

## Chapter Comm 83

### PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS

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**Note:** Chapter H 63 was created as an emergency rule effective 6–21–80; chapter H 63 as it existed on June 30, 1983 was renumbered to chapter ILHR 83. Chapter ILHR 83 was renumbered chapter Comm 83 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 6. and 7., Stats., Register, February, 1997, No. 494. **Chapter Comm 83 as it existed on June 30, 2000 was repealed and a new chapter Comm 83 was created, Register, April, 2000, No. 532, eff. 7–1–00.**

#### 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.

**History:** Cr. Register, April, 2000, No. 532, eff. 7–1–00.

**Comm 83.02 Scope.** (1) WASTEWATER GENERATION. Except as delineated in sub. (2), this chapter applies to all of the following:

(a) A situation where domestic wastewater is collected and conducted by means of plumbing drain systems and is not conveyed to a wastewater treatment facility regulated by the department of natural resources.

(b) A POWTS where domestic wastewater is treated and dispersed to the subsurface.

(c) A holding tank that is utilized as a POWTS or as part of a POWTS to collect and hold domestic wastewater for transport and treatment elsewhere.

**Note:** 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 treating and recycling the sewage and wastewater by a method of holding or treatment and dispersal satisfactory to the department.

**Note:** 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 or to surface waters. The department of natural resources also establishes effluent limitations and monitoring requirements where the design daily influent wastewater flow to a POWTS exceeds 12,000 gallons per day for the purpose of fulfilling WPDES permit requirements under ch. 283, Stats.

**Note:** 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) 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.

(3) 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.

**History:** Cr. Register, April, 2000, No. 532, eff. 7–1–00.

**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 affect the performance or the operation 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 state plumbing code; see sub. (2) (b) 1.

(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) This chapter does not apply retroactively to an existing POWTS installed prior to July 1, 2000, or for which a sanitary permit has been issued prior to July 1, 2000, except as provided in ss. Comm 83.32 (1) (a) and (c) to (g), 83.54 (4) and 83.55 (1) (b).

(b) 1. Except as provided in subd. 2. and ss. Comm 83.32 (1) (a) and (c) to (g), 83.54 (4) and 83.55 (1) (b), an existing POWTS installed prior to July 1, 2000, 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 discharge final effluent that is not sewage, 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 to discharge final effluent that is sewage, unless proven otherwise.

(c) An existing POWTS which conforms with this chapter shall be permitted to remain as installed.

**(3) PLAT RESTRICTIONS.** The department shall consider a restriction or a prohibition placed on a lot or an outlet prior to July 1, 2000, 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) Pursuant to s. 160.19 (2) (a), Stats., the department has determined that it is not technically or economically feasible to require that a POWTS treat wastewater to comply with the preventative action limit for chloride specified in ch. NR 140 Table 2 as existed on June 1, 1998.

**Note:** The prevention action limit for chloride as a performance standard relative to the design and management of a POWTS has been determined to be unfeasible because anion exchange is the only chemical process capable of removing chloride from water. The physical processes of removing chloride, such as through 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 result in still having to treat and dispose of chloride contaminated wastewater. The design and management practice to address the enforcement standard for chloride as it relates to a POWTS is addressed under s. Comm 82.40 (8) (j).

**(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.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.04 Implementation. (1)** (a) For the purpose of facilitating inspection responsibilities and services, a governmental unit may not issue a sanitary permit for the construction or use of a POWTS that utilizes any of the technologies, designs or methods delineated in Table 83.04-1 and that has been recognized under s. Comm 84.10 (3) or 83.22, unless the governmental unit utilizes one or more individuals, who have obtained approved training under s. Comm 83.05 for the POWTS technology, design or method, to provide the inspections under s. Comm 83.26 (2) to (4), except as provided in par. (b).

(b) A governmental unit may issue a sanitary permit for the construction or use of a POWTS that utilizes any of the technologies, designs or methods delineated in Table 83.04-1 and that has not been recognized under s. Comm 84.10 (3), but has been approved by the department under s. Comm 83.22, provided that governmental unit has arranged with the department to provide the inspections under s. Comm 83.26 (2) to (4).

**Table 83.04-1  
Restricted Technologies**

| Technology |   |
|------------|---|
| 1.         | Pressurized distribution component with less than 1/8 inch orifice diameter. <sup>a</sup> |
| 2.         | Mechanical POWTS treatment component. <sup>b</sup>  |
| 3.         | Disinfection unit. <sup>c</sup>   |
| 4.         | Sand, gravel or peat filter as a POWTS treatment component. <sup>d</sup>                  |

<sup>a</sup> Includes drip irrigation.

<sup>b</sup> Includes an aerobic treatment tank or a complete treatment unit within a tank.

<sup>c</sup> Includes a chlorinator, ozonation unit, and ultraviolet light unit.

<sup>d</sup> Does not include a mound system.

**(2)** (a) For the purpose of facilitating planning and administration, a governmental unit may, by ordinance, allot, limit or deny, until January 1, 2003, the issuance of sanitary permits for the construction or use of, within the jurisdiction of the governmental unit, POWTS designs that utilize one or more of the technologies, designs or methods delineated in Table 83.04-2.

(b) 1. The governmental unit option to allot, limit or deny the issuance of sanitary permits under par. (a) shall be limited to permits to serve new development.

2. For the purpose of this subsection, a new development shall be considered a property without an existing habitable building.

**Table 83.04-2  
Local Delay of Technology Implementation**

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

<sup>a</sup> Includes drip irrigation.

<sup>b</sup> Includes an aerobic treatment tank or a complete treatment unit within a tank.

<sup>c</sup> Includes a chlorinator, ozonation unit and ultraviolet light unit.

<sup>d</sup> Includes a type of mound system commonly referred to as "A + 4" where additional sandfill is provided to provide 3 feet of soil treatment.

<sup>e</sup> Does not include a mound system.

**(3)** (a) For the purpose of facilitating planning and administration, a governmental unit may, by ordinance, allot, limit or deny the issuance of sanitary permits within the jurisdiction of the governmental unit for the construction or use of POWTS designs that utilize a method or technology that is added to the list under s. Comm 83.61 after July 1, 2001 for not more than 18 months after that type of method or technology has been recognized under that section.

(b) 1. The governmental unit option to allot, limit or deny the issuance of sanitary permits under par. (a) shall be limited to permits intended to serve new development.

2. For the purpose of this subsection, a new development shall be considered a property without an existing habitable building.

**Note:** The provisions of this section relating to a governmental unit's ability to limit the issuance of sanitary permits for new development does not dictate a specific strategy as to the scope of the limitation. Therefore, limitation options include, but are not limited to, a prohibition for all new development or in certain geographical areas, a quota system for new development, a requirement for a permit to operate for a specific POWTS method or technology, or a service/performance bond for a specific POWTS method or technology.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

### **Comm 83.05 Installation and inspection training.**

**(1) PROGRAM SPECIFICATIONS.** (a) Only courses, programs and seminars approved in writing by the department in accordance with this section shall be used to fulfill the required training for the POWTS technologies and methods under ss. Comm 83.04 (1) (a) and 83.21 (2) (c) 4.

(b) 1. The request for a course, program or seminar to be recognized for approval shall be submitted in writing to the department.

2. The request for a course, program or seminar to be recognized for approval shall be received by the department at least 30 calendar days prior to the first day the course, program or seminar is to be conducted.

3. The request for approval shall include sufficient information to determine if the course, program or seminar complies with this subsection.

4. The department shall review and make a determination on a request for approval within 21 calendar days of receipt of the request and information necessary to complete the review.

(c) Courses, programs and seminars to be considered for approval toward installation and inspection training credit shall relate to the installation, operation and maintenance of the technology or method.

(d) 1. The department may impose specific conditions in approving a course, program or seminar for installation and inspection training credit, including limiting credit to specific license, certification or registration categories.

2. The approval of a course, program or seminar for installation and inspection training credit shall expire 5 years after the date of approval.

3. The department may revoke the approval of a course, program or seminar for installation and inspection credit for any false statements, misrepresentation of facts or violation of the conditions on which the approval was based. The department may not revoke the approval of a course, program or seminar less than 30 calendar days prior to the course, program or seminar being held.

(e) 1. The individual or organization that had obtained the course, program or seminar approval shall maintain an attendance record of those individuals who have attended and completed the course, program or seminar.

2. The attendance record shall include all of the following:

- a. The course name.
- b. The course identification number assigned by the department.
- c. The date or dates the course was held or completed.
- d. The name of each person attending the course for training and inspection credit.

3. A copy of the attendance record shall be forwarded by the person or organization that had obtained the course, program or seminar approval to the department within 14 calendar days after completion of the course, program or seminar.

**(2) EVIDENCE OF COMPLIANCE.** An individual who has completed the installation and inspection training shall be responsible for retaining evidence of achieving the training in order to fulfill the obligations under ss. Comm 83.04 (1) (a) and 83.21 (2) (c) 4.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

## **Subchapter II – Administration and Enforcement**

**Comm 83.20 Purpose.** (1) This subchapter establishes the following:

(a) Regulatory processes and procedures which are to be followed when designing, installing or maintaining a POWTS; and

(b) Responsibilities and actions of the various governmental agencies involved with the administration and enforcement of this chapter

**Note:** Section 145.20 (1) (a), Stats., states that the governing body of the governmental unit responsible for the regulation of private sewage systems may assign the duties of administering the private sewage system program to any office, department, committee, board, commission, position or employee of that governmental unit.

**(2)** Nothing in this chapter shall limit the authority and power of a governmental unit in exercising administration and enforcement responsibilities regarding a POWTS, including requiring and issuing other types of permits for activities not covered under this subchapter relating to sanitary permits.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.21 Sanitary permits.** (1) **GENERAL.** (a) Pursuant to ss. 145.135 and 145.19, Stats., the installation or construction of a POWTS may not commence or continue unless all of the following have been fulfilled:

1. The owner of the property on which the POWTS is to be installed possesses a valid sanitary permit.

2. Plan approval for the POWTS has been obtained in accordance with s. Comm 83.22.

(b) The modification of an existing POWTS may not commence or continue unless the owner of the property on which the POWTS is located possesses a valid sanitary permit and has obtained plan approval for the modification under s. Comm 83.22, if the modification involves the addition or replacement of any of the following:

1. A POWTS holding component.
2. A POWTS treatment component.
3. A POWTS dispersal component.

**(2) APPLICATION.** (a) The application for a sanitary permit shall be made in a format prescribed by the department.

**Note:** An application for a sanitary permit may be obtained from the governmental unit administering and enforcing this chapter or the department. See appendix for further information relative to the application format and addresses of governmental units and the department.

