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POWTS ADVISORY CODE COUNCIL MEETING
Room 121C, 1400 East Washington Avenue, Madison
Contact: Sandra Cleveland (608) 266-0797
June 29, 2016

9:00 A.M.

The following agenda describes the issues that the Council plans to consider at the meeting. At the time of the meeting, items may be removed from the agenda. Please consult the meeting minutes for a record of the actions of the Council.

AGENDA

OPEN SESSION – CALL TO ORDER – ROLL CALL

A. Adoption of Agenda (1)

B. Approval of Minutes of April 12, 2016 (2)

C. Department Updates

D. Continue Review and Consideration of Changes to SPS 381-387 and 391 (3)

1) Elevation of Forcemains **(4-6)**
2) Review of Table of Proposed Administrative Rule Changes **(5-14)**
3) Review of SPS 381-387 and 391 Draft **(15-143)**

E. Public Comments

F. Adjournment

POWTS ADVISORY CODE COUNCIL
MEETING MINUTES
April 12, 2016

PRESENT: Thomas Birrittieri, Steven Crosby; Dale Dimond; Robert Schmidt

EXCUSED: Alan Kaddatz, Bryon Wooten

STAFF: Sandra Cleveland, Administrative Rules Coordinator; Bradley Johnson, Section Chief, Matt Janzen, Private Sewage Plan Reviewer; Nifty Lynn Dio, Bureau Assistant; and other Department staff

Dale Dimond, Vice Chair, called the meeting to order at 9:03 a.m. A quorum of four (4) members was present.

ADOPTION OF AGENDA

Amendments to the Agenda

- *Added e-mail correspondence from Alex Priesgen, R.S. to end of packet*

MOTION: Robert Schmidt moved, seconded by Steven Crosby, to adopt the agenda as amended. Motion carried unanimously.

APPROVAL OF MINUTES OF MARCH 16, 2016

MOTION: Robert Schmidt moved, seconded by Steven Crosby, to approve the minutes from March 16, 2016 as published. Motion carried unanimously.

CONTINUE REVIEW AND CONSIDERATION OF CHANGES TO SPS 381-387 AND 391

Review Draft Language

MOTION: Dale Dimond moved, seconded by Thomas Birrittieri, to make the recommendation that the Plumbing Code Advisory Committee review SPS 382.30(11)(c) and attempt to simplify insulation requirements to adopt common industry practices. Motion carried unanimously.

ADJOURNMENT

MOTION: Steven Crosby moved, seconded by Thomas Birrittieri, to adjourn the meeting. Motion carried unanimously.

The meeting adjourned at 3:12 p.m.

State of Wisconsin
Department of Safety & Professional Services

AGENDA REQUEST FORM

1) Name and Title of Person Submitting the Request:	2) Date When Request Submitted:
Nifty Lynn Dio, Bureau Assistant	06/24/2016 Items will be considered late if submitted after 12:00 p.m. on the deadline date which is 8 business days before the meeting

3) Name of Board, Committee, Council, Sections:

POWTS Code Advisory Committee

4) Meeting Date:	5) Attachments:	6) How should the item be titled on the agenda page?
6/29/2016	☐ Yes ☒ No	Continue Review and Consideration of Changes to SPS 381-387 and 391

7) Place Item in:	8) Is an appearance before the Board being scheduled?	9) Name of Case Advisor(s), if required:
☒ Open Session ☐ Closed Session	☐ Yes (Fill out Board Appearance Request) ☒ No	N/A

10) Describe the issue and action that should be addressed:

Please review SPS 382:
https://docs.legis.wisconsin.gov/code/admin_code/sps/safety_and_buildings_and_environment/380_387/382

11) Authorization

Nifty Lynn Dio **6/24/2016**

Signature of person making this request — Date

Supervisor (if required) — Date

Executive Director signature (indicates approval to add post agenda deadline item to agenda) Date

Directions for including supporting documents:
1. This form should be attached to any documents submitted to the agenda.
2. Post Agenda Deadline items must be authorized by a Supervisor and the Policy Development Executive Director.
3. If necessary, provide original documents needing Board Chairperson signature to the Bureau Assistant prior to the start of a meeting.


CRESLINE

Wisconsin Department of Safety and Professional Services
Private Onsite Wastewater Treatment Systems Code Advisory Council
Potential Administrative Rule Recommendations
6-23-2016
Completed items=grey, More review=yellow

SPS 381 DEFINITIONS AND STANDARDS					
NO.	**SPS SECTION**	**ISSUE**	**POTENTIAL CHANGES**	**POTENTIAL COSTS/BENEFITS**	**CLASSIFICATION/STATUS**
1	381.01 (154r)	Definition for "Moh's Scale of Hardness" proposed for use in 384.30(6)(j)2.	Add definition.	No cost. Clarify meaning.	***See draft language. Reviewed 2-10-16. Reviewed it again on 4-12-16. Completed.***
2					

SPS 382 DESIGN, CONSTRUCTION, INSTALLATION, SUPERVISION, MAINTENANCE AND INSPECTION OF PLUMBING					
NO.	**SPS SECTION**	**ISSUE**	**POTENTIAL CHANGES**	**POTENTIAL COSTS/BENEFITS**	**CLASSIFICATION/STATUS**
20	382.30(10) *Council Addition* *382.34 (f)?*	Exterior ejector pits - recommendation to Plumbing Council forthcoming.	More specification about exterior ejector pits may be needed. Does the department want to make jurisdictional lines-right now this would be a plumbing issue. Clarification of what should be looking at for ejector pits. Anchoring 83 Locks 84 Set backs 83		Medium Discussed 4-12-2016. Department will develop some language for review.
21	382.30(11) *Council Addition*	Clarification of building sewer insulation requirements – recommendation to Plumbing Council forthcoming.	Possibly simplify insulation requirements to specify none, 4 foot sheet, or box the pipe. Code only talks about width and doesn't make sense.		Medium ***Discussed at 2/10/2016 meeting. Made a motion to make a recommendation to plumbing council to address.***
22	382.35(5) *Council Addition*	Need for frost sleeves on shallow building sewers?	No change.		Medium ***Reviewed 2/10/2016. No change needed. Completed.***
23					

SPS 383 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS					
NO.	**SPS SECTION**	**ISSUE**	**POTENTIAL CHANGES**	**POTENTIAL COSTS/BENEFITS**	**CLASSIFICATION/STATUS**
25	383.21 *Council Addition*	Clarify sanitary permit requirements for replacement of defective components in recently installed POWTS *(i.e. Replacement of a cracked tank after the installation has been approved, including changing pumps)*	Under what circumstances is a permit needed if a POWTS fails or needs repair soon after the permit ceases (i.e. after final inspection.) Statutes and/or Attorney General Opinion may dictate when a permit is needed. Are there cases where a reinspection may be conducted rather than requiring a whole new permit?		Medium ***Discussed at 2/10/2016 and 3/12/2016 meeting. Need further review. 4-12-2016 discussed. Department is continuing its review.***
26	383.22(2)(c) *Council Addition*	Are changes to signature requirements needed to accommodate electronic submittal of plans?	Need to find all references to "original signatures" and may need to add something regarding responsibility for a signature. Some counties require notarized signatures.		Low ***Draft language reviewed at 2/10/16. Need further review.***
27	383.44 Combine these concepts.	Short of a petition for variance, many commercial facilities have been pushed towards unreliable pretreatment devices which fail to perform.	Allow 3rd soil column or alternative sizing method for High Strength Wastewater which would allow the same loading rate of BOD, FOG and TSS per square foot as system receiving "normal" strength effluent. An alternative is to entirely eliminate the limitation in SPS 383.44(2)(a) and size based upon effluent loading.	No change in costs. This revision would allow another simple low-technology option for owners and installers.	High ***Possibly duplicates topics 29-31? No change needed.***
28	383.44-1 Maximum Soil Application Rates Based Upon Percolation Rates (Table)	The rule references out of date percolation rates.	Remove all references to percolation rates.	Costs are expected to be minimal. New morphological soil tests would be needed to replace old soil tests showing percolation rates which are no longer used.	Low ***Draft language reviewed at 2/10/16 meeting. Completed, more changes will be made if additional references to percolation rates are identified.***
29	383.44-2 Maximum Soil Application Rates Based Upon Morphological Soil Evaluation	High strength waste (>220 BOD and >150 TSS) have limited treatment options.	Additional loading rate column for moderately high strength wastes.	No costs increases are expected from this proposal. This proposal would provide more flexibility for dealing with high	High ***Need more information to complete. Discuss at 4-12-2016 meeting. No change needed.***

SPS 383 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS					
NO.	SPS SECTION	ISSUE	POTENTIAL CHANGES	POTENTIAL COSTS/BENEFITS	CLASSIFICATION/STATUS
	(Table)			strength wastes.	
30	383.44(2) Influent quality.	Various commercial buildings produce influent quality greater than those listed, but still may be best served by a POWTS.	Add (d), "New facilities potentially generating waste greater than the parameters listed in (a) may be designated as 'At-Risk'. At-Risk facilities shall submit testing data, according to section (b), within one year of installation. Those facilities shown to produce parameters above the limits in (a) shall make the necessary changes to reduce wastewater strength according to the management plan."	The cost of this proposal expected to be minimal. This proposal is expected to provide better management of 'at-risk' systems and reduce violation of the code.	High ***Review draft language on 4-12-2016. Add it in. Review language next time.***
31	383.44(2)(a)	Currently, the department exclusively allows some form of aerobic treatment component to meet the parameters specified in 383.44(2)(a) in situations where those parameters would be exceeded without the aerobic treatment. Often, the aerobic components are incorporated into a POWTS design without consideration of relevant hydraulic flow and organic loading data. The hydraulic flow and organic loading must be within the performance limits of the proposed aerobic component model in order for it to operate properly. Furthermore, once these components are in operation, many are not maintained in a timely manner resulting in pre-maturely failing drain fields. Other design techniques are available that would eliminate these inherent problems with aerobic components. These techniques	Revise s. SPS 383.44(2)(a) to read: "Unless otherwise permitted under s. SPS 383.46," (remainder as currently worded). Then add a new code section, s. SPS 383.46, which would read: "Design techniques for in situ soil dispersal components receiving high-strength wastewater. (1) Definition. Influent to an in situ soil dispersal component shall be considered high-strength if it exceeds the parameters specified under s. SPS 383.44 (2)(a)&(b). (2) Permitted design techniques. Permitted techniques for designing in situ soil dispersal components receiving high strength wastewater include one or a combination of the following: (a) Determine the minimum required dispersal area based on organic loading rates. (b) Provide three separate dispersal components each having fifty percent of the minimum required area based on hydraulic loading rates. In an annual rotation scheme employing a diverter valve, two units would be on-line while one unit would be off-line." (These alternatives are suggestions open to discussion.)	The cost of this proposal is unknown. The proposed language would provide alternatives to the use of aerobic components to reduce organic load concentrations and to the inherent and intensive ATU maintenance requirements.	High ***Review draft language on 4-1-2016.*** ***Agreed no change needed.***

SPS 383 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS					
NO.	**SPS SECTION**	**ISSUE**	**POTENTIAL CHANGES**	**POTENTIAL COSTS/BENEFITS**	**CLASSIFICATION/STATUS**
		were effectively applied in Wisconsin for "high-strength" wastewater application to soil dispersal areas prior to the pervasive use of aerobic components which did not begin until the mid- to late 1990's.			
32	383.44(6)(a)2 ORIENTATION	Some component manuals allow systems to be constructed <1% off contour.	Codify component manual language by striking "along" and replacing it with "within 1% of".	This proposal is not expected to increase costs. This proposal is expected to clarify rule requirements and provide a basis for more consistent interpretation of the rule.	Low ***Draft language discussed 2-10-2016. Completed.***
33	383.45 *Council Addition*	Specify cover/backfill depth for effluent lines and forcemains.	No specifications for the cover over forcemains. No minimum depth. If picking number, it would be one foot. Effluent lines and forcemains need to have 12 inches of cover. SPS 383.45 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. SPS 383.22. (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	Physical protection for issue. Hit with lawn mower and breaks. When it gets hit by a lawn mower or something then there could be a discharge. Common practice for other types of systems to provide frost proofing.	Medium ***Need further review.***

SPS 383 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS					
NO.	SPS SECTION	ISSUE	POTENTIAL CHANGES	POTENTIAL COSTS/BENEFITS	CLASSIFICATION/STATUS
			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. SPS 384.10 or a plan approval under s. SPS 383.22. (6) FLOODPLAIN. (a) All POWTS treatment tanks, holding and dispersal tanks that are located in floodplain areas shall be made and maintained watertight to prevent infiltration. (b) Vent pipes and observation pipes serving POWTS components that are located in floodplain areas shall terminate at least 2 feet above regional flood levels. (7) MINIMUM DEPTH. Top of the effluent lines and forcemains 12 inches. Note: See s. SPS 383.43 (8) (g) relative to anchoring provisions. History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 07-100: am. (6) Register September 2008 No. 633, eff. 10-1-08; correction in (1), (5) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.		
34	383.45(2) *Council Addition*	Change language to say "…frozen at <u>or below</u> the infiltrative surface…"			Low ***Draft language discussed 2-10-2016. Completed.***
35	383.45(6) *Council Addition*	Can we clarify requirements for POWTS in a floodplain? Should 383.45(6) allow Observation pipes <2' above RFE, if they have watertight	First, NR 116. This group can't fix that. Question is why do they have to go that high if they are watertight caps? Strike "and observation pipes" only those with watertight		Medium ***Review draft language regarding observation pipes 4-1-2016***

SPS 383 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS					
NO.	SPS SECTION	ISSUE	POTENTIAL CHANGES	POTENTIAL COSTS/BENEFITS	CLASSIFICATION/STATUS
		caps.	caps..		
36	383.52(1) & 384.27(7)(h)	Clarify the concept of "locked or secured"	How do you secure objects (like ejector pits) that don't have weight. Can we learn something from city manhole covers? Maintenance is big issue. Safety is a concern. Children falling in and dying-usually because the pit is open, not that they are lifting the cover off. Other states use safety nets. Fall protection for over 12 inches. Would a secondary net replace primary security? ASTMC 1227.7.13 indicates minimum weight of manhole cover should be 59 pounds. National Precast Concrete Association best practices might be another source for standards. Possibly say that all covers less than 59 pounds should be locked and secured. Change the wording from unauthorized (maybe accidental) access. covers. Maybe leave 8 inches. Make sure to use phrase locked and secured. 382.34 (5) (c) h.requires grease interceptors to have a manhole cover and an approved locking device. Manhole risers for interceptor tanks shall be provided with a substantial, fitted watertight cover of concrete. Safety nets-systems permitted by the PCA, safety net. Need to specify zip ties. Need to identify costs.		Low ***Discussed at 2-10-2016 and 3-16-2016 meetings. Need more discussion to develop specific language and reach a consensus.***
37	383.54(2)(b) or fund department monitoring 383.70	Many pretreatment devices are not tested to the environmental conditions present in Wisconsin. Too many pretreatment devices appear not to perform as advertised	Require annual effluent testing for all devices that install pretreatment devices	The potential cost would need to be determined. It would provide better data on the performance of devices approved for	High ***Need further discussion.***

SPS 383 PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS					
NO.	**SPS SECTION**	**ISSUE**	**POTENTIAL CHANGES**	**POTENTIAL COSTS/BENEFITS**	**CLASSIFICATION/STATUS**
		causing POWTS failures and owners/installers upset with the department for approving these devices. Product approval has become more of a "buyer beware" environment than a real review of pertinent performance testing.		use in this state. Better data will result in ability to make informed decisions on the performance of devices.	
38	OTHER *Council Addition*	Inventory/maintenance of state owned POWTS			Discussion needed ***Determined no change is needed.***
39	OTHER *Council Addition*	Wisconsin Fund Grant program	Update table as statutorily required. Fix types of mounds. Paid for least costly alternative-should exempts holding tank as least costly alternative.		Discussion needed
40	Update appendix SPS 383 table		Update footnote to more definitively say they generate high strength waste or potentially may generate high strength waste.		Homework for next meeting in June.

SPS 384 PLUMBING PRODUCTS					
NO.	**SPS SECTION**	**ISSUE**	**POTENTIAL CHANGES**	**POTENTIAL COSTS/BENEFITS**	**CLASSIFICATION**
50	384.25 *Council Addition*	Clarify requirements for repair of POWTS tanks • When can a tank be repaired vs replaced? • When is DSPS or manufacturer's approval required for a repair? • Sanitary permit?	Leave it the way it is now.		Medium ***Discussed at 2-10-2016 meeting. Completed.***
51	384.30(6)(j)	Various natural materials non-conducive to filtering in a POWTS have been proposed.	Additional language stating: "Also, sand used as a filtering medium in a treatment or dispersal component of a POWTS shall meet all of the following requirements: be comprised of outwash parent material and have a hardness value of at least 3 on Moh's Scale of Hardness."	No expected cost increase. This proposal would clarify the type of material allowed for use in a POWTS.	Low ***Reviewed draft language 2-10-2016. Need to clarify issue regarding stormwater subsurface infiltration.***
52	384.10 (3)	Review makeup committee and how referenced in code.	Add clarification (definition) of product vs. component.	DIS finds more value in more input in product	***Discussed at 3-16-2016 meeting.***

SPS 384 PLUMBING PRODUCTS					
NO.	SPS SECTION	ISSUE	POTENTIAL CHANGES	POTENTIAL COSTS/BENEFITS	CLASSIFICATION
		Responsibilities of that committee.	Makeup of the committee What should required and what should be optional for review. What specifically will the TAC review. Duties of the TAC. Possible timeframes?	review. Information varies.	***Additional information at 4-12-2016 meeting. Identify specific language.***

SPS 385 SOIL AND SITE EVALUATIONS					
NO	SPS SECTION	ISSUE	POTENTIAL CHANGES	POTENTIAL COSTS/BENEFITS	CLASSIFICATION/STATUS
60	385.60(2)(a)	Wording does not adequately reflect the current use of Interpretative Determination Reports (IDR).	Revise second sentence. The written report shall conclusively determine current conditions of periodic soil saturation and assess their effect upon the operation of a POWTS.	No expected costs. Clarifies the use and intent of IDRs.	Low ***Draft language discussed at 2-10-16 meeting. Completed.***
61	385.60(2)(b)	Delays in approval of Interpretative Determinations (IDR) due to scheduling onsite with Wastewater Specialists.	Revise to exempt IDRs written by licensed Professional Soil Scientists from Departmental review.	May reduce review fees. Reduce delay in time to receive plan approval, especially during peak submittal times.	Low ***Draft language reviewed 2-10-2016, but group identified concerns with topic. Decision needed as to whether to proceed.***
62					

Chapter SPS 381

DEFINITIONS AND STANDARDS

Note: Chapter Comm 81 was renumbered chapter SPS 381 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

SPS 381.01 Definitions. In chs. SPS 381 to 387, except as otherwise specifically defined:

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

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

(2m) "Accessory building" means a detached building, not used as a dwelling unit but is incidental to that of the dwelling.

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

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

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

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

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

(7e) "Alternate plumbing system" means a type of plumbing system designed in such a manner that valid and reliable data shall demonstrate to the department that the plumbing system is in compliance with the intent of chs. SPS 381 to 384.

(7m) "Ambulatory surgery center" means a health care facility that accepts federal funding in accordance with 42 CFR 416 of the federal register for health care finance and where 4 or more individuals that undergo a surgical procedure for which federal reimbursement is based.

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

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

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

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

(12) "Areawide water quality management plan" means those plans prepared by the department of natural resources, including those plans prepared by agencies designated by the governor under the authority of ss. 281.11, 281.12 (1), 281.15, and 283.83, Stats., for the purpose of managing, protecting and enhancing groundwater and surface water of the state.

Note: See ch. SPS 382 Appendix for a list of water quality management agencies and their addresses.

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

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

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

Note: Section 145.01 (2), Stats., reads:

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

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

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

(17e) "Backflow preventer" means any generic backflow prevention device or assembly.

(18) "Backflow preventer with intermediate atmospheric vent" means a type of cross connection control device which consists of 2 independently acting check valves, internally force-loaded to a normally closed position and separated by an intermediate chamber with a means for automatically venting to atmosphere where the venting means is internally force-loaded to a normally open position. The terms "backflow preventer" or "dual check valve type with atmospheric port backflow preventer" has the same meaning as backflow preventer with intermediate atmospheric vent.

(19) "Back siphonage" means the creation of a backflow as a result of negative pressure.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(35) "Branch interval" means a vertical measurement of distance, 8 feet or more in length, between the connections of horizontal branches to a drainage stack.

Note: See ch. SPS 382 Appendix for explanatory material.

(35m) "Branch tailpiece" means a fitting consisting of a combination tail piece and a wye.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(51) "Campsite receptor" means the vertical drain piping and trap combination that receives wastewater from recreational vehicles.

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

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

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

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

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

(56e) "Clinic sink" means a fixture having an integral trap and a flushing rim so that water cleanses the interior surface.

Note: This fixture has flushing and cleansing characteristics similar to a water closet. A clinic sink may also be referred to as a clinic service sink, a bedpan washing sink or a flushing rim sink.

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

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

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

(59m) "Combination private water main" means a private water main that serves a fire protection system and any number of plumbing fixtures.

(59s) "Combination water service" means a water service that serves a fire protection system and any number of plumbing fixtures.

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

(60e) "Community-based residential facility" has the meaning specified under s. 50.01 (1g), Stats.

Note: Section 50.01 (1g), Stats., reads:

"Community-based residential facility" means a place where 5 or more adults who are not related to the operator or administrator and who do not require care above intermediate level nursing care reside and receive care, treatment or services that are above the level of room and board but that include no more than 3 hours of nursing care per week per resident. "Community-based residential facility" does not include any of the following:

(a) A convent or facility owned or operated by members of a religious order exclusively for the reception and care or treatment of members of that order.

(b) A facility or private home that provides care, treatment, and services only for victims of domestic abuse, as defined in s. 49.165 (1) (a), Stats., and their children.

(c) A shelter facility as defined under s. 16.308 (1) (d), Stats.

(d) A place that provides lodging for individuals and in which all of the following conditions are met:

1. Each lodged individual is able to exit the place under emergency conditions without the assistance of another individual.

2. No lodged individual receives from the owner, manager or operator of the place or the owner's, manager's or operator's agent or employee any of the following:

a. Personal care, supervision or treatment, or management, control or supervision of prescription medications.

b. Care or services other than board, information, referral, advocacy or job guidance; location and coordination of social services by an agency that is not affiliated with the owner, manager or operator, for which arrangements were made for an individual before he or she lodged in the place; or, in the case of an emergency, arrangement for the provision of health care or social services by an agency that is not affiliated with the owner, manager or operator.

(e) An adult family home.

(f) A residential care apartment complex.

(g) A residential facility in the village of Union Grove that was authorized to operate without a license under a final judgment entered by a court before January 1, 1982, and that continues to comply with the judgment notwithstanding the expiration of the judgment.

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

(61m) "Containment" means the installation of a cross connection control method, device or assembly to prohibit the flow of contamination from a building or facility into a water supply system.

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

(62e) "Containment tank" means a device with a valved outlet designed to temporarily hold potentially hazardous wastewater for evaluation before discharging to a POWTS or municipal sewer.

(62m) "Continuous pressure" means a pressure greater than atmospheric and exerted for a period of more than 12 continuous hours.

(62s) "Conveyance system" means that portion of a drain system that consists of a series of pipes that transport water from one area to another without providing detention.

