5) (b) 2. Note, ILHR 52.62, ILHR 66.11 Note 2, Comm 82.10 (7), 82.10 (15) and Note, 82.11, Comm 84.60;

to renumber Comm 5.02 Table 5.02 lines 17 to 64, 5.06 Table 5.06 lines 17 to 64, Comm 16.28 (4), ILHR 51.01 (71p), ILHR 66.11, Comm 84.20 (5) (j) to (q);

to renumber and amend Comm 2.67 (1), Comm 82.36 (3) (b) 3. a., 82.36 (3) (b) 3. b.;

to amend Comm Table 2.66 line 5, 2.66 (1) (d) 2., 2.67 (2), Comm 82.01 Note, 82.10 (2), 82.10 (8), 82.10 (13), 82.30 (11) (g) 2., 82.32 (4) (b) 1. b., 82.34 (5) (a) 2. (title) and (intro.) and 3. and (b) 2. (intro.), 82.40 (3) (e), 82.40 (8) (b) 1. to 3., Comm 84.10 Table 84.10 line 5, 84.11, 84.30 Table 84.30-5, 84.50 (3) (g) 1. and 7.;

to repeal and recreate Comm 2.51 (5), 2.61 (3), 2.65 and Table 2.65, 2.66 (2) (a), ILHR 51.01 (103g), 52.61, 52.63 (1), Comm 82.10 (3), ch. Comm 83, Comm 84.10 (3), 84.30 (2) (d), ch. Comm 85;

and to create Comm 2.67 (1) (b), Comm 5.02 Table 5.02 line 17, 5.06 Table 5.06 line 17, 5.36, ILHR 20.07 (19m), (40t) and (59t), 20.09 (5) (b) 3., 25.02, Appendix 20.09, ILHR 50.06 (3), 51.01 (19m), 51.01 (71p), Appendix 50.06 (3), ILHR 66.11 (2), Appendix 66.11 (2), ch. Comm 81, Comm 82.37, 82.40 (8) (j), Comm 84.20 (5) (j), 84.20 (5) (q) 1. Note, 84.25, 84.30 (6) (g) to (j) and Table 12, A-84.10 (3) (b), ch. Comm 91, relating to private onsite wastewater treatment systems.

* *

ANALYSIS OF RULES

Statutory authority: ss. 101.02 (1), 101.63 (1), 101.73 (1), 101.82 (1) and 145.02 (3) and (4), Stats.
Statutes interpreted: ss. 145.02 (4), 145.045, 145.13, 145.135, 145.19, 145.20, Stats.

Under s. 145.02, Stats., the Department of Commerce has the responsibility of safeguarding public health and the waters of the state relative to the construction, installation and maintenance of plumbing. One mechanism of the Department to fulfill this responsibility has been the promulgation of the state plumbing code, chapters Comm 81-87.

Currently, chapter Comm 83 of the plumbing code establishes specific and prescriptive minimum standards for the design, installation, inspection, and maintenance of private sewage systems. In some sense, the current rules dictate or prioritize specific solutions or the selection of certain types of private sewage systems. The current chapter Comm 83 has not been fully revised since 1980. In order for the plumbing code to be effective and reasonable, code standards must be updated periodically to address new health and safety concerns, issues and priorities as well as to reflect changing technologies, practices and materials. The proposed revisions represent a complete reevaluation of the private sewage program as well as the code.

The goals guiding the reengineered program and code are to:

- Minimize risk to public health and the water resources of the state, including groundwater;
- Provide measurable performance criteria for private onsite wastewater treatment systems, formerly known as private sewage systems, that ensure flexibility and predictability and facilitate improvements in system design and product development;
- Promote the recycling of constituents to minimize disposal volumes;
- Promote a wide range of treatment options that match users' needs and desires and the varied soil and site conditions in the state;
- Provide clear boundaries, based on system performance standards for the scope of the code;
- Promote competition in the design, installation and maintenance of systems, thereby, providing users with efficient and cost effective services;
- Provide procedures and establish priorities for the responsibilities of the design, installation and maintenance of systems to ensure that the respective responsibilities are clear and consistent and that compliance is occurring;
- Provide and promote active research and development of innovative technologies and solutions in the desired directions;
- Promote public education about treatment options and proper disposal of wastewater;
- Provide timely and efficient administration and enforcement of the regulatory system; and
- Acknowledge the powers and the abilities of municipalities to determine and control development.

The following summarizes by chapter the significant highlights of the rewrite:

Chapter Comm 2, Fee Schedule; The revisions involve the fees to be charged by the department for reviewing plans, petitions and products relative to private onsite wastewater treatment systems. The fees for plan review are now to be based upon the design wastewater flow of the system and whether the proposed treatment components of the system have been previously recognized under the product approval process. Overall, the revised fee structure does not increase the cost of these services or increase the department's revenues.

Chapter 5, Credentials; Changes to the chapter established a credentialing program for individuals who are to provide required monitoring and maintenance services for mechanical POWTS components. To qualify for the credential individuals will either have to obtain training or have experience installing mechanical POWTS components.

Chapters ILHR 20-25, One- and 2- Dwelling Code, Chapters ILHR 50-64, Commercial Building Code, Chapter Comm 66, Multifamily Dwelling Code; Revisions to the appendices of these codes are to provide greater clarity as to the issuance of building permits for projects served by private onsite wastewater treatment systems. The other revisions provide a cross reference to newly created ch. Comm 91 for privies, composting toilets and incinerating toilets.

Chapter Comm 81, Definitions and Standards; The newly created chapter consolidates into one location the plumbing code definitions and referenced national standards.

Chapter Comm 82, Design, Construction, Installation, Supervision and Inspection of Plumbing; The changes:

- Reflect consistent terminology relative to ch. Comm 83;
- Recognize that sanitation needs can also be fulfilled by nonplumbing means such as composting toilets;
- Eliminate from the plumbing code the mandates of connecting to public sewer and/or water in light of the powers and authority held by municipalities and sewer and water districts under chs. 66 and 281.145, Stats., to require such connections;
- Establish requirements for composting toilets and systems that use water or other liquids as a transport medium; and
- Establish requirements for sanitary dump stations which receive the wastes from the holding tanks of travel trailers and such.
- Mandate the use of water softeners that are used primarily for water hardness reduction to be of a demand initiated regeneration type when the brine solution is discharged to a private onsite wastewater treatment system.

Chapter Comm 83, Private onsite Wastewater Treatment Systems; The chapter has been completely rewritten; the outline for the new chapter is:

Ch. Comm 83
Subchapter I SCOPE AND APPLICATION
- Comm 83.01 Purpose
- Comm 83.02 Scope
- Comm 83.03 Application
- Comm 83.04 Implementation

Subchapter II ADMINISTRATION AND ENFORCEMENT
- Comm 83.20 Purpose
- Comm 83.21 Sanitary Permits
- Comm 83.22 Plan Review and Approval
- Comm 83.23 Review Agent Status
- Comm 83.24 Petitions for Variance
- Comm 83.25 Governmental Programs
- Comm 83.26 Inspections and Testing
- Comm 83.27 Experimental POWTS
- Comm 83.28 Penalties
- Comm 83.29 Range of Responses

Subchapter III GENERAL REQUIREMENTS
- Comm 83.30 Purpose
- Comm 83.31 Principles
- Comm 83.32 Prohibitions and Limitations
- Comm 83.33 Abandonment

Subchapter IV DESIGN AND INSTALLATION
- Comm 83.40 Purpose
- Comm 83.41 Principles
- Comm 83.42 Application
- Comm 83.43 General Requirements
- Comm 83.44 Design Parameters for POWTS Components Consisting of In Situ Soil
- Comm 83.45 Installation

Subchapter V MANAGEMENT
- Comm 83.50 Purpose
- Comm 83.51 Principles
- Comm 83.52 Responsibilities
- Comm 83.53 General
- Comm 83.54 Management Requirements
- Comm 83.55 Reporting Requirements

Subchapter VI RECOGNIZED METHODS AND TECHNOLOGIES
- Comm 83.60 Purpose
- Comm 83.61 Acceptable Methods and Technologies
- Comm 83.62 Parameters for Using Acceptable Methods and Technologies

Unlike the current chapter, the revised ch. Comm 83 does not dictate or prioritize specific solutions or the selection of systems; rather, the chapter delineates the critical factors, parameters, options, prohibitions and limitations for the design of private onsite wastewater treatment systems. Under the framework of chapter Comm 83 designers and owners would be allowed to choose the appropriate method for reducing the contaminant loads and dispersing the hydraulic flows by selecting and arranging prerecognized treatment components, single use designs, and other means in conjunction with site limitations for a particular project.

The revisions under chapter Comm 83, include:

- Numerical standards for system design and operation relative to fecal coliform, suspended solids, biological oxygen demand, grease, oil and particle size;

- No specific prohibition to use means other than subsurface soil for treatment and dispersal such as constructed wetlands or evapotranspiration beds;

- Requirements to obtain plan approval and a sanitary permit before the installation of a private onsite wastewater treatment system may begin; local governmental units would still be required to review plans employing "conventional" technology for residential projects while plans for commercial projects or projects employing technologies not previously recognized would be reviewed by the department. Plans using other types of "prerecognized" solutions would be reviewed by either the local governmental unit or the department depending upon where the submitter wanted the service to be performed and if the local government unit had opted to provide this service as an agent of the department;

- The testing of components before the system is put into service;

- A reference to the petition for variance process, chapter Comm 3, whereby an equivalent alternative that meets the intent of a rule but not the letter may be recognized - the petition for variance process is not to waive compliance and does not supersede statutory requirements or local ordinances;

- The allowance for local governmental units, by ordinance, to delay the implementation of some technologies upon the adoption of the code and to prohibit or limit the use of holding tanks, or constructed wetlands or evapotranspiration beds as POWTS treatment components;

- The prohibition of cesspools and outfall pipes discharging sewage to the surface, including existing installations;

- Design standards that:
  - Delineate the contaminant loads and hydraulic flows for residential occupancies based on bedrooms and occupants and for other occupancies based upon estimated wastewater flows;
  - Allow for the segregation of graywater and blackwater wastes and designs to deal with each;
  - Specify parameters for subsurface treatment and dispersal;
  - Recognize that treatment components may be installed inside buildings provided the components are gas-tight, and pose no health or safety risk to occupants.

- The establishment of an electronic maintenance tracking scheme that would monitor the required periodic servicing of private onsite wastewater treatment systems depending upon the type of technology employed; the maintenance service parameters would be established during either product review or plan review; the maintenance tracking system would allow regulatory agencies and the department to focus their enforcement activities; the maintenance tracking scheme would be expanded to include existing holding tanks; and

- The recognition that responsibility to operate and maintain a private onsite wastewater treatment system in accordance with its approval is assigned to the owner and the failure to report required maintenance would be considered a violation of the code and a "human health hazard" allowing possible direct intervention to correct the situation.

Chapter Comm 84 Plumbing Products; The revisions under this chapter:

- Require department approval of all prefabricated treatment components to be employed in a private onsite wastewater treatment system to recognize the performance capabilities of the components through the department's product approval process; product approvals are valid for 5 years and may be revised and renewed at the option of the submitter and may be rescinded by the department; the department's approval and recognition is determined with respect to the requirements and standards delineated in the plumbing code;

- Establish the voluntary submission and the department's recognition of system design solutions, treatment and dispersal, as private onsite wastewater treatment systems thereby facilitating the design process and the plan review process; the review of such submissions would entail the input of a technical advisory committee comprised of interested parties involved in private onsite wastewater treatment systems;

- Establish performance and specification requirements for treatment and holding components; and

- Establish performance and specification requirements for geotextile fabrics used in private onsite wastewater treatment systems to prevent backfill material from entering absorption areas.

Chapter Comm 85 Soil and Site Evaluations; This chapter currently addresses the proposed creation of subdivisions that are not to be served by public sewers and reflects the department's regulatory involvement under ch. 236, Stats. The department's role under ch. 236, Stats., is to facilitate the planning of adequate sewage disposal for new subdivisions. The department proposes to reduce its regulatory involvement in the present plat review process believing that the process is premature and duplicative. Premature in that a type of system is preselected and assigned to a site without knowing the type of building to be served and its wastewater needs or the preferences of the owner; duplicative in that plans for a private onsite wastewater treatment system will still be required to be submitted and approved for each project. Under s. 236.45, Stats., local governmental units will still be able to facilitate and regulate subdivisions relative to a wide variety of land use issues including sewerage.

The rewritten chapter will focus on providing consistent high quality soil and site data which may be used as the basis for selecting and designing a solution to address a project's wastewater management needs. Even though chapter Comm 83 does not dictate or prioritize specific solutions the data gathered from soil and site evaluations must be of such quality as to document the site's limitations or abilities to support the proposed design during the plan review process. The rules of this chapter will no longer require the soil tester to recommend a system type for a site. The selection of the design is the decision of the owner in consultation with the designer, soil tester, installer and other parties involved in the POWTS design process.

Chapter Comm 91 Sanitation; The newly created chapter is not part of the plumbing code and establishes minimum standards for the design, installation and maintenance of sanitation systems and devices which are alternatives to traditional plumbing fixtures and systems. The chapter covers composting toilets and systems, incinerating toilets and privies. Local units would be able to enact more stringent requirements or use limitations for these types of sanitation systems.

Pursuant to s. 160.19 (2) (b), Stats., the department has determined that the proposed rules under ch. Comm 83 and the rules under previous editions of ch. Comm 83 which govern existing private onsite wastewater treatment do not result in compliance with the preventive action limits under ch. NR 140 at a point of standards application for chlorides. The department has concluded that it is not technically or economically feasible to reduce chlorides to the preventive action limits. The principle contributor of chlorides in the wastewater stream of residential occupancies is the use of water softeners. Anion exchange is the only chemical process capable of removing chloride from water. The physical processes of removing chloride, such as evaporation and reverse osmosis, would separate feedwater into two streams, one with a reduced chloride content and the other with an increased chloride content, and results in still having to treat and dispose of chloride contaminated wastewater.

Also under s. 160.255, Stats., private sewage systems are exempted from meeting the NR 140 nitrate standards by s. 160.255, Stats., because of this legislative direction, nitrate standards were not included as part of the rules under ch. Comm 83.

SECTION 1. Comm 2.51 (5) is repealed and recreated to read:

Comm 2.51 (5) PETITIONS FOR VARIANCE ON RULES UNDER CHS. COMM 81, 82, 83 AND 85, UNIFORM PLUMBING CODE. The fee per petition for processing petitions for variance to rules under chs. Comm 81, 82, 83 and 85 shall be $225.00.

SECTION 2. Comm 2.61 (3) is repealed and recreated to read:

Comm 2.61 (3) PRIORITY PLAN REVIEW. (a) A submitter of plans for plumbing or private onsite wastewater treatment systems may request and make an appointment with the department to facilitate the review of the plans on a priority basis.