(b) 1. Except as provided in subd. 2., the application for a sanitary permit shall be submitted to the appropriate governmental unit where the POWTS is located or will be located.

2. The application for a sanitary permit shall be submitted to the department for a POWTS that is located or will be located on property owned by the state.

**Note:** Section 145.20 (2) (b), Stats., states that the governmental unit responsible for regulation of private sewage systems shall approve or disapprove applications for sanitary permits and assist applicants in preparing an approvable application.

(c) The application for a sanitary permit to the governmental unit shall be accompanied by all of the following:

1. At least one set of clear and legible plans and specifications delineating the information under s. Comm 83.22 (2) (a) 3. and (c).

2. A set of plans bearing the department's conditional approval and the approval letter issued by the department, if required to be reviewed by the department under s. Comm 83.22 (1).

3. Sufficient supporting information to determine whether the proposed design, installation and management of the POWTS or the proposed modification to an existing POWTS conforms with this chapter.

4. Documentation that the master plumber or the master plumber-restricted who is to be responsible for the installation or modification of the POWTS has completed approved training on the proposed POWTS technology or method, if the application for

the sanitary permit involves one or more of the technologies or methods specified in s. Comm 83.04 (1).

5. Documentation that maintenance requirements for the proposed POWTS technology or method have been recorded with the deed for the property, if the management plan for the installation or modification under s. Comm 83.54 (1) involves one or more of the following:

a. Evaluating or monitoring any part of the system at an interval of 12 months or less.

b. Servicing or maintaining any part of the system at an interval of 12 months or less.

6. Any other information as specified by local ordinance relating to POWTS installations.

7. A fee as specified by the governmental unit.

**Note:** Section 145.19 (2) to (6) reads: "(2) FEE. No fee for a sanitary permit may be less than \$61, or the amount determined under department rule. The governing body for the governmental unit responsible for the regulation of private sewage systems may establish a fee for a sanitary permit which is more than \$61, or the amount determined under department rule. [Pursuant to s. Comm 2.67 (1), the minimum sanitary permit fee is \$116.]

(3) COPY OF PERMIT FORWARDED TO THE DEPARTMENT. The governmental unit responsible for the regulation of private sewage systems shall forward a copy of each valid sanitary permit and \$20, or the amount determined under department rule, of the fee to the department within 90 days after the permit is issued. [Pursuant to s. Comm 2.67 (2), \$50 of the sanitary permit fee is to be forwarded to the department.]

(4) USE OF FEE. The portion of this fee retained by the governmental unit responsible for the regulation of private sewage systems shall be used for the administration of private sewage system programs.

(5) FEE ADJUSTMENT. The department, by rule promulgated under ch. 227, may adjust the minimum permit fee under sub. (2) and the fee portion forwarded under sub. (3).

(6) GROUNDWATER FEE. In addition to the fee under sub. (2), the governmental unit responsible for the regulation of private sewage systems shall collect a groundwater fee of \$25 for each sanitary permit. The governmental unit shall forward this fee to the department together with the copy of the sanitary permit and the fee under sub. (3). The moneys collected under this subsection shall be credited to the environmental fund for environmental management."

(3) PROCESSING. (a) A sanitary permit may not be issued until the plans and specifications have been approved by the department or governmental unit having jurisdiction.

(b) A governmental unit may not issue a sanitary permit for the installation or modification of the POWTS that involves one or more of the technologies or methods specified in s. Comm 83.04 (1) unless the master plumber or the master plumber-restricted who is to be responsible for the installation has completed approved training on the proposed POWTS technology or method in accordance with s. Comm 83.05.

(c) A governmental unit shall review and make a determination on the submission of an application for a sanitary permit within 30 days after receiving all the required information and fees under sub. (2) (e).

(d) 1. If upon review of the application and the supporting information, the governmental unit or the department determines that the proposed design, installation and management of the POWTS or the proposed modification of an existing POWTS conforms with this chapter, a sanitary permit shall be issued.

2. a. If upon review of the application and the supporting information, the governmental unit or the department determines that the proposed design, installation and management of the POWTS or the proposed modification of an existing POWTS does not conform with this chapter, a sanitary permit may not be issued.

b. When the issuance of a sanitary permit is denied, the governmental unit or department reviewing the application shall provide in writing to the applicant the reasons for denial, a notice for the right to appeal and the procedures for appeal.

c. An applicant denied a sanitary permit by a governmental unit may appeal the decision in accordance with ch. 68, Stats.

d. The appeal of the denial by the department for a sanitary permit shall be made in writing within 30 days from the date of the decision.

(e) A sanitary permit shall be issued by the appropriate governmental unit or the department in a format prescribed by the department.

**Note:** See appendix for further information relative to the permit format.

(4) TRANSFERS. A sanitary permit may be transferred from an owner to a subsequent owner, pursuant to s. 145.135 (1), Stats.

**Note:** Section 145.135 (1), Stats., reads in part: "A sanitary permit may be transferred from the holder to a subsequent owner of the land, except that the subsequent owner must obtain a new copy of the sanitary permit from the issuing agent."

(5) EXPIRATION. Pursuant to s. 145.135 (1), Stats., a sanitary permit shall expire 2 years from the date of issuance unless renewed in accordance with sub. (6).

(6) RENEWALS. (a) 1. The application for renewal of a sanitary permit shall be made in a format prescribed by the department.

**Note:** See appendix for further information relative to the application for renewal format.

2. The application for renewal of a sanitary permit shall be submitted to the department or the appropriate governmental unit in accordance with sub. (2) (b).

(b) The renewal of a sanitary permit shall be contingent upon the proposed POWTS or the proposed modification of an existing POWTS conforming with the rules of this chapter in effect at the time the sanitary permit is renewed.

(7) REVOCATION. (a) The department may revoke a sanitary permit issued under this section for any false statements or misrepresentation of facts on which the sanitary permit was issued.

(b) A governmental unit may revoke a sanitary permit that the governmental unit has issued under this section for any false statements or misrepresentation of facts on which the sanitary permit was issued.

(c) The revocation of a sanitary permit and the reasons for revocation shall be conveyed in writing to the individual to whom the sanitary permit was issued or transferred.

(d) If a sanitary permit is revoked, the installation or modification of a POWTS may not commence or continue until another sanitary permit is obtained.

(8) POSTING. When a sanitary permit is obtained under sub. (2), the sanitary permit shall:

(a) Be posted in such a location and manner on the proposed site where the POWTS is to be installed or modified so that the information on the permit is visible for inspection; and

(b) Remain posted until:

1. The POWTS installation or modification is completed; and

2. An opportunity for a final inspection occurs in accordance with s. Comm 83.26.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.22 Plan review and approval. (1) SUBMISSION OF PLANS.** (a) Plans shall be submitted to the department, a designated agent or the governmental unit in accordance with this section for all of the following types of installations or modifications:

1. The installation or construction of a POWTS.  
2. The replacement or addition of a POWTS treatment component.  
3. The replacement or addition of a POWTS holding component.

4. The replacement or addition of a POWTS dispersal component.

(b) Plans for the types of POWTS delineated in Table 83.22-1 shall be submitted to the department for review.

(c) Plans for the types of POWTS delineated in Table 83.22-2 shall be submitted for review to the department or a designated agent.

**Note:** See s. Comm 83.23 for more information relative to designated agents.

(d) Plans for the types of POWTS delineated in Table 83.22-3 shall be submitted for review to the appropriate governmental unit where the POWTS is located or will be located.

**Table 83.22-1  
Plan Submissions to Department**

| Type of Installation |  |
|----------------------|--|
| 1.                   | POWTS owned by the state.  |
| 2.                   | Facilities owned by the state and served by POWTS.   |
| 3.                   | POWTS that will not completely utilize treatment and dispersal technologies or methods either approved under s. Comm 84.10 (2) or (3) or recognized under s. Comm 83.61. |
| 4.                   | POWTS treating domestic wastewater combined with industrial wastes. <sup>a</sup>   |
| 5.                   | Experiments under s. Comm 83.27.   |

<sup>a</sup> See s. Comm 83.32 (3) (a).

**Table 83.22-2  
Plan Submissions to Department or Designated Agent**

| Type of Installation |  |
|----------------------|--|
| 1.                   | POWTS that will completely utilize treatment and dispersal technologies or methods either approved under s. Comm 84.10 (2) or (3) or recognized under s. Comm 83.61.                   |
| 2.                   | POWTS that collect and hold all wastewater of the facilities served and utilize holding components either recognized under s. Comm 84.10 (2) or (3) or recognized under s. Comm 83.61. |

**Note:** Pursuant to s. 145.19 (2), Stats., governmental units may require separate plan examination fees or include these fees in the cost of the sanitary permit.

**Table 83.22-3  
Plan Submissions to Governmental Unit**

| Type of Installation |  |
|----------------------|--|
| 1.                   | POWTS that will serve a single one- or 2-family dwelling utilizing technologies or methods either recognized under s. Comm 84.10 (2) or (3) or recognized under s. Comm 83.61, and using gravity distribution of the effluent to an in-ground distribution cell. |

**Note:** Pursuant to s. 145.19 (2), Stats., governmental units may require separate plan examination fees or include these fees in the cost of the sanitary permit.

**(2) PLANS AND SPECIFICATIONS.** (a) 1. When plans are submitted to the department or designated agent for review, at least 3 sets of plans and one set of specifications shall be provided.

**Note:** Specifications for a project do not have to be a separate document but may be delineated on the plans.

2. Plans and specifications submitted for review shall be clear, legible and permanent copies.

3. Plans submitted for review shall include all of the following:

a. Details and configuration layouts depicting how the design is to be constructed and how the design is to accomplish the treatment in accordance with ss. Comm 83.43 and 83.44 and dispersal that is claimed or the holding of wastewater.

b. Specifications, including a description of the materials for the project and the installation or construction practices and methods to be employed.

c. A site plan with a bench mark either scaled or dimensioned, delineating all treatment and dispersal components and their relationship to any items listed in Table 83.43-1.

(b) 1. All plans submitted for review shall be accompanied by sufficient data and information to determine if the proposed POWTS or modification of an existing POWTS and their perfor-

mance will conform with chs. Comm 82 to 84 including, but not limited to all of the following:

a. A plan review application form specified by the department.

**Note:** See appendix for an example of the plan review application form.

b. The minimum and maximum wastewater flow and load of the proposed project and the method or rationale for determining the flow and load.

c. Documentation to support treatment and dispersal claims.

d. A management plan for the proposed design reflecting conformance to subch. V.

e. A soil and site evaluation report in accordance with s. Comm 85.40 for those POWTS components that consist in part of in situ soil.

f. A description of a contingency plan in the event the proposed POWTS fails and cannot be repaired.