(63) "Corporation cock" means a valve:

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

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

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

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

(65m) "Cross connection control assembly" means a testable backflow preventer consisting of an arrangement of components.

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

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

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

(69) "Department" means the department of safety and professional services.

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

(70m) "Detention" means the collection and temporary storage of water for subsequent gradual discharge.

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

Note: Section 145.245 (1) (a), Stats., reads:

"Determination of failure" means any of the following:

1. A determination that a private sewage system is failing, according to the criteria under sub. (4), based on an inspection of the private sewage system by an employee of the state or a governmental unit who is certified to inspect private sewage systems by the department.
2. A written enforcement order issued under s. 145.02 (3) (f), 145.20 (2) (f) or 281.19 (2).
3. A written enforcement order issued under s. 254.59 (1) by a governmental unit.

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

(72e) "Dfu" means drainage fixture unit.

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

(74) "Disinfection unit" means a type of POWTS treatment component, excluding a soil-based POWTS treatment component, that utilizes a chemical or photoelectric process to reduce the wastewater fecal coliform contaminant load.

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

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

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

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

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

(80) "Double check detector fire protection backflow preventer-assembly" means an assembly serving a fire protection system and consisting of 2 independently acting check valves, internally forced loaded to a normally closed position, 2 tightly closing shut-off valves, and properly located test cocks which also includes a parallel flow meter to indicate leakage or unauthorized use of water downstream of the assembly.

(80m) "Double check fire protection backflow prevention assembly" means an assembly serving a fire protection system and consisting of 2 independently acting check valves, internally forced loaded to a normally closed position, 2 tightly closing shut-off valves, and properly located test cocks. The term "double check valve backflow preventer for fire protection systems" has the same meaning as double check fire protection backflow prevention assembly.

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

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

(82e) "Dual check backflow preventer wall hydrant-freeze resistant type" means a type of hose bibb that provides protection of the potable water supply from contamination due to backsiphonage or backpressure

without damage to the device due to freezing, and is field testable to verify protection under the high hazard conditions present at a hose threaded outlet.

(82m) "Dual check valve type with atmospheric port backflow preventer" has the same meaning as specified in sub. (18).

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

(84) "Effluent" means liquid discharged from a process, device, appurtenance or piping system.

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

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

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

Note: Section 160.01 (2), Stats., reads:

"Enforcement standard" means a numerical value expressing the concentration of a substance in groundwater which is adopted under ss. 160.07 and 160.09.

(88) "Engineered soil" means a mineral product that is equivalent to in situ soil for which treatment capability has been credited under Table 383.44-3, or superior to in situ soil in its ability to treat or disperse domestic wastewater from a POWTS.

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

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

(90e) "Experimental plumbing system" has the same meaning as experimental system as specified in sub. (91).

(90m) "Exam sink" means a plumbing fixture used for hand washing in health care and related facilities.

Note: An exam sink may also be referred to as a treatment sink.

(91) "Experimental system" means a type of plumbing system from which valid and reliable data are being sought to demonstrate compliance with the intent of chs. SPS 382 to 384.

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

Note: Section 145.245 (4) reads:

"Failing private sewage system" means a private sewage system which causes or results in any of the following conditions:

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

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

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

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

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

(93) "Farm" means a parcel of 35 or more acres of contiguous land that is devoted primarily to agricultural use, as defined under s. 91.01 (2), Stats.

Note: Section 91.01 (2), Stats., reads:

(a) Any of the following activities conducted for the purpose of producing an income or livelihood:

1. Crop or forage production.
2. Keeping livestock.

3. Beekeeping.
4. Nursery, sod, or Christmas tree production.
4m. Floriculture.
5. Aquaculture.
6. Fur farming.
7. Forest management.
8. Enrolling land in a federal agricultural commodity payment program or a federal or state agricultural land conservation payment program.

(b) Any other use that the department, by rule, identifies as an agricultural use.

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

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

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

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

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

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

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

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

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

Note: Section NR 116.03 (14) reads:

"Floodfringe" means that portion of a floodplain which is outside of the floodway, which is covered by flood water during the regional flood. The term "floodfringe" is generally associated with standing water rather than flowing water.

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

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

Note: Section NR 116.03 (16) reads:

"Floodplain" means that land which has been or may be covered by flood water during the regional flood. The floodplain includes the floodway, floodfringe, shallow depth flooding, flood storage and coastal floodplain areas.

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

Note: Section NR 116.03 (22) reads:

"Floodway" means the channel of a river or stream, and those portions of the floodplain adjoining the channel required to carry the regional flood discharge.

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

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

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

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

(108m) "Foundation drain" means a subsoil drain that serves the area of the foundation of a building.

(108s) "Freeze resistant sanitary yard hydrant" means a type of device serving as a hose bibb that has design features that minimize the risk of freezing, prevent groundwater contamination and provide backflow protection. The term "freeze resistant sanitary yard hydrant with backflow protection" has the same meaning as freeze resistant sanitary yard hydrant.

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

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

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

Note: Section 145.01 (5), Stats., reads:

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

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

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

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

Note: Section 160.01 (4), Stats., reads:

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

(115) "Hand-held shower" means a hose and a hand-held discharge piece such as a shower head or spray connecting to a fixture fitting.

(116) "Health care and related facility" means a hospital, nursing home, community-based residential facility, county home, infirmary, inpatient mental health center, inpatient hospice, ambulatory surgery center, adult daycare center, end stage renal facility, facility for the developmentally disabled, institute for mental disease, urgent care center, clinic or medical office, residential care center for children and youth or school of medicine, surgery or dentistry.

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

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

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

(120) "High hazard" means a situation where the water supply system could be contaminated with a toxic substance or solution so as to make the water unsuitable for the designated use.

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

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

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

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

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

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

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

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

Note: Section 254.01 (2), Stats., reads:

"Human health hazard" means a substance, activity or condition that is known to have the potential to cause acute or chronic illness, to endanger life, to generate or spread infectious diseases, or otherwise injuriously to affect the health of the public.

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

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

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

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

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

(133s) "Infiltration component" means any device or method that is intended to promote the assimilation of water into in situ soil.

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

(135) "In situ soil" means soil naturally formed or deposited in its present location or position and includes soil material that has been plowed using normal tillage implements and depositional material resulting from erosion or flooding.

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

(136s) "Irrigation" means the application of water to the root zone of plants or plantings.

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

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

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

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

(141) "Lead-free" means:

(a) When used with respect to solders and flux, containing not more than 0.2 percent lead.

(b) When used with respect to pipe and pipe fittings and fixtures, containing not more than 8.0 percent lead.

(c) When used with respect to the wetted surface material of pipe and pipe fittings and fixtures, containing a weighted average of not more than 0.25 percent lead.

Note: Calculation procedures for determining the weighted average lead concentration in a product that consists of several components are listed in NSF/ANSI Standard 61, annex G, including how to comply with amended sec. 1417(d)(2) of the federal Safe Drinking Water Act (SDWA) of 2011.

(142) "Linear loading rate" means the amount of effluent applied daily along the landscape contour expressed in gallons per day per linear foot along a site contour.

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

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

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

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

(147) "Low hazard" means a situation where the water supply system could be contaminated with a nontoxic substance or solution so as to make the water unsuitable for the designated use.

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

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

(150) "Manufactured dwelling" has the meaning specified under s. SPS 320.07 (52) (a).

Note: Section SPS 320.07 (52) (a) was repealed.

(151) "Manufactured home" has the meaning specified under s. 101.91 (2), Stats.

Note: Section 101.91 (2), Stats., reads:

"Manufactured home" means any of the following:

(am) A structure that is designed to be used as a dwelling with or without a permanent foundation and that is certified by the federal department of housing and urban development as complying with the standards established under 42 USC 5401 to 5425.

(c). A mobile home, unless a mobile home is specifically excluded under the applicable statute.

(152) "Manufactured home drain connector" means the pipe that joins the drain piping for a manufactured home to the building sewer.

(153) "Manufactured home community" has the meaning specified under s. 101.91 (5m), Stats.

Note: Section 101.91 (5m), Stats., reads:

"Manufactured home community" means any plot or plots of ground upon which 3 or more manufactured homes that are occupied for dwelling or sleeping purposes are located. "Manufactured home community" does not include a farm where the occupants of the manufactured homes are the father, mother, son, daughter, brother or sister of the farm owner or operator or where the occupants of the manufactured homes work on the farm.

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

(154m) "Mixed wastewater" means a combination of domestic and non-domestic wastewater.

(154r) "Moh's Scale of Hardness" means a test for a mineral's hardness based on a mineral's resistance to visible scratching by another mineral. The scale classifies a mineral from 1 to 10, with the softest mineral having a hardness value of 1 and the hardest mineral having a value of 10.

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

(156) "Multipurpose piping system" means a water distribution system conveying water to plumbing fixtures and appliances and automatic fire sprinklers with the intention of serving both domestic and fire protection needs.

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

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

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

Note: Section NR 115.03 (5) reads:

"Navigable waters" means Lake Superior, Lake Michigan, all natural inland lakes within Wisconsin and all streams, ponds, sloughs, flowages and other waters within the territorial limits of this state, including the Wisconsin portion of boundary waters, which are navigable under the laws of this state. Under s. 281.31 (2) (d), Stats., notwithstanding any other provision of law or administrative rule promulgated thereunder, shoreland ordinances required under s. 59.692, Stats., and this chapter do not apply to lands adjacent to farm drainage ditches if:

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

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

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

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

(160e) "Noncontinuous pressure" means a pressure greater than atmospheric and exerted for a period of no more than 12 continuous hours.

(160m) "Non-domestic wastewater" means any wastewater that is not domestic wastewater or storm water.

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

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

(163) "Nontoxic" means a substance in the diluted form that meets one of the following requirements:

(a) Is listed by the National Sanitation Foundation (NSF) as meeting the NSF evaluation criteria for nonfood compounds.

(b) Is acceptable to the United States Food and Drug Administration (FDA) Title 21 section 175.300 of the Federal Regulation on Food Additives.

(c) Is acceptable for contact with potable water or is deemed non-toxic by a third party certification that is acceptable to the department.

(d) Is deemed non-toxic by the department.

(163e) "Nursing home" has the meaning specified under s. 50.01 (3), Stats.

Note: Section 50.01 (3), Stats., reads:

"Nursing home" means a place where 5 or more persons who are not related to the operator or administrator reside, receive care or treatment and, because of their mental or physical condition require access to 24-hour nursing services, including limited nursing care, intermediate level nursing care and skilled nursing services. "Nursing home" does not include any of the following:

(c) A convent or facility owned or operated exclusively by and for members of a religious order that provides reception and care or treatment of an individual.

(d) A hospice, as defined in s. 50.90 (1), Stats., that directly provides inpatient care.

(e) A residential care apartment complex.

(163s) "Occasional occupancy" means occupying a building that is served by a POWTS for less than 120 calendar days per year.

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

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

(166) "Offset" means a combination of fittings or bends that makes two changes in direction bringing one section of the pipe out of line but into a line parallel with the other section.

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

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

(168m) "Open bodies of water" means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface water, natural or artificial, public or private within the state or under its jurisdiction.

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

Note: Section NR 115.03 (6), reads:

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

(170) "Participating governmental unit" means a governmental unit which applies to the department for financial assistance under ss. SPS 387.04 and 387.05, and which meets the conditions specified under s. 145.245 (9), Stats.

(170e) "Patient area plumbing fixture" means a plumbing fixture that is accessible to patients in a health care facility and is intended to be used for culinary, hygienic or domestic purposes.

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

(171e) "Peak flow, stormwater" means the largest anticipated flow from a given storm event.

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

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

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

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

Note: Section 101.01 (11), Stats., reads:

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

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

Note: Section 145.01 (10), Stats., reads:

"Plumbing" means:

(a) 1. All piping, fixtures, appliances, equipment, devices, and appurtenances in connection with water supply systems, water distribution systems, wastewater drainage systems, reclaimed water systems, and stormwater use systems, including hot water storage tanks, water treatment devices, and water heaters connected with these systems and also includes the installation thereof.

2. The construction, connection, installation, service, or repair of any drain or wastewater piping system that connects to the mains or other terminal within the bounds of, or beneath an area subject to easement for highway purposes, including private sewage systems and stormwater treatment and dispersal systems, and the alteration of any such systems, drains or wastewater piping.

3. The construction, connection, installation, service, or repair of water service piping that connects to the main or other water utility service terminal within the bounds of, or beneath an area subject to easement for highway purposes and its connections.

4. The water pressure system other than municipal systems as provided in ch. 281.

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

(br) "Plumbing" does not include any of the following:

1. A rainwater gutter or downspout down to the point that it discharges into a plumbing system, a subsoil drain, or a foundation drain.

2g. A process water reuse system if the process water reuse system is not connected to any plumbing fixture or appliance.

2m. A stormwater culvert under a roadway or walkway that is placed there only to equalize the water level from one end of the culvert to the other end.

3. The practical installation of process piping within a sewage disposal plant.

(177) "Plumbing appliance" means any one of a special class of plumbing devices which is intended to perform a special function. The operation or control of the appliance may be dependent upon one or more

energized components, such as motors, controls, heating elements, or pressure or temperature sensing elements. The devices may be manually adjusted or controlled by the user or operator, or may operate automatically through one or more of the following actions: a time cycle, a temperature range, a pressure range, or a measured volume or weight.

(178) "Plumbing fixture" means a receptacle or device which meets at least one of the following:

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

(b) Discharges wastewater or waste materials either directly or indirectly to the drain system of the premises.

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

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

(180) "Point of standards application" has the meaning specified under s. 160.01 (5), Stats.

Note: Section 160.01 (5) Stats., reads:

"Point of standards application" means the specific location, depth or distance from a facility, activity or practice at which the concentration of a substance in groundwater is measured for purposes of determining whether a preventive action limit or an enforcement standard has been attained or exceeded.

(181) "Potable water" means water that is both:

(a) Safe for drinking, personal or culinary use.

(b) Free from impurities present in amounts sufficient to cause disease or harmful physiological effects.

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

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

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

(185) "POWTS holding component" means any receptacle intended to collect wastewater for a period of time, including holding and dosing tanks, and exterior ejector tank in a POWTS system.

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

(186s) "Pre-development" means the condition of the topography of vegetation, including that resulting from human activities that existed prior to land disturbance for construction.

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

(187e) "Prefabricated sump and pump system" means a simplex or duplex pump and sump designed as a combined unit.

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

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

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

(191) "Preventive action limit" or "PAL" has the meaning as specified under s. 160.01 (6), Stats.

Note: Section 160.01 (6), Stats., reads:

"Prevention action limits" means a numerical value expressing the concentration of a substance in groundwater which is adopted under s. 160.15, Stats.

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

(193) "Private interceptor main sewer" means a sewer serving 2 or more buildings and not part of the municipal sewer system.

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

Note: Section 145.01 (12), Stats., reads:

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

(195) "Private water main" means a water main serving 2 or more buildings and not part of the municipal water system.

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

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

Note: Section 101.01 (12), Stats., reads:

"Public building" means any structure, including exterior parts of such building, such as a porch, exterior platform or steps providing means of ingress or egress, used in whole or in part as a place of resort, assemblage, lodging, trade, traffic, occupancy, or use by the public or by 3 or more tenants. When used in relation to building codes, "public building" does not include a previously constructed building used as a community-based residential facility as defined in s. 50.01 (1g) which serves 20 or fewer unrelated residents or an adult family home, as defined in s. 50.01 (1).

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

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

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

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

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

(203) "Reduced pressure detector fire protection backflow prevention assembly" means a type of reduced pressure principle type backflow preventer serving a fire protection system and which includes a parallel flow meter to indicate leakage or unauthorized use of water downstream of the assembly.

(203m) "Reduced pressure fire protection principle backflow preventer" means an assembly serving a fire protection system and consisting of 2 independently-acting check valves, internally force loaded to a normally closed position, and separated by an intermediate chamber or zone in which there is a hydraulically

operated relief means of venting to atmosphere, internally forced loaded to a normally open position. The term "reduced pressure principle backflow preventer for fire protection systems" has the same meaning as reduced pressure fire protection principle backflow preventer.

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

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

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

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

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

(209) "Rowhouse" means a building which is not more than 3 stories in height and which contains only 3 or more attached, vertically separated, side-by-side or back-to-back dwelling units, with each dwelling unit served by an individual exterior exit within 6 feet of the exit discharge grade.

(209m) "RV transfer tank" means a type of stationary container used to collect and hold wastewater discharges generated by an individual camping trailer or recreational vehicle.

(210) "Safing" means a membrane or material installed beneath a fixture to prevent leakage from escaping to the floor, ceiling or walls.

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

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

(212e) "Scrub sink" means a plumbing fixture used for hand and arm washing prior to surgery or other medical procedures.

Note: A scrub sink may also be referred to as a surgeon washup sink.

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

(214) "Secretary" means the secretary of the department of safety and professional services or designee.

(214m) "Service sink" means a fixture designed to be used for building or facility maintenance.

Note: A service sink may also be referred to as a mop sink, mop basin or janitor's sink.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(231m) "Spill resistant vacuum breaker" means a cross connection control device consisting of one check valve force loaded closed, an air inlet force loaded open to atmosphere downstream of the check valve, 2 shutoff valves and 2 test cocks.

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

Note: See ch. SPS 382 Appendix for an illustration depicting the spring line of a pipe.

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

(234) "Stack vent" means a vent extending from the highest horizontal drain connected to a stack.

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

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

(237) "State plumbing code" means chs. SPS 381 to 387.

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

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

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

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

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

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

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

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

(245) "Storm sewer" means a pipe, other than a pipe located inside a building, that carries any of the following: storm water, groundwater or clear water.

(246) "Storm water" means wastewater from a precipitation event.

(247) "Subsoil drain" means that part of a drain system that conveys groundwater to a point of discharge or dispersal.

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

(249) "Sump pump" means an automatic device located in a sump, pit or low point that is designed to elevate storm water, groundwater or clear water.

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

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

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

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

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

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

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

(256e) "Ten-year, 24-hour storm" or "10-year, 24-hour storm" means a discrete rain storm event characterized by a specific duration, temporal distribution, rainfall intensity, return frequency and total depth of rainfall.

Note: The frequency, intensity, and duration of rainfall varies considerably during a storm by geographic location. Precipitation frequency atlases, NOAA Atlas 2, have been prepared by the National Oceanic and Atmospheric Administration (NOAA), National Weather Service. In chapter SPS 382, this value may be expressed as a specific "design storm". The calculated volume of rainfall, or stormwater, may be determined from this value and used to calculate peak discharge.

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

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

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

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

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

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

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

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

(265e) "Vacuum breaker tee" means an assembly of fittings designed to eliminate the possibility of back siphonage in a system by allowing air to enter through a tee fitting.

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

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

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

(269) "Vent stack" means a vertical vent pipe that provides air for a drain stack of 5 or more branch intervals.

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

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

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

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

(273e) "Washer sanitizer" means a plumbing appliance used for washing and disinfecting equipment.

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

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

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

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

(277e) "Wastewater treatment device" means a device or method that is intended to beneficially alter the characteristics of wastewater.

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

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

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

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

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

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

Note: Section 281.01 (18), Stats., reads:

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

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

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

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

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

(286) "Wetland" has the meaning given in s. 23.32 (1), Stats.

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

(288) "Wet vent" means that portion of a vent pipe that receives the discharge from other fixtures.

(288e) "Whirlpool" has the meaning as specified under s. SPS 390.03 (23) (j).

Note: Section SPS 390.03 (23) (j) reads:

"Whirlpool" means a relatively small public swimming pool that uses high temperature water (greater than 93∘F) and that may include a water agitation system. A whirlpool may also be referred to as a spa.

Note: A fill and dump bathtub is not a whirlpool.

(288m) "Whirlpool bath tub" means a plumbing appliance consisting of a bathtub fixture that is equipped and fitted with a circulation piping system designed to accept, circulate and discharge bathtub water upon each use.

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

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; cr. (7e), (17e), (60e), (67e), (67m), (82m), (90e), (163e), (170e), (199e), (209e), (209m), (252e), (288e) and (288m), am. (18), (20), (79), (80), (189), (203) and (204), r. and recr. (116), Register, December, 2000, No. 540, eff. 1-1-01; CR 01-139: am. (209) Register June 2002 No. 558, eff. 7-1-02; corrections in (152) and (154) made under s. 13.93 (2m) (b) 7., Stats., Register June 2002 No. 558; CR 02-002: am. (7e), (42), (44), (46), (56), (80), (84), (90e), (120), (134), (147), (178), (181), (193), (195), (210), (245), (246), (247), and (276), cr. (7m), (35m), (51m), (56e), (61m), (62m), (65m), (72e), (90m), (108m), (160m), (187e), (212e), (214m), (265e), (273e), and (277e), r. and recr. (249) Register April 2003 No. 568, eff. 5-1-03; CR 02-129: cr (2m) and (168m) Register January 2004 No. 577, eff. 2-1-04; CR 04-035: cr. (59m), (59s), (62s), (70m), (129s), (133s), (136s), (171e), (186s) and (256e), am. (234) and (269) Register November 2004 No. 587, eff. 12-1-04; CR 07-100: cr. (163s) Register September 2008 No. 633, eff. 10-1-08; correction in (288e) made under s. 13.92 (4) (b) 7., Stats., Register September 2008 No. 633; CR 08-055: am. (5), (79), (115), (120), (147), (156), (189), (204), (234), (269) and (288), r. (20), (67e),

(67m), (199e), (209e), (209m), (252e) and (258), cr. (80m), (82e), (108s), (203m) and (231m), r. and recr. (80), (151) to (154), (163) and (203) Register February 2009 No. 638, eff. 3-1-09; corrections in (286) and (288e) made under s. 13.92 (4) (b) 7., Stats., and corrections to numbering of (80m), (108s) and (203m) made under s. 13.92 (4) (b) 1., Stats., Register February 2009 No. 638; CR 10-064: r. and recr. (35), am. (116), (166), renum. (160m) to be (160e), cr. (62e), (154m), (160m) Register December 2010 No. 660, eff. 1-1-11; correction in (intro.), (7e), (69), (88), (91), (170), (214), (237), (288e) made under s. 13.92 (4) (b) 6., 7., Stats., Register December 2011 No. 672; CR 11-031: r. (51), renum. (51m) to (51), cr. (209m) Register June 2013 No. 690, eff. 7-1-13; **CR 13-062: renum. (141) to (141) (intro.) and am., cr. (141) (a) to (c) Register February 2014 No. 698, eff. 3-1-14.**

SPS 381.20 Incorporation of standards by reference. (1) CONSENT. (a) Pursuant to s. 227.21 (2), Stats., the attorney general has consented to the incorporation by reference of the standards listed in sub. (3).

(b) The codes and standards that are referenced in this chapter, and any additional codes and standards that are subsequently referenced in those codes and standards, shall apply to the prescribed extent of each such reference, except as modified by this chapter.

Note: Copies of the adopted standards are on file in the offices of the department and the legislative reference bureau. Copies of the standards may be purchased through the respective organizations listed in Tables 381.20-1 to 381.20-13.

(2) ALTERNATE STANDARDS. (a) Alternate standards that are equivalent to or more stringent than the standards referenced in this code may [be] used in lieu of the referenced standards when approved by the department or if written approval is issued by the department in accordance with par. (b).

1. Upon receipt of a fee and a written request, the department may issue an approval for the use of the alternate standard.

2. The department shall review and make a determination on an application for approval within 40 business days of receipt of all forms, fees and documents required to complete the review.