(b) The fee for plan review on a priority basis shall be twice the rate as determined under Tables 2.64-1, 2.64-2 or 2.65.

(c) The scheduling of a plan review on a priority basis shall be contingent upon the department having sufficient time and staff to accommodate the request.

SECTION 3. Comm 2.63 is repealed.

SECTION 4. Comm 2.65 and Table 2.65 are repealed and recreated to read:

Comm 2.65 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS. (1) GENERAL. The plan examination fee as determined under this section shall accompany the plans and specifications for the proposed design of a private onsite wastewater treatment system at a specific site. If the department determines, upon review of the plans, that inadequate fees were provided, the department will not make a final determination on the plans until the appropriate fees are received.

(2) EXAMINATION FEES. The plan examination fee for a private onsite wastewater treatment system submitted to the department for review shall be determined in accordance with Table 2.65, rounded to the nearest dollar.

Table 2.65
Plan Review
Private Onsite Wastewater Treatment Systems

Type of Project	Fee
1. All treatment components are previously approved under s. Comm 84.10 (2) or (3):	
Design wastewater flow of the proposed system:	
1,000 gpd or less	$175.00
1,001 - 2,000 gpd	$225.00
2,001 - 5,000 gpd	$275.00
greater than 5,000 gpd	$300.00 plus $0.05/g/d
2. One or more treatment components are not previously approved under s. Comm 84.10 (2) or (3):	
Design wastewater flow of the proposed system:	
1,000 gpd or less	$300.00
1,001 - 2,000 gpd	$400.00
2,001 - 5,000 gpd	$500.00
greater than 5,000 gpd	$600.00 plus $0.05/g/d
3. Holding tanks previously approved under s. Comm 84.10 (2) or (3):	
Design wastewater flow of the proposed system:	
5,000 gpd or less	$60.00
5,001 - 10,000 gpd	$100.00
greater than 10,000 gpd	$150.00
4. Holding tanks not previously approved under s. Comm 84.10 (2) or (3):	
Design wastewater flow of the proposed system:	
5,000 gpd or less	$120.00
5,001 - 10,000 gpd	$200.00
greater than 10,000 gpd	$300.00

(3) DATA REVIEW. The fee to review soil saturation monitoring studies or reports in accordance with s. Comm 85.60 (2) or (3) shall be $100.00 per site.

SECTION 5. Comm 2.66 Table 2.66 line 5 is amended to read:

Table 2.66
(partial table)

Product		Fee	
		Type of Review	
		New Review	Revision or Renewal
5.	Prefabricated ~~exterior grease interceptor, holding or septic tank~~ holding or treatment components for private onsite waste4water treatment systems	~~$100~~ $200	~~$50~~ $100

SECTION 6. Comm 2.66 (1) (d) 2. is amended to read:

Comm 2.66 (1) (d) 2. The fee for the request of a revision or renewal of an experimental approval to be issued by the department for a plumbing material or product shall be $250.00.

SECTION 7. Comm 2.66 (2) (a) is repealed and recreated to read:

Comm 2.66 (2) (a) The fee for the request to have a private onsite wastewater treatment system or site constructed private onsite wastewater treatment system component approved by the department, in accordance with s. Comm 84.10 (3), shall be $300.00 per system or site constructed component.

SECTION 8. Comm 2.67 (1) is renumbered 2.67 (1) (a) and amended to read:

Comm 2.67 (1) FEE. (a) ~~The~~ Pursuant to s. 145.19 (5), the fee for a sanitary permit ~~determined in accordance with s. 145.19, Stats.,~~ issued by a governmental unit shall be at least ~~$91.00~~ $116.00.

Note: The sanitary permit fee includes a $25.00 groundwater fee, required by s. 145.19 (6), Stats., that is forwarded by the department of commerce to the department of natural resources.

SECTION 9. Comm 2.67 (1) (b) is created to read:

Comm 2.67 (1) (b) The fee for a sanitary permit issued by the department under s. Comm 83.21 shall be $200.00.

SECTION 10. Comm 2.67 (2) is amended to read:

Comm 2.67 (2) PORTION FORWARDED TO THE DEPARTMENT. The governmental unit responsible for the regulation of private ~~sewage~~ onsite wastewater treatment systems shall forward to the department ~~$50.00~~ $75.00 of each sanitary permit fee, determined in accord with s. 145.19, Stats.

Note: The $75.00 includes the $25.00 groundwater fee, required by s. 145.19 (6), Stats., that is forwarded to the department of natural resources.

SECTION 11. Comm 5.02 Table 5.02 lines 17 to 64 are renumbered lines 18 to 65.

SECTION 12. Comm 5.02 Table 5.02 line 17 is created to read:

Table 5.02
FEES
(partial table)

	Credential Category	Type	Application Fee	Examination Fee	Credential Fee
17.	Mechanical POWTS Provider	Registration	$10	NA	$30

SECTION 13. Comm 5.06 Table 5.06 lines 17 to 64 are renumbered lines 18 to 65.

SECTION 14. Comm 5.06 Table 5.06 line 17 is created to read:

Table 5.06
CREDENTIAL EXPIRATIONS
(partial table)

	Credential Category	Term	Expiration Date	Continuing Education Cycle
17.	Mechanical POWTS Provider	2 years	Date of Issuance	3 Months Prior to Date of Issuance

SECTION 15. Comm 5.36 is created to created:

Comm 5.36 MECHANICAL POWTS PROVIDERS. (1) GENERAL. Pursuant to s. Comm 83.53 (3) a person who holds a credential issued by the department as a registered mechanical POWTS provider may evaluate and monitor mechanical POWTS components for the purpose of providing the management of a POWTS under ch. Comm 83 subch. V.

(2) APPLICATION FOR CREDENTIAL. A person applying for a mechanical POWTS provider registration shall submit all of the following:

(a) An application in accordance with s. Comm 5.01.

(b) An application and credential fee in accordance with s. Comm 5.02, Table 5.02.

(c) Information or documentation relating to the qualifications under sub. (3).

(3) QUALIFICATIONS FOR CREDENTIAL. A person applying for a mechanical POWTS provider shall have completed or obtained at least one of the following:

(a) At least 6 hours in a course or courses approved under s. Comm 5.08 that are relative to the theory, operation, maintenance and inspection of mechanical POWTS treatment and dispersal components, including instruction in at least all of following:

1. Sand filters.

2. Efluent pumps and switches.

3. Alarms and floats.

4. Active filtration devices.

5. Valves and solenoids for distributing effluent.

6. Aerobic treatment units.

(b) At least 60 hours of experience as a as a licensed master plumber, master plumber-restricted service, journeyman plumber or journeyman plumber-restricted service installing mechanical POWTS treatment and dispersal components.

(4) RENEWAL. (a) 1. A person may renew his or her registration as mechanical POWTS provider.

2. A mechanical POWTS provider registration shall be renewed in accordance with s. Comm 5.07.

(b) 1. The renewal of a registration as a mechanical POWTS provider shall be contingent upon the provider obtaining at least 6 hours of acceptable continuing education within the time period specified in s. Comm 5.08 and Table 5.06, except as provided in subd. 2.

2. A person who holds a registration as a mechanical POWTS provider may apply to the department for waiver of the continuing education requirements under subd. 1 on the grounds of prolonged illness or disability or similar circumstances. Each application for waiver shall be considered individually on its merits by the department.

SECTION 16. Comm 16.28 (2) and (3) are repealed.

SECTION 17. Comm 16.28 (4) is renumbered 16.28 (2).

SECTION 18. ILHR 20.07 (19m), (40t) and (59t) are created to read:

ILHR 20.07 (19m) "Composting toilet system" means a method that collects, stores and converts by bacterial digestion nonliquid-carried human wastes or organic kitchen wastes, or both, into humus.

(40t) "Incinerating toilet" means a self-contained device for the treatment of nonliquid carried wastes that deposits the wastes directly into a combustion chamber, reduces the solid portion to ash and evaporates the liquid portion.

(59t) "Privy" means an enclosed nonportable toilet into which nonwater-carried human wastes are deposited to a subsurface storage chamber.

SECTION 19. ILHR 20.09 (5) (b) 2 Note is repealed.

SECTION 20. ILHR 20.09 (5) (b) 3 is created to read:

ILHR 20.09 (5) (b) 3. Pursuant to s. 66.036, Stats., if the proposed construction requires connection to a private onsite wastewater treatment system, a Wisconsin uniform building permit may not be issued unless conformance with s. Comm 83.25 (2) has first been determined.

Note: See appendix for a reprint of s. Comm 83.25 (2).

SECTION 21. ILHR 25.02 is created to read:

ILHR 25.02 SANITATION FACILITIES AND DEVICES. The design, construction, installation and maintenance of sanitation facilities and devices such as composting toilets, incinerating toilets and privies to serve one- and 2-family dwellings shall comply with the requirements of ch. Comm 91.

SECTION 22. Appendix ILHR 20.09 is created to read:

Section ILHR 20.09 (5) (b) 1. refers to s. Comm 83.25 (2), which reads as follows:

Comm 83.25 (2) ISSUANCE OF BUILDING PERMITS. (a) General. Pursuant to s. 66.036, Stats., the issuance of building permits by a municipality for unsewered properties shall be in accordance with this subsection.

(b) New construction. A municipality may not issue a building permit to commence construction or installation of a structure that necessitates the use of a POWTS to serve the structure, unless:

1. The owner of the property possesses a sanitary permit for the installation of a POWTS in accordance with s. Comm 83.21; or

Note: Section Comm 83.21 outlines the procedures for the issuance of sanitary permits. Sections 145.135 and 145.19, Stats., mandate that no private sewage system may be installed unless the owner of the property holds a valid sanitary permit.

2. A POWTS of adequate capability and capacity to accommodate the wastewater flow and contaminant load already exists to serve the structure.

Note: See ss. Comm 83.02 and 83.03 concerning the application of current code requirements to existing POWTS.

(c) Construction affecting wastewater flow or contaminant load. 1. A municipality may not issue a building permit to commence construction of any addition or alteration to an existing structure when the proposed construction will modify the design wastewater flow or contaminant load, or both, to an existing POWTS, unless the owner of the property:

a. Possesses a sanitary permit to either modify the existing POWTS or construct a POWTS to accommodate the modification in wastewater flow or contaminant load, or both; or

b. Provides documentation to verify that the existing POWTS is sufficient to accommodate the modification in wastewater flow or contaminant load, or both.

2. For the purpose of this paragraph, a modification in wastewater flow or contaminant load shall be considered to occur:

a. For public buildings, facilities and places of employment, when there is a proposed change in occupancy of the structure; or the proposed modification affects either the type or number of plumbing appliances, fixtures or devices discharging to the system; and

b. For dwellings, when there is an increase or decrease in the number of bedrooms; or the proposed modification affects either the type or number of plumbing appliances, fixtures or devices discharging to the system.

(d) Documentation of existing capabilities. Documentation to verify whether an existing POWTS can accommodate a modification in wastewater flow or contaminant load, or both, shall include at least one of the following:

1. A copy of the plan for the existing POWTS that delineates minimum and maximum performance capabilities and which has been previously approved by the department or the governmental unit.

2. Information on the performance capabilities for the existing POWTS that has been recognized through a product approval under ch. Comm 84.

3. A written investigative report prepared by an architect, engineer, designer of plumbing systems, designer of private sewage systems, master plumber, master plumber-restricted service or certified POWTS inspector analyzing the proposed modification and the performance capabilities of the existing POWTS.

(e) Setbacks. 1. A municipality may not issue a building permit for construction of any structure or addition to a structure on a site where there exists a POWTS, unless the proposed construction conforms to the applicable setback limitations.

Note: The applicable setback limitations are determined based upon the rules in effect at the time when the sanitary permit was issued for the existing POWTS, or when the POWTS was installed if no sanitary permit was required or obtained.

2. The applicant for a building permit shall provide documentation to the municipality issuing the building permit showing the location and setback distances for the proposed construction relative to all of the following:

a. Existing POWTS treatment components.

b. Existing POWTS holding components.

c. Existing POWTS dispersal components.

Note: A municipality which issues building permits may delegate to the governmental unit responsible for issuing sanitary permits the determination of whether the proposed construction will affect or interfere with an existing POWTS relating to capability or location of the existing POWTS.

SECTION 23. ILHR 50.06 (3) is created to read:

ILHR 50.06 (3) ISSUANCE OF BUILDING PERMITS. Pursuant to s. 66.036, Stats., if the proposed construction requires connection to a private onsite wastewater treatment system, a local building permit may not be issued unless conformance with s. Comm 83.25 (2) has first been determined.

Note: See appendix for a reprint of s. Comm 83.25 (2).

SECTION 24. ILHR 51.01 (19m) is created to read:

ILHR 51.01 (19m) "Composting toilet system" means a method that collects, stores and converts by bacterial digestion nonliquid-carried human wastes or organic kitchen wastes, or both, into humus.

SECTION 25. ILHR 51.01 (71p) is renumbered 51.01 (71t).

SECTION 26. ILHR 51.01 (71p) is created to read:

ILHR 51.01 (71p) "Incinerating toilet" means a self-contained device for the treatment of nonliquid carried wastes that deposits the wastes directly into a combustion chamber, reduces the solid portion to ash and evaporates the liquid portion.

SECTION 27. ILHR 51.01 (103g) is repealed and recreated to read:

ILHR 51.01 (103g) "Privy" means an enclosed nonportable toilet into which nonwater-carried human wastes are deposited to a subsurface storage chamber.

SECTION 28. ILHR 52.61 is repealed and recreated to read:

ILHR 52.61 PROTECTION FROM FREEZING. All portions of plumbing water supply systems shall be protected against freezing in accordance with s. Comm 82.40 (8) (a).

SECTION 29. ILHR 52.62 is repealed.

SECTION 30. ILHR 52.63 (1) is repealed and recreated to read:

ILHR 52.63 (1) PERMANENT OUTDOOR TOILETS. (a) Permanent outdoor toilets consisting of composting toilet systems, incinerating toilets, or privies shall comply with ss. ILHR 52.50 to 52.59 and ch. Comm 91.

(b) A permanent outdoor toilet shall be provided with a suitable approach, such as a concrete, gravel or cinder walk.

(c) All windows, ventilators and other openings of permanent outdoor toilets shall be screened to prevent the entrance of flies, and all doors shall be self-closing.

Note: Chapter Comm 91 contains requirements for the design, construction, installation and maintenance of the storage chambers for privies.

SECTION 31. ILHR A-50.06 (3) in the appendix is created to read:

ILHR A-50.06 (3) ISSUANCE OF BUILDING PERMITS. Section ILHR 50.06 (3) refers to s. Comm 83.25 (2), which reads as follows:

Comm 83.25 (2) ISSUANCE OF BUILDING PERMITS. (a) General. Pursuant to s. 66.036, Stats., the issuance of building permits by a municipality for unsewered properties shall be in accordance with this subsection.