2. In addition to the information required under subd. 1., plans for one or more holding tanks serving a large commercial, industrial, recreational or residential development with an estimated daily wastewater flow of 3,000 gallons or more shall include information pursuant to s. NR 113.07 (1) (e).

**Note:** Section NR 113.07 (1) (e) reads as follows: Large commercial, industrial, recreational or residential development holding tank systems that singly or when added to together or increased by successive additions generate 3000 gallons of septage per day or greater shall contract with a wastewater treatment facility for treatment of the septage. The contract terms shall provide assurance that the septage from the system will continually be conveyed to, and accepted, at the wastewater treatment facility. If a service area designation exists, the wastewater treatment facility shall amend the service area to include the commercial, industrial, recreational or residential development. The department may not indicate sufficient disposal capacity to the department of industry, labor and human relations, or department of commerce, until the service area adjustments have been completed and approved.

3. In addition to the information required under subd. 1., plans for a POWTS that is to serve a dwelling where the design of the POWTS is not based upon the number of bedrooms within the dwelling shall be accompanied by information documenting that design condition on the deed for the property.

4. In addition to the information required under subd. 1., plans for an experimental POWTS shall be accompanied by information required under s. Comm 83.27 (3).

5. In addition to the information required under subd. 1., plans for a POWTS which is to serve more than one structure or building shall be accompanied by information that does all of the following:

a. Describes the legal entity, public or private, that has responsibility for the operation and maintenance of the POWTS.

b. Includes a copy of a recorded legal document that identifies all the parties that have ownership rights and are responsible for the operation and maintenance of the POWTS.

6. a. In addition to the information required under subd. 1., plans for a POWTS with a design wastewater flow exceeding 12,000 gallons per day shall be not be approved until documentation has been submitted to the department indicating that the department of natural resources has issued a WPDES permit for the project under ch. 283, Stats.

b. Solely for the purpose of determining the applicability of subpar. a., 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.

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

d. Solely for the purpose of determining the applicability of subpar. a., 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 s. Comm 83.43 (3) (a) and s. A-83.43 (6)

of the appendix to calculate the design flow for the commercial facilities.

e. For purpose of determining the applicability of subpar. a., the design wastewater flow of 12,000 gpd shall include the design wastewater flow of all POWTS 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.

f. For the purpose of determining the applicability of subpar. a., the combined design wastewater flow shall include that of any existing POWTS which falls within the parameters of subpar. e.

g. 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.

(c) Plans and specifications which are required to be submitted for review under sub. (1) shall be one of the following:

1. Signed and sealed in accordance with s. A-E 2.02 by an individual who is registered by the department of regulation and licensing as an architect, engineer, designer of plumbing systems or designer of private sewage systems.

2. Signed, including license number, and dated by an individual who is responsible for the installation of the POWTS and who is licensed by the department as a master plumber or master plumber-restricted service.

(d) Plans submitted to the department for review shall be accompanied by a fee in accordance with ss. Comm 2.61 and 2.65.

**(3) PLAN REVIEW PROCESS.** (a) *Time limits.* The department shall review and make a determination on the submission of a plan within 15 business days after receiving all the required information and fees.

**Note:** See appendix for further information regarding the locations of the department's offices where plans may be submitted for review.

(b) *Conditional approval.* 1. If, upon review, the applicable reviewing agency determines that the plans conform to this chapter and chs. Comm 82 and 84, a conditional approval shall be granted in writing.

2. All conditions indicating nonconformance to this chapter and chs. Comm 82 and 84 shall be corrected before or during installation.

(c) *Denial of approval.* If, upon review, the applicable reviewing agency determines that the plans do not conform to this chapter or chs. Comm 82 and 84, the request for conditional approval shall be denied in writing.

**(4) REVISIONS.** (a) A modification to the design of a POWTS for which a plan has been previously granted approval under sub. (3) (b) shall be submitted to the applicable reviewing agency for review in accordance with this section, if the proposed modification involves any one of the following:

1. The replacement or addition of a POWTS treatment component.

2. The replacement or addition of a POWTS holding component.

3. The replacement or addition of a POWTS dispersal component.

4. A change to one or more dispersal components involving any of the following:

a. Location outside suitable evaluated areas or proposed depths.

b. Size.

c. Orientation.

d. Type.

(b) The installer of a POWTS may not implement or undertake the proposed revisions under par. (a) until written approval is obtained from the applicable reviewing agency.

(c) Revisions to previously approved plans shall be reviewed in accordance with sub. (3).

(d) If revisions under par. (a) are submitted to and approved by the department, the owner of the site for the POWTS shall file the revisions with the county which issued the sanitary permit.

**(5) LIMITATION OF RESPONSIBILITY.** A conditional approval of a plan by the department may not be construed as an assumption by the department of any responsibility for the design of the POWTS or any component of the system. The department does not hold itself liable for any defects in construction, or for any damages that may result from a specific installation.

**(6) REVOCATION OF APPROVAL.** (a) The department may revoke any plan approval issued under this section for any false statements or misrepresentation of facts on which the approval was based.

(b) The designated agent or governmental unit may revoke any plan approval issued by the designated agent or governmental units for any false statements or misrepresentation of facts on which the approval was based.

(c) The revocation of a plan approval and the reasons for revocation shall be conveyed in writing to the submitter of the plans as noted on the application.

(d) If a plan approval is revoked, the installation or alteration of a POWTS may not continue until another plan approval is obtained.

**(7) EVIDENCE OF APPROVAL.** (a) When plans are required to be approved by the department or designated agent under sub. (1), the plumber responsible for the installation of a POWTS or the modification of an existing POWTS shall keep at the construction site at least one set of plans bearing evidence of approval by the department or designated agent and at least one copy of specifications.

(b) The plans and specifications shall be maintained at the construction site until the POWTS installation or modification is completed and an opportunity for a final inspection occurs in accordance with s. Comm 83.26.

(c) The plans and specifications shall be made available to the department or the governmental unit upon request.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.23 Review agent status.** (1) Upon request from a governmental unit, the department may delegate to the governmental unit the responsibility to review plans for one or more of the types of POWTS delineated in Table 83.22-2 which are to be or are located within the jurisdiction of that governmental unit.

(2) A request by a governmental unit to review plans for the types of POWTS delineated in Table 83.22-2 shall be made in writing. The request shall include all of the following:

(a) The types of POWTS for which delegation is desired.

(b) Information delineating how the plans are to be processed and reviewed.

(c) Information on how plan review decisions are to be recorded and maintained.

(3) The delegation of plan review by the department shall be contingent upon a governmental unit's request demonstrating sufficient capabilities to complete the reviews, including all of the following:

(a) The employment of one or more individuals who are certified by the department as a POWTS inspector to perform the plan review.

(b) The involvement of one or more individuals, who are certified soil testers, to provide assistance in the plan review process.

**Note:** The requirements of this subsection do not require the employment of 2 individuals to perform plan review. A single individual who holds a certification as

a certified POWTS inspector and as a certified soil tester may fulfill the requirements under pars. (a) and (b).

(4) (a) The department shall provide the governmental unit with a written decision of delegation or denial of delegation relative to a request under this section concerning plan review.

(b) The delegation for plan review shall be contingent upon the governmental unit acknowledging that the submission and review of plans under s. Comm 83.22 (1) may, at the discretion of the submitter, be made to the department or the designated agent.

(5) The department shall include as part of governmental unit audits conducted under s. 145.20 (3) (b), Stats., an evaluation of the plan review functions which are delegated to a governmental unit under this section.

(6) A governmental unit that wishes to discontinue the delegated plan review function under this section shall notify the department in writing at least 30 days prior to the discontinuance.

(7) The recognition as a review agent may be revoked by the department in accordance with s. 145.20 (3) (a) 2., Stats.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.24 Petitions for variance.** (1) The department shall consider and may grant a variance to a provision of this chapter in accordance with ch. Comm 3.

**Note:** The petition for variance process is to allow the owner of a proposed or existing POWTS to ask the department's recognition of an alternative method or means for complying with the intent of a specific rule.

(2) (a) Pursuant to s. 145.24, Stats., the department may not approve a petition for variance for an existing POWTS which is determined to be a failing private onsite wastewater treatment system.

(b) For the purposes of this subsection, the department shall consider a petition for variance if the existing POWTS is not considered a failing private onsite wastewater treatment system.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.25 Governmental programs.** (1) DELEGATION OF RESPONSIBILITIES. (a) Pursuant to s. 145.20 (1) (am), Stats., the delegation by a governmental unit of the administration and enforcement of this chapter to a town sanitary district or public inland lake protection and rehabilitation district shall be by ordinance.

(b) A copy of an ordinance delegating administration and enforcement of this chapter to a town sanitary district or public inland lake protection and rehabilitation district shall be forwarded to the department at least 30 days prior to the effective date of the ordinance.

(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.

**Note:** See appendix for a reprint of s. 66.036, Stats.

(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 commercial facilities, public buildings, 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.

(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 under s. Comm 83.43 (8) (i).

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.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.26 Inspections and testing.** (1) (a) Pursuant to s. 145.02 (3) (c), Stats., the department or governmental unit may inspect the construction, installation, operation or maintenance of a POWTS to ascertain whether the POWTS conforms to plans approved by the department or governmental unit, the conditions of approval and this chapter.

(b) The department may issue an order directing an immediate cessation of the installation of a POWTS or the modification to an existing POWTS for failure to comply with a corrective order.

(c) Pursuant to ss. 145.02 (3) (f) and 145.20 (1) (a) and (2) (f), Stats., an individual authorized by the department or a governmental unit to administer and enforce this chapter may issue orders to abate human health hazards relating to this chapter.

**Note:** Section Comm 5.66 delineates qualifications and responsibilities for POWTS inspectors.

(d) Pursuant to s. 145.20 (2) (e) and (g), Stats., nothing in this chapter shall limit a governmental unit's authority and power to

inspect or require an evaluation of a POWTS, including an existing POWTS at times or for activities not covered under this section.

(2) (a) When a sanitary permit is required under s. Comm 83.21 (1), no part of a POWTS component may be covered nor any POWTS component put into service until the governmental unit or the department has had an opportunity to inspect the system in accordance with this subsection.

**Note:** Pursuant to s. 145.20 (2), Stats., an individual authorized by a governmental unit to administer and enforce the provisions of chs. Comm 82 to 87 relative to POWTS is required to be a certified POWTS inspector under s. Comm 5.66.