Note: Review fees for standards under this paragraph are listed in ch. SPS 302.

(b) Determination of approval shall be based on an analysis of the alternate standard and the standard referenced in this code, prepared by a qualified independent third party or the organization that published the standard contained in this code.

(c) The department may include specific conditions in issuing an approval, including an expiration date for the approval. Violations of the conditions under which an approval is issued shall constitute a violation of this code.

(d) If the department determines that the alternate standard is not equivalent to or more stringent than the referenced standard, the request for approval shall be denied in writing.

(e) The department may revoke an approval for any false statements or misrepresentations of facts on which the approval was based.

(f) The department may reexamine an approved alternate standard and issue a revised approval at any time.

(3) ADOPTION OF STANDARDS. The standards referenced in Tables 381.20-1 to 381.20-13 are hereby incorporated by reference into this chapter.

Note: The tables in this section provide a comprehensive listing of all of the standards adopted by reference in this code. For requirements or limitations in how these standards are to be applied, refer to the code section that requires compliance with the standard.

(4) DEPARTMENT AUTHORITY. A department interpretation of an adopted standard under this chapter shall supersede any differing interpretation by either a lower level jurisdiction or an issuer of the adopted standard.

Table 381.20-1

AHAM	**Association of Home Appliance Manufacturers** **20 North Wacker Drive** **Chicago, Illinois 60606** **Phone: 202-872-5955** **Web page: www.aham.org**
Standard Reference Number	**Title**
DW-1-2005	Household Electric Dishwashers

Table 381.20-2

ANSI	**American National Standards Institute, Inc.** **1430 Broadway** **New York, New York 10018** **Phone: 212-642-4900** **Web page: www.ansi.org**
	Standard Reference Number	**Title**
1.	Z21.22-99 (R 2004)	Relief Valves for Hot Water Supply Systems
2.	Z21.22a-2000	Relief Valves for Hot Water Supply Systems (Addenda 2000)
3.	Z21.22b-2001	Relief Valves for Hot Water Supply Systems (Addenda 2001)
4.	Z124.1.2-2005	Plastic Bath Tub and Shower Units
5.	Z124.3-2005	Plastic Lavatories
6.	Z124.4-2006	Plastic Water Closet Bowls and Tanks
7.	Z124.6-97	Plastic Sinks
8.	Z124.9-2004	Plastic Urinal Fixtures

Table 381.20-3

ARI	**Air-Conditioning and Refrigeration Institute** **1815 North Fort Myer Drive** **Arlington, Virginia 22209** **Phone: 703-524-8800** **Web page: www.ari.org**
Standard Reference Number	**Title**
ARI-1010-2002	Self-Contained Mechanically-Refrigerated Drinking-Water Coolers

Table 381.20-3e

	ASME	**American Society of Mechanical Engineers** **345 East 47th Street** **New York, New York 10017** **Phone: 800-843-2763** **Web page: www.infocentral@asme.org**
	Standard Reference Number	**Title**
1.	A112.1.2-2004	Air Gaps in Plumbing Systems (For Plumbing Fixtures and Water-Connected Receptors)
1e.	A112.1.3-00	Air-gap Fittings for Use with Plumbing Fixtures, Appliances, and Appurtenances
2.	A112.6.1M-97 (R 2002)	Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use
2a.	A112.6.3-2001 (R 2007)	Floor and Trench Drains
3.	A112.14.1-03 (R 2008)	Backwater Valves
4.	A112.18.1-2005	Plumbing Supply Fittings
5.	A112.19.1M-94 (R 2000)	Enameled Cast Iron Plumbing Fixtures
5m.	A112.19.1M-1994	Errata November 1994 to Enameled Cast Iron Plumbing Fixtures
6.	A112.19.1M-1994	Supplement 1–1998 to Enameled Cast Iron Plumbing Fixtures
7.	A112.19.1M-1994	Supplement 2–2000 to Enameled Cast Iron Plumbing Fixtures
8.	A112.19.2-2003	Vitreous China Plumbing Fixtures and Hydraulic Requirements for Water Closets and Urinals
9.	A112.19.3-2000 (R 2004)	Stainless Steel Plumbing Fixtures (Designed for Residential Use)
10.	A112.19.3-2002	Supplement 1-2002 to Stainless Steel Plumbing Fixtures (Designed for Residential Use)
11.	A112.19.4-94 (R 2004)	Porcelain Enameled Formed Steel Plumbing Fixtures
12.	A112.19.5-2005	Trim for Water-Closet Bowls, Tanks, and Urinals
13.	B1.20.1-83 (R 2006)	Pipe Threads, General Purpose (Inch)
14.	B16.1-2005	Gray Iron Pipe Flanges and Flanged Fittings (Classes 25, 125, and 250)
15.	B16.3-1998 (R 2006)	Malleable Iron Threaded Fittings (Classes 150 and 300)
16.	B16.4-2006	Gray Iron Threaded Fittings (Classes 125 and 250)
17.	B16.5-2003	Pipe Flanges and Flanged Fittings NPS 1/2 Through NPS 24 (and addenda)
18.	B16.9-2003	Factory-Made Wrought Buttwelding Fittings
19.	B16.11-2005	Forged Fittings, Socket–Welding and Threaded
20.	B16.12-1998 (R 2006)	Cast Iron Threaded Drainage Fittings
21.	B16.15-85 (R1994)	Cast Bronze Threaded Fittings, Classes 125 and 250
22.	B16.18-2001 (R 2005)	Cast Copper Alloy Solder Joint Pressure Fittings
23.	B16.22-2001 (R 2005)	Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

24.	B16.23-2002 (R 2006)	Cast Copper Alloy Solder Joint Drainage Fittings: DWV
25.	B16.24-2001	Cast Copper Alloy Pipe Flanges and Flanged Fittings: Class 150, 300, 400, 600, 900, 1500 and 2500
26.	B16.26-2006	Cast Copper Alloy Fittings for Flared Copper Tubes
27.	B16.28-94	Wrought Steel Buttwelding Short Radius Elbows and Returns
28.	B16.29-2001	Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings — DWV
29.	B16.42-1998 (R 2006)	Ductile Iron Pipe Flanges and Flanged Fittings (Classes 150 and 300)
30.	B16.45-1998 (R 2006)	Cast Iron Fittings for Sovent® Drainage Systems
31.	B36.19M-2004	Stainless Steel Pipe

Table 381.20-4

ASSE		**American Society of Sanitary Engineering** **P.O. Box 9712** **Bay Village, Ohio 4414** **Phone: 440-835-3040** **Web page: www.asse-plumbing.org**
	Standard Reference Number	**Title**
1.	1001-2002	Atmospheric Type Vacuum Breakers
2.	1002-1999	Anti-siphon Fill Valves (Ballcocks) for Gravity Water Closet Flush Tanks
3.	1003-2001	Water Pressure Reducing Valves
4.	1004-1990	Commercial Dishwashing Machines
5.	1006-1989	Residential Use (Household) Dishwashers
6.	1007-1992	Home Laundry Equipment
7.	1008-2006	Plumbing Aspects of Residential Food Waste Disposer Units
8.	1009-1990	Commercial Food Waste Grinder Units
9.	1010-2004	Water Hammer Arresters
10.	1011-2004	Hose Connection Vacuum Breakers
11.	1012-2002	Backflow Preventer with Intermediate Atmospheric Vent
12.	1013-2005	Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers
13.	1014-2005	Backflow Prevention Devices for Hand-Held Showers
14.	1015-2005	Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies
15.	1016-2005	Automatic Compensating Valves for Individual Showers and Tub/Shower Combinations
15m.	1017–2003	Temperature Actuated Mixing Valves for Hot Water Distribution Systems
16.	1018-2001	Trap Seal Primer Valves — Potable Water Supplied
17.	1019-2004	Vacuum Breaker Wall Hydrants, Freeze Resistant Automatic Draining Type
18.	1020-2004	Pressure Vacuum Breaker Assembly
18m.	1021–2001	Drain Air Gaps for Domestic Dishwasher Applications
19.	1022-2003	Backflow Preventer for Beverage Dispensing Equipment
20.	1023-1979	Hot Water Dispensers, Household Storage Type, Electrical
20m.	1035-2002	Laboratory Faucet Backflow Preventers
21.	1037-1990	Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures
22.	1047-2005	Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies
23.	1048-2005	Double Check Detector Fire Protection Backflow Prevention Assemblies
24.	1052-2004	Hose Connection Backflow Preventers
24e.	1053–2005	Dual Check Backflow Preventer Wall Hydrant Freeze Resistant Type
25.	1055-2009	Chemical Dispensing Systems
26.	1056-2001	Spill Resistant Vacuum Breakers
26e.	1066-1997	Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings
27.	5013–2009[a]	Minimum Performance Requirements for Testing Reduced Pressure Principle Backflow Preventers (RP) and Reduced Pressure Principle Fire Protection Backflow Preventers (RPF)
28.	5015–2009[a]	Minimum Performance Requirements for Testing Double Check Backflow Prevention Assemblies (DC) and Double Check Fire Protection Backflow Prevention Assemblies (DCF)
29.	5020–2009[a]	Minimum Performance Requirements for Testing a Pressure Vacuum Breaker Assembly
30.	5047–2009[a]	Minimum Performance Requirements for Testing Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies (RPDF)
31.	5048–2009[a]	Minimum Performance Requirements for Testing Double Check Detector Fire Protection Backflow Prevention Assemblies (DCDF)

32.	5056–2009[a]	Minimum Performance Requirements for Testing Spill Resistant Vacuum Breaker

[a] Standard is contained in the ASSE 5000 Series of standards.

Table 381.20-5

	ASTM	**ASTM International** **100 Barr Harbor Drive** **West Conshohocken, Pennsylvania 19428-2959** **Phone: (610) 832-9585** **Web page: www:astm.org**
	Standard Reference Number	**Title**
1.	A53-02	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless, Specification for
2.	A74-06	Cast Iron Soil Pipe and Fittings, Specification for
3.	A123/A123M-02	Zinc (Hot-Galvanized) Coatings on Products, Specification for
4.	A270-03a	Seamless and Welded Austenitic Stainless Steel Sanitary Tubing, Specification for
5.	A403/A403M-07	Wrought Austenitic Stainless Steel Piping Fittings, Specification for
6.	A450/A450M-04a	Carbon, Ferritic Alloy, and Austenitic Alloy Steel Tubes
7.	A888-07a	Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Pipe Applications, Specifications for
8.	B32-04	Solder Metal
9.	B42-02^{E1}	Pipe, Seamless Copper, Standard Sizes
10.	B43-98	Seamless Red Brass Pipe, Standard Sizes, Specification for
11.	B88-03	Seamless Copper Water Tube, Specification for
11m.	B88M-05	Seamless Copper Water Tube, (Metric) Specification for
12.	B152/B152M-06a	Copper Sheet, Strip, Plate, and Rolled Bar, Specification for
13.	B251/B251M-02^{E1}	Tube, Wrought Seamless Copper and Copper
14.	B302-02	Threadless Copper Pipe, Specification for
15.	B306-02	Copper Drainage Tube (DWV), Standard Specifications for
15m.	B828-02	Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings, Practice for
16.	C14-07	Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe, Specification for
17.	C14M-07	Nonreinforced Concrete Sewer, Storm Drain, and Culvert Pipe, (Metric) Specification for
18.	C33-03	Concrete Aggregates, Specification for
19.	C76-07	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe, Specification for
20.	C76M-07	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe, (Metric) Specifications for
21.	C425-04	Compression Joints for Vitrified Clay Pipe and Fittings, Specification for
22.	C443-07	Specification for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets
22e.	C443M-07	Specification for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets (Metric)
22m.	C507/C507M-07	Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer, (Metric) Specifications for
23.	C564-03a	Rubber Gaskets for Cast Iron Soil Pipe and Fittings, Specification for
24.	C700-07	Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated, Specification for
24e.	C877/C877M-02^{E}	External Sealing Bands for Concrete Pipe, Manholes and Precast Box Sections, (Metric) Standard Specifications for
24h.	C923-07	Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals, Specification for
24m.	C990/C990M-06	Joints for Concrete Pipe, Manholes, Precast Box Sections Using Preformed Flexible Joint Sealants, Specifications for
24s.	C1306-05a	Hydrostatic Pressure Resistance of a Liquid-Applied Waterproofing Membrane, Standard Test Method for
25.	D1527-99 (R 2005)	Acrylonitrile-Butadiene-Styrene (ABS), Schedules 40 and 80
26.	D1785-06	Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80 and 120, Specification for

27.	D2104-03	Standard Specifications for Polyethylene (PE) Plastic Pipe, Schedule 40

Table 381.20-5 (Continued)

	ASTM	**ASTM International** **100 Barr Harbor Drive** **West Conshohocken, Pennsylvania 19428-2959** **Phone: (610) 832-9585** **Web page: www:astm.org**
	Standard Reference Number	**Title**
28.	D2235-04	Standard Specifications for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings
29.	D2239-03	Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter, Specification for
30.	D2241-05	Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR-Series)
31.	D2282-99 (R 2005)	Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe (SDR-PR), Specification for
32.	D2321-05	Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications, Practice for
33.	D2447-03	Polyethylene (PE) Plastic Pipe, Schedules 40 and 80, Based on Outside Diameter, Specification for
34.	D2464-06	Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80, Specification for
35.	D2466-06	Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40, Specification for
36.	D2467-06	Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80, Specification for
37.	D2468-96a	Acrylonitrile-Butadiene-Styrene (ABS), Plastic Pipe Fittings, Schedule 40, Specification for
38.	D2564-04^{E1}	Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Systems, Specification for
39.	D2609-02	Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe, Specification for
40.	D2657-07	Heat Fusion Joining of Polyolefin Pipe and Fittings, Standard Practice of
41.	D2661-06	Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings, Specification for
43.	D2665-07	Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings, Specification for
46.	D2680-01	Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer Piping, Specification for
47.	D2683-04	Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing, Specification for
48.	D2729-03	Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, Specification for
49.	D2737-03	Polyethylene (PE) Plastic Tubing, Specification for
50.	D2751-05	Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings, Specification for
51.	D2774-04^{E1}	Underground Installation of Thermoplastic Pressure Piping, Standard Practice for
52.	D2846/D2846M-06	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems, Specification for
53.	D2852-95	Styrene-Rubber (SR) Plastic Drain Pipe and Fittings, Specification for
54.	D2855-96	Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings, Practice for
55.	D3034-06	Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, Specification for
56.	D3035-06	Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Controlled Outside Diameter, Specification for
57.	D3138-04	Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Non-Pressure Piping Components, Specifications for
59.	D3140-90	Flaring Polyolefin Pipe and Tubing, Practice for
60.	D3212-96a (R 2003)	Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals, Specification for

61.	D3261-03	Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing, Specification for
62.	D3311-06a	Drain, Waste, and Vent (DWV) Plastic Fittings Patterns, Specification for
63.	D4068-01	Chlorinated Polyethylene (CPE) Sheeting for Concealed Water-Containment Membrane, Standard Test Method for
64.	D4491-99a (R 2004)	Water Permeability of Geotextile by Permittivity, Standard Test Method for
65.	D4533-04	Trapezoid Tearing Strength of Geotextiles, Standard Test Method for
66.	D4632-91 (R 2003)	Grab Breaking Load and Elongation of Geotextiles, Standard Test Method for
67.	D4751-04	Determining the Apparent Opening Size of a Geotextile, Standard Test Method for
68.	D4833-00^{E1}	Index Puncture Resistance of Geotextile, Geomembranes, and Related Products, Standard Test Methods for
69.	F402-05	Safe Handling of Solvent Cements, Primers and Cleaners Used for Joining Thermoplastic Pipe and Fittings, Practice for
70.	F405-05	Corrugated Polyethylene (PE) Tubing and Fittings, Specification for
71.	F409-02	Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings, Specification for
72.	F437-06	Threaded Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80, Specification for
73.	F438-04	Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40, Specification for
74.	F439-06	Socket-Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80, Specification for
75.	F441/F441M-02	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80, Specification for
76.	F442/F442M-99 (R 2005)	Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR), Specification for
77.	F477-07	Elastomeric Seals (Gaskets) for Joining Plastic Pipe, Specification for
78.	F492-95	Propylene and Polypropylene (PP) Plastic-Lined Ferrous Metal Pipe Fittings
79.	F493-04	Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings, Specification for
80.	F628-06^{E1}	Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core, Specification for
81.	F656-02	Primers for Use in Solvent Cement Joints of Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings, Specification for
81e.	F679-06a	Poly (Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings
81m.	F789-95a	Type PS-46 Poly (Vinyl Chloride) (PVC) Plastic Gravity Flow Sewer Pipe and Fittings
81s.	F794-03	Poly (Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter
82.	F810-07	Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields, Specification for
84.	F876-06	Crosslinked Polyethylene (PEX) Tubing, Specification for
85.	F877-07	Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems, Specification for
86.	F891-04	Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe With a Cellular Core, Specification for
87.	F949-06a	Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings
88.	F1281-07	Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene (PEX-AL-PEX) Pressure Pipe
89.	F1282-06	Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure Pipe
90.	F1336-07	Poly (Vinyl Chloride) (PVC) Gasketed Sewer Fittings
91.	F1807-07	Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing
92.	F1866-07	Poly (Vinyl Chloride) (PVC) Plastic Schedule 40 Drainage and DWV Fabricated Fittings, Specifications for

Table 381.20-6

AWS	**American Welding Society** **550 N.W. LeJune Road** **Miami, Florida 33126** **Phone: 800-443-9353** **Web page: www.aws.org/w/a**
Standard Reference Number	**Title**
AWS.A5.8M 2004	Filler Metals for Brazing and Braze Welding, Specification for

Table 381.20-7

	AWWA	**American Water Works Association** **Data Processing Department** **6666 West Quincy Avenue** **Denver, Colorado 80235** **Phone: 303-794-7711** **Web page: www.awwa.org**
	Standard Reference Number	**Title**
1.	C110-03	American National Standard for Ductile-Iron and Gray-Iron Fittings for Water
2.	C111-07	American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
3.	C115-05	American National Standard for Flanged Ductile-Iron Pipe with Ductile-Type Iron or Gray-Iron Pipe Threaded Flanges
4.	C151-02	Ductile-Iron Pipe, Centrifugally Cast, for Water
5.	C153-06	American National Standard for Ductile-Iron Compact Fittings, 3 in. through 16 in., for Water and Other Liquids
5c.	C220-2007	Stainless–Steel Pipe, ½ in. (13mm) and Larger
5e.	C651-05	Water Mains, Disinfecting
6.	C700-02	Cold-Water Meters — Displacement Type with Bronze Main Case (w/ 1991 Addendum)
7.	C701-07	Cold-Water Meters — Turbine Type for Customer Service
8.	C702-01	Cold-Water Meters — Compound Type
9.	C704-02	Cold-Water Meters — Propeller Type for Main Line Applications
10.	C706-96 (R 05)	Cold-Water Meters, Direct-Reading, Remote-Registration Systems for
11.	C707-05	Cold-Water Meters, Encoder-Type, Remote-Registration Systems for
12.	C708-05	Cold-Water Meters — Multi-Jet Type
13.	C710-02	Cold-Water Meters, Displacement Type — Plastic Main
14.	C900-07	Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings 4-inch to 12-inch (100mm Through 300mm) for Water Transmission and Distribution
15.	C901-02	Polyethylene (PE) Pressure Pipe and Tubing, $^{1}/_{2}$ in. (13mm) Through 3 in. (76mm) for Water Service
16.	C906-07	Polyethylene Pressure Pipe and Fittings, 4 in. through 63 in., for Water Distribution

Table 381.20-7e

CAN/CSA	**Canadian Standards Association** **178 Rexdale Boulevard** **Rexdale (Toronto), Ontario, Canada** **M9W 1R3** **Phone: 800-463-6727** **Web page: www.csa.ca**

Standard Reference Number	**Title**

1. B64.1.1–07 Atmospheric Vacuum Breakers

2.	B64.1.2–07	Pressure Vacuum Breakers
3.	B64.1.3–07	Spill Resistant Vacuum Breakers
4.	B64.2–07	Hose Connection Vacuum Breakers
5.	B64.2.2–07	Hose Connection Vacuum Breakers with Automatic Draining Feature
6.	B64.3–07	Dual Check Valve Backflow Preventers with Atmospheric Port
7.	B64.3.1–07	Dual Check Valve Backflow Preventers with Atmospheric Port for Carbonators
8.	B64.4–07	Reduced Pressure Principle Backflow Preventers
9.	B64.4.1–07	Reduced Pressure Principle Backflow Preventers for Fire Protection Systems
10.	B64.5–07	Double Check Valve Backflow Preventers
11.	B64.5.1–07	Double Check Valve Backflow Preventers for Fire Protection Systems
12.	B64.7–07	Laboratory Faucet Vacuum Breakers
13.	CSA B125.1–05	Plumbing Supply Fittings
14.	B125.3–05	Plumbing Fittings
14e.	B125.3–05	Plumbing Fittings – Update No. 1 November 2006
14m.	B125.3–05	Plumbing Fittings – Update No. 2 November 2007

15.	B137.9-98	Polyethylene / Aluminum / Polyethylene Composite Pressure Pipe Systems

16.	B137.10-98	Crosslinked Polyethylene /Aluminum / Crosslinked Polyethylene Composite Pressure Pipe Systems

17.	B181.1-06	Acrylonitrile-butadiene-styrene (ABS) drain, waste, and vent pipe and pipe fittings

18.	B181.2-06	Polyvinylchloride (PVC) and chlorinated polyvinylchloride (CPVC) drain, waste, and vent pipe and pipe fittings

Table 381.20-8

	CISPI	**Cast Iron Soil Pipe Institute** **5959 Shallowford Road, Suite 419** **Chattanooga, Tennessee 37421** **Phone: 423-892-0137** **Web page: www.cispi.org**
	Standard Reference Number	**Title**
1.	301-05	Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications, Standard Specification for
2.	310-04	Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications, Specification for

Table 381.20-9

	FMRC	**Factory Mutual Research Corp.** **1151 Boston-Providence Turnpike** **Norwood, Massachusetts 02062** **Phone: 800-320-6808** **Web page: www.fmglobal.com**
	Standard Reference Number	**Title**
1680		Couplings used in Hubless Cast Iron Systems for Drain, Waste or Vent, Sewer, Rainwater or Storm Drain Systems Above and Below Ground, Industrial/Commercial and Residential, January 1989

Table 381.20-10

	NFPA	**National Fire Protection Association** **11 Tracy Drive** **Avon, MA 02322-9908** **Phone: 617-770-3000** **Web page: www.nfpa.org**
	Standard Reference Number	**Title**
1.	NFPA 13D-2007	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, Standard for the
2.	NFPA 24-2007	Installation of Private Fire Service Mains and Their Appurtenances, Standard for the

Table 381.20-11

	NSF	**NSF *International*** **789 Dixboro Road** **P.O. Box 130140** **Ann Arbor, Michigan 48113-0140** **Phone: (800) 673-6275** **Web page: www.nsf.org**
	Standard Reference Number	**Title**
1.	Standard 14-2007	Plastic Piping System Components and Related Materials
2.	Standard 40-2005	Residential Wastewater Treatment Systems
3.	Standard 41-2005	Non-liquid Saturated Treatment Systems
3m.	Standard 41-2005 Addendum 1	Non-liquid Saturated Treatment Systems
4.	Standard 44-2004	Residential Cation Exchange Water Softeners
5.	Standard 51-2007	Food Equipment Materials
6.	Standard 61-2012	Drinking Water System Components — Health Effects

7.	Standard 372-2011	Drinking Water System Components — Lead Content

Table 381.20-12

STI	**Steel Tank Institute** **570 Oakwood Road** **Lake Zurich, Illinois 60047** **Phone: 617-770-3000** **Web page: www.steeltank.com**

	Standard Reference Number	**Title**
STI-P_3		External Corrosion Protection of Underground Steel Storage Tanks, Specifications and Manual for, 1996 edition

Table 381.20-13

UL	**Underwriters Laboratories Inc.** **333 Pfingsten Road** **Northbrook, Illinois 60062** **Phone: 847-272-8800** **Web page: www.ul.com**

	Standard Reference Number	**Title**
1.	Standard 58-1996	Steel Underground Tanks for Flammable and Combustible Liquids — Ninth Edition
2.	Standard 1746-2007	External Corrosion Protection Systems for Steel Underground Storage Tanks — Third Edition

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; r. (2), renum. (3) to be (2) and am., r. and recr. Table 81.20-2, cr. Tables 81.20-3e, 81.20-7e and 81.20-10m, am. Tables 81.20-4 to 81.20-8 and 81.20-11, r. Table 81.20-14, Register, December, 2000, No. 540, eff. 1-1-01; correction in (1) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 2000, No. 540; CR 02-002: r. and recr. Register April 2003 No. 568, eff. 5-1-03; CR 02-129: am Table 81.20-8 Register January 2004 No. 577, eff. 2-1-04; CR 04-035: am. Table 81.20-4 and 81.20-10m Register November 2004 No. 587, eff. 12-1-04; CR 07-100: cr. (4) Register September 2008 No. 633, eff. 10-1-08; CR 08-055: am. (1), Tables 81.20-1 to 81.20-9 and Tables 81.20-11 to 81.20-13, r. Table 81.20-10, renum. Table 81.20-10m to be Table 81.20-10 and am. Register February 2009 No. 638, eff. 3-1-09; CR 10-064: am. Tables 81.20-2, 81.20-3e, 81.20-4, 81.20-7 Register December 2010 No. 660, eff 1-1-11; correction in (3) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; **CR 13-062: am. Table 381.20-11 Register February 2014 No. 698, eff. 3-1-14.**

DRAFT
June 24, 2016
This is a Preliminary Draft for Discussion Only
Subject to Change

Chapter SPS 383

PRIVATE ONSITE WASTEWATER TREATMENT SYSTEMS

Yellow highlights-changes reviewed by advisory committee
Blue-new provisions for review

Note: Chapter H 63 was created as an emergency rule effective 6-21-80; section H 62.20 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. Chapter Comm 83 was renumbered chapter SPS 383 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

Subchapter I — Scope and Application

SPS 383.01 Purpose. The purpose of this chapter is to establish uniform 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; CR 02-129: am. Register January 2004 No. 577, eff. 2-1-04.