(b) New construction. A municipality may not issue a building permit to commence construction or installation of a structure that necessitates the use of a POWTS to serve the structure, unless:

1. The owner of the property possesses a sanitary permit for the installation of a POWTS in accordance with s. Comm 83.21; or

Note: Section Comm 83.21 outlines the procedures for the issuance of sanitary permits. Sections 145.135 and 145.19, Stats., mandate that no private sewage system may be installed unless the owner of the property holds a valid sanitary permit.

2. A POWTS of adequate capability and capacity to accommodate the wastewater flow and contaminant load already exists to serve the structure.

Note: See ss. Comm 83.02 and 83.03 concerning the application of current code requirements to existing POWTS.

(c) Construction affecting wastewater flow or contaminant load. 1. A municipality may not issue a building permit to commence construction of any addition or alteration to an existing structure when the proposed construction will modify the design wastewater flow or contaminant load, or both, to an existing POWTS, unless the owner of the property:

a. Possesses a sanitary permit to either modify the existing POWTS or construct a POWTS to accommodate the modification in wastewater flow or contaminant load, or both; or

b. Provides documentation to verify that the existing POWTS is sufficient to accommodate the modification in wastewater flow or contaminant load, or both.

2. For the purpose of this paragraph, a modification in wastewater flow or contaminant load shall be considered to occur:

a. For public buildings, facilities and places of employment, when there is a proposed change in occupancy of the structure; or the proposed modification affects either the type or number of plumbing appliances, fixtures or devices discharging to the system; and

b. For dwellings, when there is an increase or decrease in the number of bedrooms; or the proposed modification affects either the type or number of plumbing appliances, fixtures or devices discharging to the system.

(d) Documentation of existing capabilities. Documentation to verify whether an existing POWTS can accommodate a modification in wastewater flow or contaminant load, or both, shall include at least one of the following:

1. A copy of the plan for the existing POWTS that delineates minimum and maximum performance capabilities and which has been previously approved by the department or the governmental unit.

2. Information on the performance capabilities for the existing POWTS that has been recognized through a product approval under ch. Comm 84.

3. A written investigative report prepared by an architect, engineer, designer of plumbing systems, designer of private sewage systems, master plumber, master plumber-restricted service or certified POWTS inspector analyzing the proposed modification and the performance capabilities of the existing POWTS.

(e) Setbacks. 1. A municipality may not issue a building permit for construction of any structure or addition to a structure on a site where there exists a POWTS, unless the proposed construction conforms to the applicable setback limitations.

Note: The applicable setback limitations are determined based upon the rules in effect at the time when the sanitary permit was issued for the existing POWTS, or when the POWTS was installed if no sanitary permit was required or obtained.

2. The applicant for a building permit shall provide documentation to the municipality issuing the building permit showing the location and setback distances for the proposed construction relative to all of the following:

a. Existing POWTS treatment components.

b. Existing POWTS holding components.

c. Existing POWTS dispersal components.

Note: A municipality which issues building permits may delegate to the governmental unit responsible for issuing sanitary permits the determination of whether the proposed construction will affect or interfere with an existing POWTS relating to capability or location of the existing POWTS.

SECTION 32. ILHR 66.11 Note 2 is repealed.

SECTION 33. ILHR 66.11 is renumbered 66.11 (1).

SECTION 34. ILHR 66.11 (2) is created to read:

ILHR 66.11 (2) Pursuant to s. 66.036, Stats., if the proposed construction requires connection to a private onsite wastewater treatment system, a Wisconsin uniform multifamily building permit may not be issued unless conformance with s. Comm 83.25 (2) has first been determined.

Note: See Appendix A for a reprint of s. Comm 83.25 (2).

SECTION 35. ILHR A-66.11 (2) in the appendix is created to read:

ILHR A-66.11 (2) BUILDING PERMITS. Section ILHR 66.11 (2) refers to s. Comm 83.25 (2), which reads as follows:

Comm 83.25 (2) ISSUANCE OF BUILDING PERMITS. (a) General. Pursuant to s. 66.036, Stats., the issuance of building permits by a municipality for unsewered properties shall be in accordance with this subsection.

(b) New construction. A municipality may not issue a building permit to commence construction or installation of a structure that necessitates the use of a POWTS to serve the structure, unless:

1. The owner of the property possesses a sanitary permit for the installation of a POWTS in accordance with s. Comm 83.21; or

Note: Section Comm 83.21 outlines the procedures for the issuance of sanitary permits. Sections 145.135 and 145.19, Stats., mandate that no private sewage system may be installed unless the owner of the property holds a valid sanitary permit.

2. A POWTS of adequate capability and capacity to accommodate the wastewater flow and contaminant load already exists to serve the structure.

Note: See ss. Comm 83.02 and 83.03 concerning the application of current code requirements to existing POWTS.

(c) Construction affecting wastewater flow or contaminant load. 1. A municipality may not issue a building permit to commence construction of any addition or alteration to an existing structure when the proposed construction will modify the design wastewater flow or contaminant load, or both, to an existing POWTS, unless the owner of the property:

a. Possesses a sanitary permit to either modify the existing POWTS or construct a POWTS to accommodate the modification in wastewater flow or contaminant load, or both; or

b. Provides documentation to verify that the existing POWTS is sufficient to accommodate the modification in wastewater flow or contaminant load, or both.

2. For the purpose of this paragraph, a modification in wastewater flow or contaminant load shall be considered to occur:

a. For public buildings, facilities and places of employment, when there is a proposed change in occupancy of the structure; or the proposed modification affects either the type or number of plumbing appliances, fixtures or devices discharging to the system; and

b. For dwellings, when there is an increase or decrease in the number of bedrooms; or the proposed modification affects either the type or number of plumbing appliances, fixtures or devices discharging to the system.

(d) Documentation of existing capabilities. Documentation to verify whether an existing POWTS can accommodate a modification in wastewater flow or contaminant load, or both, shall include at least one of the following:

1. A copy of the plan for the existing POWTS that delineates minimum and maximum performance capabilities and which has been previously approved by the department or the governmental unit.

2. Information on the performance capabilities for the existing POWTS that has been recognized through a product approval under ch. Comm 84.

3. A written investigative report prepared by an architect, engineer, designer of plumbing systems, designer of private sewage systems, master plumber, master plumber-restricted service or certified POWTS inspector analyzing the proposed modification and the performance capabilities of the existing POWTS.

(e) Setbacks. 1. A municipality may not issue a building permit for construction of any structure or addition to a structure on a site where there exists a POWTS, unless the proposed construction conforms to the applicable setback limitations.

Note: The applicable setback limitations are determined based upon the rules in effect at the time when the sanitary permit was issued for the existing POWTS, or when the POWTS was installed if no sanitary permit was required or obtained.

2. The applicant for a building permit shall provide documentation to the municipality issuing the building permit showing the location and setback distances for the proposed construction relative to all of the following:

a. Existing POWTS treatment components.

b. Existing POWTS holding components.

c. Existing POWTS dispersal components.

Note: A municipality which issues building permits may delegate to the governmental unit responsible for issuing sanitary permits the determination of whether the proposed construction will affect or interfere with an existing POWTS relating to capability or location of the existing POWTS.

SECTION 36. Chapter Comm 81 is created to read:

Chapter Comm 81

DEFINITIONS AND STANDARDS

Comm 81.01 DEFINITIONS. In chs. Comm 81 to 87, except as otherwise specifically defined:

(1) "Accepted engineering practice" means a specification, standard, guideline or procedure in the field of plumbing or related thereto, generally recognized and accepted as authoritative documented through national standards or specifications.

(2) "Accessible" when applied to a fixture, appliance, pipe, fitting, valve or equipment, means having access for maintenance, but which first may require the removal of an access panel or similar obstruction.

(3) "Aerobic treatment component" means a unit for the treatment of wastewater that utilizes the principle of oxidation for biological decomposition.

(4) "Agent" means an individual or agency recognized by the department to act on the department's behalf relative to a specific activity or function.

(5) "Air-break" means a piping arrangement for a drain system where the wastes from a fixture, appliance, appurtenance or device discharge by means of indirect or local waste piping terminating in a receptor at a point below the flood level rim of the receptor and above the inlet of the trap serving the receptor.

(6) "Air-gap, drain system" means the unobstructed vertical distance through the free atmosphere between the outlet of indirect or local waste piping and the flood level rim of the receptor into which it discharges.

(7) "Air-gap, water supply system" means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank or plumbing fixture and the flood level rim or spill level of the receptacle.

(8) "Anaerobic treatment component" means a unit for the treatment of waste and wastewater which utilizes molecular oxygen in the absence of free oxygen for biological respiration and decomposition.

(9) "Approved" means acceptance documented in writing by the department.

(10) "Application rate" means the velocity of liquid movement into a soil surface.

(11) "Appurtenance" means a manufactured device or prefabricated assembly of component parts which is an adjunct to a plumbing product or plumbing system.

(12) "Area drain" means a receptor designed to collect storm waters from an open area.

(13) "Areawide water quality management plan" means those plans prepared by the department of natural resources, including those plans prepared by agencies designated by the governor under the authority of ss. 144.025 (1) and (2), and 147.25, Stats., for the purpose of managing, protecting and enhancing groundwater and surface water of the state.

Note: See ch. Comm 82 Appendix for a list of water quality management agencies and their addresses.

(14) "Aspirator" means a fitting or device supplied with water or other fluid under positive pressure which passes through an integral orifice or constriction causing a vacuum.

(15) "Autopsy table" means a fixture or table used for post-mortem examination.

(16) "Automatic fire sprinkler system" has the meaning specified under s. 145.01 (2), Stats.

Note: Section 145.01 (2), Stats., reads: "Automatic fire sprinkler system," for fire protection purposes, means an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. The system includes a suitable water supply, such as a gravity tank, fire pump, reservoir or pressure tank or connection beginning at the supply side of an approved gate valve located at or near the property line where the pipe or piping system provides water used exclusively for fire protection and related appurtenances and to standpipes connected to automatic sprinkler systems. The portion of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure or area, generally overhead, and to which sprinklers are connected in a systematic pattern. The system includes a controlling valve and a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.

(17) "Backflow" means the unwanted reverse flow of liquids, solids or gases.

(18) "Back pressure" means a pressure greater than the supply pressure that may cause backflow.

(19) "Backflow preventer with intermediate atmospheric vent" means a type of cross connection control device which consists of 2 independently acting check valves, internally force-loaded to a normally closed position and separated by an intermediate chamber with a means for automatically venting to atmosphere where the venting means is internally force-loaded to a normally open position.

(20) "Backsiphonage" means the creation of a backflow as a result of negative pressure.

(21) "Back siphonage backflow vacuum breaker" means a type of cross connection control device which contains a check valve force-loaded closed and an air inlet vent valve force-loaded open to atmosphere, positioned downstream of the check valve, and located between and including 2 tightly closing shut-off valves and 2 test cocks.

(22) "Backwater valve" means a device designed to prevent the reverse flow of wastewater in a drain system.

(23) "Ballcock" means a water supply valve opened or closed by means of a float or similar device used to supply water to a tank.

(24) "Bathroom group" means a water closet, lavatory and a bathtub or shower located together on the same floor level.

(25) "Battery of fixtures" means any group of 2 or more fixtures that discharge into the same horizontal branch drain.

(26) "Bedpan sterilizer" means a fixture used for sterilizing bedpans or urinals by direct application of steam, boiling water or chemicals.

(27) "Bedpan washer and sanitizer" means a fixture designed to wash bedpans and to flush the contents into the sanitary drain system and which may also provide for disinfecting utensils by scalding with steam or hot water.

(28) "Bedpan washer hose" means a device supplied with hot or cold water, or both, and located adjacent to a water closet or clinical sink to be used for cleansing bedpans.

(29) "Bedrock" means rock that is exposed at the earth's surface or underlies soil material and includes:

(a) Weathered in-place consolidated material, larger than 2 mm in size and greater than 50% by volume; and

(b) Weakly consolidated sandstone at the point of increased resistance to penetration of a knife blade.

(30) "Bell" means the portion of a pipe that is enlarged to receive the end of another pipe of the same diameter for the purpose of making a joint.

(31) "Bench mark" or "BM" means a permanently established point, the elevation of which is assumed or known, which serves as a vertical reference point, and which may also serve as a horizontal reference point.

(32) "Blackwater" means wastewater contaminated by human body waste, toilet paper and any other material intended to be deposited in a receptor designed to receive urine or feces.

(33) "BOD_5" or "biochemical oxygen demand 5 day" means a measure of the amount of biodegradable organic matter in water.

(34) "Boiler blow-off basin" means a vessel designed to receive the discharge from a boiler blow-off outlet and to cool the discharge to a temperature that permits safe entry into the drain system.

(35) "Branch" means a part of a piping system other than a riser, main or stack.

(36) "Branch interval" means the vertical distance along a drain stack measured from immediately below a branch drain connection to immediately below the first lower branch drain connection that is 8 feet or more below.

Note: See ch. Comm 82 Appendix for an illustration depicting branch intervals.

(37) "Branch vent" means a vent serving more than one fixture drain.

(38) "B.T.U." means British Thermal Units.

(39) "Building" means a structure for support, shelter or enclosure of persons or property.

(40) "Building drain" means horizontal piping within or under a building, installed below the lowest fixture or the lowest floor level from which fixtures can drain by gravity to the building sewer.

(41) "Building drain branch" means a fixture drain which is individually connected to a building drain and is vented by means of a combination drain and vent system.

(42) "Building drain, sanitary" means a building drain which conveys wastewater consisting in part of domestic wastewater.

(43) "Building drain, storm" means a building drain which conveys storm water wastes or clear water wastes, or both.

(44) "Building permit" means any written permission from a municipality that allows construction to commence on a structure.

(45) "Building sewer" means that part of the drain system not within or under a building which conveys its discharge to a public sewer, private interceptor main sewer, private onsite wastewater treatment system or other point of disposal.

(46) "Building sewer, sanitary" means a building sewer which conveys wastewater consisting in part of domestic wastewater.

(47) "Building sewer, storm" means a building sewer which conveys storm water wastes or clear water wastes, or both.

(48) "Building subdrain" means the horizontal portion of a drain system which does not flow by gravity to the building sewer.

(49) "Building subdrain branch" means a fixture drain which is individually connected to a building subdrain and is vented by means of a combination drain and vent system.

(50) "Burr" means a roughness or metal protruding from the walls of a pipe usually as the result of cutting the pipe.

(51) "Business establishment" means any industrial or commercial organization or enterprise operated for profit, including but not limited to a proprietorship, partnership, firm, business trust, joint venture, syndicate, corporation or association.