(b) The master plumber or the master plumber–restricted service responsible for the installation of a POWTS or the modification to an existing POWTS shall notify the governmental unit when the work will be or is ready for inspection. The notification shall be in person, in writing or by telephone or other electronic communication in a format acceptable to the governmental unit performing the inspection.

(c) The master plumber or the master plumber–restricted service responsible for the installation of a POWTS or the modification shall maintain records of the inspection notifications. The records shall include the date and time of notification and the name of the person contacted.

(d) The master plumber or master plumber–restricted service responsible for the POWTS installation or modification shall provide the necessary equipment and properly licensed personnel required for the inspection as requested by the governmental unit or department.

(e) If an inspection is not made by the end of the next workday, excluding Saturdays, Sundays and holidays, after the requested inspection day, the master plumber or the master plumber–restricted service may proceed with the installation of the POWTS, including backfilling and covering.

(3) Pursuant to s. 145.20 (2) (g), Stats., a governmental unit by ordinance may require other inspections in addition to that specified under this section.

(4) A governmental unit shall maintain a written record of each inspection conducted for a POWTS. The record shall include information relative to all of the following:

- (a) The location of the POWTS.
- (b) The date of the inspection.
- (c) The nature and findings of the inspection.

(5) Before being put into service, components of a POWTS shall be tested in accordance with the manufacturer’s specifications or as specified as a condition of approval under ss. Comm 83.22 and 84.10.

**History:** Cr. Register, April, 2000, No. 532, eff. 7–1–00.

**Comm 83.27 Experiments.** (1) The provisions of this chapter or ch. Comm 84 are not intended to prevent the design and use of an innovative method or concept for the treatment or dispersal of domestic wastewater which is not specifically addressed by this chapter, provided the experiment has been first approved by the department in accordance with s. Comm 84.50 (3).

(2) The department shall review a submittal of an experiment under this section with input from the technical advisory committee assembled under s. Comm 84.10 (3) (d).

(3) The protocol for a proposed experiment submitted to the department for consideration shall include all of the following:

- (a) The experiment shall be supervised by a professional who has experience in small–scale wastewater treatment.
- (b) The professional shall submit a vita of training and experience relative to small–scale wastewater treatment along with the application for the experiment.
- (c) A proposal shall be submitted for the experiment that includes at least all of the following:
  1. The purpose of the experiment.

2. The theory and science behind the proposed experiment including a description of the systems or processes to be used as part of the experiment.

3. The number of systems or components to be installed or modified as part of the experiment.

4. The identification of the initial sites, if known, that will take part in the experiment.

5. A letter of comment from the governmental unit or units where the experiment is to be conducted.

6. The data to be collected and the method to be employed to collect the data.

7. The duration of the proposed experiment.

(d) The experiment may not involve less than 5, and not more than 50 individual installations.

(e) An experiment shall be designed to provide definitive results within 5 years from the start of the experiment.

(f) An experiment on a site not previously developed shall include a contingency plan that provides for a code complying replacement POWTS, if the experiment fails to meet the required performance standards of this chapter.

(g) If the experiment is approved, the experimenter shall execute a signed agreement with the department setting forth the obligations of the parties.

(h) Within 6 months of the completion of the experiment, the results or conclusions shall be forwarded to the department.

**History:** Cr. Register, April, 2000, No. 532, eff. 7–1–00.

**Comm 83.28 Penalties.** Penalties for violations of this chapter shall be assessed in accordance with s. 145.12, Stats.

**Note:** Section 145.12 (4), Stats., indicates that any person who violates any order under s. 145.02 (3) (f) or 145.20 (2) (f) or any rule or standard adopted under s. 145.13 shall forfeit not less than \$10 nor more than \$1,000 for each violation. Each violation of an order under s. 145.02 (3) (f) or 145.20 (2) (f) or any rule or standard adopted under s. 145.13 constitutes a separate offense and each day of continued violation is a separate offense.

**History:** Cr. Register, April, 2000, No. 532, eff. 7–1–00.

**Comm 83.29 Range of responses.** (1) (a) Pursuant to s. 160.21, Stats., the department may respond with any one or more of the actions delineated under Table 83.29 if the preventive action limits or enforcement standards enumerated in ch. NR 140 Tables 1 and 2 are exceeded at a point of standards application as a result of the performance of a POWTS, including a POWTS existing prior to July 1, 2000, except as provided in par. (b).

(b) 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 s. Comm 83.03 (5).

**Table 83.29  
Department Range of Responses**

- 
- Gather more data relative to the cause and significance of the exceedence.
  - Determine whether the situation is a human health hazard.
  - Issue orders to change or comply with the management or maintenance plan of a specific POWTS or type of onsite wastewater system.
  - Issue orders to conform with this chapter, including the prohibition of an activity or practice.
  - Determine whether the exceedence is an isolated problem, or is likely to recur.
  - Revise or revoke a product approval issued under ch. Comm 84 for a treatment or dispersal component.
  - Revise the rules of this chapter or ch. Comm 81, 82, 84 or 85.
- 

(2) Pursuant to s. 160.21 (2), Stats., the point of standards application relative to the performance of POWTS shall be:



(a) Any point of present groundwater use for potable water supply; and

(b) Any point beyond the boundary of the property on which the facility, practice or activity is located.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

### Subchapter III – General Requirements

**Comm 83.30 Purpose.** This subchapter establishes parameters for the types of POWTS that may be used and how a POWTS may be used.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.31 Principles.** A POWTS shall be operated and used in such a manner so as not to render the POWTS inoperative or beyond its capabilities, and thereby, create a human health hazard.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.32 Prohibitions and limitations. (1) PROHIBITIONS.** (a) Except as provided in s. Comm 83.03 (4), the introduction of wastewater or substances in such quantities or concentrations to a POWTS, including a POWTS existing prior to July 1, 2000, that results in exceeding the enforcement standards and preventive action limits specified in ch. NR 140 Tables 1 and 2 at a point of standards application shall be prohibited.

**Note:** Section Comm 83.03 (4) reads: (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) Pursuant to s. 160.19 (2) (a), Stats., the department has determined that it is not technically or economically feasible to require that a POWTS treat wastewater to comply with the preventive action limit for chloride specified in ch. NR 140, Table 2, as existed on June 1, 1998.

(c) Substances deleterious to a POWTS shall be intercepted, diluted or treated in accordance with s. Comm 82.34 prior to the substance discharging into a POWTS.

(d) The use of a cesspool as a POWTS is prohibited, including any cesspool existing prior to July 1, 2000.

(e) The discharge of domestic wastewater or effluent to the surface waters of the state is prohibited, including by means of plumbing outfall pipes existing prior to July 1, 2000.

(f) The discharge of domestic wastewater or effluent to the ground surface is prohibited, including by means of plumbing outfall pipes existing prior to July 1, 2000.

(g) The infiltrative surface of a treatment or dispersal component of a POWTS existing prior to December 1, 1969, which consists in part of soil may not be located in bedrock or groundwater.

(h) The use of camping unit transfer containers as a POWTS holding component shall be restricted to campgrounds permitted by the department of health and family services under ch. HFS 178.

**(2) LOCAL PROHIBITIONS.** (a) A municipality may by ordinance prohibit or limit the installation and use of the following technologies, designs or methods as POWTS components:

1. A holding tank.
2. A constructed wetland as a POWTS treatment component.
3. An evapotranspiration bed as a POWTS treatment component.

(b) A municipality may enact ordinances that are more restrictive than the applicable state minimum standards for those POWTS existing prior to December 1, 1972, except as provided in s. Comm 83.03 (2) (b) 2.

**Note:** The date, December 1, 1972, reflects the point in time at which the state plumbing code became a state-wide uniformly applied code rather than just a minimum standard. Since December 1, 1969 to July 1, 2000, the state plumbing code required 36 inches of soil between the infiltrative surface of a POWTS and high groundwater or bedrock.

(c) A municipality may by ordinance restrict the ownership of a POWTS to a governmental entity or agency when the POWTS is to serve 2 or more structures or buildings that are located on more than one property.

**(3) LIMITATIONS.** (a) Industrial wastes and wastewater may not, unless approved by the department of natural resources, be introduced into a plumbing drain system that is served by a POWTS.

**Note:** The department of natural resources regulates industrial wastes under ch. NR 214. Section NR 214.02 reads in part: "This chapter applies to those discharges of industrial wastes to land treatment systems not regulated under ch. NR 518. This includes but is not limited to liquid wastes, by-product solids and sludges generated by: fruit and vegetable processing, dairy products processing, meat, fish and poultry products processing, mink raising operations, aquaculture, commercial laundromat and motor vehicle cleaning operations and any other industrial, commercial or agricultural operation which results in a point source discharge that has no detrimental effects on the soils, vegetation or groundwater of a land treatment system".

(b) Storm and clear water wastes may be introduced into a plumbing drain system that is served by a POWTS, if the POWTS is designed to accept those wastes. A POWTS may accept wastes permitted under s. Comm 82.36 (3) (b).

**Note:** Section Comm 82.36 (3) (b) 4. permits the discharge of a maximum of 20 gallons per day of clear water wastes to a sanitary drain system connected to a publicly owned treatment works.

(c) Except as provided in ch. NR 116, no part of a POWTS may be installed in a floodway.

**Note:** See s. Comm 83.45 (6) for installations in a floodfringe.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.33 Abandonment.** A subsurface tank or pit that is no longer used as a POWTS component shall be abandoned by complying with all of the following:

**(1)** Disconnecting all piping to the tanks and pits.

**(2)** Sealing all disconnected piping to the tanks and pits in accordance with s. Comm 82.21 (2) (h).

**(3)** Pumping and disposing of the contents from all tanks and pits.

**Note:** The disposal of the contents from treatment tanks, distribution tanks, seepage pits and holding components is addressed in ch. NR 113 which is administered by the department of natural resources.

**(4)** Removing all tanks or removing the covers of the tanks or pits and filling the tanks and pits with soil, gravel or an inert solid material.

**Note:** Pursuant to s. 281.45, Stats., municipalities and sanitary districts may determine the availability of, and require connection to, public sewers. Section 281.45, Stats., reads in part: "HOUSE CONNECTIONS. To assure preservation of public health, comfort and safety, any city, village or town or town sanitary district having a system of waterworks or sewerage, or both, may by ordinance require buildings used for human habitation and located adjacent to a sewer or water main, or in a block through which one or both of these systems extend, to be connected with either or both in the manner prescribed. If any person fails to comply for more than 10 days after notice in writing the municipality may impose a penalty or may cause connection to be made, and the expense thereof shall be assessed as a special tax against the property."