SPS 383.02 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 SPS 382.10 (2) (d) 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, recycling, dispersing, or holding the wastewater in a manner 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.

SPS 383.03 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. 145.19 (3m) (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. SPS 383.25 (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. SPS 383.32 (1) (a) and (c) to (g), 383.54 (4) and 383.55 (1) (b).

(b) 1. Except as provided in subd. 2. and ss. SPS 383.32 (1) (a) and (c) to (g), 383.54 (4) and 383.55 (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 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 outlot 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.

Note: The waiving of a restriction or prohibition placed on a lot or outlot by the department is a review action. Pursuant to s. SPS 302.635, a fee is needed to initiate the review action.

Note: Under the provisions of ch. 236, Stats., the department of administration and local municipalities have review authority over lots in subdivisions not served by public sewers. A written release of a restriction or prohibition may be required by the department of administration and local municipality. A Correction Instrument may be required under the provisions of s. 236.295, Stats.

(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. SPS 382.40 (8) (j).

(5) LOCAL ORDINANCES. (a) Pursuant to ss. 59.70 (5) (a), 145.02 (2) and 145.13, Stats., this chapter is uniform in application and a governmental unit may not enact an ordinance for the design, installation, inspection and management of a POWTS which is more or less stringent than this chapter, except as specifically permitted by rule.

(b) Except as provided in s. SPS 383.25 (1) (b), a governmental unit shall submit to the department any proposed ordinance or proposed ordinance revision relating to POWTS. The proposed ordinance or revision shall be submitted for review a minimum of 30 calendar days prior to the first scheduled public hearing date regarding the ordinance.

Note: Pursuant to ss. 59.69, 60.62, 61.35 and 62.23, Stats., this chapter does not affect municipal authority for zoning, including establishing nitrate standards as part of a zoning ordinance to encourage the protection of groundwater resources.

(6) DEPARTMENT AUTHORITY. A department interpretation of the requirements in this chapter shall supersede any differing interpretation by a lower level jurisdiction. A department decision on the application of the requirements in this chapter shall supersede any differing decision by a lower level jurisdiction.

Note: A decision of the department may be appealed. Section 101.02 (6) (e), Stats., outlines the procedure for submitting requests to the department for appeal hearings and the department procedures for hearing appeals.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (2) (b) 1., r. and recr. (5) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: renum. (5) to be (5) (a), cr. (5) (b) and (6) Register September 2008 No. 633, eff. 10-1-08; correction in (2) (a), (b), (5) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.04 Implementation. (1) 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 383.04-1 and that has been recognized under s. SPS 384.10 (3) or 383.22, unless the governmental unit utilizes one or more individuals, who have obtained approved training under s. SPS 383.05 for the POWTS technology, design or method, to provide the inspections under s. SPS 383.26 (2) to (4), except as provided in sub. (2).

(2) 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 383.04-1 and that has not been recognized under s. SPS 384.10 (3), but has

been approved by the department under s. SPS 383.22, provided that governmental unit has arranged with the department to provide the inspections under s. SPS 383.26 (2) to (4).

Table 383.04-1
Restricted Technologies

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

[a] Includes drip distribution.
[b] Includes an aerobic treatment tank or a complete treatment unit within a tank.
[c] Includes a chlorinator, ozonation unit, and ultraviolet light unit.
[d] Does not include a mound system.

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; CR 02-129: am. Table 83.04-1 footnote [a], r. (2) and Table 83.04-2, renum. (3) to be (2) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: renum. (1) (a) and (b) to be (1) and (2), r. (2) Register September 2008 No. 633, eff. 10-1-08; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register September 2008 No. 633; correction in (1), (2) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.05 Installation and inspection training. (1) PROGRAM SPECIFICATIONS. Only courses, programs and seminars approved in writing by the department shall be used to fulfill the required training for the POWTS technologies and methods under ss. SPS 383.04 (1) and 383.21 (2) (c) 4.

(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. SPS 383.04 (1) and 383.21 (2) (c) 4.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 07-100: renum. (1) (a) to be (1) and am., r. (1) (b) to (e) Register September 2008 No. 633, eff. 10-1-08; correction in (1), (2) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Subchapter II — Administration and Enforcement

SPS 383.20 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) Except as provided in this chapter nothing 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; CR 07-100: am. (2) Register September 2008 No. 633, eff. 10-1-08.

SPS 383.21 Sanitary permits. (1) GENERAL. (a) Pursuant to s. 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. SPS 383.22.

(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. SPS 383.22, 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: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or 411 (Telecommunications Relay) or at docsales@doa.state.wi.us, or at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

(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. SPS 383.22 (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. SPS 383.22 (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 service who is to be responsible for the installation or modification of the POWTS has completed approved training or has documentation that approved training will be provided during the installation of the POWTS, if the application for the sanitary permit involves one or more of the technologies or methods specified in s. SPS 383.04 (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. SPS 383.54 (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), Stats., reads:

"(2) FEE. No fee for a sanitary permit may be less than the amount determined under department rule. The governing body for the governmental unit responsible for the regulation of private on-site wastewater treatment systems may establish a fee for a sanitary permit which is more than the amount determined under department rule. A governmental unit may not charge more than one fee for a sanitary permit or the renewal of a sanitary permit in any 12-month period.

(3) FEES AND RECORDS OF PERMITS FORWARDED TO THE DEPARTMENT. The governmental unit responsible for the regulation of private on-site wastewater treatment systems shall forward to the department within 90 days after each valid permit is issued a portion of the fee, as determined under department rule. The governmental unit shall also compile a periodic summary of the permits that it has issued. The summary shall contain the information required by the department by rule, and shall be submitted by the governmental unit to the department at intervals to be determined by the department by rule.

(3m) NOTICE IN PERMIT. A sanitary permit shall include a notice displayed conspicuously and separately on the permit form, to inform the permit holder that:

(a) The purpose of the sanitary permit is to allow installation of the private on-site wastewater treatment system described in the permit.

(b) The approval of the sanitary permit is based on regulations in force on the date of approval.

(c) The sanitary permit is valid and may be renewed for a specified period.

(d) Changed regulations will not impair the validity of a sanitary permit.

(e) Renewal of the sanitary permit will be based on regulations in force at the time renewal is sought, and that changed regulations may impede renewal.

(f) The sanitary permit is transferable.

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

(6) GROUNDWATER FEE. In addition to the fee under sub. (2), the governmental unit responsible for the regulation of private on-site wastewater treatment 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 fee under sub. (3). The moneys collected under this subsection shall be credited to the environmental fund for environmental management."

(7) ELECTRONIC SUBMITTAL. Nothing in this chapter is intended to prohibit the submission and acceptance of planning documents in an electronic or digital media.

(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. SPS 383.04 (1) unless the master plumber or the master plumber-restricted who is to be responsible for the installation or modification has completed approved training or has documentation that approved training will be provided during the installation of the POWTS.

(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) (c).

(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 ch. SPS 383 Appendix for further information relative to the permit format.

(f) A governmental unit may deny the issuance of a sanitary permit only if the application does not comply with the requirements of chs. SPS 383, 384 or 385.

(4) TRANSFERS. A sanitary permit may be transferred from an owner to a subsequent owner, pursuant to s. 145.19 (8), Stats.

Note: Section 145.19 (8), Stats., reads:

"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. 145.19 (1b), 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.

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.

(6m) SUSPENSION. (a) A governmental unit may temporarily suspend a sanitary permit issued under this section if it is determined prior to construction that a POWTS cannot be installed based on the information that was available when the permit was issued.

(b) The suspension of the sanitary permit shall terminate no later than the date the sanitary permit expires.

(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. SPS 383.26.

(9) PERMIT STORAGE. A governmental unit shall maintain a permanent record of each sanitary permit and permit application supporting information listed in s. SPS 383.21 (2) (c) until the property is no longer served by a POWTS.

(10) PERMIT SUMMARY REPORTING. (a) A governmental unit shall submit a periodic summary of the permits it has issued to the department in a format acceptable to the department.

(b) At a minimum the summary shall contain the following information:

1. Identification number for each permit issued.
2. Fee associated with each permit issued.
3. Identification showing each permit as issued for a new or replacement POWTS.

(c) At a minimum the permit summary information shall be submitted to the department on a quarterly calendar schedule.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (2) (c) 4., (3) (b) and (c) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: am. (2) (c) 4., cr. (3) (f), (6m) and (9) Register September 2008 No. 633, eff. 10-1-08; correction in (1) (a) 2., (b) (intro.), (2) (c) 1., 2., 4., 5., (3) (b), (f), (8) (b) 2., (9) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: cr. (10) Register June 2013 No. 690, eff. 7-1-13; corrections in (1) (a), (4), (5) made under s. 13.92 (4) (b) 7., Stats., correction in (10) (title) made under s. 13.92 (4) (b) 2., Stats., Register June 2013 No. 690.

SPS 383.22 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 383.22-1 shall be submitted to the department for review.

(c) Plans for the types of POWTS delineated in Table 383.22-2 shall be submitted for review to the department or a designated agent.

Note: See s. SPS 383.23 for more information relative to designated agents.

(d) Plans for the types of POWTS delineated in Table 383.22-3 shall be submitted for review to the appropriate governmental unit where the POWTS is located or will be located.

Table 383.22-1

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. SPS 384.10 (2) or (3) or recognized under s. SPS 383.60 (1).
4.	POWTS treating domestic wastewater combined with industrial wastes.[a]
5.	Experiments under s. SPS 383.27.

[a] See s. SPS 383.32 (3) (a).

Table 383.22-2

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. SPS 384.10 (2) or (3) or recognized under s. SPS 383.60 (1).
2.	POWTS that collect and hold all wastewater of the facilities served and utilize holding components designed based on ≥3,000 gpd estimated flow either recognized under s. SPS 384.10 (2) or (3) or recognized under s. SPS 383.60 (1).

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 383.22-3
Plan Submissions to Governmental Unit

	Type of Installation
1.	POWTS that will serve not more than two one- or 2-family dwellings and their accessory buildings utilizing technologies or methods either recognized under s. SPS 384.10 (2) or (3) or recognized under s. SPS 383.60 (1), and using gravity distribution of the effluent to an in-ground distribution cell.
2.	POWTS that collect and hold all wastewater of the facilities served and utilize holding components designed based on <3,000 gpd estimated flow either recognized under s. SPS 384.10 (2) or (3) or recognized under s. SPS 383.60 (1).

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 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. When plans are submitted to a designated agent or governmental unit for review, at least 2 sets of plans and one set of specifications shall be provided.

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

4. 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. SPS 383.43 and 383.44 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 383.43-1.

(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 performance will conform with chs. SPS 382 to 384 including, but not limited to all of the following:

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

Note: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or 411 (Telecommunications Relay) or at docsales@doa.state.wi.us, or at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

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. SPS 385.40 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 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 safety and professional services, 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. SPS 383.27 (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, other than two one- or 2-family dwellings and their accessory buildings located on a single parcel of land, 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 not be approved until documentation has been submitted to the department indicating that the department of natural resources has concurred with the design of the POWTS.

Note: The Wisconsin department of natural resources requires that a Wisconsin Pollutant Discharge Elimination System (WPDES) permit must be obtained prior to the start of operation for a POWTS with a design flow exceeding 12,000 gallons per day pursuant to ch. 283, Stats.

b. Solely for the purpose of determining the applicability of subd. 6. 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 subd. 6. a., the design wastewater flow of 12,000 gpd for commercial facilities shall be calculated using the estimated wastewater flows specified in A-383.43 (6) of ch. SPS 383 Appendix.

d. Solely for the purpose of determining the applicability of subd. 6. 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. SPS 383.43 (3) (a) and A-383.43 (6) of ch. SPS 383 Appendix to calculate the design flow for the commercial facilities.

e. For the purpose of determining the applicability of subd. 6. 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 subd. 6. a., the combined design wastewater flow shall include that of any existing POWTS which falls within the parameters of subd. 6. e.

g. Under subd. 6. 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 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. SPS 302.61 and 302.65.

(3) PLAN REVIEW PROCESS. (a) *Time limits.* Pursuant to s. SPS 302.07 (3), the department shall review and make a determination on an application for plan review within 15 business days.

(b) *Conditional approval.* 1. If, upon review, the applicable reviewing agency determines that the plans conform to this chapter and chs. SPS 382 and 384, a conditional approval shall be granted in writing.

2. All conditions indicating nonconformance to this chapter and chs. SPS 382 and 384 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. SPS 382 and 384, 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 of the following:

1. A change in wastewater flow or contaminant load.
2. The replacement or addition of a POWTS component listed in Table 383.04-1.
3. The 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 or elevations.

b. Dimensions of any distribution cell or basal area.

c. Type of dispersal component.

d. Design of a pressure distribution component, except for changes to pumps, forcemain lengths, total dynamic head, (TDH), or pump control settings.

(b) A modification to the design of a POWTS for which a plan has been previously granted approval under sub. (3) (b) may be submitted to the governmental unit which issued the sanitary permit, if the proposed modification involves a change which is not listed in par. (a) and if the governmental unit agrees to review the proposed minor revision.

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

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

(e) If revisions under par. (a) are submitted to and approved by the department, the owner of the site for the POWTS or the owner's agent shall file the revisions with the governmental unit 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, designated agent or governmental unit 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, designated agent or governmental unit 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. SPS 383.26.

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

Note: Nothing in this chapter is intended to prohibit the submission and acceptance of planning documents in an electronic or digital media.

SPS 383.23 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 383.22-2 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 383.22-2 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 utilization of one or more individuals who are certified by the department as a POWTS inspector to perform the plan review.

(b) The utilization 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 utilization 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 department may deny a request for plan review delegation, if the governmental unit has not completed a POWTS inventory or is not operating a maintenance program required under s. SPS 383.255.

(c) The delegation for plan review shall be contingent upon the governmental unit acknowledging that the submission and review of plans under s. SPS 383.22 (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) (a) The recognition as a review agent may be revoked by the department in accordance with s. 145.20 (3) (a) 2., Stats.

(b) The department may revoke the delegation as a plan review agent, if the governmental unit has not completed a POWTS inventory or is not operating a maintenance program required under s. SPS 383.255.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (3) (a) and (b) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: renum. (4) (b) and (7) to be (4) (c) and (7) (a), cr. (4) (b) and (7) (b) Register September 2008 No. 633, eff. 10-1-08; correction in (1), (2) (intro.), (4) (b), (c), (7) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.24 Petitions for variance. (1) The department shall consider and may grant a variance to a provision of this chapter in accordance with ch. SPS 303.

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; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.25 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. 145.195, Stats., the issuance of building permits by a municipality for unsewered properties shall be in accordance with this subsection.

Note: See ch. SPS 383 Appendix for a reprint of s. 145.195, 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. SPS 383.21; or

Note: Section SPS 383.21 outlines the procedures for the issuance of sanitary permits. Section 145.19, Stats., mandates 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. SPS 383.02 and 383.03 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. SPS 384.

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) Where the performance capability of the existing POWTS serving a dwelling is not based on the number of bedrooms within the dwelling, information documenting that design condition shall be recorded as a covenant running with the deed for the property.

(f) *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. SPS 383.43 (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 that 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.

Note: See ch. SPS 383 Appendix for further information regarding setbacks.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (2) (a) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: renum. (2) (e) to be (2) (f), cr. (2) (e) Register September 2008 No. 633, eff. 10-1-08; correction in (2) (b) 1., (d) 2., (f) 1. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.255 Governmental inventory and maintenance program. (1) (a) 1. A governmental unit shall conduct, complete, and maintain an inventory of all POWTS located in its jurisdictional area by October 1, 2017.

2. The inventory shall be updated as existing POWTS are identified and new POWTS are installed or constructed.

(b) At a minimum, a POWTS inventory shall consist of all of the following elements:

1. Legal description of all properties including tax parcel number where a POWTS is located within the governmental unit jurisdictional area.

2. Name and address of the owner of each POWTS located within the governmental unit jurisdictional area.

Note: The inventory does not require site visits, identification of the type of POWTS or an evaluation of the POWTS.

(2) (a) A governmental unit shall develop and implement a comprehensive POWTS maintenance program by October 1, 2019.

(b) At a minimum, a POWTS maintenance program shall consist of all of the following elements:

1. An inventory of all POWTS located within the governmental unit jurisdictional area.

2. A process that accepts and records inspection, evaluation, maintenance and servicing reports submitted by the POWTS owner or the owner's agent for POWTS listed in the governmental unit inventory.

3. A process that accepts and creates a record for each inspection, evaluation, maintenance and servicing report for a POWTS within the governmental unit jurisdictional area but not listed in the governmental unit inventory that is submitted by the POWTS owner or the owner's agent.

4. A process that notifies POWTS owners that are delinquent in submitting reports for inspection, evaluation, maintenance and servicing activities listed in ss. SPS 383.54 (3) and (4) and 383.55.

5. A process that includes measures meant to ensure that required inspection, evaluation, maintenance and servicing is performed and the results are reported to the governmental unit.

6. Reports summarizing the results of the maintenance program on an annual basis in a format requested by the department.

Note: Pursuant to s. 145.245 (9) (a), Stats., a governmental unit must comply with the maintenance provisions of this section as a condition for obtaining Wisconsin Fund grants.

(3) A governmental unit shall make available to the department, upon request, any and all records necessary to ascertain compliance with this chapter and the provisions as specified in s. 145.20 (2) (i), Stats.

History: CR 07-100: cr. Register September 2008 No. 633, eff. 10-1-08; correction in (2) (b) 4. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: am. (1) (a) 1., (2) (a) Register June 2013 No. 690, eff. 7-1-13.

SPS 383.26 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 SPS 305.66 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. SPS 383.21 (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. SPS 382 to 387 relative to POWTS is required to be a certified POWTS inspector under s. SPS 305.66.

(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. SPS 383.22 and 384.10.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; correction in (2) (a), (5) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.27 Experiments. (1) The provisions of this chapter or ch. SPS 384 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. SPS 384.50 (3).

(2) The department shall review a submittal of an experiment under this section with input from the technical advisory committee assembled under s. SPS 384.10 (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; correction in (1), (2) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.28 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.

SPS 383.29 Range of responses. (1) (a) Pursuant to s. 160.21, Stats., the department shall respond with any one or more of the actions delineated under Table 383.29 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. SPS 383.03 (5).

Table 383.29

Department Range of Responses

- Gather more data relative to the cause and significance of the exceedance.
- 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 exceedance is an isolated problem, or is likely to recur.
- Revise or revoke a product approval issued under ch. SPS 384 for a treatment or dispersal component.

- Revise the rules of this chapter or ch. SPS 381, 382, 384 or 385.

(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; CR 02-129: am. (1) (a) Register January 2004 No. 577, eff. 2-1-04; correction in (1) (a), (b), Table 383.29 made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Subchapter III — General Requirements

SPS 383.30 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.

SPS 383.31 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.

SPS 383.32 Prohibitions and limitations. (1) PROHIBITIONS. (a) Except as provided in s. SPS 383.03 (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 SPS 383.03 (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. SPS 382.34 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 final discharge of domestic wastewater or POWTS effluent to open bodies of water is prohibited, including by means of plumbing outfall pipes existing prior to July 1, 2000.

(f) The final discharge of domestic wastewater or POWTS 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 RV transfer tanks shall be restricted to any of the following sites:

1. Campgrounds permitted by the department of health services under ch. DHS 178.

2. Properties where the use of the RV transfer tank is permitted by an adopted governmental unit ordinance and monitored by the governmental unit.

(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. SPS 383.03 (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 POWTS.

Note: The department of natural resources regulates the discharge of industrial wastes to land treatment systems 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) A POWTS may accept wastewater permitted under s. SPS 382.38 (3) (a) and Table 382.38–1.

(c) Except as provided in ss. NR 116.12 (1) (e) and 116.15 (2) (b), no part of a POWTS may be installed in a floodway.

Note: See s. SPS 383.45 (6) for installations in a floodfringe.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (1) (e) and (f), (3) (a) and (b) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: renum. (1) (h) to be (1) (h) (intro.) and am., cr. (1) (h) 1. and 2., am. (3) (c) Register September 2008 No. 633, eff. 10-1-08; correction in (1) (h) 1. made under s. 13.92 (4) (b) 6., Stats., Register September 2008 No. 633; correction in (1) (h) 1. made under s. 13.92 (4) (b) 7., Stats., Register December 2010 No. 660; correction in (1) (a), (c), (2) (b), (3) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: am. (1) (h), (3) (b) Register June 2013 No. 690, eff. 7-1-13.

SPS 383.33 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.

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

Note: The removal and 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; correction in (2) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: am. (2) Register June 2013 No. 690, eff. 7-1-13.

Subchapter IV — Design and Installation

SPS 383.40 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.