(52) "Catch basin" means a watertight receptacle built to arrest sediment of surface, subsoil or other waste drainage, and to retain oily or greasy wastes, so as to prevent their entrance into the building drain or building sewer.

(53) "Cesspool" means an excavation which receives domestic wastewater by means of a drain system without pretreatment of the wastewater and retains the organic matter and solids permitting the liquids to seep from the excavation.

(54) "Circuit vent" means a method of venting 2 to 8 traps or trapped fixtures without providing an individual vent for each trap or fixture.

(55) "Cleanout" means an accessible opening in a drain system used for the removal of obstructions.

(56) "Clear water wastes" means liquids other than storm water, having no impurities or where impurities are below a minimum concentration considered harmful by the department, including but not limited to noncontact cooling water and condensate drainage from refrigeration compressors and air conditioning equipment, drainage of water used for equipment chilling purposes and cooled condensate from steam heating systems or other equipment.

(57) "Cold water" means water at a temperature less than 85°F.

(58) "Combination fixture" means a fixture combining one sink and laundry tray or a 2- or 3-compartment sink or laundry tray in one unit.

(59) "Combination drain and vent system" means a specially designed system of drain piping embodying the wet venting of one or more fixtures by means of a common drain and vent pipe adequately sized to provide free movement of air in the piping.

(60) "Common vent" means a branch vent connecting at or downstream from the junction of 2 fixture drains and serving as a vent for those fixture drains.

(61) "Conductor" means a drain pipe inside the building which conveys storm water from a roof to the storm drain or storm sewer.

(62) "Contaminant load" means the concentrations of substances in a wastewater stream.

(63) "Corporation cock" means a valve:

(a) Installed in a private water main or a water service at or near the connection to a public water main; or

(b) Installed in the side of a forced main sewer to which a forced building sewer is connected.

(64) "Critical level" means the reference point on a vacuum breaker that must be submerged before backflow can occur. When the critical level is not indicated on the vacuum breaker, the bottom of the vacuum breaker shall be considered the critical level.

(65) "Cross connection" means a connection or potential connection between any part of a water supply system and another environment containing substances in a manner that, under any circumstances, would allow the substances to enter the water supply system by means of backsiphonage or back pressure.

(66) "Cross connection control device" means any mechanical device which automatically prevents backflow from a contaminated source into a potable water supply system.

(67) "Curb stop" means a valve placed in a water service or a private water main, usually near the lot line.

(68) "Dead end" means a branch leading from a drain pipe, vent pipe, building drain or building sewer and terminating at a developed length of 2 feet or more by means of a plug, cap or other closed fitting.

(69) "Department" means the department of commerce.

(70) "Design wastewater flow" means 150% of the estimated wastewater flow generated by a dwelling, building or facility.

(71) "Determination of failure" has the meaning specified under s. 145.245 (1) (a), Stats.

Note: Section 145.245 (1) (a), Stats., reads: "Determination of failure" means any of the following:

1. A determination that a private sewage system is failing, according to the criteria under sub. (4), based on an inspection of the private sewage system by an employe of the state or a governmental unit who is certified to inspect private sewage systems by the department.

2. A written enforcement order issued under s. 145.02 (3) (f), 145.20 (2) (f) or 281.19 (2).

3. A written enforcement order issued under s. 254.59 (1) by a governmental unit.

(72) "Developed length" means the length of pipe line measured along the center line of the pipe and fittings.

(73) "Diameter" means in reference to a pipe the nominal inside diameter of the pipe.

(74) "Dispersal" means the act or process of promoting wastewater assimilation by the environment.

(75) "Dispersal zone" means a dimensional volume of in situ soil that receives wastewater for treatment or distributes final effluent for dispersal.

(76) "Distribution cell" means a dimensional zone that is part of a POWTS treatment or dispersal component where wastewater is disseminated into in situ soil or engineered soil.

(77) "Documented data" means data which is developed in accordance with scientifically valid analytical protocols including field trials where appropriate, is subjected to peer review, results from more than one study, and consistent with other credible research.

(78) "Domestic wastewater" means the type of wastewater normally discharged from or similar to that discharged from plumbing fixtures, appliances and devices including, but not limited to sanitary, bath, laundry, dishwashing, garbage disposal and cleaning wastewaters.

(79) "Double check backflow prevention assembly" means a type of cross connection control device which is composed of 2 independently acting check valves internally force-loaded to a normally closed position, tightly closing shut-off valves located at each end of the assembly and fitted with test cocks.

(80) "Double check detector assembly backflow preventer" means a type of a double check backflow prevention assembly which includes a parallel flow meter to indicate leakage or unauthorized use of water downstream of the assembly.

Note: Downspout, see "leader".

(81) "Drain" means any pipe that carries wastewater or water-borne wastes.

(82) "Drain system" includes all the piping or any portion of the piping within public or private premises which conveys wastewater to a legal point of disposal, but does not include the mains of public sewer systems or a private onsite wastewater treatment system or public sewage treatment or disposal plant.

(83) "Dwelling " means a structure, or that part of a structure, which is used or intended to be used as a home, residence or sleeping place by one person or by 2 or more persons maintaining a common household, to the exclusion of all others.

(84) "Effluent" means liquid discharged from a treatment component.

(85) "Ejector" means an automatically operated device to elevate wastewater by the use of air under higher than atmospheric pressure.

(86) "Elevation" or "EL" means the vertical distance from the datum to a point under investigation.

(87) "Enforcement standard" or "ES" has the meaning specified under s. 160.01 (2), Stats.

Note: Section 160.01 (2), Stats., reads: Enforcement standard" means a numerical value expressing the concentration of a substance in groundwater which is adopted under ss. 160.07 and 160.09.

(88) "Engineered soil" means a mineral product that is equivalent to in situ soil for which treatment capability has been credited under Table 83.44-3, or superior to in situ soil in its ability to treat or disperse domestic wastewater from a POWTS.

(89) "Engineered system" means a system designed to meet the intent of the code but not the enumerated specifications of the code.

(90) "Estimated wastewater flow" means the typical quantity of domestic wastewater generated daily by a dwelling, building or facility.

(91) "Experimental system" means a type of plumbing system from which valid and reliable data are being sought to demonstrate compliance with the intent of chs. Comm 82 to 84.

(92) "Failing private onsite wastewater treatment system" has the meaning specified under s. 145.245 (4), Stats.

Note: Section 145.245 (4) reads: "Failing private sewage system" means a private sewage system which causes or results in any of the following conditions:

(a) The discharge of sewage into surface water or groundwater.

(b) The introduction of sewage into zones of saturation which adversely affects the operation of a private sewage system.

(c) The discharge of sewage to a drain tile or into zones of bedrock.

(d) The discharge of sewage to the surface of the ground.

(e) The failure to accept sewage discharges and backup of sewage into the structure served by the private sewage system.

(93) "Farm" means a parcel of 35 or more acres of contiguous land that is devoted primarily to agricultural use, as defined under s. 91.01 (1) and (5), Stats.

Note: Section 91.01 (1) and (5), Stats., reads: (1) "Agricultural use" means beekeeping; commercial feedlots; dairying; egg production; floricultural; fish or fur farming; forest and game management; grazing; livestock raising; orchards; plant greenhouses and nurseries; poultry raising; raising of grain, grass, mint and seed crops; raising of fruits, nuts and berries; sod farming; placing land in federal programs in return for payment in kind; owning land, at least 35 acres of which is enrolled in the conservation reserve program under 16 USC 3831 to 3836; participating in the milk production termination program under 7 USC 1446 (d); and vegetable raising.

(5) "Devoted primarily to agricultural use" means under agricultural use for at least 12 consecutive months during the preceding 36-month period.

(94) "Faucet" means a valve end of a water pipe by means of which water can be drawn from or held within the pipe.

(95) "Final effluent" means the effluent from the last POWTS treatment component.

(96) "Fixture drain" means the drain from a fixture to a junction with another drain pipe.

(97) "Fixture supply" means that portion of a water distribution system serving one plumbing fixture, appliance or piece of equipment.

(98) "Fixture supply connector" means that portion of water supply piping which connects a plumbing fixture, appliance or a piece of equipment to the water distribution system.

(99) "Fixture unit, drainage" or "dfu" means a measure of the probable discharge into the drain system by various types of plumbing fixtures. The drainage fixture unit value for a particular fixture depends on its volume rate of drainage discharge, on the time duration of a single drainage operation, and on the average time between successive operations.

(100) "Fixture unit, supply" or "sfu" means a measure of the probable hydraulic demand on the water supply by various types of plumbing fixtures.

Note: The supply fixture unit value for a particular fixture depends on its volume rate of supply, on the time duration of a single supply operation, and on the average time between successive operations.

(101) "Floodfringe" has the meaning specified under s. NR 116.03 (14).

Note: Section NR 116.03 (14) reads: "Floodfringe" means that portion of a floodplain which is outside of the floodway, which is covered by flood water during the regional flood. The term "floodfringe" is generally associated with standing water rather than flowing water.

(102) "Flood level rim" means the edge of the receptacle from which water overflows.

(103) "Floodplain" has the meaning specified under s. NR 116.03 (16).

Note: Section NR 116.03 (16) reads: "Floodplain" means that land which has been or may be covered by flood water during the regional flood. The floodplain includes the floodway, floodfringe, shallow depth flooding, flood storage and coastal floodplain areas.

(104) "Floodway" has the meaning specified under s. NR 116.03 (22).

Note: Section NR 116.03 (22) reads: "Floodway" means the channel of a river or stream, and those portions of the floodplain adjoining the channel required to carry the regional flood discharge.

(105) "Floor sink" means a receptor for the discharge from indirect or local waste piping installed with its flood level rim even with the surrounding floor.

(106) "Flow" means the volumetric measure of a liquid stream in a specified time.

(107) "Flushometer valve" means a device which discharges a predetermined quantity of water to fixtures for flushing purposes and is closed by direct water pressure.

(108) "Flush valve" means a device located at the bottom of a tank for flushing water closets and similar fixtures.

(109) "Garage, private" means a building or part of a building used for the storage of vehicles or other purposes, by a family or less than 3 persons not of the same family and which is not available for public use.

(110) "Garage, public" means a building or part of a building which accommodates or houses self-propelled land, air or water vehicles for 3 or more persons not of the same family.

(111) "Governmental unit" has the meaning specified under s. 145.01 (5), Stats.

Note: Section 145.01 (5), Stats., reads: "Governmental unit responsible for the regulation of private sewage systems" or "governmental unit", unless otherwise qualified, means the county, except that in a county with a population of 500,000 or more these terms mean the city, village or town where the private sewage system is located.

(112) "Graywater" means wastewater contaminated by waste materials, exclusive of urine, feces or industrial waste, deposited into plumbing drain systems.

(113) "Grease interceptor" means a receptacle designed to intercept and retain or remove grease or fatty substances.

(114) "Groundwater" has the meaning specified under s. 160.01 (4), Stats.

Note: Section 160.01 (4), Stats., reads: "Groundwater" means any of the waters of the state, as defined under s. 281.01 (18), occurring in a saturated subsurface geological formation of rock or soil.

(115) "Hand-held shower" means a type of plumbing fixture that includes a cross connection control device, a hose and a hand-held discharge piece such as a shower head or spray.

(116) "Health care facility" means any building or part of a building used for purposes such as a hospital, nursing home, and offices and clinics with operatories for dentists or doctors.

(117) "Health care plumbing appliance" means a plumbing appliance, the function of that is unique to health care activities.

(118) "High groundwater" means zones of soil saturation which include perched water tables, shallow regional groundwater tables or aquifers, or zones that are seasonally, periodically or permanently saturated.

(119) "High groundwater elevation" means the higher of either the elevation to which the soil is saturated when observed as a free water surface, or the elevation to which the soil has been seasonally or periodically saturated as indicated by the highest elevation of redoximorphic features in the soil profile.

(120) "High hazard" means a situation where the water supply system could be contaminated with a toxic solution.

(121) "Holding tank" means a watertight receptacle for the collection and holding of wastewater.

(122) "Horizontal pipe" means any pipe or fitting which makes an angle of less than 45° with the horizontal.

(123) "Horizontal reference point" means a stationary, identifiable point to which horizontal dimensions can be related.

(124) "Hose connection backflow preventer" means a type of cross connection control device which consists of 2 independent checks, force-loaded or biased to a closed position, with an atmospheric vent located between the 2 check valves, which is forced-loaded or biased to an open position, and a means for attaching a hose.

(125) "Hose connection vacuum breaker" means a type of cross connection control device which consists of a check valve member force-loaded or biased to a closed position and an atmospheric vent valve or means force-loaded or biased to an open position when the device is not under pressure.

(126) "Hot water" means water at a temperature of 110° F. or more.

(127) "Hot water storage tank" means a tank used to store water that is heated indirectly by a circulating water heater or by steam or hot water circulating through coils or by other heat exchange methods internal or external to the tank.

(128) "Human health hazard" has the meaning specified under s. 254.01 (2), Stats.

Note: Section 254.01 (2), Stats., reads: "Human health hazard" means a substance, activity or condition that is known to have the potential to cause acute or chronic illness or death if exposure to the substance, activity or condition is not abated.

(129) "Hydrostatic test" means a test performed on a plumbing system or portion thereof in which the system is filled with a liquid, normally water, and raised to a designated pressure.

(130) "Indian lands" means lands owned by the United States and held for the use or benefit of Indian tribes or bands or individual Indians, and lands within the boundaries of a federally recognized reservation that are owned by Indian tribes or bands or individual Indians.

(131) "Indirect waste piping" means drain piping which does not connect directly with the drain system, but which discharges into the drain system by means of an air break or air gap into a receptor.

(132) "Individual vent" means a pipe installed to vent a fixture trap.

(133) "Industrial wastewater" means the liquid wastes that result from industrial processes.

(134) "Infiltrative surface" means the plane within a POWTS treatment or dispersal component at which effluent is applied to in situ soil or engineered soil.

(135) "Interceptor" or "separator" means a device designed and installed so as to separate and retain deleterious, hazardous or undesirable matter from wastes flowing through it.

(136) "Laboratory faucet backflow preventer" means a type of cross connection control device which consists of 2 independently acting check valves force-loaded or biased to a closed position and, between the check valves, a means for automatically venting to atmosphere which is force-loaded or biased to an open position.

(137) "Laboratory plumbing appliance" means a plumbing appliance, the function of which is unique to scientific experimentation or research activities.

(138) "Leaching chamber" means a product designed to support soil and create a cavity for the temporary storage of effluent and to provide an infiltrative surface for the distribution cell POWTS dispersal or treatment component.

(139) "Leader" means a pipe or channel outside a building which conveys storm water from the roof or gutter drains to a storm drain, storm sewer or to grade.

(140) "Lead-free" mean a chemical composition equal to or less than 0.2% of lead.