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

### Subchapter IV – Design and Installation

**Comm 83.40 Purpose.** This subchapter establishes minimum parameters for the design and installation of a POWTS for the purpose of:

**(1)** Safeguarding public health;

**(2)** Minimizing the level of substances which have a reasonable probability of entering waters of the state; and

**(3)** Delineating measures, conditions and performance standards by which to evaluate designs.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.41 Principles. (1)** A POWTS shall be designed to hold wastewater or reduce the contaminant load and disperse the flow of wastewater as specified in this subchapter.

**(2)** A POWTS shall be designed to have sufficient capacity to accommodate the anticipated quantities of wastewater that will be discharged into the system.

(3) A POWTS intended to treat and disperse wastewater shall be designed to have sufficient ability to treat or separate out the anticipated types, quantities and concentrations of wastewater contaminants to be discharged into the system so that the dispersed wastewater will not create a human health hazard.

(4) A POWTS shall be designed to disperse wastewater below the surface of the ground at a rate that promotes long term assimilation into the soil and limits the possibility of surfacing.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.42 Application.** (1) **DESIGN BASIS.** The design of a POWTS shall be based on the methods and limitations outlined in this subchapter or on other documented data acceptable to the department.

(2) **DESIGN RELATION TO ACTUAL FLOWS AND CONTAMINANT LOADS.** For any situation where it is known that the wastewater flow or contaminant load exceeds the parameters of this subchapter, the POWTS shall be designed in relation to the known flow or load.

(3) **DESIGN CONSIDERATIONS.** The evidence to support assertions relative to contaminant reduction and hydraulic dispersal shall include at least all of the following:

- (a) The flow and contaminant load of the influent wastewater.
- (b) The ability of all treatment and dispersal components to reduce contaminant load and disperse hydraulic flow into the environment.
- (c) The flow velocities and friction losses throughout the system based upon accepted engineering practice.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.43 General requirements.** (1) **MATERIALS.** The components of a POWTS shall be constructed of materials and products that are of a type recognized under this chapter or ch. Comm 84.

(2) **DESIGN FLOW.** In order to accommodate peak wastewater flow, the design wastewater flow of a POWTS shall equal at least 150% of the estimated daily flow generated from the source or sources.

(3) **ESTIMATED DAILY COMBINED FLOW FOR A POWTS SERVING A DWELLING.** The estimated daily wastewater flow of combined graywater, clear water and blackwater from a dwelling shall be based on one or more of the following:

- (a) The following equation:

$$100 \text{ gallons} \times B = F$$

Where: B = number of bedrooms, based on 2 persons per bedroom, unless otherwise approved by the department.

F = Estimated daily wastewater flow per dwelling per day (in gallons), excluding storm water discharges.

(b) A detailed estimate of wastewater flow based upon per capita occupancy or usage of the dwelling or per function occurrence within the dwelling.

(4) **ESTIMATED DAILY SEGREGATED GRAYWATER FLOW FOR A POWTS SERVING A DWELLING.** The estimated daily wastewater flow of graywater and clear water from a dwelling shall be based on one or more of the following:

- (a) The following equation:

$$60 \text{ gallons} \times B = F$$

Where: B = number of bedrooms, based on 2 persons per bedroom, unless otherwise approved by the department.

F = Estimated daily graywater flow per dwelling per day (in gallons), excluding storm water discharges.

(b) A detailed estimate of graywater flow based upon per capita occupancy or usage of the dwelling or per function occurrence within the dwelling.

(5) **ESTIMATING SEGREGATED BLACKWATER FLOW FOR A POWTS SERVING A DWELLING.** The estimated daily wastewater flow of blackwater from a dwelling shall be based on one or more of the following:

- (a) The following equation:

$$40 \text{ gallons} \times B = F$$

Where: B = number of bedrooms, based on 2 persons per bedroom, unless otherwise approved by the department.

F = Estimated daily blackwater flow per dwelling per day (in gallons).

(b) A detailed estimate of blackwater flow based upon per capita occupancy or usage of the dwelling or per function occurrence within the dwelling.

(6) **ESTIMATING WASTEWATER FLOW FOR COMMERCIAL FACILITIES.** The estimated daily wastewater flow of graywater, blackwater, or combined graywater-blackwater flow from commercial facilities shall be based on one or more of the following:

- (a) Measured daily wastewater flow over a period of time representative of the facility's use or occupancy.
- (b) A detailed estimate of wastewater flow based upon per capita occupancy or usage of the facility or per function occurrence within the facility.

**Note:** See appendix for further information.

(7) **ESTIMATING CONTAMINANT LOADS.** Estimates of contaminant loads from dwellings and public facilities shall be based on a detailed analysis including all contaminants listed in s. Comm 83.44 (2) (a).

**Note:** See appendix for further information.

**Note:** See Note under s. Comm 83.32 (2) for information relative to industrial wastes.

(8) **GENERAL DESIGN REQUIREMENTS.** (a) *Flow velocity.* 1. Piping within a POWTS shall be designed and installed to supply wastewater to POWTS treatment and dispersal components while maintaining the velocity required to ensure operation of the POWTS.

2. Gravity flow piping between POWTS components shall be installed at a pitch that produces a computed flow velocity of at least one foot per second when flowing half full.

3. Pressurization equipment or devices and piping to be utilized upstream of a POWTS treatment or dispersal component consisting in part of in situ soil shall be designed and installed to produce a computed velocity of at least 2 feet per second.

4. Gravity piping within a POWTS treatment or dispersal component consisting in part of in situ soil shall be installed level or pitched downstream a maximum 4 inches per 100 feet.

(b) *Distribution and drain pipe sizing.* The piping within a POWTS shall be of a diameter to permit the operation of the POWTS.

(c) *Frost protection.* All POWTS components shall be protected from freezing temperatures that could detrimentally affect component operation to provide wastewater conveyance, treatment or dispersal.

(d) *Component placement.* The orientation of a POWTS treatment or dispersal component consisting in part of in situ soil shall take into account landscape variations in elevation, slope orientation, and other conditions that could affect component performance relative to dispersal or aeration.

(e) *Alarms or warning systems.* 1. a. A POWTS component utilizing a mechanical device to treat wastewater or to distribute effluent shall be provided with an automatic visual or audible means of notifying the user of the POWTS of the failure of the mechanical device.

**Note:** In accordance with s. Comm 16.28, an alarm that is electrically powered is to be on a separate circuit from the circuit supplying power to the mechanical device.

b. An alarm indicating the failure of a pump shall remain audible or visible until manually turned off.

c. Where duplex pumping equipment is employed to provide continuous component operation in the event that one pump fails, the pumps shall be installed in such a manner so as to provide the continuous operation automatically.

2. A POWTS holding tank shall be provided with an automatic visual or audible means of notifying the user of the POWTS of the necessity for servicing.

(f) *Accessibility.* The design of a POWTS shall include provisions to provide access to all components that require maintenance or observation.

(g) *Anchoring system components.* An exterior subsurface POWTS treatment tank or POWTS holding component to be installed in an area subject to saturated conditions shall be installed so as to prevent flotation of the tank or component.

**Note:** See appendix for further information.

(h) *Treatment byproducts.* 1. All treatment byproducts discharged from or as a result of operating a POWTS shall be disposed of so as not to create a human health hazard.

**Note:** The disposal of the contents of holding tanks and the sludge, scum, and contaminated liquids from treatment tanks and components is regulated by the department of natural resources under chs. NR 113 and NR 204.

2. Deleterious or hazardous materials segregated out from effluent flows shall be disposed of in a manner conforming with the rules of the state agency having jurisdiction.

3. Effluent from a POWTS shall be dispersed so as not to create a human health hazard.

4. All POWTS components within a building or structure shall be gas tight unless provisions are made assuring the safety of individuals entering the building or structure.

(i) *Site parameters and limitations.* POWTS treatment, holding and dispersal components shall be located so as to provide the minimum horizontal setback distances as outlined in Table 83.43-1 as safety factors for public health, waters of the state and structures in the event of component failure.

**Note:** Chapter NR 812 establishes upslope location criteria for wells relative to contamination sources.

**Table 83.43-1  
Horizontal Setback Parameters**

| Physical Feature                     | POWTS Treatment Component Consisting in Part of In Situ Soil or Dispersal Component | Exterior Subsurface Treatment Tank or Holding Tank Component | Servicing, Suction Lines and Pump Discharge Lines |
|--------------------------------------|---|--|---|
| Building                             | 10 feet   | 5 feet <sup>a</sup>  | 5 feet <sup>a</sup>                               |
| Property Line                        | 5 feet  | 2 feet   | 2 feet  |
| Swimming Pool                        | 15 feet   | none <sup>b</sup>  | none <sup>b</sup>                                 |
| OHWL of Navigable Waters             | 50 feet   | 10 feet  | 10 feet   |
| Water Service and Private Water Main | 10 feet   | 10 feet  | 10 feet   |
| Well                                 | chs. NR 811 & 812 <sup>c</sup>  | chs. NR 811 & 812 <sup>c</sup>                               | chs. NR 811 & 812 <sup>c</sup>                    |

OHWL = Ordinary High-Water Mark

<sup>a</sup> Except camping unit transfer containers.

<sup>b</sup> See s. Comm 84.43 (8) (f) relative to accessibility.

<sup>c</sup> Portions of chs. NR 811 & 812 are reprinted in the appendix.

**Note:** The department of transportation under s. Trans 233.08 establishes setback limits from the centerline of state trunk highways or connecting highways to structures and improvements which include septic systems.

(j) *Service suction and discharge lines.* 1. A suction line or discharge line serving a holding tank for servicing purposes shall comply with all of the following:

a. A pipe serving as the suction or discharge line shall be of an acceptable type in accordance with ch. Comm 84.

b. A suction or discharge line shall terminate with a service port consisting of a quick disconnect fitting with a removable plug.

c. The service port of a suction or discharge line shall terminate at least 2 feet above final grade.

d. The service port of a suction or discharge line shall be identified as such with a permanent sign with lettering at least 1/2 inch in height.

e. The service port of a suction or discharge line shall be secured to a permanent support that is capable of withstanding the loads and forces placed on the port.

f. A suction or discharge line shall be at least 3 inches in diameter.

2. A suction line serving a holding tank may not be installed in such a manner or arrangement that the tank can be drained by gravity or siphonic action.