SPS 383.41 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.

Note: See s. SPS 382.34 (15) for requirements relating to special wastewater or mixed wastewater treatment or containment devices.

(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.

SPS 383.42 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.

SPS 383.43 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. SPS 384.

(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, unless otherwise approved by the department.

(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 gallons x 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 gallons x 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 gallons x 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 clear water, graywater, blackwater, or combined graywater-blackwater flow from public buildings and places of employment 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 ch. SPS 383 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. SPS 383.44 (2) (a).

Note: See ch. SPS 383 Appendix for further information.

Note: See Note under s. SPS 383.32 (3) 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. SPS 316.300 (1) (a), 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 ch. SPS 383 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 383.43-1 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 383.43-1
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	Forcemains Servicing, Suction Lines, and Pump Discharge Lines

Building	10 feet	5 feet[a]	none[b]
Property Line[c]	5 feet	2 feet	2 feet
Swimming Pool	15 feet	none[b]	none[b]
OHWM of Navigable Waters	50 feet	10 feet	10 feet
Water Service and Private Water Main	10 feet	10 feet	5 feet
Public Water Main	ch. NR 811	ch. NR 811	ch. NR 811
Well	chs. NR 811 & 812	chs. NR 811 & 812	chs. NR 811 & 812

OHWM = Ordinary High-Water Mark

[a] Except RV transfer tanks.

[b] See s. SPS 383.43 (8) (f) relative to accessibility.

[c] Road-right-of-way lines may be more restrictive than property lines.

Note: See s. SPS 382.365, Table 382.365-4 relative to horizontal setback distances to subsurface infiltrative systems.

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. SPS 384.

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 *?* 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 subd. 3. 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; CR 02-129: am. (2), (6) (intro.), and Table 83.43-1 Register January 2004 No. 577, eff. 2-1-04; CR 07-100: am. Table 83.43-1 Register September 2008 No. 633, eff. 10-1-08; correction in (1), (7), (8) (i), (j) 1. a., Table 383.43-1 made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: am. Table 383.43-1 Register June 2013 No. 690, eff. 7-1-13.

SPS 383.44 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. SPS 385.

(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_5.
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.

(d) The department may designate a new facility as at-risk if the department determines that the facility may generate waste with influent quality in excess of the parameters under par.(a). A facility designated as at-risk shall submit additional testing data to the department within one year of installation of the POWTS components. A facility that continues to produce parameters above the limits in par. (a) shall reduce wastewater strength according to the facility's management plan required under s. SPS 383.54 (1).

Note: Under s. SPS 383.03 (1) (b), the replacement of a POWTS anaerobic treatment tank (septic tank) in conjunction with this rule would limit any solids within the effluent leaving the tank to a maximum of 1/8-inch 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. A POWTS designed utilizing a component manual recognized under s. SPS 383.60 (1) shall have at least 6 inches of the soil separation required under par. (a) consisting of an in situ soil type for which soil treatment capability has been credited under Table ~~383.44-3~~ 383.44-2.

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 the original 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 383.44-1 ~~or Table 383.44-2~~ 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 ≤30 mg/L BOD_5 and TSS and shall be 0.0 gals./sq. ft./day for effluent concentrations of > 30 mg/L BOD_5 and TSS.

~~f. The application rates specified under Table 383.44-1 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 383.44-1 or 383.44-2 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. SPS 383.22 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 ~~383.44-3~~ 383.44-2, 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) 1. Except as provided in subd. 2., the distribution of effluent to a treatment or dispersal component shall be by means of pressure distribution as specified in Tables ~~383.44-2~~ 383.44-1and ~~383.44-3~~ 383.44-2.

2. Pressure distribution is not required when rehabilitating an existing non-pressurized in situ soil treatment or dispersal component that is persistently ponded and that has at least 24 inches of unsaturated soil beneath the infiltrative surface of the component.

(b) 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 383.44-1**~~
~~**Maximum Soil Application Rates Based Upon Percolation Rates**~~

~~**Percolation Rate (minutes per inch)**~~	~~**Maximum Monthly Average**~~	
	~~**BOD_5 > 30mg/L ≤ 220 mg/L TSS > 30 mg/L ≤ 150 mg/L (gals/sq ft/day)**~~	~~**BOD_5 ≤ 30 mg/L TSS ≤ 30 mg/L (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 ~~383.44-2~~ 383.44-1
Maximum Soil Application Rates Based Upon Morphological Soil Evaluation (in gals./sq. ft./day)

Soil Characteristics			Maximum Monthly Average			
Texture[d]	**Structure[e]**		**BOD_5 >30 ≤220mg/L TSS >30 ≤150mg/L**		**BOD_5 ≤30 mg/L[c] TSS ≤30 mg/L[c]**	
	Shape	**Grade**				
COS, S, LCOS, LS	---	0	0.7[a]	0.5[b,c]	1.6[a]	0.5[b]
FS, LFS	---	0	0.5		1.0	
VFS, LVFS	---	0	0.4		0.6	
COSL, SL	---	0M	0.2		0.6	
	PL	1	0.4		0.6	
		2, 3	0.0		0.2	
	PR, BK, GR	1	0.4		0.7	
		2, 3	0.6		1.0	
FSL, VFSL	---	0M	0.2		0.5	
	PL	2, 3	0.0		0.2	
	PL, PR, BK, GR	1	0.2		0.6	
	PR, BK, GR	2, 3	0.4		0.8	
L	---	0M	0.2		0.5	
	PL	2, 3	0.0		0.2	
	PL, PR, BK, GR	1	0.4		0.6	
	PR, BK, GR	2, 3	0.6		0.8	
SIL	---	0M	0.0		0.2	
	PL	2, 3	0.0		0.2	
	PL, PR, BK, GR	1	0.4[c]		0.6	
	PR, BK, GR	2, 3	0.6		0.8	
SI	---	---	0.0		0.0	
Soil Characteristics			**Maximum Monthly Average**			
Texture[d]	**Structure[e]**		**BOD_5 >30 ≤220mg/L TSS >30 ≤150mg/L**		**BOD_5 ≤30 mg/L[c] TSS ≤30 mg/L[c]**	
	Shape	**Grade**				
SCL, CL, SICL	---	0M	0.0		0.0	
	PL	1, 2, 3	0.0		0.2	
	PR, BK, GR	1	0.2		0.3	
		2, 3	0.4		0.6	
SC, C, SIC	---	0M	0.0		0.0	
	PL	1, 2, 3	0.0		0.0	
	PR, BK, GR	1	0.0		0.0	
		2, 3	0.2		0.3	

Note a: With ≤60% rock fragments
Note b: With >60 to <90% rock fragments
Note c: Requires pressure distribution under sub. (5) (a)
Note d:
COS - Coarse Sand
S-Sand
LCOS - Loamy Coarse Sand
LS - Loamy Sand
FS - Fine Sand
LVFS - Loamy Very Fine Sand
COSL - Coarse Sandy Loam
SL - Sandy Loam
FSL - Fine Sandy Loam
VFSL - Very Fine Sandy Loam
SI - Silt
SCL - Sandy Clay Loam
CL - Clay Loam
SICL - Silty Clay Loam
SC - Sandy Clay

	LFS - Loamy Fine Sand	L - Loam	C - Clay
	VFS - Very Fine Sand	SIL - Silt Loam	SIC - Silty Clay
Note e:	PL - Platy	0 - Structureless	
	PR - Prismatic	1 - Weak	
	BK - Blocky	2 - Moderate	
	GR - Granular	3 - Strong	
	M - Massive		

Table ~~383.44-3~~ 383.44-2

Minimum Depth of Unsaturated Soil for Treatment Purposes[a] (in inches)

Soil Characteristics	Influent Quality[e] and Percent Coarse Fragments					
Texture[d]	Fecal Coliform >10^4 cfu/100mL			Fecal Coliform ≤10^4 cfu/100mL[b]		
	≤35%	>35 to ≤60%	>60 to ≤90%[b,c]	≤35%	>35 to ≤60%	>60 to ≤90%[c]
COS, S, LCOS, LS	36	60	60	24	36	60
FS, VFS, LFS, LVFS	36			24		
COSL, SL	36			24		
FSL, VFSL	36			24		
L	36			24		
SIL	36			24		
SI	36			24		
SCL, CL, SICL	36			24		
SC, C, SIC	36			24		

Note a: Influent quality as per s. SPS 383.44 (2)
Note b: Requires pressure distribution under sub. (5) (a)
Note c: All coarse fragment voids must be filled with fine earth

Note d:	COS - Coarse Sand	LVFS - Loamy Very Fine Sand	SI - Silt
	S-Sand	COSL - Coarse Sandy Loam	SCL - Sandy Clay Loam
	LCOS - Loamy Coarse Sand	SL - Sandy Loam	CL - Clay Loam
	LS - Loamy Sand	FSL - Fine Sandy Loam	SICL - Silty Clay Loam
	FS - Fine Sand	VFSL - Very Fine Sandy Loam	SC - Sandy Clay
	LFS - Loamy Fine Sand	L - Loam	C - Clay
	VFS - Very Fine Sand	SIL - Silt Loam	SIC - Silty Clay

Note e: The values for fecal coliform are reported as a monthly geometric mean. The geometric mean shall be determined on the basis of measurements taken over 30 consecutive days, with at least 6 measurements occurring on 6 separate days.

(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~~ within 1% of the surface contour of the component site location unless otherwise approved by the department.

(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.

SPS 383.45 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. SPS 383.22.

(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 or below 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. SPS 384.10 or a plan approval under s. SPS 383.22.

(6) FLOODPLAIN. (a) All POWTS treatment tanks, holding and dispersal tanks that are located in floodplain areas shall be made and maintained watertight to prevent infiltration.

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

(7) MINIMUM DEPTH. The top of the effluent lines and forcemains shall be covered by a minimum of 12 inches of soil.

Note: See s. SPS 383.43 (8) (g) relative to anchoring provisions.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 07-100: am. (6) Register September 2008 No. 633, eff. 10-1-08; correction in (1), (5) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Subchapter V — Management

SPS 383.50 Purpose. The purpose of this subchapter is to accomplish all of the following:

(1) Establish monitoring, inspection, evaluation, maintenance and servicing requirements for all POWTS, in order to ensure that the POWTS will operate as designed and thereby protect the public health and waters of the state.

(2) Establish maintenance programs operated by governmental units to ensure that all POWTS will be inspected, evaluated, maintained and serviced so that the POWTS will operate as designed and thereby protect the public health and waters of the state.

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

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 07-100: r. and recr. Register September 2008 No. 633, eff. 10-1-08.

SPS 383.51 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 SPS 387.04 (2) (a) to (e) 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.

SPS 383.52 Responsibilities. (1) (a) 1. 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. SPS 383.54 (1).

2. The owner of a POWTS shall be responsible for ensuring that access opening covers remain locked or secured except for inspection, evaluation, maintenance or servicing purposes.

(b) The owner of a POWTS existing prior to July 1, 2000, shall be responsible for ensuring that the maintenance of the POWTS occurs in accordance with s. SPS 383.54 (4).

(c) 1. The owner of a POWTS, including a POWTS existing prior to July 1, 2000, shall maintain a maintenance 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. SPS 383.54 (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. SPS 383.54 (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. SPS 383.54 (4) shall be considered a human health hazard.

(3) The activities relating to evaluating, monitoring and maintaining POWTS components after the initial installation of the POWTS in accordance with an approved management plan or as required by s. SPS 383.54 (4) (c) shall be conducted by a person who holds registration issued by the department as a registered POWTS maintainer.

Note: See s. SPS 305.36 concerning the application and qualification requirements to become a registered POWTS maintainer.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (3) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: renum. (1) (a) to be (1) (a) 1., cr. (1) (a) 2., am (1) (b), (c) 1. (intro.) and (3) Register September 2008 No. 633, eff. 10-1-08; correction in (1) (a) 1., (b), (c) 1. (intro.), 2., (2), (3) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.53 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. SPS 384.10 and 384.14.

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

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 07-100: am. Register September 2008 No. 633, eff. 10-1-08; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.54 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. SPS 383.22 or 384.10.

(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. SPS 383.22.

(e) The management plan for a POWTS shall specifically address the servicing mechanics of an aerobic or anaerobic treatment tank or a holding tank where either of the following conditions exist:

1. The bottom of the tank is located more than 15 feet below the elevation where the servicing pad is located.
2. The bottom of the tank is located more than 150 feet horizontally from where the servicing pad is located.

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

(b) *Department option.* 1. The department may require the metering or monitoring of any POWTS to evaluate the operation of the POWTS.

2. A POWTS that utilizes one or more mechanical treatment components, including aerobic treatment units or a complete treatment unit within a tank, shall, on an annual basis, test the effluent from the component for TSS, $BOD_{5,}$ and Fats, Oil, and Grease.

(c) *Governmental unit option.* A governmental unit may require the metering or monitoring of a POWTS holding component as part of a maintenance and monitoring tracking program.

(d) *Metering influent flows.* 1. When and where the metering of a POWTS is required, 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. SPS 383.55 (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 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.

(d) The servicing of a RV transfer tank shall be performed in a manner to prevent the discharge of wastewater into the surrounding soil or onto the ground surface.

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

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

2. The servicing of a RV transfer tank shall be performed in a manner to prevent the discharge of wastewater into the surrounding soil or onto the ground surface.

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

(c) The inspection, evaluation, or maintenance or servicing 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. Except as provided in subd. 3., 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 licensed journeyman plumber.

d. A licensed journeyman plumber-restricted service.

e. A certified POWTS inspector.

f. A certified septage servicing operator under ch. NR 114.

g. A registered POWTS maintainer.

3. A governmental unit that has completed the inventory required under s. SPS 383.255 (1) (a) may, by ordinance, extend the visual inspection interval required under subd. 1., to a maximum period of 5-years for a POWTS serving an occasionally occupied structure or facility.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: cr. (1) (e) and (4) (d) 2. e., r. and recr. (2) (c), am. (2) (d) 1. (intro.) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: am. (4) (c) and (d) 1., cr. (4) (d) 3. Register September 2008 No. 633, eff. 10-1-08; correction in (1) (b), (d), (2) (e) 4., (4) (d) 3. made under

s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: am. (3) (c), cr. (3) (d), renum. (4) (b) to (4) (b) 1. and am., cr. (4) (b) 2., renum. (4) (d) 2. c. to e. to (4) (d) 2. e. to g., cr. (4) (d) 2. c., d. Register June 2013 No. 690, eff. 7-1-13.

SPS 383.55 Reporting requirements. (1) (a) The owner of a POWTS or the owner's agent shall report to the governmental unit or designated agent at the completion of each inspection, evaluation, maintenance, or servicing event specified in the approved management plan.

(b) The owner of a POWTS existing prior to July 1, 2000, or the owner's agent shall report to the governmental unit or designated agent at the completion of each inspection, evaluation, maintenance or servicing event required under s. SPS 383.54 (4).

(c) The owner of a POWTS is responsible for fulfillment of the reporting requirements under this section.

(2) The inspection, evaluation, maintenance and servicing reports required under sub. (1) shall be submitted to the governmental unit or designated agent in accordance with all of the following:

(a) In a manner specified by the governmental unit or designated agent.

(b) Within 30 calendar days from the date of inspection, evaluation, maintenance or servicing.

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

(3) The inspection, evaluation, 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, evaluation, maintenance or servicing.

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

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

(4) The department, governmental unit or designated agent may require verification of any information contained in an inspection, evaluation, 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) (a) The governmental unit or designated agent shall maintain records relating to the inspection, evaluation, 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, evaluation, maintenance and servicing of POWTS as specified in this section.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (1), (2), and (5) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: am. (1), (2) (intro.), (b), (3) (intro.), (c), (d), (4) and (5), cr. (1) (c) Register September 2008 No. 633, eff. 10-1-08; correction in (1) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: am. (1) (a), (b) Register June 2013 No. 690, eff. 7-1-13.

Subchapter VI — Recognized Methods and Technologies

SPS 383.60 Purpose. (1) Specific types of methods and technologies may be recognized by the department under the voluntary product approval process in s. SPS 384.10 (3) as conforming with subchs. IV and V and may be utilized in the design of POWTS for a specific project.

Note: Subsection SPS 384.10 (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. SPS 383.22 to substantiate the performance of the specific method or technology.

Note: Information regarding recognized methods and technologies may be downloaded at: http://dsps.wi.gov/SB/SB-PubsPlumbProdReg.html.

(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. SPS 383.22 or the voluntary product approval process of s. SPS 384.10 (3) or both.

Note: Section SPS 383.22 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. SPS 384.10 (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; CR 07-100: am. (1) Register September 2008 No. 633, eff. 10-1-08; correction in (1), (2) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 383.61 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. SPS 384.10 (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; CR 07-100: renum. from Comm 83.62 Register September 2008 No. 633, eff. 10-1-08; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Subchapter VII — Department Performance Monitoring

SPS 383.70 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.

SPS 383.71 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. SPS 384.10 (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. SPS 383.44 (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; correction in (4) (intro.), (6) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Chapter SPS 383

APPENDIX

The material and information contained in this appendix is for clarification purposes only. Appendix material and information are numbered to correspond to the rule number as it appears in the text of the code. Material and information included in this appendix is subject to change without notice, including names, addresses, phone numbers and forms, and reflects information known at the time of publication.

A−383.21 (3) PROCESSING. The specific format of a sanitary permit application is specified by the department and may change depending on the data tracking needs of the department. The uniform application form issued by the department is to be used by all permit issuing agents. It may consist of a paper or electronic format, or both. The sanitary permit application form will require the applicant to report information pertinent to the ownership, use, location, system type, maintenance schedule, and responsible installer. Additionally, plans and specifications for the project must also be submitted with, and are part of, the permit application. Fees for the sanitary permit are based on a statutory minimum as cited in s. 145.19 (2), Wis. Stats., and any additional costs levied by the issuing agent.

The state sanitary permit is issued when evidence and documentation is presented by the owner of the property that minimum code standards have been or will be met.

_____COUNTY NO._____

STATE SANITARY PERMIT

DrRANSFERJRENEWAL PREVIOUS NO._____

OWNER _____

PLUMBER ---------- LIC.#_____

TOWN OF ---------"24 . . . . . -

SEC_____,T _ N, R __ E/W

AND/OR LOT _____BLOCK_____

_____SUBDIVISION

CHAPTER 145.135(2) WISCONSIN STATUTES

(a) The purpose of the sanitary permit is to allow installation of the private sewage system described in the permit.
(b) The approval of the sanitary permit is based on regulations in force on the date of approval.
(c) The sanitary permit is valid and may be renewed for a specified period.
(d) Changed regulations will not impair the validity of a sanitary permit.
(e) Renewal of the sanitary permit will be based on regulations in force at the time renewal is sought, and that changed regulations may impede renewal.
(Q The sanitary permit is transferable.
History: 1977 c.168; 1979 c. 34,221; 1981 c.314

Note: If you wish to renew the permit,or transfer ownership of the permit, please contact the county authority.

_____AUTHORIZED ISSUING OFFICER – DATE_____

THIS PERMIT EXPIRES_____UNLESS RENEWED BEFORE THAT DATE

POST IN PLAIN VIEW

VISIBLE FROM THE ROAD FRONTING THE LOT DURING CONSTRUCTION

SBD-06499 (R. 7/00)

Chapter 145 Wisconsin Statutes provides some direction as to the issuance of sanitary permits as follows:

145.135 Sanitary permits.

(1) Validity. In this section, "sanitary permit" means a permit issued by the department or any governmental unit responsible for the regulation of private sewage systems for the installation of a private sewage system. No person may install a private sewage system unless the owner of the property on which the private sewage system is to be installed holds a valid sanitary permit. A sanitary permit is valid for 2 years from the date of issue and renewable for similar periods thereafter. A governmental unit responsible for the regulation of private sewage systems may not charge more than one fee for a sanitary permit or the renewal of a sanitary permit in any 12−month period. A sanitary permit shall remain valid to the end of the established period, notwithstanding any change in the state plumbing code or in any private sewage system ordinance during that period. 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. The results of any percolation test or other test relating to the disposal of liquid domestic wastes into the soil shall be retained by the governmental unit responsible for the regulation of private sewage systems where the property is located. The governmental unit responsible for the regulation of private sewage systems shall make the test results available to an applicant for a sanitary permit and shall accept the test results as the basis for a sanitary permit application unless the soil at the test site is altered to the extent that a new soil test is necessary.

(2) Notice. A sanitary permit shall include a notice displayed conspicuously and separately on the permit form, to inform the permit holder that:

(a) The purpose of the sanitary permit is to allow installation of the private sewage system described in the permit.

(b) The approval of the sanitary permit is based on regulations in force on the date of approval.

(c) The sanitary permit is valid and may be renewed for a specified period.

(d) Changed regulations will not impair the validity of a sanitary permit.

(e) Renewal of the sanitary permit will be based on regulations in force at the time renewal is sought, and that changed regulations may impede renewal.

(f) The sanitary permit is transferable.

145.19 Sanitary permit.

(1) Requirement; information; forms. No septic tank may be purchased and no private sewage system may be installed unless the owner of the property on which the private sewage system is to be installed holds a valid sanitary permit from the governmental unit responsible for the regulation of private sewage systems in which the property is located. The department shall prescribe the information to be included in the sanitary permit and furnish sanitary permit forms to the governmental unit. The applicant shall submit the completed sanitary permit to the governmental unit. The governmental unit shall approve or disapprove the sanitary permit according to the rules promulgated by the department under this chapter. No person may sell at retail, as defined under s. 100.201 (1) (d), a septic tank for installation in this state unless the purchaser holds a valid sanitary permit issued under this section.

(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.

(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.

(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.

A−383.22 (3) PLAN REVIEW PROCESS. All proposed POWTS installations require plan review prior to sanitary permit issuance. Projects subject to department review include all projects under Table 383.22−1, and many of the projects under Table 383.22–2. Designated agents may review projects included in Table 383.22−2.

A−383.25 (2) ISSUANCE OF BUILDING PERMITS. A building permit is defined in s. SPS 381.01 (43), Wis. Adm. Code, as any written permission from a municipality that allows construction to commence on a structure. In effect, this means that land use and zoning permits, as well as other similar permits that constitute permission to construct are considered building permits.

Prior to building permit issuance, the issuing agent has a statutory responsibility, under s. 145.195, Wis. Stats., to consider whether or not the proposed structure requires connection to a private onsite wastewater treatment system (POWTS), or if the construction will interfere with the operation of an existing POWTS.

> Section 145.195, Stats. Building on unsewered property. (1) No county, city, town or village may issue a building permit for construction of any structure requiring connection to a private domestic sewage treatment and disposal system unless a system satisfying all applicable regulations already exists to serve the proposed structure or all permits necessary to install such a system have been obtained.
>
> (2) Before issuing a building permit for construction on any structure on property not served by a municipal sewage treatment plant, the county, city, town or village shall determine that the proposed construction does not interfere with a functioning private domestic sewage treatment and disposal system. The county, city, town or village may require building permit applicants to submit a detailed plan of the owner's existing private domestic sewage treatment and disposal system.

A−383.25 (2) (f) Setbacks. Horizontal setbacks from encumbrance for new POWTS installations are in conformance with Table 383.43−1 or the rules in effect at the time the system was installed, which ever is less. For setback distances associated with previous administrative codes refer to the previous code issue or the following table.