(141) "Load factor" means the percentage of the total connected fixture unit flow rate which is likely to occur at any point in a drain system.

(142) "Local station" means a National Weather Service (NWS) precipitation station or other station accepted by the department as collecting precipitation data in accordance with NWS methods.

(143) "Local waste piping" means a portion of drain piping which receives the wastes discharged from indirect waste piping and which discharges those wastes by means of an air break or air gap into a receptor.

(144) "Local vent" means a pipe connecting to a fixture and extending to outside air through which vapor or foul air is removed from the fixture.

(145) "Low hazard" means a situation where the water supply system could be contaminated with a nontoxic substance.

(146) "Main" means the principal pipe artery to which branches may be connected.

(147) "Manhole" means an opening constructed to permit access by a person to a sewer or any underground portion of a plumbing system.

(148) "Manufactured dwelling" has the meaning specified under s. ILHR 20.07 (52).

Note: Section ILHR 20.07 (52) reads: "Manufactured dwelling" means any structure or component thereof which is intended for use as a dwelling and:

1. Is of closed construction and fabricated or assembled on site or off site in manufacturing facilities for installation, connection or assembly and installation at the building site; or

2. Is a building of open construction which is made or assembled in manufacturing facilities away from the building site for installation, connection or assembly and installation on the building site and for which certification is sought by the manufacturer.

(149) "Mechanical joint" means a connection between pipes, fittings or pipes and fittings by means of a device, coupling, fitting or adapter where compression is applied around the center line of the pieces being joined, but which is not caulked, threaded, soldered, solvent cemented, brazed or welded.

(150) "Mobile home" means a vehicle as defined under s. 66.058 (1) (d), Stats.

Note: Section 66.058 (1) (d), Stats., reads: "Mobile home" is that which is, or was as originally constructed, designed to be transported by any motor vehicle upon a public highway and designed, equipped and used primarily for sleeping, eating and living quarters, or is intended to be so used; and includes any additions, attachments, annexes, foundations and appurtenances.

(151) "Mobile home drain connector" means the pipe that joins the drain piping for a mobile or manufactured home to the building sewer.

(152) "Mobile home park" has the meaning specified under s. 66.058 (1) (e), Stats.

Note: Section 66.058 (1) (e), Stats., reads: "Mobile home park" means any plot or plots of ground upon which 2 or more units, occupied for dwelling or sleeping purposes are located, regardless of whether or not a charge is made for such accommodation.

(153) "Multiple dwelling" means a building containing more than 2 dwelling units.

(154) "Municipality" means any city, village, town or county in this state.

(155) "Munsell soil color" means a color classification that specifies the relative degrees of the color variables in terms of hue, value and chroma.

(156) "Navigable waters" has the meaning specified under s. NR 115.03(5).

Note: Section NR 115.03 (5) reads: "Navigable waters" means Lake Superior, Lake Michigan, all natural inland lakes within Wisconsin and all streams, ponds, sloughs, flowages and other waters within the territorial limits of this state, including the Wisconsin portion of boundary waters, which are navigable under the laws of this state. Under s. 144.26 (2) (d), Stats., notwithstanding any other provision of law or administrative rule promulgated thereunder, shoreland ordinances required under s. 59.971, Stats., and this chapter do not apply to lands adjacent to farm drainage ditches if:

(a) Such lands are not adjacent to a natural navigable stream or river;

(b) Those parts of such drainage ditches adjacent to such lands were nonnavigable streams before ditching or had no previous stream history; and

(c) Such lands are maintained in nonstructural agricultural use.

(157) "Negative pressure" means a pressure less than atmospheric.

(158) "Nonpotable water" means water not safe for drinking, personal or culinary use.

(159) "Nonpublic" means, in the classification of plumbing fixtures, those fixtures in residences, apartments, living units of hotels and motels, and other places where the fixtures are intended for the use by a family or an individual to the exclusion of all others.

(160) "Nontoxic" means a probable human oral lethal dose of greater than 15 grams of solution per kilogram of body weight.

(161) "Occupancy" means the purpose for which a building, structure, equipment, materials, or premises, or part thereof, is used or intended to be used.

(162) "Oil interceptor" means a device designed to intercept and retain oil, lubricating grease or other similar materials.

(163) "Offset" means a combination of fittings or bends which brings one section of the pipe out of line but into a line parallel with the other section.

(164) "One or 2-family dwelling" means a building containing not more than 2 dwelling units.

(165) "Open air" means outside the building.

(166) "Ordinary high-water mark" has the meaning specified under s. NR 115.03 (6).

Note: Section NR 115.03 (6), reads: "Ordinary high-water mark" means the point on the bank or shore up to which the presence and action of surface water is so continuous as to leave a distinctive mark such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic. Where the bank or shore at any particular place is of such character that it is difficult or impossible to ascertain where the point of ordinary high-water mark is, recourse may be had to the opposite bank of a stream or to other places on the shore of a lake or flowage to determine whether a given stage of water is above or below the ordinary high-water mark.

(167) "Participating governmental unit" means a governmental unit which applies to the department for financial assistance under s. Comm 87.07, and which meets the conditions specified under s. 145.245 (9), Stats.

(168) "Peak flow" means the largest anticipated recurrent wastewater discharge to a private onsite wastewater treatment system.

(169) "Pipe applied atmospheric type vacuum breaker" means a type of cross connection control device where the flow of water into the device causes a float to close an air inlet port and when the flow of water stops the float falls and forms a check valve against backsiphonage and at the same time opens the air inlet port to allow air to enter and satisfy the vacuum.

(170) "Pit privy" means an enclosed nonportable toilet into which nonwater-carried human wastes are deposited to a subsurface storage chamber that is not watertight.

(171) "Pitch" means the gradient or slope of a line of pipe in reference to a horizontal plane.

(172) "Place of employment" has the meaning specified under s. 101.01 (11), Stats.

Note: Section 101.01 (11), Stats., reads: "Place of employment" includes every place, whether indoors or out or underground and the premises appurtenant thereto where either temporarily or permanently any industry, trade or business is carried on, or where any process or operation, directly or indirectly related to any industry, trade or business, is carried on, and where any person is, directly or indirectly, employed by another for direct or indirect gain or profit, but does not include any place where persons are employed in private domestic service which does not involve the use of mechanical power or in farming. "Farming" includes those activities specified in s. 102.04 (3), and also includes the transportation of farm products, supplies or equipment directly to the farm by the operator of said farm or employes for the use thereon, if such activities are directly or indirectly for the purpose of producing commodities for market, or as an accessory to such production. When used with relation to building codes, "place of employment" does not include an adult family home, as defined in s. 50.01 (1), or, except for the purposes of s. 101.11, a previously constructed building used as a community-based residential facility, as defined in s. 50.01 (1g), which serves 20 or fewer unrelated residents.

(173) "Plumbing" has the meaning specified under s. 145.01 (10), Stats.

Note: Section 145.01 (10), Stats., reads: "Plumbing" means and includes:

(a) All piping, fixtures, appliances, equipment, devices and appurtenances in connection with the water supply, water distribution and drainage systems, including hot water storage tanks, water softeners and water heaters connected with such water and drainage systems and also includes the installation thereof.

(b) The construction, connection or installation of any drain or waste piping system from the outside or proposed outside foundation walls of any building to the mains or other sewage system terminal within bounds of, or beneath an area subject to easement for highway purposes, including private sewage systems, and the alteration of any such systems, drains or waste piping.

(c) The water service piping from the outside or proposed outside foundation walls of any building to the main or other water utility service terminal within bounds of, or beneath an area subject to easement for highway purposes and its connections.

(d) The water pressure system other than municipal systems as provided in ch. 144.

(e) A plumbing and drainage system so designed and vent piping so installed as to keep the air within the system in free circulation and movement; to prevent with a margin of safety unequal air pressures of such force as might blow, siphon or affect trap seals, or retard the discharge from plumbing fixtures, or permit sewer air to escape into the building; to prohibit cross-connection, contamination or pollution of the potable water supply and distribution systems, and to provide an adequate supply of water to properly serve, cleanse and operate all fixtures, equipment, appurtenances and appliances served by the plumbing system.

(174) "Plumbing appliance" means any one of a special class of plumbing devices which is intended to perform a special function. The operation or control of the appliance may be dependent upon one or more energized components, such as motors, controls, heating elements, or pressure or temperature sensing elements. The devices may be manually adjusted or controlled by the user or operator, or may operate automatically through one or more of the following actions: a time cycle, a temperature range, a pressure range, or a measured volume or weight.

(175) "Plumbing fixture" means a receptacle or device which:

(a) Is either permanently or temporarily connected to the water distribution system of the premises, and demands a supply of water from the system;

(b) Discharges used water, waste materials, or sewage either directly or indirectly to the drain system of the premises; or

(c) Requires both a water supply connection and a discharge to the drain system of the premises.

(176) "Plumbing system" includes the water supply system, the drain system, the vent system, plumbing fixtures, plumbing appliances and plumbing appurtenances that serve a building, structure or premises.

(177) "Potable water" means water that is:

(a) Safe for drinking, personal or culinary use; and

(b) Free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming in its bacteriological and chemical quality to the requirements specified in ch. NR 809.

(178) "POWTS" means a private onsite wastewater treatment system.

(179) "POWTS component" means any subsystem, subassembly or other system designed for use in or as part of a private onsite wastewater treatment system which may include treatment, dispersal or holding and related piping.

(180) "POWTS dispersal component" means a device or method that is intended to promote the assimilation of treated wastewater by the environment.

(181) "POWTS holding component" means any receptacle intended to collect wastewater for a period of time, including holding and dosing tanks.

(182) "POWTS treatment component" means a device or method that is intended to reduce the contaminant load of wastewater.

(183) "Prefabricated plumbing" means concealed drain piping, vent piping or water supply or a combination of these types of piping, contained in a modular building component, which will not be visible for inspection when delivered to the final site of installation.

(184) "Pressure relief valve" means a pressure actuated valve held closed by a spring or other means and designed to automatically relieve pressure at a designated pressure.

(185) "Pressure vacuum breaker assembly" means a type of cross connection control device which consists of an independently operating internally loaded check valve and an independently operating loaded air inlet located on the discharge side of the check valve, a tightly closing shut-off valve located at each end of the assembly, and test cocks.

(186) "Pressurized flushing device" means a device that uses the water supply to create a pressurized discharge to flush a fixture exclusive of gravity type flushing systems.

(187) "Preventive action limit" or "PAL" means a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.15, Stats., and specified under s. NR 140.10, 140.12 or 140.20.

(188) "Principal residence" means a residence that is occupied at least 51% of the year by the owner. Principal residence includes a residence owned by a trust or estate of an individual, if the residence is occupied at least 51% of the year by a person who has an ownership interest in the residence as a beneficiary of the trust or estate.

(189) "Private interceptor main sewer" means a privately owned sewer serving 2 or more buildings and not directly controlled by a public authority.

(190) "Private onsite wastewater treatment system" has the meaning given for 'private sewage system' under s. 145.01 (12), Stats.

Note: Section 145.01 (12), Stats., reads: "Private sewage system" means a sewage treatment and disposal system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure. This term also means an alternative sewage system approved by the department including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure. A private sewage system may be owned by the property owner or by a special purpose district.

(191) "Private water main" means a privately owned water main serving 2 or more buildings and not directly controlled by a public authority.

(192) "Public" means, in the classification of plumbing fixtures, those fixtures which are available for use by the public or employes.

(193) "Public building" has the meaning specified under s. 101.01 (12), Stats.

Note: Section 101.01 (12), Stats., reads: "Public building" means any structure, including exterior parts of such building, such as a porch, exterior platform or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy, or use by the public or by 3 or more tenants. When used in relation to building codes, "public building" does not include a previously constructed building used as a

community-based residential facility as defined in s. 50.01 (1g) which serves 20 or fewer unrelated residents or an adult family home, as defined in s. 50.01 (1).

(194) "Public sewer" means a sewer owned and controlled by a public authority.

(195) "Public water main" means a water supply pipe for public use owned and controlled by a public authority.

(196) "Quick closing valve" means a valve or faucet that closes automatically when released manually or controlled by mechanical means for fast action closing.

(197) "Receptor" means a fixture or device that receives the discharge from indirect or local waste piping.

(198) "Redoximorphic feature" means a feature formed in the soil matrix by the processes of reduction, translocation and oxidation of iron and manganese compounds in seasonally saturated soil.

(199) "Reduced pressure detector backflow preventer" means a type of reduced pressure principle type backflow preventer which includes a parallel flow meter to indicate leakage or unauthorized use of water downstream of the assembly.

(200) "Reduced pressure principle type backflow preventer" means a type of cross connection control device which contains 2 independently acting check valves, separated by an intermediate chamber or zone in which there is a hydraulically operated means for venting to atmosphere, and includes 2 shut-off valves and 4 test cocks.

(201) "Relief vent" means a vent which permits additional circulation of air in or between drain and vent systems.

(202) "Riser" means a water supply pipe that extends vertically one full story or more.

(203) "Roof drain" means a drain installed to receive water collecting on the surface of a roof and to discharge it into a conductor.

(204) "Roughing in" means the installation of all parts of the plumbing system which can be completed prior to the installation of fixtures including drain, water supply and vent piping and the necessary fixture supports.

(205) "Row house" has the meaning specified under s. ILHR 51.01 (114a).

Note: Under s. ILHR 51.01 (114a) "row house" means a place of abode not more than 3 stories in height, arranged to accommodate 3 or more attached, side by side or back to back living units.

(206) "Safing" means a pan or other collector placed beneath a pipe or fixture to prevent leakage from escaping to the floor, ceiling or walls.

(207) "Sand interceptor" means a receptacle designed to intercept and retain sand, grit, earth and other similar solids.

(208) "Sanitary sewer" means a pipe that carries wastewater consisting in part of domestic wastewater.

(209) "Scum" means the accumulated floating solids generated during the biological, physical or chemical treatment, coagulation or sedimentation of wastewater.

(210) "Secretary" means the secretary of the department of commerce or designee.

(211) "Servicing" has the meaning as specified under s. NR 113.03 (57).

Note: Under s. NR 113.03 (57) "servicing" means removing the scum, liquid, sludge or other wastes from a private sewage system such as septic or holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms and properly disposing or recycling of the contents as provided in this chapter.

(212) "Sewage" means wastewater containing fecal coliform bacteria exceeding 200 CFU's, coliform forming units, per 100 ml.

(213) "Sewage grinder pump" means a type of sewage pump which macerates wastewater consisting in part of sewage.

(214) "Sewage pump" means an automatic pump for the removal of wastewater from a sanitary sump.

(215) "Slip-joint" means a connection in which one pipe slips into another, the joint of which is made tight with a compression type fitting.

(216) "Sludge" means the accumulated solids generated during the biological, physical or chemical treatment, coagulation or sedimentation of water or wastewater.