3. Where a lift station is employed for servicing a holding tank, the pump discharge line shall conform with subd. 1., except as provided in subpars. a. and b.

a. A discharge line from the lift station shall be at least 2 inches in diameter.

b. The lift station pump shall be activated by means of a keyed-switch at the service port.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.44 Parameters for POWTS components consisting of in situ soil.** (1) **EVALUATION.** POWTS treatment and dispersal components consisting in part of in situ soil shall be evaluated in accordance with ch. Comm 85.

(2) **INFLUENT QUALITY.** (a) The quality of influent discharged into a POWTS treatment or dispersal component consisting in part of in situ soil shall be equal to or less than all of the following:

1. A monthly average of 30 mg/L fats, oil and grease.
2. A monthly average of 220 mg/L BOD<sub>5</sub>.
3. A monthly average of 150 mg/L TSS.

(b) The monthly average under par. (a) shall be calculated as the sum of all measurements taken over 30 consecutive days, with at least 6 measurements occurring on 6 separate days, and divided by the number of measurements taken during that period.

(c) Influent discharged to a POWTS treatment or dispersal component that consists in part of unsaturated soil may not contain any solid or suspended solid exceeding 1/8 inch in diameter.

(3) **INFILTRATIVE SURFACE.** (a) The infiltrative surface of unsaturated soil to which influent is discharged shall be located at least 24 inches above the estimated highest groundwater elevation and bedrock.

(b) 1. At least 6 inches of the 24-inch soil separation required under par. (a) shall be an in situ soil type for which soil treatment capability has been credited under Table 83.44-3.

2. The purpose of the 6 inches of in situ soil under subd. 1. shall be to assure that the influent will be assimilated into subsurface soils without ponding on the ground surface.

(c) The infiltrative surface of unsaturated soil to which influent is discharged shall be located at least one inch below the finished grade.

(4) CAPABILITIES. (a) 1. a. Except as provided under subd. 2., the dispersal capability of a POWTS treatment or dispersal component consisting in part of unsaturated soil shall be limited to that specified in Table 83.44-1 or Table 83.44-2 based upon the influent quality concentrations being applied.

b. Under subd. 1. a., the influent quality parameter with the highest concentration shall determine the maximum application rate.

c. Except as provided in par. (c), the soil conditions at the infiltrative surface of unsaturated soil to which influent is to be discharged shall be used to establish the maximum application rate for a POWTS dispersal design.

d. The moist soil consistence of the soil horizon in which the infiltrative surface of a POWTS treatment or dispersal component will be located may not be stronger than firm or any cemented classification.

e. The maximum soil application for soil with moderate to strong platy structure shall not exceed 0.2 gals./sq. ft./day for effluent concentrations of  $\leq 30$  mg/L BOD<sub>5</sub> and TSS and shall be 0.0 gals./sq. ft./day for effluent concentrations of  $> 30$  mg/L BOD<sub>5</sub> and TSS.

f. The application rates specified under Table 83.44-1 shall only be recognized where the percolation results have been filed with the governmental unit before July 2, 1994.

2. Maximum soil application rates other than those specified in Tables 83.44-1 or 83.44-2 may be employed for the design of a POWTS treatment or dispersal component consisting in part of in situ soil if documentation is submitted and approved under s. Comm 83.22 and is based on soil permeability and evapotranspiration estimates correlated to specific soil characteristics described in a detailed morphological soil evaluation.

(b) The treatment capability of a POWTS treatment component consisting of unsaturated soil shall be limited to that specified in Table 83.44-3, unless otherwise approved by the department.

(c) The design of a treatment or dispersal component consisting in part of in situ soil shall reflect restrictive soil horizons that affect treatment or dispersal.

(5) EFFLUENT DISTRIBUTION. (a) The distribution of effluent to a treatment or dispersal component consisting of silt loam or finer soil material with weak platy or massive structure shall be accomplished by means of pressurized distribution.

(b) 1. The distribution of effluent to in situ soil shall be accomplished by means of pressurized distribution, if the value for BOD<sub>5</sub>, TSS and fecal coliform of the effluent is equal to or less than all of the following:

- a. A monthly average of 30mg/L BOD<sub>5</sub>.
- b. A monthly average of 30mg/L TSS.
- c. A monthly geometric mean of 10<sup>4</sup> fecal coliform cfu per 100 ml.

Note: "CFU" means colony forming units.

2. The geometric mean under subd. 1. c. shall be determined on the basis of measurements taken over 30 consecutive days, with at least 6 measurements occurring on 6 separate days.

(c) Each dose of effluent by means of pressurized distribution into a treatment or dispersal component consisting in part of in situ soil may not be less than 5 times the void volume of the POWTS distribution laterals.

**Table 83.44-1**  
**Maximum Soil Application Rates Based Upon Percolation Rates**

| Percolation Rate<br>(minutes per<br>inch) | Maximum Monthly Average                          |   |
|---|--|---|
|   | BOD <sub>5</sub> > 30mg/L                        |   |
|   | TSS > 30 mg/L<br>≤ 150 mg/L (gals/<br>sq ft/day) | BOD <sub>5</sub> ≤ 30 mg/L<br>TSS ≤ 30 mg/L<br>(gals/sq ft/day) |
| 0 to less than 10                         | 0.7  | 1.2   |
| 10 to less than 30                        | 0.6  | 0.9   |
| 30 to less than 45                        | 0.5  | 0.7   |
| 45 to less than 60                        | 0.3  | 0.5   |
| 60 to 120                                 | 0.2  | 0.3   |
| greater than 120                          | 0.0  | 0.0   |

Note: > means greater than  
≤ means less than or equal to

**Table 83.44-2**  
**Maximum Soil Application Rates Based Upon Morphological Soil Evaluations**

| Soil Texture           | Soil Structure     | Maximum Monthly Average   |   |
|------------------------|--------------------|---|---|
|                        |                    | BOD <sub>5</sub> > 30 ≤ 220 mg/L<br>TSS > 30 ≤ 150 mg/L<br>(gals/sq ft/day) | BOD <sub>5</sub> ≤ 30 mg/L<br>TSS ≤ 30 mg/L<br>(gals/sq ft/day) |
| Coarse sand or coarser | N/A                | 0.7   | 1.6   |
| Loamy coarse sand      | N/A                | 0.7   | 1.4   |
| Sand                   | N/A                | 0.7   | 1.2   |
| Loamy sand             | Weak to strong     | 0.7   | 1.2   |
| Loamy sand             | Massive            | 0.5   | 0.7   |
| Fine sand              | Moderate or strong | 0.5   | 0.9   |
| Fine sand              | Massive or weak    | 0.4   | 0.6   |
| Loamy fine sand        | Moderate or strong | 0.5   | 0.9   |
| Loamy fine sand        | Massive or weak    | 0.4   | 0.6   |
| Very fine sand         | N/A                | 0.4   | 0.6   |
| Loamy very fine sand   | N/A                | 0.4   | 0.6   |
| Sandy loam             | Moderate or strong | 0.5   | 0.9   |
| Sandy loam             | Weak, weak platy   | 0.4   | 0.6   |
| Sandy loam             | Massive            | 0.3   | 0.5   |

**Table 83.44-2 – Continued**  
**Maximum Soil Application Rates Based Upon Morphological Soil Evaluations**

| Soil Texture    | Soil Structure     | Maximum Monthly Average   |   |
|-----------------|--------------------|---|---|
|                 |                    | BOD <sub>5</sub> > 30 ≤ 220 mg/L<br>TSS > 30 ≤ 150 mg/L<br>(gals/sq ft/day) | BOD <sub>5</sub> ≤ 30 mg/L<br>TSS ≤ 30 mg/L<br>(gals/sq ft/day) |
| Loam            | Moderate or strong | 0.5   | 0.8   |
| Loam            | Weak, weak platy   | 0.4   | 0.6   |
| Loam            | Massive            | 0.3   | 0.5   |
| Silt loam       | Moderate or strong | 0.5   | 0.8   |
| Silt loam       | Weak, weak platy   | 0.2   | 0.3   |
| Silt loam       | Massive            | 0.0   | 0.2   |
| Sandy clay loam | Moderate or strong | 0.4   | 0.6   |
| Sandy clay loam | Weak, weak platy   | 0.2   | 0.3   |
| Sandy clay loam | Massive            | 0.0   | 0.0   |
| Clay loam       | Moderate or strong | 0.4   | 0.6   |
| Clay loam       | Weak, weak platy   | 0.2   | 0.3   |
| Clay loam       | Massive            | 0.0   | 0.0   |
| Silty clay loam | Moderate or strong | 0.4   | 0.6   |
| Silty clay loam | Weak, weak platy   | 0.2   | 0.3   |
| Silty clay loam | Massive            | 0.0   | 0.0   |
| Sandy clay      | Moderate or strong | 0.2   | 0.3   |
| Sandy clay      | Massive or weak    | 0.0   | 0.0   |
| Clay            | Moderate or strong | 0.2   | 0.3   |
| Clay            | Massive or weak    | 0.0   | 0.0   |
| Silty clay      | Moderate or strong | 0.2   | 0.3   |
| Silty clay      | Massive or weak    | 0.0   | 0.0   |

Note: > means greater than  
 ≤ means less than or equal to

N/A means Not Applicable

**Table 83.44-3**  
**Minimum Depth of Unsaturated Soil for Treatment Purposes<sup>a</sup>**  
**(in inches)**

| Soil Texture   | Soil Structure     | Influent Quality   |  |
|--|--------------------|--|--|
|  |                    | Fecal Coliform <sup>b</sup><br>> 10 <sup>4</sup> cfu/100ml | Fecal Coliform <sup>b</sup><br>≤ 10 <sup>4</sup> cfu/100ml |
| Very coarse sand or coarser                            | N/A <sup>c</sup>   | 120  | 60   |
| Coarse sand  | N/A <sup>c</sup>   | 60   | 36   |
| Loamy coarse sand (w/ ≤ 35% coarse fragments)          | N/A <sup>c</sup>   | 60   | 36   |
| Loamy coarse sand (w/ > 35% to ≤ 60% coarse fragments) | N/A <sup>c</sup>   | 120  | 60   |
| Loamy coarse sand (w/ > 60% coarse fragments)          | N/A <sup>c</sup>   | NC   | NC   |
| Sand (w/ ≤ 35% coarse fragments)                       | N/A <sup>c</sup>   | 36   | 24   |
| Sand (w/ > 35% to ≤ 60% coarse fragments)              | N/A <sup>c</sup>   | 120  | 60   |
| Sand (w/ > 60% coarse fragments)                       | N/A <sup>c</sup>   | NC   | NC   |
| Loamy sand   | N/A <sup>c</sup>   | 36   | 24   |
| Fine sand  | Moderate or strong | 36   | 24   |
| Fine sand  | Massive or weak    | 36   | 24   |
| Loamy fine sand  | Moderate or strong | 36   | 24   |
| Loamy fine sand  | Massive or weak    | 36   | 24   |
| Very fine sand   | N/A <sup>c</sup>   | 36   | 24   |
| Loamy very fine sand                                   | N/A <sup>c</sup>   | 36   | 24   |
| Sandy loam   | Moderate or strong | 36   | 24   |
| Sandy loam   | Weak, weak platy   | 36   | 24   |