10/01/08	Code Comparison - POWTS Code Setback Encumbrances (ft)																
	Vertical Separation SAS		Horizontal Separation Soil Absorption System (SAS)								Horizontal Separation Treatment Tank[a]						
Effective Date	Ground-water	Bedrock	Well	Lake[b]	Cistern	Building	Lot Line	Swimming Pool	Water Service	Public W Main	Well	Lake[c]	Cistern	Building	Lot Line	Swimming Pool	Water Service
2/1/04	2/3/5	2/3/5	50[l]	50[m]		10	5	15	10	25[n]	25[l]	10[m]		5	2	0	10
7/1/00	2/3/5/10	2/3/5/10	50[l]	50[m]		10	5	15	10	25[n]	25[l]	10[m]		5	2	0	10
3/1/97	3/6[k]	3/6[k]	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	5	10
3/1/94	3/6[k]	3/6[k]	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	5	10
3/1/92	3/6[k]	3/6[k]	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	5	10
7/1/91	3/6[k]	3/6[k]	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	5	10
10/1/85	3	3	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	15	10
7/1/83	3	3	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	15	10
1/1/81	3	3	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	15	10
6/21/80	3	3	50	50	25	25/15/10[h]	5	15	10	25	25	25	10	5	2	15	10
2/1/79	3	3	50	50	25	25/10[i]	5	25/15[j]	10	25	25	25	10	5	2	25	10
8/1/77	3[d]	3[d]	50	50	25	25/10[i]	5	25/15[j]	10	25	25	25	10	5	2	25	?
8/1/76	3[d]	3[d]	50	50	25	25/10[i]	5	25/15[j]	10	25	25	25	10	5	2	25	?
12/1/72	3	3	50	50	25	25	5	50	25		25	25	10	5	2	25	?
11/1/71	3	3	50	50	25	25	5	50	25		25	25	10	5	2	25	?
12/1/69	3	3	50	50	25	25	5	50	25		25	25	10	5	2	25	?
3/1/63		0[e]	50	25	25	25[g]	5				25		10		2		
5/1/62		0[e]	50	25	25	25[g]	5				25		10		2		
3/1/57		0[e]	50	25	25	25[g]	5				25		10		2		
9/1/54		0[e]	50	25	50	50[g]	5				25		10		2		
1948			50	25	50	50[g]					25		10		2		
1941			150[f]		50	50[g]					25		10		2		
1937			150[f]		50	50[g]					25		10		2		
1932			150[f]		50	50[g]					25		10		2		
1925			150[f]		50	50[g]					25		10		2		
1917			150[f]		50	50[g]					25		10		2		
1916			150[f]		50	50[g]					25		10		2		
1914			150[f]		50	50[g]					25		10	10	2		
Effective Date	Ground-water	Bedrock	Well	Lake[b]	Cistern	Building	Lot Line	Swimming Pool	Water Service	Public W Main	Well	Lake[c]	Cistern	Building	Lot Line	Swimming Pool	Water Service

Footnotes:
a. Includes water−tight cesspools, sewage tanks, septic tanks, dosing chambers.
b. Lake category includes lakes, streams or other watercourses.
c. Lake category includes lakes, streams, rivers, ponds, flowages and reservoirs.
d. The code required 5 feet of soil over GW or BR. It is assumed that a 3 foot separation was maintained.
e. Seepage pits shall not extend into creviced rock formations.
f. May be reduced to 50 feet if well is drilled and cased to 100 ft.
g. Means a dwelling.
h. Refers to habitable or occupied bldg with below grade foundation/habitable bldg on slab/uninhabited bldg on slab.
I. Refers to habitable buildings/uninhabited buildings.
j. Refers to below ground/above ground swimming pools.
k. Refers to normal soil/very coarse textured soil.
l. Distance listed is an example typical for residential application. Code references NR 811 and NR 812.
m. Code references Ordinary High Water Mark (OHWM) of navigable waters
n. Distance listed is an example of a typical setback. Code references NR 811.

A−383.43 (6) COMMERCIAL FACILITIES. Table A−383.43−1 may be used to estimate wastewater flows from a commercial building.

Table A−383.43−1
Public Facility Wastewater Flows

Source	Unit	Estimated Wastewater Flow (gpd)
Apartment or condominium	Bedroom	100
Assembly hall (no kitchen)	Person (10 sq. ft./person)	1.3
Bar or cocktail lounge (no meals served)	Patron (10 sq. ft./patron)	4
Bar or cocktail lounge [a] (w/meals – all paper service)	Patron (10 sq. ft./patron)	8
Beauty salon	Station	90
Bowling alley	Bowling lane	80
Bowling alley (with bar)	Bowling lane	150
Camp, day and night	Person	25
Camp, day use only (no meals served)	Person	10
Campground or camping resort	Space, with sewer connection and/or service building	30
Campground sanitary dump station	Camping unit or RV served	25
Catch basin	Basin	65
Church (no kitchen)	Person	2
Church [a] (with kitchen)	Person	5
Dance hall	Person (10 sq. ft./person)	2
Day care facility (no meals prepared)	Child	12
Day care facility [a] (with meal preparation)	Child	16
Dining hall [a] (kitchen waste only without dishwasher and/or food waste grinder)	Meal served	2
Dining hall [a] (toilet and kitchen waste without dishwasher and/or food waste grinder)	Meal served	5
Dining hall [a] (toilet and kitchen waste with dishwasher and/or food waste grinder)	Meal served	7
Drive−in restaurant [a] (all paper service with inside seating)	Patron seating space	10
Drive−in restaurant [a] (all paper service without inside seating)	Vehicle space	10
Drive−in theater	Vehicle space	3
Employees (total all shifts)	Employee	13
Floor drain (not discharging to catch basin)	Drain	25
Gas station / convenience store	Patron	3
Gas station (with service bay) Patron Service bay	 Patron Service bay	 3 50
Hospital [a]	Bed space	135
Hotel, motel, or tourist rooming house	Room	65
Manufactured home (served by its own POWTS)	Bedroom	100
Manufactured home community	Manufactured home site	200
Medical office building [b] Doctors, nurses, medical staff Office personnel Patients	 Person Person Person	 50 13 6.5
Migrant labor camp (central bathhouse)	Employee	20

Table A−383.43−1 (Continued)
Public Facility Wastewater Flows

Source	Unit	Estimated Wastewater Flow (gpd)
Nursing, rest home, community−based residential facility [a] [b]	Bed space	65
Outdoor sport facilities (toilet waste only)	Patron	3.5
Parks (toilets waste only)	Patron (75 patrons/acre)	3.5
Parks (toilets and showers)	Patron (75 patrons/acre)	6.5
Public shower facility	Shower taken	10
Restaurant [a], 24−hr. (dishwasher and/or food waste grinder only)	Patron seating space	4
Restaurant [a], 24−hr. (kitchen waste only without dishwasher and/or food waste grinder)	Patron seating space	12
Restaurant, 24−hr. (toilet waste)	Patron seating space	28
Restaurant [a], 24−hr. (toilet and kitchen waste without dishwasher and/or food waste grinder)	Patron seating space	40
Restaurant [a], 24−hr. (toilet and kitchen waste with dishwasher and/or food waste grinder)	Patron seating space	44
Restaurant [a] (dishwasher and/or food waste grinder only)	Patron seating space	2
Restaurant [a] (kitchen waste only without dishwasher and/or food waste grinder)	Patron seating space	6
Restaurant (toilet waste)	Patron seating space	14
Restaurant [a] (toilet and kitchen waste without dishwasher and/or food waste grinder)	Patron seating space	20
Restaurant [a] (toilet and kitchen waste with dishwasher and/or food waste grinder)	Patron seating space	22
Retail store	Patron (70% of total retail area ÷ 30 sq. ft. per patron)	1
School [a] (with meals and showers)	Classroom (25 students/ classroom)	500
School [a] (with meals or showers)	Classroom (25 students/ classroom)	400
School (without meals or showers)	Classroom (25 students/ classroom)	300
Self−service laundry [c] (toilet waste only)	Clothes washer	33
Self−service laundry [c] (with only residential clothes washers)	Clothes washer	400
Swimming pool bathhouse	Patron	6.5

[a] May be high in Biochemical Oxygen Demand (BOD) and Fats, Oils or Grease (FOG).
[b] May be high in medication and personal care products.
[c] May contain a high level of lint.

A−383.43 (6) (a) Actual meter readings may be used to calculate the combined estimated design wastewater flow from a dwelling. To calculate the estimated design wastewater flow use the following formula and compare the answer to the peak metered flow. Choose the larger of the two estimated design flows.

(total meter flow/number of readings)(1.5) = estimated design wastewater flow

The frequency of meter readings should be daily for commercial.

A−383.43 (6) (b) A detailed per capita and per function flow may be established for commercial facilities. The per function flow ratings shall be substantiated by manufactures data of the per function flow and detailed use data from the facility in question or a similar facility under similar conditions of use. Estimated design wastewater flow shall be at least 1.5 times the total estimated daily flow calculated from the per capita and per function flow information.

A−383.43 (7) ESTIMATING CONTAMINANT LOADS.

Pathogenic contaminant load may be estimated based on data collected by a reputable testing or research facility.

Typical Data on the Unit Loading Factors and Expected Wastewater Contaminant Loads from Individual Residences

Contaminant	Unit Loading Factor lb/capita per day	Value		
		Unit	Range	Typical
BOD_5	0.180	mg/L	216−540	392
SS	0.200	mg/L	240−600	436
NH3 as N	0.007	mg/L	7−20	14
Org. N as N	0.020	mg/L	24−60	43
TKN as N	0.027	mg/L	31−80	57
Org P as P	0.003	mg/L	4−10	7
Inorg. P as P	0.006	mg/L	6−17	12
Grease		mg/L	45−100	70
Total Coliform		cfu/100mL	10^7−10^{10}	10^8

A−383.43 (8) (g) ANCHORING SYSTEM COMPONENTS.

The anchoring of components to counter buoyant forces due to saturated soil conditions can be determined using the following formula:

Weight of the component plus the weight of the anchor = 1.5 times (volume of water the component displaces) times [the weight of water (62.4 pounds/cubic foot at 39°F)]

DRAFT
June 24, 2016
This is a Preliminary Draft for Discussion Only
Subject to Change

Yellow highlight-Proposed Changes

Chapter SPS 384

PLUMBING PRODUCTS

Note: Chapter ILHR 84 as it existed on May 31, 1988 was repealed and a new chapter ILHR 84 was created effective June 1, 1988. Chapter ILHR 84 was renumbered Comm 84 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 7., Stats., Register, February, 1997, No. 494. Chapter Comm 84 was renumbered chapter SPS 384 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

SPS 384.01 Scope. (1) The provisions of this chapter govern the quality and installation of materials, fixtures, appliances, appurtenances, and equipment relating to plumbing.

(2) A department interpretation of the requirements in this chapter shall supersede any differing interpretation by a lower level jurisdiction. A department decision on the application of the requirements in this chapter shall supersede any differing decision by a lower level jurisdiction.

Note: A decision of the department may be appealed. Section 101.02 (6) (e), Stats., outlines the procedure for submitting requests to the department for appeal hearings and the department procedures for hearing appeals.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; CR 07-100: renum. to (1), cr. (2) Register September 2008 No. 633, eff. 10-1-08.

SPS 384.02 Penalties. Penalties for violations of this chapter shall be assessed in accordance with s. 145.12, Stats.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; correction made under s. 13.93 (2m) (b) 7., Stats., Register, July, 2000, No. 535.

SPS 384.03 Definitions. In this chapter:

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

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

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

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88.

SPS 384.10 Department approval. No fixture, appliance, appurtenance, material, device or product may be sold for use in a plumbing system or may be installed in a plumbing system, unless it is of a type conforming to the standards or specifications of chs. SPS 382 and 383 and this chapter and ch. 145, Stats.

(1) ALTERNATE OR EXPERIMENTAL PRODUCT APPROVAL. If it is alleged that the approval of a fixture, appliance, appurtenance, material, device or product under this section would result in an adverse health effect or potentially adverse health effect on the waters of the state, the department may require an alternate or experimental product approval under s. SPS 384.50.

(2) PRODUCT REVIEW AND APPROVAL. (a) 1. Each type of plumbing product which falls into one of the categories specified in Table 384.10 shall be approved by the department in accordance with this subsection before the product may be sold for use in a plumbing system or installed in a plumbing system.

2. Specifications and plans or drawings for each type of product shall be submitted to the department for review. The submittal shall be accompanied by sufficient data and information to determine if the product and its performance comply with the provisions of chs. SPS 382, 383 and this chapter and ch. 145, Stats.

(b) The department may require that a submitter of a product for review have the product tested and its performance certified by an approved testing laboratory.

(c) If, upon review, the department determines that a product conforms to the provisions of chs. SPS 382, 383 and this chapter and ch. 145, Stats., the department shall issue an approval in writing. The department may impose specific conditions in granting an approval. Violations of the conditions under which an approval is granted shall constitute a violation of this chapter.

(d) If, upon review, the department determines that a product does not conform to provisions of chs. SPS 382, 383 and this chapter and ch. 145, Stats., the request for approval shall be denied in writing.

(e) The department shall review and make a determination on an application for a product approval within 40 business days of receipt of all fees, plans, drawings, specifications and other information required to complete the review.

(f) If an approved plumbing product is modified or additional assertions of function or performance are made, the approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.

(g) Approvals for plumbing products issued by the department prior to November 1, 1985, shall expire 30 months after the effective date of this section.

(h) Approvals for plumbing products issued by the department after November 1, 1985, shall expire at the end of the 60th month after the date of approval issuance.

Table 384.10
SUBMITTALS TO DEPARTMENT

	Product Categories
1.	Bottled-water vending machines that are not listed by a certification body accredited by the American National Standards Institute
2.	Chemical or biochemical treatments for POWTS
3.	Health care plumbing appliances
4.	Physical restoration processes for POWTS
5.	Prefabricated holding or treatment components for POWTS
6.	Prefabricated plumbing
7.	Wastewater treatment devices used to meet the requirements in s. SPS 382.70
8.	Water treatment devices that make a contaminant reduction claim which is not certified by a certification body accredited by the American National Standards Institute
9.	Water treatment devices that are not certified to a standard which covers material safety, by a certification body accredited by the American National Standards Institute

Note: More information about the certification bodies accredited by the American National Standards Institute (ANSI), such as the National Sanitation Foundation, is available at the ANSI website at www.ansi.org; or at 1899 L Street, NW, 11th Floor Washington, DC, 20036; or at telephone 202.293.8020.

(3) ~~VOLUNTARY~~ POWTS COMPONENT AND PRODUCT REVIEW. (a) The department may issue an approval, upon request and review, for specific methods or technologies that are proposed to be utilized as POWTS holding, treatment or dispersal components which conform to the standards or specifications referenced in chs. SPS 381, 382, 383 and this chapter, but do not require approval under sub. (2) might have to clarify under sub. 2 or s. SPS 384.50.

(b) Each request for approval shall be made on a form provided by the department.

Note: See ch. SPS 384 Appendix for a reprint of the form and addresses of the department where the form may be obtained.

(c) The submittal shall be accompanied by sufficient data and information to determine if the method or technology complies with the provisions of chs. SPS 381, 382 and 383, and this chapter. The submittal shall include, but not be limited to, all of the following:

1. Plans and specifications.
2. Theory of operation.
3. Testing protocol.
4. Testing data.
5. Limits of reliable operation.
6. Installation requirements and procedures.
7. Inspection checklist and worksheet.
8. Inspection requirements and procedures.
9. Operation and maintenance requirements.
10. Operation and maintenance schedule.
11. Operation and maintenance checklist and worksheet.

(d) 1. The department shall review a submittal under this subsection with input from a technical advisory committee.

2. The members on the technical advisory committee under subd. 1. shall be appointed by the department for staggered 3-year terms and shall include representatives of at least the following groups or organizations:

a. The department of natural resources familiar with large scale systems to serve as a non-voting member.

b. A representative of a ~~Local~~ local governmental unit responsible for administration and regulation of POWTS.

c. POWTS designer.

d. Academic or scientific community.

e. ~~Plumber~~ Journeyman or master plumber involved in POWTS installation.

f. ~~Environmental group.~~ Professional soil scientist or certified soil tester.

g. POWTS component manufacturer.

h. At-large member.

(e) 1. After review by the technical advisory committee under par. (d) but prior to issuing an approval under par. (f), the department shall seek public comments on a submittal under this subsection.

2. a. The department shall place the notice requesting public comment under subd. 1. in the official state newspaper.

Note: The official state newspaper at the time this rule goes into effect, July 1, 2000, is the Wisconsin State Journal.

b. The department shall include a time limit for public comment in each notice.

3. If the department receives a significant amount of public comment under subd. 2., the department may elect to recognize the specific method or technology through the rule-making process under ch. 227, Stats.

(f) 1. If, upon review, the department determines that the method or technology conforms to the provisions of chs. SPS 381, 382 and 383 and this chapter, the department shall issue an approval in writing.

2. The department may impose specific conditions in granting an approval, including a provision to provide training to POWTS installers and POWTS inspectors.

3. Violations of the conditions under which an approval is granted shall constitute a violation of this chapter.

(g) If, upon review, the department determines that the method or technology does not conform to the provisions of chs. SPS 381, 382 and 383 and this chapter, the request for approval shall be denied in writing.

(h) The department shall review and make a determination on an application for a method or technology approval within 3 months of receipt of all fees, plans, drawings, specifications and other information required to complete the review, unless the department elects to review the method or technology as part of the rule-making process under ch. 227, Stats.

(i) If an approved method or technology is modified or additional assertions of function or performance are made, the approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.

(4) REVOCATION. The department may revoke any approval issued under this section for any false statements or misrepresentation of facts on which the approval was based, or as a result of the product's failure, or if data indicate a health hazard or threat to the waters of the state.

(5) LIMITATIONS. An approval of a plumbing product by the department may not be construed as an assumption of any responsibility for defects in design, construction or performance of any product nor for any damages that may result. All products shall be installed in accordance with the manufacturer's printed instructions and as specified in chs. SPS 382 to 384. If there is a conflict between the manufacturer's printed instructions and requirements of chs. SPS 382 to 384, the requirements of chs. SPS 382 to 384 shall take precedence.

(6) FEES. Fees for product approval review shall be submitted in accordance with s. SPS 302.66.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; correction made in (6) under s. 13.93 (2m) (b) 7., Stats., Register, February, 1994, No. 458**;** emerg. am. Table 84.10, (2) (a) (intro.), r. (2) (a) 2., eff. 5-12-94; renum. (2) (a) (intro.), 1. and 2. to be 1., 2. and 3., r. (2) (a) 3., am. Table 84.10, Register, October, 1994, No. 466, eff. 11-1-94; am. Table 84.10 and r. and recr. (3), Register, April, 2000, No. 532, eff. 7-1-00; r. (2) (a) 2., renum. (2) (a) (intro.) and 1. to be (2) (a) 1. and 2. and am. (2) (a) 2., am. (5), (6) and Table 84.10, Register, July, 2000, No. 535, eff. 9-1-00; am. (4) and (5), Register, December, 2000, No. 540, eff. 1-1-01; CR 02-002: am. Table Register April 2003 No. 568, eff. 5-1-03; CR 04-035: am. Table 84.10 Register November 2004, eff. 12-1-04; CR 08-055: am. Table 84.10 Register February 2009 No. 638, eff. 3-1-09; correction in (intro.), (1), (2) (a) 1., 2., (c), (d), (3) (a), (c) (intro.), (e) 3., (f) 1., (g), (5), (6), Table 384.10 made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 11-031: am. (3) (e) 3. Register June 2013 No. 690, eff. 7-1-13; **EmR1423: emerg. renum. Table 84.10 rows 1 to 5 and 6 to 2 to 6 and 8 and am. 8, cr. Table rows 1 and 9, eff. 9-27-14; CR 14-056: renum. Table 84.10 rows 1 to 5 and 6 to 2 to 6 and 8 and am. 8, cr. Table rows 1 and 9 Register July 2015 No. 715, eff. 8-1-15.**

SPS 384.11 Device listing. Cross connection control devices and water treatment devices complying with the referenced standard in Table 384.11 shall be listed by a nationally recognized listing agency acceptable to the department.

Note: See ch. SPS 384 Appendix for acceptable listing agencies.

Table 384.11
DEVICE LISTINGS

Device	Referenced Standard
Anti-siphon Fill Valves (Ballcocks) for Gravity Water Closet Flush Tanks	ASSE 1002
Atmospheric Type Vacuum Breakers	ASSE 1001
Atmospheric Vacuum Breakers	CAN/CSA B64.1.1
Backflow Preventers for Beverage Dispensing Equipment	ASSE 1022
Backflow Preventer with Intermediate Atmospheric Vent	ASSE 1012
Backflow Prevention Devices for Hand-Held Showers	ASSE 1014
Chemical Dispensing Systems	ASSE 1055
Double Check Backflow Prevention Assemblies and Double Check Fire Protection Backflow Prevention Assemblies	ASSE 1015
Double Check Detector Fire Protection Backflow Prevention Assemblies	ASSE 1048
Double Check Valve Backflow Preventers	CAN/CSA B64.5
Dual Check Valve Backflow Preventers with Atmospheric Port	CAN/CSA B64.3
Hose Connection Backflow Preventers	ASSE 1052
Hose Connection Vacuum Breakers	CAN/CSA B64.2
Hose Connection Vacuum Breakers	ASSE 1011
Laboratory Faucet Backflow Preventers	ASSE 1035
Laboratory Faucet Type Vacuum Breakers	CAN/CSA B64.7
Pressure Vacuum Breakers	CAN/CSA B64.1.2
Pressure Vacuum Breaker Assembly	ASSE 1020
Pressurized Flushing Devices (Flushometers) for Plumbing Fixtures	ASSE 1037
Reduced Pressure Detector Fire Protection Backflow Prevention Assemblies	ASSE 1047
Reduced Pressure Principle Backflow Preventers and Reduced Pressure Fire Protection Principle Backflow Preventers	ASSE 1013
Reduced Pressure Principle Backflow Preventers	CAN/CSA B64.4
Spill Resistant Vacuum Breakers	ASSE 1056
Vacuum Breaker Wall Hydrants, Freeze Resistant Automatic Draining Type	ASSE 1019
Residential Cation Exchange Water Softeners	NSF 44

History: Cr. Register, July, 2000, No. 535, eff. 9-1-00; CR 02-002: am. Table Register April 2003 No. 568, eff. 5-1-03; CR 04-035: am. Table 84.11 Register November 2004 No. 587, eff. 12-1-04; CR 08-055: am. Table 84.11 Register February 2009 No. 638, eff. 3-1-09; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 384.12 Identification. Each length of pipe and each pipe fitting, trap, fixture, material, device and product to be used in plumbing shall be marked as required by the applicable standard specified by reference in this chapter or as specified by rule in this chapter.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; am. Register, April, 2000, No. 532, eff. 7-1-00; renum. from s. Comm 84.11, Register, July, 2000, No. 535, eff. 9-1-00.

SPS 384.13 Penetrations of fire-resistive assemblies. Penetrations of fire-resistive assemblies, such as walls and floor-ceiling systems, by plumbing systems or plumbing materials shall be protected in accordance with requirements of chs. SPS 361 to 366.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; correction made under s. 13.93 (2m) (b) 7., Stats.; renum. from s. Comm 84.12, Register, July, 2000, No. 535, eff. 9-1-00; correction made under s. 13.93 (2m) (b) 7., Stats., Register June 2002 No. 558; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 384.14 Chemical or biochemical treatments for private sewage systems. Chemical or biochemical treatments for private sewage systems shall function and perform in accordance with the assertions submitted to the department. Chemical or biochemical treatments for private sewage systems may not directly or indirectly adversely affect bacterial action in the systems, soil hydraulic conductivity in the absorption areas, or groundwater quality beneath the systems.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; renum. from s. Comm 84.13, Register, July, 2000, No. 535, eff. 9-1-00.