(217) "Small commercial establishment" means a commercial establishment or business place with a maximum daily wastewater flow rate of less than 5,000 gallons per day as determined from the design criteria of the state plumbing code. Small commercial establishment includes a farm, including a residence on a farm, if the residence is occupied by a person who is an operator of the farm and if the maximum daily wastewater flow rate of the farm and the residence on the farm is less than 5,000 gallons-per-day as determined from the design criteria of the state plumbing code.

(218) "Soil" means the naturally occurring pedogenically developed and undeveloped regolith overlying bedrock.

(219) "Soil consistence" means the resistance of soil material to deformation or rupture as related to the degree of adhesion and cohesion of a soil mass.

(220) "Soil horizon" means a layer of soil material approximately parallel to the land surface and differing from adjacent genetically related layers in physical, chemical, or biologic characteristics.

(221) "Soil morphology" means the physical or structural characteristics of a soil profile particularly as related to the arrangement of soil horizons based on color, texture, structure, consistence, and porosity.

(222) "Soil profile" means a vertical section of soil containing one or more soil horizons.

(223) "Soil profile evaluation" means a determination of soil properties or characteristics as they relate to wastewater or nonwater-carried human waste treatment or dispersal.

(224) "Soil structure" means the combination or arrangement of individual soil particles into definable aggregates or peds, which are characterized and classified on the basis of size, shape, and degree of distinctness.

(225) "Soil texture" means the relative proportions of sand, silt and clay (soil separates) in a soil.

(226) "Spigot" means the end of a pipe which fits into a bell or hub.

(227) "Spill level" means the horizontal plane to which water will rise to overflow through channels or connections which are not directly connected to any drainage system, when water is flowing into a fixture, vessel or receptacle at the maximum rate of flow.

(228) "Spring line, pipe" means the line or place from which the arch of a pipe or conduit rises.

Note: See ch. Comm 82 Appendix for an illustration depicting the spring line of a pipe.

(229) "Stack" means a drain or vent pipe that extends vertically one full story or more.

(230) "Stack vent" means a vent extending from the top of a drain stack.

(231) "Standpipe" means a drain pipe serving as a receptor for the discharge wastes from indirect or local waste piping.

(232) "State" means the state of Wisconsin, its agencies and institutions.

(233) "State plumbing code" means chs. Comm 81 to 87.

(234) "Sterilizer, boiling type" means a device of nonpressure type, used for boiling instruments, utensils, or other equipment for disinfecting.

(235) "Sterilizer, instrument" means a device for the sterilization of various instruments.

(236) "Sterilizer, pressure" means a pressure vessel fixture designed to use steam under pressure for sterilizing.

Note: A pressure sterilizer is also referred to as an autoclave.

(237) "Sterilizer, pressure instrument washer" means a pressure vessel designed to both wash and sterilize instruments during the operating cycle of the device.

(238) "Sterilizer, utensil" means a device for the sterilization of utensils.

(239) "Sterilizer vent" means a separate pipe or stack, indirectly connected to the drain system at the lower terminal, which receives the vapors from nonpressure sterilizers, or the exhaust vapors from pressure sterilizers, and conducts the vapors directly to the outer air.

(240) "Sterilizer, water" means a device for sterilizing water and storing sterile water.

(241) "Storm sewer" means a pipe that carries storm water, surface water, groundwater and clear water wastes.

(242) "Storm water wastes" means the wastewater collected from a precipitation event.

(243) "Subsoil drain" means that part of a drain system which conveys the ground or seepage water from the footings of walls or below the basement floor under buildings to the storm sewer or other point of disposal.

(244) "Sump" means a tank or pit that receives wastewater that must be emptied by mechanical means.

(245) "Sump pump" means an automatic water pump for storm water or clear water wastes from a sump, pit or low point.

(246) "Sump vent" means a vent pipe from a nonpressurized sump.

(247) "Supports" means hangers, anchors and other devices for supporting and securing pipes or fixtures to structural members of a building.

(248) "Surface water" means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, marshes, water courses, drainage systems, and other surface water, natural or artificial, public or private within the state or under its jurisdiction, except those waters which are entirely confined and completely retained upon the property of a facility.

(249) "Swimming pool" means a structure, basin, chamber or tank containing an artificial body of water for swimming, diving or recreational bathing.

(250) "Temperature and pressure relief valve" means a combination relief valve designed to function as both a temperature relief and pressure relief valve.

(251) "Temperature relief valve" means a temperature actuated valve designed to automatically discharge at a designated temperature.

(252) "Tempered water" means water ranging in temperature from 85°F. to less than 110°F.

(253) "Total suspended solids" or "TSS" means solids in wastewater that can be removed readily by standard filtering procedures in a laboratory and reported as milligrams per liter (mg/L).

(254) "Toxic" means a probable human oral lethal dose of 15 or less grams of solution per kilogram of body weight.

(255) "Trap" means a fitting, device or arrangement of piping so designed and constructed as to provide, when properly vented, a liquid seal which prevents emission of sewer gases without materially affecting the flow of wastewater through it.

(256) "Trap seal" means the vertical distance between the top of the trap weir and the top of the dip separating the inlet and outlet of the trap.

(257) "Trap seal primer, water supply fed" means a type of valve designed to supply water to the trap in order to provide and maintain the water seal of the trap.

(258) "Trap weir" means that part of a trap that forms a dam over which wastes must flow to enter the drain piping.

(259) "Turf sprinkler system" means a system of piping, appurtenances and devices installed underground to distribute water for lawn or other similar irrigation purposes.

(260) "Unsaturated soil" means soil in which the pore spaces contain water at less than atmospheric pressure, as well as air and other gases.

(261) "Vacuum" means any pressure less than that exerted by the atmosphere.

(262) "Vacuum relief valve" means a device that admits air into the water distribution system to prevent excessive vacuum in a water storage tank or heater.

(263) "Vent" means a part of the plumbing system used to equalize pressures and ventilate the system.

(264) "Vent header" means a branch vent which connects 2 or more stack vents or vent stacks or both and extends to the outside air.

(265) "Vent stack" means a vertical vent pipe which extends one or more stories.

(266) "Vent system" means a pipe or pipes installed to provide a flow of air to or from a drain system, or to provide a circulation of air within the system to protect trap seals from siphonage and back pressure.

(267) "Vertical pipe" means any pipe or fitting which makes an angle of 45° or less with the vertical.

(268) "Wall hydrant, freeze resistant automatic draining type vacuum breaker" means a type of device which is designed and constructed with anti-siphon and back pressure preventive capabilities and with means for automatic post shut-off draining to prevent freezing.

(269) "Wall mounted water closet" means a water closet attached to a wall in such a way that it does not touch the floor.

(270) "Waste" means the discharge from any fixture, appliance, area or appurtenance.

(271) "Waste sink" means a receptor for the discharge from indirect or local waste piping installed with its flood level rim above the surrounding floor.

(272) "Wastewater" means clear water wastes, storm water wastes, domestic wastewater, industrial wastewater, sewage or any combination of these.

(273) "Wastewater, treated" means the effluent conveyed through one or more POWTS treatment components to a POWTS dispersal component.

(274) "Water closet" means a water-flushed plumbing fixture designed to receive human excrement directly from the user of the fixture.

(275) "Water conditioner" means an appliance, appurtenance or device used for the purpose of ion exchange, demineralizing water or other methods of water treatment.

(276) "Water distribution system" means that portion of a water supply system from the building control valve to the connection of a fixture supply connector, plumbing fixture, plumbing appliance, water-using equipment or other piping systems to be served.

(277) "Water heater" means any heating device with piping connections to the water supply system that is intended to supply hot water for domestic or commercial purposes other than space heating.

(278) "Water service" means that portion of a water supply system from the water main or private water supply to the building control valve.

(279) "Waters of the state" has the meaning specified under s. 281.01 (18), Stats.

Note: Section 281.01 (18), Stats., reads: "Waters of the state" means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water or groundwater, natural or artificial, public or private within the state or under its jurisdiction.

(280) "Water supply system" means the piping of a private water main, water service and water distribution system, fixture supply connectors, fittings, valves, and appurtenances through which water is conveyed to points of usage such as plumbing fixtures, plumbing appliances, water using equipment or other piping systems to be served.

(281) "Water treatment device" means a device which:

(a) Renders inactive or removes microbiological, particulate, inorganic, organic or radioactive contaminants from water which passes through the device or the water supply system downstream of the device; or

(b) Injects into the water supply system gaseous, liquid or solid additives other than water, to render inactive microbiological, particulate, inorganic, organic or radioactive contaminants.

(282) "Wetland" has the meaning as specified under s. NR 322.03(11).

Note: Section NR 322.03(11) reads: "Wetland" means an area where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation and which has soil indicative of wet conditions.

(283) "Wetland, constructed" means a man-made design complex of saturated substrates, emergent and submergent vegetation, and water that simulates natural wetlands for human use and benefits.

(284) "Wet vent" means that portion of a vent pipe which receives the discharge of wastes from other than water closets, urinals or other fixtures which discharge like sewage or fecal matter.

(285) "Yoke vent" means a vent connected to a drain stack for the purpose of preventing pressure changes in the drain stack.

Comm 81.20 INCORPORATION OF STANDARDS BY REFERENCE. (1) CONSENT. Pursuant to s. 227.21, Stats., the attorney general and the revisor of statutes have consented to the incorporation by reference of the standards listed in sub. (4).

(2) COPIES. Copies of the adopted standards are on file in the offices of the department, the secretary of state and the revisor of statutes. Copies of the standards may be purchased through the respective organizations listed in Tables 81.20-1 to 81.20-14.

(3) INTERIM AMENDMENTS. Interim amendments of the adopted standards shall have no effect in the state until such time as this section is correspondingly revised to reflect the changes.

(4) ADOPTION OF STANDARDS. The standards referenced in Tables 81.20-1 to 81.20-14 are hereby incorporated by reference into this chapter.

Table 81.20-1

AHAM	Association of Home Appliance Manufacturers 20 North Wacker Drive Chicago, Illinois 60606
Standard Reference Number	Title
DW-1-92	Household Electric Dishwashers

Table 81.20-2

	ANSI	American National Standards Institute, Inc. 1430 Broadway New York, New York 10018
	Standard Reference Number	Title
1.	A112.1.2-91	Air Gaps in Plumbing Systems
2.	A112.6.1M-88	Supports for Off-the-Floor Plumbing Fixtures for Public Use
3	A112.14.1-75(R1990)	Backwater Valves
4.	A112.18.1M-94	Plumbing Fixture Fittings
5.	A112.19.1M-90	Enameled Cast Iron Plumbing Fixtures
6.	A112.19.2M-82	Vitreous China Plumbing Fixtures
7.	A112.19.2M-90	Vitreous China Plumbing Fixtures
8.	A112.19.3M-87	Stainless Steel Plumbing Fixtures (Designed for Residential Use)
9.	A112.19.4-94	Porcelain Enameled Formed Steel Plumbing Fixtures
10.	A112.19.5-79(R1990)	Trim for Water Closet Bowls, Tanks and Urinals (Dimensional Standards)
11.	A112.19.6-90	Hydraulic Requirements for Water Closets and Urinals
12.	A112.21.1M-91	Floor Drains
13.	A112.21.2M-83	Roof Drains
14.	A112.26.1-84	Water Hammer Arrestors
15.	B1.20.1-83(R1992)	Pipe Threads, General Purpose (Inch)
16.	B16.1-89	Cast Iron Pipe Flanges and Flanged Fittings
17.	B16.3-92	Malleable Iron Threaded Fittings
18.	B16.4-92	Gray Iron Threaded Fittings
19.	B16.5-88	Pipe Flanges and Flanged Fittings (w/ 1992 Addenda)
20.	B16.9-93	Factory-Made Wrought Steel Buttwelding Fittings
21.	B16.11-91	Forged Steel Fittings, Socket-Welded and Threaded
36.	Z124.2-87	Plastic Shower Receptors and Shower Stalls (w/ 1990 Addendum)
37.	Z124.3-86	Plastic Lavatories (w/ 1990 Addendum)
38.	Z124.4-86	Plastic Water Closet Bowls and Tanks (w/ 1990 Addendum)

Table 81.20-3

ARI	Air-Conditioning and Refrigeration Institute 1815 North Fort Myer Drive Arlington, Virginia 22209
Standard Reference Number	Title
ARI-1010-94	Self-Contained Mechanically-Refrigerated Drinking-Water Coolers

Table 81.20-4

	ASSE	American Society of Sanitary Engineering P.O. Box 9712 Bay Village, Ohio 44140
	Standard Reference Number	Title
1.	1001-90	Pipe Applied Atmospheric Type Vacuum Breakers
2.	1002-86	Water Closet Flush Tank Ball Cocks
3.	1003-93	Water Pressure Reducing Valves
4.	1004-90	Commercial Dishwashing Machines
5.	1005-86	Water Heater Drain Valves
6.	1006-89	Residential Use (Household) Dishwashers
7.	1007-92	Home Laundry Equipment
8.	1008-89	Household Food Waste Disposer Units
9.	1009-90	Commercial Food Waste Grinder Units
10.	1010-82	Water Hammer Arrestors
11.	1011-93	Hose Connection Vacuum Breakers
12.	1012-93	Backflow Preventers with Intermediate Atmospheric Vent
13.	1013-93	Reduced Pressure Principle Backflow Preventers
14.	1014-90	Hand-Held Showers
15.	1015-93	Double Check Backflow Prevention Assembly
16.	1018-86	Trap Seal Primer Valves, Water Supply Fed
17.	1019-93	Vacuum Breaker Wall Hydrants, Freeze Resistant Automatic Draining Type
18.	1020-90	Pressure Vacuum Breaker Assembly
19.	1023-79	Hot Water Dispensers, Household Storage Type, Electrical
20.	1025-78	Diverters for Plumbing Faucets with Hose Spray, Anti-Siphon Type, Residential Applications
21.	1035-93	Laboratory Faucet Vacuum Breakers

Table 81.20-4 - (continued)