**Table 83.44-3 – Continued**  
**Minimum Depth of Unsaturated Soil for Treatment Purposes<sup>a</sup>**  
**(in inches)**

| Soil Texture    | Soil Structure     | Influent Quality   |  |
|-----------------|--------------------|--|--|
|                 |                    | Fecal Coliform <sup>b</sup><br>> 10 <sup>4</sup> cfu/100ml | Fecal Coliform <sup>b</sup><br>≤ 10 <sup>4</sup> cfu/100ml |
| Sandy loam      | Massive            | 36   | 24   |
| Loam            | Moderate or strong | 36   | 24   |
| Loam            | Weak, weak platy   | 36   | 24   |
| Loam            | Massive            | 36   | 24   |
| Silt loam       | Moderate or strong | 36   | 24   |
| Silt loam       | Weak, weak platy   | 36   | 24   |
| Silt loam       | Massive            | 36   | 24   |
| Sandy clay loam | Moderate or strong | 36   | 24   |
| Sandy clay loam | Weak, weak platy   | 36   | 24   |
| Sandy clay loam | Massive            | 36   | 24   |
| Clay loam       | Moderate or strong | 36   | 24   |
| Clay loam       | Weak, weak platy   | 36   | 24   |
| Clay loam       | Massive            | 36   | 24   |
| Silty clay loam | Moderate or strong | 36   | 24   |
| Silty clay loam | Weak, weak platy   | 36   | 24   |
| Silty clay loam | Massive            | 36   | 24   |
| Sandy clay      | Moderate or strong | 36   | 24   |
| Sandy clay      | Massive or weak    | 36   | 24   |
| Clay            | Moderate or strong | 36   | 24   |
| Clay            | Massive or weak    | 36   | 24   |
| Silty clay      | Moderate or strong | 36   | 24   |
| Silty clay      | Massive or weak    | 36   | 24   |

<sup>a</sup> Influent quality as per s. Comm 83.44 (2)

<sup>b</sup> Fecal coliform is determined as a monthly geometric mean in accordance with s. Comm 83.44 (5) (b) 2.

<sup>c</sup> Structure will not affect performance

N/A means Not Applicable

NC means No Credit

> means great than

≤ means less than or equal to

w/ means with

**(6) ORIENTATION.** (a) 1. The infiltrative surface of a distribution cell within a POWTS treatment or dispersal component consisting in part of in situ soil and located in fill material above original grade shall be level.

2. The longest dimension of a POWTS treatment or dispersal component consisting in part of in situ soil shall be oriented along the surface contour of the component site location unless otherwise approved by the department.

**Note:** See appendix for an illustration depicting a distribution cell.

(b) The infiltrative surface of a distribution cell within a POWTS treatment or dispersal component consisting in part of in situ soil and located below the surface of the original grade shall be level.

(c) POWTS treatment or dispersal components consisting in part of in situ soil shall be so located as to minimize the infiltration of storm water into the component.

**(7) GEOMETRY.** The geometry of a subsurface treatment or dispersal component consisting in part of the in situ soil shall take into account linear loading rates that are based on soil texture, structure, consistence and distance to seasonal soil saturation and restrictive soil horizons.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.45 Installation.** **(1) GENERAL.** A POWTS shall be constructed and installed in such a manner to hold wastewater or reduce the contaminant load and disperse the flow of

wastewater in accordance with this subchapter and the plan approval under s. Comm 83.22.

**(2) FROZEN SOIL.** POWTS treatment and dispersal components consisting in part of in situ soil may not be installed if the soil is frozen at the infiltrative surface of the component.

**(3) SNOW COVER.** Snow cover shall be removed before excavating or installing POWTS treatment and dispersal components consisting in part of in situ soil.

**(4) MOISTURE.** The soil moisture content for a POWTS treatment or dispersal component consisting in part of in situ soil shall be evaluated immediately prior to installation of the component. If the soil at the infiltrative surface can be rolled into a ¼-inch wire, the installation may not proceed.

**(5) BEDDING.** All vessels and pipes of a POWTS shall be bedded in accordance with a product approval under s. Comm 84.10 or a plan approval under s. Comm 83.22.

**(6) FLOOD FRINGE.** (a) All POWTS treatment tanks, holding and dispersal tanks that are located in flood fringe areas shall be made and maintained watertight to prevent infiltration.

(b) Vent pipes and observation pipes serving POWTS components that are located in flood fringe areas shall terminate at least 2 feet above regional flood levels.

**Note:** See s. Comm 83.43 (8) (g) relative to anchoring provisions.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

### Subchapter V – Management

**Comm 83.50 Purpose.** The purpose of this subchapter is to:

**(1)** Establish monitoring and maintenance requirements for POWTS in order to ensure that POWTS will operate as designed and thereby protect the public health and the waters of the state; and

(2) Provide the department with data by which to make regulatory decisions.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.51 Principles.** (1) A POWTS, including a POWTS existing prior to July 1, 2000, shall be maintained at all times so as not to create a human health hazard.

(2) When upon inspection of a POWTS, including a POWTS existing prior to July 1, 2000, any part of the system that is found to be defective in conformance with the applicable provisions of this chapter, the installation or modification plan, or the approvals, the part shall be repaired, renovated, replaced or removed.

**Note:** Section Comm 87.60 (5) (b) 4. also establishes management and maintenance requirements for a POWTS that is located in a governmental unit which participates in the replacement and rehabilitation program under s. 145.245, Stats.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.52 Responsibilities.** (1) (a) The owner of a POWTS shall be responsible for ensuring that the operation and maintenance of the POWTS occurs in accordance with this chapter and the approved management plan under s. Comm 83.54 (1).

(b) The owner of a POWTS existing prior July 1, 2000, shall be responsible for ensuring that the maintenance of the POWTS occurs in accordance with s. Comm 83.54 (4).

(c) 1. The owner of a POWTS, including a POWTS existing prior to July 1, 2000, shall maintain a maintenance or service contract with a POWTS maintainer or a business utilizing a POWTS maintainer for the POWTS as long as the POWTS is utilized and, if the management plan for the POWTS under s. Comm 83.54 (1) involves one or more of the following:

a. Evaluating or monitoring any part of the system at an interval of 12 months or less.

b. Maintaining any part of the system at an interval of 12 months or less.

2. The owner of a POWTS, including a POWTS existing prior to July 1, 2000, shall maintain a maintenance or service contract with a certified septage servicing operator under ch. NR 114 for the POWTS as long as the POWTS is utilized and, if the management plan for the POWTS under s. Comm 83.54 (1) involves the servicing of any holding, treatment or dispersal component at an interval of 12 months or less.

(2) A POWTS, including a POWTS existing prior to July 1, 2000, that is not maintained in accordance with the approved management plan or as required under s. Comm 83.54 (4) shall be considered a human health hazard.

(3) The activities relating to evaluating and monitoring mechanical POWTS components after the initial installation of the POWTS in accordance with an approved management plan shall be conducted by a person who holds a registration issued by the department as a registered POWTS maintainer

**Note:** See s. Comm 5.36 concerning the application and qualification requirements to become a registered POWTS maintainer.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.53 General.** (1) No product for chemical or physical restoration or chemical or physical procedures for POWTS, including a POWTS existing prior to July 1, 2000, may be used unless approved by the department in accordance with ss. Comm 84.10 and 84.13.

(2) Nothing in this subchapter shall limit a governmental unit's authority and power in establishing a mandatory POWTS maintenance program, including management or maintenance undertaken by the governmental unit.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.54 Management requirements.** (1) MANAGEMENT PLAN. (a) The management plan for each POWTS shall include information and procedures for maintaining the POWTS to operate and function within the standards of this chapter and as designed and approved.

(b) The management plan for a POWTS shall be a part of the plan submittal under s. Comm 83.22 or 84.10.

(c) The management plan for POWTS shall specify all necessary maintenance and servicing information which may include, but is not limited to all of the following:

1. Accumulated solids or byproduct removal requirements.

2. Influent quantities and qualities and effluent quantities and qualities.

3. Metering, sampling and monitoring schedules and requirements.

4. Load and rest schedules.

5. Servicing frequency requirements.

6. Installation and inspection checklists.

7. Evaluation, monitoring and maintenance schedules for mechanical POWTS components.

8. Start up and shutdown procedures.

9. Procedure for abandonment.

(d) If the owner of the POWTS wishes to operate or maintain a POWTS differently than that specified in the approved management plan, a written request for approval to amend the management plan shall be submitted to the agency that initially reviewed the installation plan under s. Comm 83.22.

(2) METERING AND MONITORING. (a) *General.* The management plan specified in sub. (1) shall include the metering or monitoring of POWTS influent or effluent as specified in this subsection.

(b) *Department option.* The department may require the metering or monitoring of any POWTS to evaluate the operation of the POWTS.

(c) *Required influent metering.* Influent flow meters shall be installed in accordance with par. (d), if a POWTS:

1. Includes one or more holding tanks, except camping unit transfer containers;

2. Receives wastewater of a type exceeding the quality limits in s. Comm 83.44 (2), except from one- and 2-family dwellings; or

3. Is required by a POWTS component manufacturer.

(d) *Metering influent flows.* 1. Influent flows to POWTS shall be metered by one of the following methods:

a. Installing event counters and elapsed time meters.

b. Installing water meters to meter the water distribution system flow to the POWTS.

c. Metering wastewater flow from all parts of the plumbing system discharging to the POWTS.

d. Metering the water distribution system and metering exterior hydrant use, except as provided in subd. 2.

2. Where meters are installed on water distribution systems existing prior to July 1, 2000, the entire water distribution system may be metered and the exterior hydrant usage estimated and subtracted from the total flow to meet the requirements of this paragraph.

(e) *Monitoring influent and effluent loads.* 1. When and where the monitoring of groundwater is required, groundwater monitoring wells constructed in accordance with ch. NR 141 shall be utilized.

2. When influent or effluent contaminants are to be monitored, samples shall be collected in accordance with the requirements of the approved management plan or, where no procedures are specified, in accordance with published sampling procedures accepted by the department.