SPS 384.15 Health care plumbing appliances. Health care plumbing appliances shall function and perform in accordance with the drain, vent, water supply and backflow protection requirements of ch. SPS 382.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; renum. from s. Comm 84.14, Register, July, 2000, No. 535, eff. 9-1-00; CR 02-002: am. Register April 2003 No. 568, eff. 5-1-03; correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 384.20 Plumbing fixtures, appliances and equipment. (1) DESIGN AND CONSTRUCTION. All plumbing fixtures, appliances and equipment shall be designed and constructed to:

(a) Ensure durability, proper service and sanitation;

(b) Be free from defects;

(c) Be free from concealed fouling surfaces;

(d) Not require undue efforts in cleaning and operating; and

(e) Prevent nonpotable liquids, solids or gasses from being introduced into a potable water supply system through cross-connections.

(2) MATERIALS. (a) Plumbing fixtures shall have smooth surfaces that are impervious to water.

(b) All plumbing fixture fittings which are end-point devices, covered by the scope of NSF 61, section 9 and installed to supply water intended for human ingestion, shall conform to NSF 61, section 9.

Note: The scope of NSF 61, annex G, defines which devices are intended for use for human ingestion in response to Section 1417 of the federal Safe Drinking Water Act, as amended.

(3) WATER CONSERVING FAUCETS, SPOUTS AND PLUMBING FIXTURES. Water conserving faucets, spouts and plumbing fixtures which meet or exceed the water conservation requirements established in par. (b) shall be installed as specified in par. (a).

(a) 1. All lavatory faucets, shower heads, urinals, urinal flushing devices, water closets and water closet flushing devices shall conform to par. (b).

2. All faucets installed on kitchen sinks of dwelling units and living units shall conform to par. (b) 4.

(b) 1. 'General.' Flow control or flow restricting devices shall be installed on the water inlet side or shall be an integral part of the faucet, spout or fixture. A flow controlling or restricting aerator shall be considered to be an integral part of a faucet or spout.

2. 'Lavatory faucet.' a. The maximum discharge rate of lavatory faucets shall be 2.2 U.S. gallons per minute at a 60 psig flowing supply pressure.

b. Lavatory faucets that are of the metering type shall allow a maximum of 0.25 U.S. gallon per metering cycle at an 80 psig flowing supply pressure.

3. 'Shower heads.' The maximum discharge rate of shower heads shall be 2.5 U.S. gallons per minute at an 80 psig flowing supply pressure.

4. 'Sink faucets.' The maximum discharge rate of sink faucets shall be 2.2 U.S. gallons per minute at 80 psig flowing supply pressure.

5. 'Urinals.' Urinals shall function properly with a maximum of one U.S. gallon per flush at an 80 psig flowing supply pressure.

6. 'Urinal flushing devices.' The flushing cycle for urinal flushing devices shall discharge a maximum of one U.S. gallon per flush per fixture use at static test pressure of 20 psig and 80 psig.

7. 'Water closets.' Water closets shall function properly with a maximum of 1.6 U.S. gallons per flush over the range of static test pressure specified in Table 384.20.

8. 'Water closet flushing devices.' The flushing cycle for water closet flushing devices shall discharge a maximum of 1.6 U.S. gallons over the range of static test pressures specified in Table 384.20.

Table 384.20
STATIC TEST PRESSURES FOR WATER CLOSETS AND WATER CLOSET FLUSHING DEVICES

Tank Type	Flushometer Type	
	Siphonic	Blow Out
20 to 80 psig	25 to 80 psig	35 to 80 psig

(4) GENERAL REQUIREMENTS. (a) *Fixture outlets.* 1. The outlet passageway of a fixture shall be free from impairments and of sufficient size to insure proper discharge of the fixture contents under normal conditions.

2. The outlet connection of a fixture which directly connects to the drain system shall be an air and watertight joint.

(b) *Installation of fixtures.* 1. 'Access for cleaning.' Plumbing fixtures shall be so installed as to afford easy access for cleaning both the fixture and the area around it.

2. 'Securing wall mounted fixtures.' Wall mounted fixtures shall be rigidly supported by a hanger which is attached to structural members so that the load is not transmitted to the fixture drain connection or any other part of the plumbing system. The hanger for a wall mounted water closet shall conform to ASME A112.6.1M.

3. 'Water supply protection.' The water supply pipes and fittings within every plumbing fixture shall be so installed as to prevent backflow.

4. 'Design of overflow.' A fixture which is provided with an overflow outlet shall be designed and installed so that standing water in the fixture cannot rise in the overflow when the fixture's stopper is closed, and so that no water remains in the overflow when the fixture is empty.

5. 'Connection of overflows.' The overflow from any fixture shall discharge into the drain system on the inlet or fixture side of the trap.

6. 'Overflows in flush tanks.' Flush tanks shall be provided with overflows discharging to the fixture served and shall be of sufficient size to prevent flooding the tank at the maximum rate at which the tanks are supplied with water.

7. 'Strainers.' All plumbing fixtures other than water closets, clinic sinks, trap standard service sinks with flush rims, urinals, standpipes and waste sinks shall be provided with strainers, cross bars or pop-up stoppers which restrict the clear opening of the waste outlet.

8. 'Flushometer valves.' Flushometer valves shall be equipped with vacuum breakers which conform to ASSE 1001. Flushometer valves may not be used where the water pressure is insufficient to properly operate them. When the valve is operated, it shall complete the cycle of operation automatically, opening fully and closing positively under the water supply pressure. Each flushometer shall be provided with a means for regulating the flow through it.

9. 'Safing.' a. The floor of all site-constructed shower stalls and shower rooms shall be protected with a safing material installed beneath the finished floor of the entire enclosure or room and upward along the sides to a minimum of 6 inches above the curb or maximum water level of the room or enclosure. The corners of the enclosure or room shall be safed to a height of 6 feet and at least 3 inches in each direction from the corners.

b. All floor drains or other similar fixtures shall be installed with a safing material extending a minimum of 12 inches from the fixture.

c. The safing material shall conform to s. SPS 384.30 (6).

d. The safing material shall be properly drained.

e. All installations directly over an unexcavated portion of a building are exempt from this subdivision.

Note: Chapters SPS 361 to 366 and 390 contain provisions for toilet rooms and sanitary facilities for public buildings and places of employment, including provisions concerning toilet facilities for people with disabilities, fixture compartments, number of fixtures for the different types of occupancies, and toilet room finishes.

(5) PLUMBING FIXTURES AND PLUMBING APPLIANCES. (a) *Automatic clothes washers.* Residential type automatic clothes washers shall conform to ASSE 1007.

(b) *Bathtubs.* 1. a. Enameled cast iron bathtubs shall conform to ASME A112.19.1M.

b. Porcelain enameled formed steel bathtubs shall conform to ASME A112.19.4.

c. Plastic bathtubs shall conform to ANSI Z124.1.2.

2. Bathtubs shall have waste outlets and overflows at least 1-1/2 inches in diameter. A closing device shall be provided on the waste outlet.

3. All whirlpool piping for bathtubs shall drain by gravity to the trap serving the bathtub.

4. All waterways of the whirlpool pump for a bathtub shall drain by gravity to the trap serving the bathtub.

(c) *Bidets.* Vitreous china bidets shall conform to the material requirements in ASME A112.19.2M.

1. A bidet may not be located closer than 15 inches from its center to any side wall, partition, vanity or other obstruction, nor closer than 30 inches center to center from a water closet.

2. Bidets with submerged inlet fittings shall be protected by vacuum breakers which conform to ASSE 1001 or CAN/CSA B64.1.1.

(d) *Chemical dispensing systems.* Chemical dispensing systems shall conform to ASSE 1055.

(e) *Dishwashing machines.* 1. Residential type dishwashing machines shall conform to ASSE 1006.

2. Commercial type dishwashing machines shall conform to ASSE 1004.

(f) *Drinking fountains.* 1. Drinking fountains and water coolers shall conform to ARI 1010 or ASME A112.19.2.

2. Drinking fountains may not be installed in toilet rooms.

3. The water supply for drinking fountains shall be provided with an adjustable valve fitted with a loose key or an automatic self-closing valve permitting regulation of the rate of flow of water. The water supply issuing from the nozzle shall be of sufficient volume and height so that persons using the fountain need not come in direct contact with the nozzle or orifice.

4. A drinking fountain may not have a waste outlet less than 1-1/4 inches in diameter.

(g) *Floor drains.* 1. Floor drains shall be provided with removable strainers of sufficient strength to carry the anticipated loads.

2. The floor drain shall be so constructed that it can be cleaned, and the drain inlet shall be accessible at all times.

3. Floor drains shall be of a size to efficiently serve the intended purpose. The floor drain outlet shall not be less than 2 inches in diameter.

(h) *Food waste grinders.* 1. Residential type food waste grinders shall conform to ASSE 1008. Commercial type food waste grinders shall conform to ASSE 1009.

2. Food waste grinders shall be connected to a drain of sufficient size to serve the unit, but not less than 1 ½ inches in diameter.

3. All food waste grinders shall be provided with an adequate supply of cold water at a sufficient flow rate to insure proper functioning of the unit.

(i) *Laundry trays.* Each compartment of a laundry tray shall be provided with a waste outlet not less than 1 ½ inches in diameter.

(j) *Lavatories.* 1. a. Enameled cast iron lavatories shall conform to ASME A112.19.1M.

b. Vitreous china lavatories shall conform to ASME A112.19.2M.

c. Stainless steel lavatories shall conform to ASME A112.19.3.

d. Porcelain enameled formed steel lavatories shall conform to ASME A112.19.4.

e. Plastic lavatories shall conform to ANSI Z124.3.

2. Cultured marble vanity tops with an integral lavatory shall conform to ANSI Z124.3.

3. Lavatories shall have waste outlets not less than 1¼ inches in diameter.

(k) *POWTS design packages and POWTS components.* POWTS design packages and POWTS components shall function and perform in accordance with assertions submitted to and approved by the department under s. SPS 384.10.

(L) *Showers.* 1. Prefabricated plastic showers and shower compartments shall conform to ANSI A124.1.2.

2. Except for combination bathtub-shower units, waste outlets serving showers shall be at least 2 inches in diameter and shall have removable strainers of sufficient strength for the anticipated loads.

3. Where a waste outlet serves more than one shower space or shower head, the waste outlet shall be at least 2 inches in diameter and the waste outlet shall be so located and the floor so pitched that waste water from one shower does not flow over the floor area serving another shower.

Note: Chapters SPS 361 to 366 specify slip-resistant requirements for shower rooms and compartments in public buildings and places of employment.

4. All shower compartments, regardless of shape, shall have a minimum finished interior of 900 square inches and shall be capable of encompassing a circle with a diameter of 30 inches. The minimum required area and dimension shall be measured in a horizontal plane 24 inches above the top of the threshold and may not extend beyond the centerline of the threshold. The minimum area and dimensions shall be maintained to a point 70 inches above the shower waste outlet with no protrusions other than the fixture valve or valves, showerheads, soap dishes, retractable seats and safety grab bars or rails.

Note: See ch. SPS 384 Appendix for further explanatory materials.

(m) *Sinks.* 1. a. Enameled cast iron sinks shall conform to ASME A112.19.1M.

b. Vitreous china sinks shall conform to ASME A112.19.2.

c. Stainless steel sinks shall conform to ASME A112.19.3.

d. Porcelain enameled formed steel sinks shall conform to ASME A112.19.4.

e. Plastic sinks shall conform to ANSI Z124.6.

2. Sinks shall be provided with waste outlets not less than 1½ inches in diameter.

(n) *Urinals.* 1. a. Vitreous china urinals shall conform to ASME A112.19.2.

b. Plastic urinals shall conform to ANSI Z124.9.

2. A urinal may not be located closer than 15 inches from its center to any side wall, partition, vanity or other obstruction, nor closer than 30 inches center to center, between urinals.

Note: See ch. SPS 384 Appendix for further explanatory material.

3. Stall type urinals shall be set into the floor and the floor shall be pitched toward the fixture.

4. Automatic siphon urinal flush tanks may not be installed.

5. Pressurized flushing devices to serve urinals shall conform to ASSE 1037.

(o) *Water closets.* 1. a. Vitreous china water closets shall conform to ASME A112.19.2.

b. Plastic water closets shall conform to ANSI Z124.4.

2. Except as permitted in subd. 3., all water closets required to be provided in public buildings and places of employment shall be of an elongated bowl type, and provided with either:

a. Hinged, open-front seats without covers; or

b. Hinged, closed-front seats, without covers, which are encased with a continuous plastic sleeve capable of providing a clean surface for every user.

3. a. Water closets provided in day care centers, individual living units or sleeping units of residential occupancies may be of a round-bowl type with a hinged, closed front seat with or without a cover.

b. Water closets provided in prisons or correctional institutions may be of a round-bowl type, with or without a seat or cover.

4. A water closet may not be located closer than 15 inches from its center to any side wall, partition, vanity, or other obstruction, nor closer than 30 inches center to center, between water closets. There shall be at least 24 inches clearance in front of a water closet to any wall, fixture or door.

Note: See ch. SPS 384 Appendix for further explanatory material.

5. No person may install or maintain pan, plunger, offset washout, washout, long hopper, frostproof and other types of water closets having invisible seals or unventilated spaces or walls not thoroughly cleansed at each flushing.

6. Each water closet shall be individually equipped with a flushing device. Pressurized flushing devices shall conform to ASSE 1037. All flushing devices shall be readily accessible for maintenance and repair. Ballcocks and fill valves shall be of the anti-siphon type and shall conform to ASSE 1002. The critical level mark on the ballcock and fill valve shall be located at least one inch above the full opening of the overflow pipe.

(p) *Water heaters.* 1. Listed equipment. All water heaters shall bear the label of a listing agency acceptable to the department.

Note: See ch. SPS 384 Appendix A-384.11 for listing agencies acceptable to the department.

2. Design. a. All pressurized water heaters and pressurized hot water storage tanks, except those bearing the label of the American Society of Mechanical Engineers, shall be designed and constructed to withstand a minimum test pressure of 150% of the maximum allowable working pressure of the heater or tank.

b. All pressurized water heaters and pressurized hot water storage tanks shall be rated for a minimum working pressure of 125 psig.

c. A drain valve shall be installed at the lowest point of each water heater and hot water storage tank.

3. Safety devices. a. Relief valves shall be listed by the American Gas Association, Underwriters Laboratories, Inc. or American Society of Mechanical Engineers when the heat input to a water heater is less than or equal to 200,000 Btu per hour.

b. Relief valves shall be listed by the American Society of Mechanical Engineers when the heat input to a water heater exceeds 200,000 Btu per hour.

c. Pressure relief valves shall be set to open at either the maximum allowable working pressure rating of the water heater or storage tank or 150 psig, whichever is smaller.

d. Temperature and pressure relief valves shall be set to open at a maximum of 210º F and in accordance with subd. 3. c.

Note: See s. SPS 382.40 (5) (d) 1. concerning the sizing of temperature and pressure relief valves.

4. Hot water dispensers. Nonpressurized point-of-use water heaters shall conform to ASSE 1023.

(q) *Water meters.* A water meter which is used pursuant to s. SPS 383.54 (2) shall conform to AWWA C700, AWWA C701, AWWA C702, AWWA C704, AWWA C706, AWWA C707, AWWA C708, or AWWA C710.

(r) *Water treatment devices.* 1. Water softeners shall conform to NSF-44.

Note: See s. SPS 382.40 for limitations as to the types of water treatment devices which may discharge to a POWTS.

2. a. Except as provided in subd. 2. b., water treatment devices shall function and perform in accordance with the assertions submitted to the department under s. SPS 384.10, relating to rendering inactive or removing contaminants.

b. A water treatment device which injects a water treatment compound into a water supply system shall maintain the compound concentration in the system over the working flow rate range and pressure range of the device.

3. Except as specified in subd. 4., water treatment compounds introduced into the water supply system by a water treatment device shall be listed as an acceptable drinking water additive by a listing agency approved by the department. Listing agencies approved by the department shall include:

a. United States environmental protection agency;

b. United States food and drug administration; and

c. National sanitation foundation.

4. A water supply system shall be protected from backflow when unlisted water treatment compounds, which may affect the potability of the water, are introduced into the system. The department shall determine the method of backflow protection. Water supply outlets for human use or consumption may not be installed downstream of the introduction of an unlisted water treatment compound.

5. Water treatment devices designed for contaminated water supplies shall be labeled to identify the following information:

a. The name of the manufacturer of the device;

b. The device's trade name; and

c. The device's model number.

(s) *Other plumbing fixtures, appliances and equipment.* Plumbing fixtures, appliances and equipment not specifically covered in this subsection shall conform to the applicable performance standards of this chapter and chs. SPS 382 and 383.

(6) FAUCETS, SPOUTS AND FIXTURE SUPPLY CONNECTORS. (a) Except for circular and semi-circular wash fountains, all faucets and showerheads shall conform to ASME A112.18.1 or CAN/CSA B125.

(b) Circular and semi-circular wash fountains shall conform to the working pressure, burst pressure, discharge rate and product marking requirements of ASME A112.18.1 or CAN/CSA B125.

(c) 1. Except as provided in subd. 2., all fixture supply connectors shall be designed and constructed to withstand a minimum pressure of 100 psig at 180ºF.

2. All fixture supply connectors installed on a cold water supply serving fixtures, appliances and devices that provide ≤1.0 gpm at each outlet shall be designed and constructed to withstand a minimum pressure of 100 psig at 73.4ºF.

(d) Hand-held showers shall conform to ASSE 1014.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; r. (5) (m) 2. to 5., cr. (5) (m) 2. and 3., renum. (5) (m) 7. and 8. to be (5) (m) 4. and 5., Register, March, 1991, No. 423, eff. 4-1-91; am. (5) (l) 1. and (m) 1. a., Register, April, 1992, No. 436, eff. 5-1-92; renum. (5) (o) and (p) to be (5) (p) and (q), cr. (5) (l) 5., (n) 1. d. and (o), am. (5) (m) 6., (n) 1. b. and c., Register, February, 1994, No. 458, eff. 3-1-94**;** emerg. r. (3) (a) 3., eff. 5-12-94; r. (3) (a) 3., Register, October, 1994, No. 466, eff. 11-1-94; correction in (5) (m) 3. made under s. 13.93 (2m) (b) 7., Stats; renum. (5) (j) to (q) to be (5) (k) to (r) and cr. (5) (j), Register, April, 2000, No. 532, eff. 7-1-00; renum. (2) to be (2) (a) and am., (5) (d) to (r) to be (5) (e) to (s) and am. (5) (f), (j) 1. a. to d., (m) 1. and 2., (n) 1. and 2., (o) 1. a., (6) (a) and (b), (r) 1., (5) (L) 2. and renum. 3. to 5. to be 2. to 4.; am. (4) (b) 2., cr. (2) (b), (5) (d), (m) 1. e., (n) 1. b.; r. and recr. (4) (b) 9., Register, December, 2000, No. 540, eff. 1-1-01; CR 01-139: am. (5) (o) 2. b. and 3. Register June 2002 No. 558, eff. 7-1-02; correction in (5) (q) made under s. 13.93 (2m) (b) 7., Stats., Register June 2002 No. 558; CR 02-002: am. (5) (n) 2., r. and recr. (6) (c) Register April 2003 No. 568, eff. 5-1-03; CR 02-129: r. (5) (h) 3., renum. (5) (h) 4. to be 3. Register January 2004 No. 577, eff. 2-1-04; CR 04-035: am. (5) (p) 1. Register November 2004 No. 587, eff. 12-1-04; CR 08-055: am. (3) (b) 2. to 8., (5) (b) 1. c., (n) 1. a., b., (o) 1. a., 2. b. and (p) 2. c., r. and recr. (5) (o) 3. Register February 2009 No. 638, eff. 3-1-09; CR 10-064: am. (5) (f) 1., (L) 1., (m) 1. b., (n) 1. a., (o) 1. a., (6) (a), (b), r. (6) (d), renum. (6) (e) to be (6) (d) Register December 2010 No. 660, eff. 1-1-11; correction in (3) (b) 7., 8., (4) (b) 9. c., (5) (k), (q), (r) 2. a., (s) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 384.25 POWTS holding components or treatment components. (1) GENERAL. All POWTS holding components or treatment components shall conform to the requirements of this section.

(2) WATER TIGHTNESS. (a) *General.* Tank assemblies, including fittings and access openings, shall be manufactured to be water tight as required under this subsection.

(b) *Concrete tanks.* 1. Where concrete tanks are required to have covers, the tanks shall meet one of the following requirements:

a. Withstand a vacuum of at least 2 inches of mercury for 60 minutes, without loss of pressure.

b. Hold water for one hour, without leakage after the tank has been filled with water to the top of the cover and let stand for 24 hours, then refilled to the top of the cover.

2. Concrete tanks that are not required to have a cover shall hold water for one hour, without leakage after the tank has been filled with water and let stand for 24 hours, then refilled to the highest liquid level required to be held in the tank.

(c) *Steel tanks.* 1. Steel tanks that are required to have a cover shall be capable of withstanding one of the following requirements:

a. An internal air pressure of at least 5 psig for 15 minutes, without loss of pressure.

b. An internal water pressure of at least 5 psig for 60 minutes, without loss of pressure.

2. Steel tanks that are not required to have a cover shall be capable of holding water after being filled to their inlet or outlet, whichever is higher, for 24 hours without loss of water.

(d) *Tanks constructed of materials other than concrete or steel.* 1. Tanks constructed of materials other than concrete or steel that are required to have a cover shall be capable of withstanding one of the following requirements:

a. A vacuum of at least 2 inches of mercury for 60 minutes, without loss of pressure.

b. An internal air pressure of at least 5 psig for 15 minutes, without loss of pressure.

c. An internal water pressure of at least 5 psig for 60 minutes, without loss of pressure.

2. Tanks constructed of materials other than concrete or steel that are not required to have a cover shall be capable of holding water after being filled to their inlet or outlet, whichever is higher, for one hour without loss of water.

(3) STRENGTH. Tank assemblies, including fittings and access openings, shall be capable of withstanding loads and pressures that the tanks are intended to encounter and remain watertight.

(4) PROTECTION FROM ELEMENTS. (a) *Concrete tanks.* 1. The interior of a concrete tank assembly, including fittings and access openings, shall have a protective coating or be constructed of material, above the lowest liquid level expected in the tank, that will inhibit the deterioration of the concrete due to internal environmental effects.

2. Under subd. 1., concrete with a water cement ratio not exceeding 0.45 shall be considered resistant to deterioration due to internal environmental effects.

(b) *Steel tanks.* 1. Steel tank assemblies, including fittings and access openings, shall have a protective coating that will inhibit the deterioration of the steel due to internal and external environmental effects.

2. Steel tank assemblies, including fittings and access openings, installed underground shall be provided with cathodic protection in accordance with UL Standard 1746 or STI-P_3.

(c) *Tanks constructed of materials other than concrete or steel.* Tank assemblies, including fittings and access openings, constructed of materials other than concrete or steel shall be protected against deterioration due to internal and external environmental effects.