22.	1037-90	Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures
23.	1047-93	Reduced Pressure Detector Backflow Preventer
24.	1048-93	Double Check Detector Assembly Backflow Preventer
25.	1052-93	Hose Connection Backflow Preventers
26.	1056-93	Back Siphonage Backflow Vacuum Breakers
27.	5010-1013-1-90	Field Test Procedure for a Reduced Pressure Principle Assembly Using A Differential Pressure Gauge
28.	5010-1015-1-90	Field Test Procedure for a Double Check Valve Assembly Using a Duplex Gauge
29.	5010-1015-2-90	Field Test Procedure for a Double Check Valve Assembly Using a Differential Pressure Gauge - High- and Low-Pressure Hose Method
30.	5010-1015-3-90	Field Test Procedure for a Double Check Valve Assembly Using a Differential Pressure Gauge - High-Hose Method
31.	5010-1015-4-90	Field Test Procedure for a Double Check Valve Assembly Using a Sight Tube
32.	5010-1020-1-90	Field Test Procedure for a Pressure Vacuum Breaker Assembly
33.	5010-1047-1-90	Field Test Procedure for a Reduced Pressure Detector Assembly Using A Differential Pressure Gauge
34.	5010-1048-1-90	Field Test Procedure for a Double Check Detector Assembly Using a Duplex Gauge
35.	5010-1048-2-90	Field Test Procedure for a Double Check Detector Assembly Using a Differential Pressure Gauge - High- and Low-Pressure Hose Method
36.	5010-1048-3-90	Field Test Procedure for a Double Check Detector Assembly Using a Differential Pressure Gauge - High-Pressure Hose Method
37.	5010-1048-4-90	Field Test Procedure for a Double Check Detector Assembly Using a Sight Tube

Table 81.20-5

	ASTM	American Society for Testing and Materials 100 Barr Harbor Drive West Conshohocken, Pennsylvania 19428-2959
	Standard Reference Number	Title
1.	A53-93a	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless, Specification for
2.	A74-94	Cast Iron Soil Pipe and Fittings, Specification for
3.	A123-89a	Zinc (Hot-Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates and Strip, Specification for
4.	A270-90	Seamless and Welded Austenitic Stainless Steel Sanitary Tubing, Specification for
5.	A377-94	Ductile-Iron Pressure Pipe, Standard Index of Specifications for
6.	A403/A403M-94a	Wrought Austenitic Stainless Steel Piping Fittings, Specification for
7.	A450/A450M-94	General Requirements for Carbon, Ferritic Alloy, and Austenitic Alloy Steel Tubes, Specification for
8.	B32-95	Solder Metal, Specification for
9.	B42-93	Seamless Copper Pipe, Standard Sizes, Specification for
10.	B43-94	Seamless Red Brass Pipe, Standard Sizes, Specification for
11.	B75-93	Seamless Copper Tube, Specification for
12.	B88-93a	Seamless Copper Water Tube, Specification for
13.	B152-94	Copper Sheet, Strip, Plate, and Rolled Bar, Specification for
14.	B251-93	General Requirements for Wrought Seamless Copper and Copper-Alloy Tube, Specification for
15.	B302-92	Threadless Copper Pipe, Specification for
16.	B306-92	Copper Drainage Tube (DWV), Specification for
17.	C4-62(R1991)	Clay Drain Tile, Specification for
18.	C14-94	Concrete Sewer, Storm Drain, and Culvert Pipe, Specification for
19.	C33-93	Concrete Aggregates, Specification for
20.	C76-94	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe, Specification for
21.	C425-91	Compression Joints for Vitrified Clay Pipe and Fittings, Specification for
22.	C443-94	Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets, Specification for
23.	C564-95	Rubber Gaskets for Cast Iron Soil Pipe and Fittings, Specification for
24.	C700-91	Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated, Specification for
25.	D1527-94	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe, Schedules 40 and 80, Specification for

Table 81.20-5 - (continued)

26.	D1785-93	Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80 and 120, Specification for
27.	D2104-93	Polyethylene (PE) Plastic Pipe, Schedule 40, Specification for
28.	D2235-93a	Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings, Specification for
29.	D2239-93	Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter, Specification for
30.	D2241-93	Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR-PR), Specification for
31.	D2282-94	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR), Specification for
32.	D2321-89	Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications, Practice for
33.	D2447-93	Polyethylene (PE) Plastic Pipe, Schedules 40 and 80 Based on Outside Diameter, Specification for
34.	D2464-94	Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80, Specification for
35.	D2466-94a	Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40, Specification for
36.	D2467-94	Socket-Type Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80, Specification for
37.	D2468-93	Acrylonitrile-Butadiene-Styrene (ABS), Plastic Pipe Fittings, Schedule 40, Specification for
38.	D2564-93	Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings, Specification for
39.	D2609-93	Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe, Specification for
40.	D2657-90	Heat-Joining of Polyolefin Pipe and Fittings, Specification for
41.	D2661-94a	Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings, Specification for
42.	D2662-93	Polybutylene (PB) Plastic Pipe (SIDR-PR), Based on Controlled Inside Diameter, Specification for
43.	D2665-94	Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings, Specification for
44.	D2666-93	Polybutylene (PB) Plastic Tubing, Specification for
45.	D2672-94	Joints for IPS Pipe Using Solvent Cement, Specification for
46.	D2680-93	Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer Piping, Specification for
47.	D2683-93	Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing, Specification for
48.	D2729-93	Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, Specification for
49.	D2737-93	Polyethylene (PE) Plastic Tubing, Specification for

Table 81.20-5 - (continued)

50.	D2751-93	Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings, Specification for
51.	D2774-94	Underground Installation of Thermoplastic Pressure Piping, Practice for
52.	D2846-93	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems, Specification for
53.	D2852-93	Styrene-Rubber (SR) Plastic Drain Pipe and Fittings, Specification for
54.	D2855-93	Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings, Practice for
55.	D3000-93	Polybutylene (PB) Plastic Pipe (SDR-PR) Based on Outside Diameter, Specification for
56.	D3034-93	Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, Specification for
57.	D3035-93	Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Controlled Outside Diameter, Specification for
58.	D3139-89	Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals, Specification for
59.	D3140-90	Flaring Polyolefin Pipe and Tubing, Practice for
60.	D3212-92	Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals, Specification for
61.	D3261-93	Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing, Specification for
62.	D3309-93	Polybutylene (PB) Plastic Hot- and Cold-Water Distribution Systems, Specification for
63.	D3311-92	Drain, Waste, and Vent (DWV) Plastic Fittings Patterns, Specification for
64.	D3786-87	Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Tester Method, Standard Test Method for
65.	D4068-91	Chlorinated Polyethylene (CPE) Sheeting for Concealed Water-Containment Membrane, Specification for
66.	D4491-89	Water Permeability of Geotextile by Permittivity, Standard Test Method for
67.	D4533-91	Trapezoid Tearing Strength of Geotextiles, Standard Test Method for
68.	D4632-91	Grab Breaking Load and Elongation of Geotextiles, Standard Test Method for
69.	D4751-87	Determining the Apparent Opening Size of a Geotextile, Standard Test Method for
70.	D4833-88	Index Puncture Resistance of Geotextile, Geomembranes, and Related Products, Standard Test Methods for
71.	F402-93	Safe Handling of Solvent Cements, Primers and Cleaners Used for Joining Thermoplastic Pipe and Fittings, Practice for

Table 81.20-5 - (continued)

72.	F405-93	Corrugated Polyethylene (PE) Tubing and Fittings, Specification for
73.	F409-93	Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings, Specification for
74.	F437-93	Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80, Specification for
75.	F438-93	Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40, Specification for
76.	F439-93a	Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80, Specification for
77.	F441-94	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80, Specification for
78.	F442-94	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR), Specification for
79.	F477-93	Elastomeric Seals (Gaskets) for Joining Plastic Pipe, Specification for
80.	F493-93a	Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings, Specification for
81.	F628-93	Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core, Specification for
82.	F656-93	Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings, Specification for
83.	F810-93	Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields, Specification for
84.	F845-93	Plastic Insert Fittings for Polybutylene (PB) Tubing, Specification for
85.	F876-93	Crosslinked Polyethylene (PEX) Tubing, Specification for
86.	F877-93	Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems, Specification for
87.	F891-93a	Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core, Specification for

Table 81.20-6

AWS	American Welding Society 550 N.W. LeJune Road Miami, Florida 33126
Standard Reference Number	Title
AWS A5.8-92	Filler Metals for Brazing and Braze Welding, Specification for

Table 81.20-7

	AWWA	American Water Works Association Data Processing Department 6666 West Quincy Avenue Denver, Colorado 80235
	Standard Reference Number	Title
1.	C110/A21.10-93	American National Standard for Ductile-Iron and Gray-Iron Fittings, 3 in. through 48 in., for Water and Other Liquids
2.	C111/A21.11-90	American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
3.	C115/A21.15-88	American National Standard for Flanged Ductile-Iron and Gray-Iron Pipe with Threaded Flanges
4.	C151/A21.51-91	American National Standard for Ductile-Iron Pipe, Centrifugally Cast for Water or Other Liquids
5.	C153/A21.53-94	American National Standard for Ductile-Iron Compact Fittings, 3 in. through 16 in., for Water and Other Liquids
6.	C700-90	Cold Water Meters - Displacement Type (w/ 1991 Addendum)
7.	C701-88	Cold Water Meters - Turbine Type for Customer Service
8.	C702-92	Cold Water Meters - Compound Type
9.	C704-92	Cold Water Meters - Propeller Type for Main Line Applications
10.	C706-91	Cold Water Meters, Direct-Reading Remote Registration Systems for
11.	C707-82(R92)	Cold Water Meters, Encoder-Type, Remote-Registration Systems for
12.	C708-91	Cold Water Meters - Multi-Jet Type
13.	C710-90	Cold Water Meters, Displacement Type - Plastic Main Case (w/ 1991 Addendum)
14.	C900-89	American Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. through 12 in., for Water Distribution (w/ 1992 Addendum)

Table 81.20-8

CISPI	Cast Iron Soil Pipe Institute 5959 Shallowford Road, Suite 419 Chattanooga, Tennessee 37421

	Standard Reference Number	Title
1.	301-95	Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications, Specification for
2.	310-95	Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications, Specification for

Table 81.20-9

FMRC	Factory Mutual Research Corp. 1151 Boston-Providence Turnpike Norwood, Massachusetts 02062

Standard Reference Number	Title
1680	Couplings used in Hubless Cast Iron Systems for Drain, Waste or Vent, Sewer, Rainwater or Storm Drain Systems Above and Below Ground, Industrial/Commercial and Residential, January 1989

Table 81.20-10

MSS	Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. 127 Park Street, N.E. Vienna, Virginia 22180

Standard Reference Number	Title
SP-103	Wrought Copper and Copper Alloy Insert Fittings for Polybutylene Systems, 1995 Edition

Table 81.20-11

NSF	NSF International 3475 Plymouth Road P.O. Box 130140 Ann Arbor, Michigan 48113-0140
Standard Reference Number	Title
1. Standard 14-90	Plastic Piping Compounds and Related Materials
2. Standard 40-90	Individual Aerobic Wastewater Treatment Plants
3. Standard 41-83	Wastewater Recycle/Reuse and Water Conservation Devices

Table 81.20-12

STI	Steel Tank Institute 570 Oakwood Road Lake Zurich, Illinois 60047
Standard Reference Number	Title
STI-P_3	External Corrosion Protection of Underground Steel Storage Tanks, Specifications and Manual for, 1996 edition

Table 81.20-13

UL	Underwriters Laboratories Inc. 333 Pfingsten Road Northbrook, Illinois 60062
Standard Reference Number	Title
1. Standard 58-86	Steel Underground Tanks for Flammable and Combustible Liquids
2. Standard 1746-89	External Corrosion Protection Systems for Steel Underground Storage Tanks

Table 81.20-14

WQA	Water Quality Association 4151 Naperville Road Northbrook, Illinois 60062
Standard Reference Number	Title
S-100-85	Household, Commercial and Portable Exchange Water Softeners

SECTION 37. Comm 82.01 Note is amended to read:

Comm 82.01 Note: Chapter Comm 83 contains provisions for the siting, design, installation, inspection and maintenance of private ~~sewage~~ onsite wastewater treatment systems. Chapter Comm 84 contains provisions and standards for plumbing materials, plumbing fixtures and plumbing appliances.

SECTION 38. Comm 82.10 (2) is amended to read:

Comm 82.10 (2) Every building intended for human occupancy shall be provided with an adequate, safe and potable water supply. ~~A building located adjacent to a street in which there is a public water supply, shall be connected to the public water supply~~.

SECTION 39. Comm 82.10 (3) is repealed and recreated to read:

Comm 82.10 (3) To fulfill the basic needs of sanitation and personal hygiene, each dwelling connected to a private onsite wastewater treatment system or public sewer shall be provided with at least the following plumbing fixtures: one water closet, one wash basin, one kitchen sink and one bathtub or shower, except a system or device recognized under ch. Comm 91 may be substituted for the water closet. All other structures for human occupancy shall be equipped with sanitary facilities in sufficient numbers as specified in chs. ILHR 50 to 64.

SECTION 40. Comm 82.10 (7) is repealed.

SECTION 41. Comm 82.10 (8) is amended to read:

Comm 82.10 (8) Where plumbing fixtures exist in a building which is not connected to a public sewer system, suitable provision shall be made for ~~disposing of~~ recycling the ~~building~~ sewage and wastewater by a method of holding or ~~sewage~~treatment ~~disposal~~ and dispersal satisfactory to the department .

SECTION 42. Comm 82.10 (13) is amended to read:

Comm 82.10 (13) Proper protection shall be provided to prevent contamination of food, water, sterile goods and similar materials by backflow of ~~sewage~~ wastewater.

SECTION 43. Comm 82.10 (15) and Note are repealed.

SECTION 44. Comm 82.11 is repealed.

SECTION 45. Comm 82.30 (11) (g) 2 is amended to read:

Comm 82.30 (11) (g) 2. 'Storm and clear water connections'. ~~Storm~~ Except as provided in s. Comm 82.36 (3) (b) 4., storm drain piping and clear water drain piping may not discharge to a sanitary building drain ~~or to a private sewage system~~ which connects to a publicly owned treatment works.

SECTION 46. Comm 82.32 (4) (b) 1 b is amended to read:

Comm 82.32 (4) (b) 1. b. The vertical distance between the top of the fixture drain outlet of a pedestal drinking fountain, a cuspidor or a drain receptor for a sanitary dump station and the horizontal center line of the trap outlet shall not exceed 60 inches.

SECTION 47. Comm 82.34 (5) (a) 2 (title) and (intro.) and 3 and (b) 2 (intro.) are amended to read:

ILHR 82.34 (5) (a) 2. 'Private onsite wastewater treatment systems'. All new, altered or remodeled plumbing systems which discharge to private ~~sewage~~ onsite wastewater treatment systems shall be provided with exterior grease interceptors.

3. 'Existing installations'. The department may require the installation of either interior or exterior interceptors for existing plumbing installations where the waterway of a drain system, sewer system or private ~~sewage~~ onsite wastewater treatment system is reduced or filled due to congealed grease.

(b) 2. 'Capacity and sizing'. The minimum liquid capacity of a grease interceptor shall be determined in accordance with the provisions of this subdivision, except no grease interceptor may have a capacity of less than 1000 gallons if the interceptor is to discharge to a private ~~sewage~~ onsite wastewater treatment system or less than 750 gallons if the interceptor is to discharge to a municipal sewer system and treatment facility.