**Note:** Acceptable sampling procedures include those contained in the following sources:

"Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Sites," EPA SW-611, Office of Water and Waste Management, U. S. Environmental Protection Agency, December 1980, Washington, D. C.

"Techniques of Water Resources Investigations of the United States Geological Survey, Guidelines for Collection and Field Analysis of Ground Water Samples for

Selected Unstable Constituents," Book I, Chapter D2, U.S. Geological Survey, Washington, D. C.

"Procedures for the Collection of Representative Water Quality Data from Monitoring Wells," Cooperative Groundwater Report 7, Illinois State Water Survey, 1981, Champaign, Illinois.

"Manual of Ground Water Sampling Procedures," NWWA/EPA Series, Robert S. Kerr Environmental Research Laboratory, 1981, Ada, Oklahoma.

"Groundwater Sampling Procedures Guidelines," Wisconsin DNR, PUBL-WR-153, February 1987.

"Groundwater Sampling Procedures Field Manual," Wisconsin DNR, PUBL-WR-168, September 1987.

3. All groundwater samples collected to evaluate influent or effluent quality, except samples collected for total coliform bacteria analysis and the field analyses for pH, specific conductance and temperature, shall be analyzed by a laboratory certified under s. 299.11, Stats., and rules adopted under that section.

4. The results of the analysis required under subd. 2. shall be maintained and reported as required in the approved management plan and in accordance with s. Comm 83.55 (1) (a).

**(3) SERVICING REQUIREMENTS.** (a) The management plan specified in sub. (1) shall reflect the servicing schedules of POWTS components as specified in this subsection

(b) The servicing frequency of an anaerobic treatment tank for a POWTS shall occur at least when the combined sludge and scum volume equals 1/3 of the tank volume.

(c) The servicing frequency of a holding tank for a POWTS, except for camping unit transfer containers, shall occur at least when the wastewater of the tank reaches a level of one foot below the inlet invert of the tank.

**Note:** The servicing of POWTS holding and treatment components, including septic tanks and holding tanks, is required to be performed by licensed pumpers under chs. NR 113 and NR 114.

**(4) EXISTING POWTS.** (a) The servicing frequency of an anaerobic treatment tank for a POWTS existing prior to July 1, 2000, shall occur at least when the combined sludge and scum volume equals 1/3 of the tank volume.

(b) The servicing of a holding tank for a POWTS existing prior to July 1, 2000, except for camping unit transfer containers, shall occur at least when the wastewater of the tank reaches a level of one foot below the inlet invert of the tank.

(c) The servicing or maintenance of POWTS treatment components other than those under pars. (a) and (b) existing prior to July 1, 2000, shall be provided in accordance with the requirements specified by the manufacturer or designer of the component.

(d) 1. A POWTS that exists prior to July 1, 2000, and that utilizes a treatment or dispersal component consisting in part of in situ soil shall be visually inspected at least once every 3 years to determine whether wastewater or effluent from the POWTS is ponding on the surface of the ground.

2. The inspection required by subd. 1. shall be performed by one of the following:

- a. A licensed master plumber.
- b. A licensed master plumber--restricted service.
- c. A certified POWTS inspector.
- d. A certified septage servicing operator under ch. NR 114.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.55 Reporting requirements.** (1) (a) The owner of a POWTS or his or her agent shall report to the department or department authorized agent at the completion of each inspection, maintenance or servicing event specified in the approved management plan, except for camping [unit] transfer containers.

(b) The owner of a POWTS existing prior to July 1, 2000, or their agent shall report to the department or designated agent shall report to the department or designated agent the completion of each inspection, maintenance or servicing event required under s. Comm 83.54 (4), except for camping [unit] transfer containers.

**(2)** The inspection, maintenance and servicing reports required under sub. (1) shall be submitted to the department or designated agent:

(a) In a manner specified by the department or designated agent;

(b) Within 10 business days from the date of inspection, maintenance or servicing; and

(c) By the owner or the owner's agent.

**(3)** The inspection, maintenance and servicing reports required under sub. (1) shall include the following information:

(a) A POWTS identifying number.

(b) The location of the POWTS.

(c) The date of inspection, maintenance or servicing.

(d) The license, certification or registration number of the individual performing the inspection, maintenance or servicing.

(e) Other information required by the approved management plan.

**(4)** The department or designated agent may require verification of any information contained in a inspection, maintenance and servicing report.

**Note:** This subsection does not require the maintaining of test data which is collected voluntarily and which is not being collected to determine compliance with this chapter.

**(5) DEPARTMENT RESPONSIBILITY.** (a) The department shall maintain records relating to the inspection, maintenance and servicing of POWTS as specified in this section for a period of not less than 6 years.

(b) Upon request by a governmental unit and the agreement of the department, the governmental unit may delegate to the department the responsibility to maintain records relating to the inspection, maintenance and inspection [servicing] of POWTS as specified in this section.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

## Subchapter VI – Recognized Methods and Technologies

**Comm 83.60 Purpose.** (1) This subchapter identifies specific types of methods and technologies that have been recognized by the department under the voluntary product approval process in s. Comm 84.10 (3) to conform with subchs. IV and V and that may be utilized in the design of POWTS for a specific project.

**Note:** Subsection Comm 84.10 (3) delineates a process for the voluntary submittal of specific methods and technologies that are proposed to be utilized as POWTS holding, treatment or dispersal components and for the department's evaluation of such submittals. Methods and technologies recognized under this process may be utilized in any POWTS within the specifications and parameters of the method or technology. Methods and technologies recognized under this process do not require the submittal of data at the time of plan review and approval process under s. Comm 83.22 to substantiate the performance of the specific method or technology.

**(2)** This subchapter does not limit the use of other methods and technologies for POWTS or POWTS components the performance of which has been recognized under the plan review and approval process of s. Comm 83.22 or the voluntary product approval process of Comm 84.10 (3) or both.

**Note:** Section Comm 83.22 delineates the process for the submittal of a plan for a POWTS design to be utilized for a specific project at a specific site. Under this section methods and technologies for POWTS holding, treatment or dispersal components that have not been recognized under s. Comm 84.10 (3), require the submittal to the department of data or information to substantiate performance claims. The approval of a POWTS plan by the department under this section covers only a specific project at a specific site, and does not constitute the recognition of a method or technology for other projects or sites.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.61 Acceptable methods and technologies.** Pursuant to s. Comm 84.10 (3), the department recognizes at least the following methods and technologies to be utilized in the design of POWTS:

**(1)** Pressure Distribution Component Manual for Private Onsite Wastewater Treatment Systems, June 11, 1999.



(2) At-Grade Component Manual Using a Pressure Distribution System for Private Onsite Wastewater Systems, June 11, 1999.

(3) Mound Component Manual for Septic Tank Effluent for Private Onsite Wastewater Systems, June 11, 1999.

(4) Conventional Soil Absorption Component Manual for Private Onsite Wastewater Systems, June 11, 1999.

(5) Holding Tank Component Manual for Private Onsite Wastewater Systems, June 11, 1999.

(6) Single Pass Sand Filter Component Manual for Private Onsite Wastewater Systems, June 25, 1999.

(7) Recirculating Sand Filter Component Manual for Private Onsite Wastewater Systems, June 25, 1999.

(8) Split Bed Recirculating Sand Filter System Component Manual for Private Onsite Wastewater Treatment Systems, June 25, 1999.

(9) Drip-Line Effluent Dispersal Component Manual for Private Onsite Wastewater Treatment Systems, June 24, 1999.

**Note:** See appendix for information on obtaining copies of the above manuals from the department. Subsection Comm 84.10 (3) (e) delineates the circumstances under which additional methods or technologies will be specifically enumerated under this section, s. Comm 83.61.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.62 Parameters for using acceptable methods and technologies.** When a design of a POWTS for a specific project utilizes a method or technology recognized under s. Comm 84.10 (3), a deviation from the specifications and limitations relative to the installation and maintenance of that method or technology shall constitute a violation of this chapter.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

### Subchapter VII – Department Performance Monitoring

**Comm 83.70 Purpose.** (1) To address the desire for an ongoing source of information on the performance of POWTS system designs, the department shall maintain an ongoing performance-monitoring program for the various POWTS methods and technologies. The monitoring program shall be in addition to the periodic inspection and monitoring of POWTS under subch. V. The monitoring program shall be coordinated by the department in conjunction with the ongoing POWTS experimental and research program.

(2) The purpose of the performance monitoring program is to:

(a) Provide additional information on the long-term performance of the various POWTS methods and technologies, to confirm their reliability, and to provide data for improvements; and

(b) Monitor the various methods and technologies relative to long-term compliance with the groundwater standards.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.

**Comm 83.71 Department procedures.** (1) Both currently installed POWTS and newly installed POWTS may be

included in the performance monitoring program conducted by the department.

(2) The department may include both the performance of individual POWTS treatment components as well as the output of components at the edge of the design treatment zone as part of the monitoring program.

(3) The department shall support the performance-monitoring program from Wisconsin Fund allocations and program revenue funds generated from POWTS plan review and sanitary permits. If funds for this purpose become available from other sources, those funds may be used to support the monitoring program.

(4) The department shall utilize the technical advisory committee assembled under s. Comm 84.10 (3) (c) 2. to advise the department on the performance-monitoring program. The committee shall advise the department in at least the following areas:

(a) Development of performance monitoring protocols.

(b) Selection of the POWTS methods and technologies to be monitored.

(c) Identification of funding sources.

(d) The interpretation of the results of the monitoring program.

(5) The decision by the department on the number, types and locations of methods and technologies to be monitored shall take into consideration at least the following factors:

(a) The availability of other scientific data on the performance of a specific method or technology.

(b) The number times of each method or technology may be utilized annually.

(c) The likelihood that the method or technology will be adapted for soil and site conditions not previously utilized.

(d) The availability of funds.

(e) The risk factors associated with public health concerns and groundwater and surface water standards.

(6) The initial performance monitoring program undertaken by the department shall emphasize at least the following two circumstances:

(a) Monitoring where there is a high density of systems.

**Note:** The initial focus would be on subdivisions with lots of 1.5 acres or less.

(b) Monitoring where the depth of suitable in situ soil is near the minimum 6 inches specified under s. Comm 83.44 (3) (b) 1.

(7) (a) The department shall prepare an annual written report of performance-monitoring activities undertaken and the results of those activities.

(b) The report under par. (b) shall be prepared annually and provided to the groundwater coordinating council assembled under s.160.50, Stats.

(c) The department shall prepare the first report no later than December 31, 2001.

**History:** Cr. Register, April, 2000, No. 532, eff. 7-1-00.