SECTION 48. Comm 82.36 (3) (b) 3 a is renumbered 82.36 (3) (b) 3 and amended to read:

Comm 82.36 (3) (b) 3. The clear water waste from a drinking fountain, water heater relief valve, storage tank relief valve or ~~water softener~~ residential water treatment device shall be discharged to either a sanitary drain system or a storm drain system.

SECTION 49. Comm 82.36 (3) (b) 3 b is renumbered 82.36 (3) (b) 4 and amended to read:

Comm 82.36 (3) (b) 4. The clear water wastes from equipment other than those listed in subd. 3. ~~a.~~ may be discharged to a sanitary drain system which connects to a publicly owned treatment works, if not more than 20 gallons of clear water wastes per day per building are discharged.

SECTION 50. Comm 82.37 is created to read:

Comm 82.37 SANITATION FACILITIES. (1) COMPOSTING SYSTEMS. (a) Composting systems which employ water or other liquids as a transport medium for wastes shall conform with this subsection.

Note: Composting systems where water or other liquids are not employed as a transport medium are addressed under ch. Comm 91.

(b) The materials, design, construction and performance of a composting system which employs water or other liquids as a transport medium for wastes shall conform to NSF Standard 41.

(c) All composting systems shall be listed by a testing agency acceptable to the department.

Note: Listing agencies acceptable to the department include the American Gas Association; Canadian Standards Association; NSF International; Underwriter's Laboratories; and Warnock Hersey.

(d) 1. Components for the storage or treatment of wastes shall be continuously ventilated.

2. Ventilation ducts or vents for the composting system shall conform to s. Comm 82.31 (16).

(e) 1. The disposal of end product shall be in accordance with EPA part 503.

2. The disposal of any liquid from a composting system shall be either to a publicly owned treatment works or a POWTS conforming to ch. Comm 83.

(f) The connection of potable water supplies to a composting system shall be protected in accordance with s. Comm 82.41.

(g) The drainage systems for the composting system shall conform to the applicable requirements of ss. Comm 82.30 to 82.36 and the manufacturer's specifications.

(2) SANITARY DUMP STATIONS. (a) Sanitary dump stations which provide for the disposal of wastes and wastewater from the holding tanks of travel trailers, recreational vehicles or other similar mobile vehicles, and transfer containers shall conform with this subsection.

(b) The drain receptor for a sanitary dump station shall be at least 4 inches in diameter.

(c) 1. The drain receptor shall be provided with a self-closing cover.

2. The cover for the drain receptor shall be openable without touching the cover with one's hands.

(d) The drain receptor shall be surrounded by an impervious pad at least 6 feet in diameter. The pad shall be:

1. Pitched toward the drain receptor with a minimum slope of 1/4 inch per foot; and

2. Of sufficient strength to sustain anticipated loads.

(e) The drain receptor shall be trapped in accordance with s. Comm 82.32.

(f) Drain receptors for sanitary dump stations installed within enclosed structures shall be vented in accordance with s. Comm 82.31.

(g) A supply of water shall be provided to wash down the drain receptor and pad. The water supply shall be:

1. Provided with cross connection control in accordance with s. Comm 82.41; and

2. Labeled indicating that the supply is not for drinking purposes.

SECTION 51. Comm 82.40 (3) (e) is amended to read:

Comm 82.40 (3) (e) Metering. When a water meter is provided pursuant to s. Comm ~~83.18 (10)~~ 83.52 (2) the water meter shall:

1. Be installed in the water supply system so as to exclude the supply to those water outlets, such as exterior hose bibbs and wall hydrants, which do not discharge to the sanitary drain system; and

2. Include an accessible remote reader device located on the exterior of the building or structure.

Note: Section Comm 83.52 (2) requires metering when a new building or a new structure is to be served by a holding tank for domestic wastewater disposal.

SECTION 52. Comm 82.40 (8) (b) 1 to 3 is amended to read:

Comm 82.40 (8) (b) 1. ~~Water~~ Exterior water supply piping may not be located in, under or above sanitary sewer manholes, ~~sewage treatment tanks, holding tanks, dosing tanks, distribution boxes, soil absorption areas or seepage pits for private sewage systems~~ or POWTS treatment, holding or dispersal components.

2. ~~Water~~ Exterior water supply piping shall be located at least 10 feet horizontally away from a ~~sewage treatment tank, holding tank, dosing tank, distribution box, or soil absorption area for a private sewage system~~ POWTS treatment, holding or dispersal component.

3. ~~Water~~ Exterior water supply piping located downslope from ~~a mound type private sewage~~ an area consisting in part of in situ soil as a treatment or dispersal component for a private onsite wastewater treatment system shall be at least 25 feet horizontally away from the ~~toe of the basal~~ area.

SECTION 53. Comm 82.40 (8) (j) is created to read:

Comm 82.40 (8) (j) Water softeners. Ion exchange water softeners used primarily for water hardness reduction that, during regeneration, discharge a brine solution into a private onsite wastewater treatment system shall be of a demand initiated regeneration type equipped with a water meter or a sensor unless the design of the private onsite wastewater treatment system specifically documents the reduction of chlorides.

SECTION 54. Chapter Comm 83 is repealed and recreated to read:

Chapter Comm 83

PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS

Subchapter I
SCOPE AND APPLICATION

Comm 83.01 PURPOSE. The purpose of this chapter is to establish minimum standards and criteria for the design, installation, inspection and management of a private onsite wastewater treatment system, POWTS, so that the system is safe and will protect public health and the waters of the state.

Comm 83.02 SCOPE. (1) WASTEWATER GENERATION. Except as delineated in subs. (2) and (3), this chapter applies to all situations where domestic wastewater is collected and conducted by means of plumbing drain systems and is not conveyed to wastewater treatment facilities regulated by the department of natural resources.

Note 1: Section Comm 82.10 (8) states that where plumbing fixtures exist in a building which is not connected to a public sewer system, suitable provision shall be made for recycling the sewage and wastewater by a method of holding or treatment and dispersal satisfactory to the department.

Note 2: The department of natural resources is responsible for establishing, administering and enforcing standards relative to domestic wastewater treatment systems which either disperse to the surface, surface waters or where the design daily influent wastewater flow to the system exceeds 12,000 gallons per day.

Note 3: Pursuant to s. 281.17 (5), Stats., the department of natural resources may also restrict or specify the type of wastewater treatment necessary. Section 281.17 (5) reads:

The department (department of natural resources) may prohibit the installation or use of septic tanks in any area of the state where the department finds that the use of septic tanks would impair water quality. The department shall prescribe alternate methods for waste treatment and disposal in such prohibited areas.

(2) JURISDICTION. (a) Purpose. This subsection delineates the jurisdiction of the department and the department of natural resources for the purpose of acknowledging the expertise and resources of the two agencies to protect public health and the waters of the state.

(b) Holding tanks. This chapter applies to all holding tanks that are utilized as part of a POWTS for domestic wastewater.

(c) Surface dispersal. A POWTS that discharges treated final effluent to the surface or surface waters shall conform to chs. NR 108, NR 110, NR 206 and NR 218.

(d) 12,000 gpd or less. 1. This chapter applies to a POWTS where the design wastewater flow does not exceed 12,000 gallons per day and where all the treated final effluent is dispersed into subsurface in situ or engineered soil.

2. This chapter applies to 2 or more POWTS's where the combined design wastewater flow of all the POWTS's as described under par. (f) 2. does not exceed 12,000 gallons per day and where all the treated final effluent is dispersed into subsurface in situ or engineerd soil.

(e) Greater than 12,000 gpd. 1. A POWTS shall conform to chs. NR 108, NR 110, NR 206 and NR 218 where the design wastewater flow of the POWTS exceeds 12,000 gallons per day and where the treated final effluent is dispersed into subsurface in situ or engineered soil.

2. Two or more POWTS's shall conform to chs. NR 108, NR 110, NR 206 and NR 218 where the combined design wastewater flow of all the POWTS's as described under par. (f) 2. exceed 12,000 gallons per day and where the treated final effluent is dispersed into subsurface in situ or engineered soil.

(f) Determination of 12,000 gpd. 1. a. Solely for the purpose of determining the applicability of pars. (d) and (e), the design wastewater flow of 12,000 gpd shall be deemed equivalent to 85 bedrooms for residential dwellings, including one- and 2-family dwellings, multi-family dwellings and mobile homes.

b. Solely for the purpose of determining the applicability of pars. (d) and (e), for commercial facilities, the design wastewater flow of 12,000 gpd shall be calculated using the estimated wastewater flows specified in s. A-83.43 (6) of the appendix.

c. Solely for the purpose of determining the applicability of pars. (d) and (e), for residential dwellings combined with commercial facilities the design wastewater flow of 12,000 gpd shall be calculated by prorating the number of bedrooms on the basis of 85 bedrooms equaling 12,000 gpd for the residential dwellings and using the estimated flow under ss. Comm 83.43 (3) (a) and s. A-83.43 (6) of the appendix to calculate the design flow for the commercial facilities.

2. a. For purpose of determining the applicability of pars. (d) and (e), the design wastewater flow of 12,000 gpd shall include the design wastewater flow of all POWTS's that are located on the same property or on properties under the same ownership and where the perimeter of a distribution cell of a POWTS dispersal component for one POWTS is less than 1,500 feet from the perimeter of a distribution cell of a POWTS dispersal component of any other POWTS under the same ownership.

b. For the purpose of determining the applicability of pars. (d) 2.and (e) 2., the combined design wastewater flow shall include that of any existing POWTS which falls within the parameters of subpar. a.

c. Under subpar. a., the same ownership is defined to be a person, group of persons or a corporation which owns a majority interest in the properties where majority ownership is based upon a majority of the issued voting stock, a majority of the members if no voting stock is issued, a majority of the board of the directors or comparable governing body or participation of each general partner in the profits of a partnership.

(3) EXEMPTIONS. This chapter does not apply to:

(a) A POWTS owned by the federal government and located on federal lands; and

(b) A POWTS located or to be located on land held in trust by the federal government for Native Americans.

(4) SUBDIVISION STANDARDS. This chapter does not establish minimum lot sizes or lot elevations under s. 145.23, Stats., for the purpose of the department reviewing proposed subdivisions which will not be served by public sewers under s. 236.12, Stats.

Comm 83.03 APPLICATION. (1) INSTALLATIONS. (a) New POWTS installations. The design, installation and management of a new POWTS shall conform with this chapter.

Note: Pursuant to s. 145.135 (2) (b), Stats., the approval of a sanitary permit is based on the rules in effect on the date of the permit approval.

(b) Modifications to existing POWTS. A modification to an existing POWTS, including the replacement, alteration or addition of materials, appurtenances or POWTS components, shall require that the modification conform to this chapter.

Note: The modification of one part of a POWTS may impact the performance of other parts of the POWTS thereby necessitating further modifications for the 'other parts' to be or remain compliant with the appropriate edition of the code.

(c) Modifications to existing structures served by existing POWTS. When an addition or alteration is proposed to an existing building, structure or facility that is served by an existing POWTS and the proposed addition or alteration will result in a change that affects the wastewater flow or wastewater contaminant load beyond the minimum or maximum capabilities of the existing POWTS, the POWTS shall be modified to conform to the rules of this chapter.

Note: See s. Comm 83.25 (2) relating to the issuance of building permits.

(2) RETROACTIVITY. (a) The provisions of this chapter are not retroactively applied to an existing POWTS installed or for which a sanitary permit has been issued prior to [the effective date of this chapter . . . revisor to insert effective date], except as provided in ss. Comm 83.32 (1) (a) 1. and (b) to (f), 83.54 (4) and 83.55 (1) (b).

(b) 1. Except as provided in subd. 2. and ss. Comm 83.32 (1) (a) 1. and (b) to (f), 83.54 (4) and 83.55 (1) (b), an existing POWTS installed prior to [the effective date of this chapter . . . revisor to insert effective date], shall conform to the siting, design, construction and maintenance rules in effect at the time the sanitary permit was obtained or at the time of installation, if no sanitary permit was issued.

2. a. An existing POWTS installed prior to December 1, 1969 with an infiltrative surface of a treatment and dispersal component that is located 2 feet or more above groundwater or bedrock shall be considered to produce final effluent that conforms with s. Comm 83.43 (8) unless proven otherwise.

b. An existing POWTS installed prior to December 1, 1969 with an infiltrative surface of a treatment and dispersal component that is located less than 2 feet above groundwater or bedrock shall be considered not to produce final effluent that conforms with s. Comm 83.43 (8) unless proven otherwise.

(3) PLAT RESTRICTIONS. The department shall consider a restriction or a prohibition placed on a lot or an outlot prior to [the effective date of this chapter . . . revisor to insert effective date], as a result of its plat review authority under s. 236.12, Stats., waived, if a POWTS proposed for the lot complies with this chapter.

(4) GROUNDWATER STANDARDS. (a) Pursuant to s. 160.255, Stats., the design, installation, use or maintenance of a POWTS is not required to comply with the nitrate standard specified in ch. NR 140 Table 1, except as provided under sub. (5).

(b) The department has determined that it is not technically or economically feasible for the final effluent from a POWTS to comply with the preventive action limits for chloride specified in ch. NR 140 Table 2, respectively, as existed on June 1, 1998.

Note: Anion exchange is the only chemical process capable of removing chloride from water. The physical processes of removing chloride, such as evaporation and reverse osmosis, would separate feedwater into two streams, one with a reduced chloride content and the other with an increased chloride content, and results in still having to treat and dispose of chloride contaminated wastewater.

(5) ZONING. This chapter does not affect municipal requirements relating to land use, zoning, or other similar requirements, including, pursuant to s. 59.69, Stats., establishing nitrate requirements to encourage the protection of groundwater resources.

Comm 83.04 IMPLEMENTATION. For the purpose of facilitating planning and training, a governmental unit may, by ordinance, delay or limit issuance of a sanitary permit for the construction or use of, within the jurisdiction of the governmental unit, a POWTS that utilizes one or more of the technologies, designs or practices delineated in Table 83.04 for not more than 18 months after [the effective date of this rule . . . revisor to insert effective date], except as provided in s. Comm 83.32 (2) (a).

Table 83.04
LOCAL DELAY OF TECHNOLOGY IMPLEMENTATION

	Technology
1.	Pressurized distribution component with less than 1/8 inch orifice diameter.[a]
2.	Mechanical POWTS treatment component.[b]
3.	Disinfection unit.[c]
4.	Soil treatment or dispersal utilizing less than 24 inches of in situ soil for sites being initially developed.[d]
5.	Sand or gravel filter as a POWTS treatment component.[e]

a Includes drip irrigation.
b Includes an aerobic treatment tank or a complete treatment unit within a tank.
c Includes a chlorinator, ozonation unit, and ultraviolet light unit.
d Includes a type of mound system commonly referred to as "A + 4" where additional sandfill is provided to provide 3 feet of soil treatment.
e Does not include a mound system.