(5) VENTING. (a) Each tank, except camping unit transfer containers, shall be provided with a means of venting gases formed inside of the tank to the atmosphere.

(b) The tank vent shall terminate in accordance with s. SPS 382.31 (16).

(6) PIPE CONNECTION. All pipe connection openings to a tank shall be designed to allow connections in accordance with s. SPS 384.40.

(7) ACCESS. (a) Each covered tank shall be provided with one or more openings of sufficient size and located in such a manner to provide a means for inspection or required servicing or maintenance of the tank.

(b) Manhole openings shall be at least 23 inches in the least dimension.

(c) Anaerobic treatment tanks located below ground shall have a manhole opening over the inlet of the most upstream compartment, in each compartment, and over all treatment apparatuses and pumps.

(d) 1. Except as provided in subd. 2., manhole openings for anaerobic treatment tanks located below ground shall extend to a distance not greater than 6 inches below finished grade.

2. Manhole openings over all anaerobic treatment apparatuses and pumps shall extend to at least 4 inches above finished grade.

(e) Servicing and maintenance openings for holding components shall comply with all of the following:

1. Extend to at least 4 inches above finished grade.

2. Be at least 23 inches in the least dimension and be located above pumps or siphons located in the holding component.

(f) Inspection openings for tanks located below ground shall extend at least to the finished grade.

(g) Inspection, servicing and maintenance openings shall terminate with a means that prevents entrance of deleterious materials.

(h) Covers located at or above ground for openings larger than 8 inches in diameter shall be provided with locking devices or other effective measures to prevent unauthorized access.

(8) WARNING LABEL. (a) Covers for all tank openings larger than 8 inches in diameter shall be provided with a permanent warning label indicating the dangers of entering the tank, in accordance with this subsection.

(b) The warning label shall be securely attached and made of a noncorrosive metal or plastic bearing the legend "DO NOT ENTER WITHOUT PROPER EQUIPMENT" or "DANGEROUS GASES EXIST IN TANK" or similar language.

(c) The label shall be rectangular in shape with minimum dimensions of 4 by 5 inches.

(d) The wording on the label shall be a minimum of ½ inch in height and be either indented or raised.

(9) DOSING APPARATUS. (a) Pumps for POWTS used to disperse air, treated wastewater or final effluent shall be rated by the pump manufacturer for such use.

(b) Siphons for POWTS shall be rated by the siphon manufacturer for wastewater use.

(c) All other dosing apparatus for POWTS shall be constructed of corrosive resistant materials and designed to perform as intended.

(10) ALARM SYSTEM. All pump and alarm controls for POWTS shall be specifically designed by the manufacturer for such use.

(11) TANK LABEL. (a) *Anaerobic treatment tanks.* Each treatment tank which has an anaerobic treatment compartment shall be labeled with a permanent label located near an inlet or outlet opening of the tank. The label shall be embossed, impressed, or securely attached to the tank. The label shall include all of the following information:

1. Name or trademark of the manufacturer.

2. Capacity of each compartment of the tank or the manufacturer's model number.

(b) *Aerobic treatment tanks.* 1. Each aerobic treatment tank complying with NSF Standard 40 and listed by a nationally recognized ANSI accredited third party certified listing agency acceptable to the department shall be provided with 2 label plates. The labels shall conform with all of the following:

a. Label plates shall be inscribed to be easily read and understood, and be securely attached.

b. One label plate shall be attached to the front of the electrical control box and the second label plate shall be attached to the aeration equipment assembly, tank, or riser at a location normally subject to access during inspection of the unit.

c. Each label plate shall include name or trademark of the manufacturer, model number, and rated daily flow capacity of the unit.

Note: See ch. SPS 384 Appendix section A-384.11 for acceptable listing agencies.

(c) *Other treatment, holding and combination treatment-holding tanks.* Except as required in par. (a) or (b), each treatment tank and holding tank shall be labeled with a permanent label located near an inlet or outlet opening. The label shall be embossed, impressed, or securely attached to the tank. The label shall include all of the following information:

1. Name or trademark of the manufacturer.

2. Capacity of each compartment of the tank or the manufacturer's model number.

(12) OTHER TREATMENT COMPONENTS. A treatment component not specifically covered in this section may not be sold for use in a POWTS or may not be installed in a POWTS, unless it has received department approval and conforms to the applicable performance standards of this chapter and chs. SPS 382 and 383, and ch. 145, Stats.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: r. and recr. (7) and (11) Register January 2004 No. 577, eff. 2-1-04; CR 07-100: am. (7) (h), renum. (10) (a) to be (10), r. (10) (b) Register September 2008 No. 633, eff. 10-1-08; correction in (5) (b), (6), (12) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 384.30 Plumbing materials. (1) GENERAL. When selecting the material and determining size for a plumbing system, due consideration shall be given to the waste that will discharge to the plumbing system and to the soil, liquid and atmospheric environments where the plumbing system will be located.

(a) The bending or offsetting of flexible or annealed pipe or tubing shall be in accordance with the applicable material standard or the instructions of the manufacturer of the pipe or tubing.

(b) Pipe or tubing with gouges, cuts or deep scratches may not be installed.

(c) Pipe or tubing which has been kinked may not be installed.

(d) The bending or offsetting of rigid pipe shall be prohibited.

(e) Nailing plates shall be installed to protect copper or plastic pipe or tubing from puncture.

(f) Pipe and tubing for water distribution systems downstream of treatment devices designed to serve fixtures, appliances and devices that provide ≤1 gpm at each outlet shall be sleeved when penetrating a wall, floor or structural member.

(2) SANITARY DRAIN AND VENT SYSTEMS AND POWTS INSPECTION AND OBSERVATION PIPING. Sanitary drain systems and vent systems and POWTS inspection and observation piping shall be of such material and workmanship as set forth in this subsection.

(a) *Above ground drain and vent pipe.* Except as provided in s. SPS 382.33 (2), drain pipe and vent pipe installed above ground shall conform to one of the standards listed in Table 384.30-1.

(b) *Underground drain and vent pipe.* Except as provided in par. (d), drain pipe and vent pipe installed underground shall conform to one of the standards listed in Table 384.30-2.

(c) *Sanitary building sewer pipe.* Sanitary building sewer pipe shall conform to one of the standards listed in Table 384.30-3.

(d) *Treated wastewater piping.* 1. Nonpressurized, nonperforated drain piping conveying treated wastewater from a POWTS treatment or holding component to a POWTS treatment or holding component, distribution cell or dispersal zone shall conform to one of the standards listed in Table 384.30-3.

2. Nonpressurized perforated drain piping conveying treated wastewater in a POWTS soil treatment or dispersal component shall conform to one of the standards listed in Table 384.30-4.

3. Pressurized perforated drain piping conveying treated wastewater in a POWTS treatment or dispersal component shall conform to one of the standards listed in Table 384.30-5 and shall be perforated in accordance with the POWTS design.

(e) *Pressurized drain pipe.* Except as provided in par. (d) 3., pressurized drain pipe shall conform to one of the standards listed in Table 384.30-5 and shall be rated for the working pressure and temperature to which it will be subjected for a specific installation.

(f) *Chemical drain and vent pipe.* Drain systems and vent systems for chemical wastes shall be of approved corrosion resistant material. The manufacturer of the pipe shall indicate to the department the material's suitability for the concentrations of chemicals involved.

(g) *Catch basins, interceptors and sumps.* Catch basins, interceptors and sumps shall be constructed in a watertight manner of precast reinforced concrete, reinforced monolithic concrete, cast iron, coated 12-gauge steel, vitrified clay, fiberglass, plastic or other approved materials.

(h) *Manholes.* Manholes shall be constructed in a watertight manner of precast reinforced concrete, reinforced monolithic concrete, brick or block, fiberglass or other approved materials. Fiberglass manholes may be approved for use in traffic areas if the top section of the manhole is not made of fiberglass.

(i) *Service suction lines.* A service suction line or pump discharge line serving a holding tank for cleaning purposes shall conform to one of the standards listed in Table 384.30-5. Joints and connections for suction lines shall conform to s. SPS 384.40. The use of mechanical joints shall be in accordance with the recommendations and instructions specified by the manufacturer.

(j) *POWTS inspection and observation pipe.* A POWTS inspection and observation pipe shall conform to at least one of the standards listed in Table 384.30-1.

Table 384.30-1
ABOVE GROUND DRAIN AND VENT PIPE AND TUBING

Material	Standard
Acrylonitrile butadiene styrene (ABS)	ASTM D1527; ASTM D2661; ASTM F628
Brass	ASTM B43
Cast iron	ASTM A74; ASTM A888; CISPI 301

Copper	ASTM B42; ASTM B88; ASTM B306
Galvanized steel	ASTM A53
Polyvinyl chloride (PVC)	ASTM D2665; ASTM D1785; ASTM F891[b]
Synthetic rubber hose[a]	AHAM DW-1

Note a: The installation of synthetic rubber hose is limited in use to indirect waste piping or local waste piping from dishwashers in accordance with s. SPS 382.33 (9) (d).

Note b: Limited to pipe weight of schedule 40.

Table 384.30-2
UNDERGROUND DRAIN AND VENT PIPE AND TUBING

Material	Standard
Acrylonitrile butadiene styrene (ABS)	ASTM D1527; ASTM D2661; ASTM F628
Cast iron	ASTM A74; ASTM A888; CISPI 301
Copper[a]	ASTM B42; ASTM B88
Polyvinyl chloride (PVC)	ASTM D1785; ASTM D2665; ASTM D3034[b]; ASTM F891[c]

Note a: Copper tubing, type M, may not be installed underground.

Note b: Limited to pipe with a SDR of 26 or less.

Note c: Limited to pipe weight of schedule 40.

Table 384.30-3
SANITARY BUILDING SEWER PIPE AND TUBING

Material	Standard
Acrylonitrile butadiene styrene (ABS)[a]	ASTMD1527; ASTM D2661; ASTM D2751; ASTM F628
Acrylonitrile butadiene styrene (ABS) composite[a]	ASTM D2680
Cast iron	ASTM A74; ASTM A888; CISPI 301
Concrete	ASTM C14; ASTM C76
Copper[b]	ASTM B42; ASTM B88
Polyvinyl chloride (PVC)[a]	ASTM D1785; ASTM D2665; ASTM D3034; ASTM F891
PVC Corrugated Sewer Pipe With a Smooth Interior and Fittings	ASTM F949
PVC Large-Diameter Plastic Gravity Sewer Pipe and Fittings	ASTM F679
Material	Standard
PVC Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter	ASTM F794
Type PS-46 and Type PS-115 PVC Plastic Gravity Flow Sewer Pipe and Fittings	ASTM F789

[a]Thermoplastic sewer pipe shall be installed in accordance with ASTM D2321.
[b]Copper tubing, type M, may not be installed underground.

Table 384.30-4
PERFORATED EFFLUENT DISTRIBUTION PIPING FOR NONPRESSURIZED SOIL ABSORPTION SYSTEMS

Material	Standard
Polyethylene (PE)[a]	ASTM F405; ASTM F810
Polyvinyl chloride (PVC)[a]	ASTM D2729

Note a: The pipe shall have 2 rows, and only 2 rows, of perforations parallel to the axis of the pipe and 120° ± 5° apart. The perforations shall be at the nominal 4 and 8 o'clock positions when the pipe is installed.

Table 384.30-5
PRESSURIZED DRAIN PIPE AND TUBING AND SERVICE SUCTION LINES

Material	Standard
Acrylonitrile butadiene styrene (ABS)[a]	ASTM D1527; ASTM D2282; ASTM D2661; ASTM F628
Brass	ASTM B43
Chlorinated Poly (Vinyl Chloride) (CPVC)[a]	ASTM D2846; ASTM F441/F441M; ASTM

	F442/F442M
Concrete	ASTM C14; ASTM C76
Copper[b]	ASTM B42; ASTM B88; ASTM B306
Ductile iron	AWWA C115; AWWA C151
Galvanized steel	ASTM A53
Polyethylene Pressure Pipe and Fitting, 4 in. through 63 in., for Water Distribution	AWWA C906
Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. through 3 in.	AWWA C901-02
Polyvinyl chloride (PVC)[a]	ASTM D1785; ASTM D2241; ASTM D2665; AWWA C900
Stainless Steel	ANSI B36.19M; ASTM A269; A312/A312M; ASTM A450; A778; AWWA C220

[a]Thermoplastic sewer pipe shall be installed in accordance with ASTM D2321.
[b]Copper tubing, type M, may not be installed underground.

(3) STORM AND CLEAR WATER DRAIN AND VENT SYSTEMS. Storm and clear water drain and vent systems shall be of such material and workmanship as set forth in this subsection.

(a) *Above ground drain and vent pipe.* Drain pipe and vent pipe installed above ground and inside a building shall conform to one of the standards listed in Table 384.30-1, except black steel pipe conforming to ASTM A53 may be used for storm water conductors. Black steel conductors may not be embedded in concrete or masonry.

(b) *Underground drain and vent pipe.* Drain pipe and vent pipe installed underground shall conform to one of the standards listed in Table 384.30-2.

(c) *Storm building sewer pipe.* Storm building sewer pipe shall conform to one of the standards listed in Table 384.30-6.

(d) *Subsoil drain pipe.* Subsoil drains shall be open jointed, horizontally split, or perforated pipe conforming to one of the standards listed in Table 384.30-7.

(e) *Roof drains.* 1. Roof drains shall be provided with removable strainers of sufficient strength to carry the anticipated loads.

2. Roof drains shall be so constructed that the drains can be cleaned and the drain inlets accessible at all time.

3. Roof drains shall be sized in accordance with s. SPS 382.36 and the drain outlet shall not be less than $2^1/_2$ inches in diameter.

Note: See s. SPS 382.36 (10) and (11) for additional roof drain requirements.

(f) *Area drain inlets.* Area drain inlets shall be constructed in a watertight manner of precast concrete, reinforced monolithic concrete, brick or block, cast iron, coated 12 gauge steel, vitrified clay, fiberglass or other approved materials.

Table 384.30-6
STORM BUILDING SEWER PIPE AND TUBING

Material	Standard
Acrylonitrile butadiene styrene (ABS)[a]	ASTM D1527; ASTM D2661; ASTM D2751; ASTM F628
Acrylonitrile butadiene styrene (ABS) composite[a]	ASTM D2680
Cast iron	ASTM A74; ASTM A888; CISPI 301
Concrete, circular	ASTM C14; ASTM C76
Concrete, elliptical	ASTM C507/C507M
Copper[b]	ASTM B42; ASTM B88
Polyvinyl chloride (PVC)[a]	ASTM D1785; ASTM D2665; ASTM D3034; ASTM F891
PVC Corrugated Sewer Pipe With a Smooth Interior and Fittings	ASTM F949
PVC Large-Diameter Plastic Gravity Sewer Pipe and Fittings	ASTM F679
PVC Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter	ASTM F794
Type PS-46 and Type PS-115 PVC Plastic Gravity Flow Sewer Pipe and Fittings	ASTM F789

[a] Thermoplastic sewer pipe shall be installed in accordance with ASTM D2321.
[b]Copper tubing, type M, may not be installed underground.

(4) WATER SUPPLY SYSTEMS. Water supply systems shall be of such material and workmanship as set forth in this subsection. All materials in contact with water, in a water supply system, shall be suitable for use with the water within the system. All pipes and pipe fittings for water supply systems shall be made of a material that contains a weighted average of not more than 0.25 percent [lead] in the wetted surface material.

Note: CR 13-062 inadvertently omitted the word "lead". A correction will be made in subsequent rulemaking.

(a) *Water quality.* A water supply system shall be resistive to corrosive action and degrading action from the water being conveyed.

(b) *Soil and groundwater.* The installation of water supply systems shall be prohibited in soil and groundwater that is contaminated with solvents, fuels, organic compounds or other detrimental materials which will cause permeation, corrosion, degradation, or structural failure of the piping material.

1. Where detrimental conditions are suspected, a chemical analysis of the soil and groundwater conditions shall be required to ascertain the acceptability of the proposed water supply system materials for the specific installation.

2. Where a detrimental condition exists, no underground water supply system may be installed until the detrimental condition can be:

a. Eliminated and the source of the condition can be eliminated;
b. Identified and the pipe and joining method can be proven resistant to the detrimental condition; or
c. Avoided by choosing an alternate route that will not be affected by the detrimental condition.

(c) *Certification of plastic pipe.* Plastic pipe for a water supply system shall be certified for potable water contact by a nationally recognized listing agency acceptable to the department.

Note: For a listing of nationally recognized agencies acceptable to the department, see ch. SPS 384 Appendix A-384.11.

(d) *Water services and private water mains.* 1. Water service pipe and private water mains shall conform to one of the standards listed in Table 384.30-7. Pipe and tubing for water services and private water mains shall have a minimum working pressure of 150 psig at 73.4ºF.

2. A local governmental unit may by ordinance restrict the types of materials for water services and private water mains which are to be located within or beneath an area subject to an easement for a highway, street or public service right-of-way. Before adopting an ordinance restricting the types of materials for water services, the local governmental unit shall submit a copy of the proposed ordinance to the department for review and approval.

3. Materials for combination water services and combination private water mains shall comply with NFPA 24 and the provisions specified in par. (d).

(e) *Water distribution pipe.* 1. Except as provided in subd. 2. or 3., water distribution pipe shall have a minimum working pressure of 100 psig at 180ºF and shall conform to one of the standards listed in Table 384.30-8

2. Cold water distribution pipe installed underground shall have a minimum working pressure of 150 psig at 73.4ºF and shall conform to one of the standards listed in Table 384.30-7 or 384.30-8.

Note: Portions of a water supply system that supply water to a water-based fire protection system are to also conform to chs. SPS 361 to 365.
Note: See ch. SPS 384 Appendix for further explanation.

3. Pipe and tubing for cold water distribution systems downstream of water treatment devices designed to serve fixtures, appliances and devices that provide ≤1 gpm at each outlet shall conform to one of the standards listed in Table 384.30-8 or 384.30-11, and shall have a minimum working pressure of 100 psig at 73.4ºF.

4. Plastic pipe and tubing for water distribution systems downstream of water treatment devices designed to serve fixtures, appliances and devices that provide ≤1 gpm at each outlet shall be marked at intervals not to exceed 4 feet with the following information:

a. The manufacturer's name.
b. The trade designation of the pipe or tubing.
c. The type of material.
d. The minimum working temperature and pressure of the pipe or tubing.
e. The mark of the certifying agency.

(f) *Used piping.* Piping which has been used for any other purpose than conveying potable water may not be used for water supply systems.

Table 384.30-7
PIPE AND TUBING FOR
WATER SERVICES AND PRIVATE WATER MAINS

Material	Standard
Acrylonitrile butadiene styrene (ABS)[a]	ASTM D1527; ASTM D2282
Brass	ASTM B43
Chlorinated Poly (Vinyl Chloride) (CPVC)[a]	ASTM D2846; ASTM F441/F441M; ASTM F442/F442M
Copper[b,c]	ASTM B42; ASTM B88
Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene	CAN/CSA B137.10; ASTM F1281
Crosslinked polyethylene (PEX)[a]	ASTM F876; ASTM F877
Ductile iron	AWWA C115; AWWA C151
Galvanized steel	ASTM A53
Polyethylene (PE)[a]	ASTM D2239; ASTM D2737; ASTM D2104; ASTM D2447; ASTM D3035; AWWA C906; AWWA C901
Polyethylene/Aluminum/Polyethylene	CAN/CSA B137.9
Polyethylene/Aluminum/Polyethylene (PE-AL-PE)	ASTM F1282

Composite Pressure Pipe	
Polyvinyl chloride (PVC)[a]	ASTM D1785; ASTM D2241; AWWA C900
Stainless steel	ASME B36.19/B36.19M

[a]Plastic water service systems shall be installed in accordance with ASTM D2774.
[b]Copper tubing, type M, may not be installed underground.
[c]Copper pipe or tubing shall not be installed if the pH of the water to be conveyed is 6.5 or less.

Table 384.30-8
WATER DISTRIBUTION PIPE AND TUBING

Material	Standard
Brass	ASTM B43
Cast iron	AWWA C115
Chlorinated Poly (Vinyl Chloride) (CPVC)[a]	ASTM D2846; ASTM F441/441[c]; ASTM F442/442M[d]
Copper[b,e]	ASTM B42; ASTM B88
Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene	CAN/CSA B137.10, ASTM F1281
Crosslinked polyethylene (PEX)[a]	ASTM F876; ASTM F877
Ductile iron	AWWA C115; AWWA C151
Galvanized steel	ASTM A53
Polyethylene/Aluminum/Polyethylene	CAN/CSA B137.9
Polyethylene/Aluminum/Polyethylene (PE-AL-PE) Composite Pressure Pipe	ASTM F1282
Stainless Steel	ASME B36.19M; ASTM A270; ASTM A450

[a]Plastic pipe and tubing installed underground shall be in accordance with ASTM D2774.
[b]Copper tubing, type M, may not be installed underground.
[c]Use is limited to pipe $2^1/_2$ inches or less in diameter for sch 80 and 1 inch or less in diameter for sch 40.
[d]Use is limited to pipe with a SDR 11 or less.
[e]Copper pipe or tubing shall not be installed if the pH of the water to be conveyed is 6.5 or less.

Table 384.30-9
MINIMUM BENDING RADIUS OF POLYBUTYLENE WATER DISTRIBUTION PIPE AND TUBING

Pipe Size (inches)	Bending Radius (inches)	Tubing Size (inches)	Bending Radius (inches)
$^3/_4$	$12^3/_4$	$^1/_4$	$4^1/_2$
1	$15^3/_4$	$^3/_8$	6
$1^1/_4$	20	$^1/_2$	$7^1/_2$
$1^1/_2$	23	$^3/_4$	$10^1/_2$
2	$28^1/_2$	1	$13^1/_2$
		$1^1/_4$	$16^1/_2$
		$1^1/_2$	$19^1/_2$
		2	$25^1/_2$

[a]Plastic pipe and tubing installed underground shall be in accordance with ASTM D2774.
[b]Copper tubing, type M, may not be installed underground.

(5) PIPE FITTINGS AND VALVES. (a) *Fittings.* Pipe fittings shall conform to the pipe material standards listed in this chapter or one of the standards listed in Table 384.30-10. Threaded drain pipe fittings shall be of the recessed drainage type.

(b) *Water supply valves.* 1. Control valves for water services and private water mains shall be designed and constructed to withstand a minimum pressure of 125 psig at 73.4ºF.

2. Control valves for water distribution systems shall be designed and constructed to withstand a minimum pressure of 100 psig at 180ºF.

3. Except for a valve integral to a device, a control valve which serves 2 or more plumbing fixtures shall have, with the valve in a fully open position, a flow through passageway of not less than one nominal pipe size smaller than the nominal size of the piping connecting to the valve.

4. A control valve which serves 2 or more plumbing fixtures may not be a globe type valve.

(c) *Special fittings and valves.* 1. Water hammer arrestors shall conform to ASME A112.26.1 or ASSE 1010.

2. Relief valves and automatic gas shutoff devices for hot water supply systems shall conform to ANSI Z21.22.

3. Backwater valves shall conform to ASME A112.14.1, CAN/CSA B181.1 or CAN/CSA B181.2.

4. Pipe applied atmospheric type vacuum breakers shall conform to ASSE 1001, and CAN/CSA B64.1.1.

5. Water pressure reducing valves and strainers for water pressure reducing valves for domestic water supply systems shall conform to ASSE 1003.

6. Hose connection vacuum breakers shall conform to ASSE 1011 or CAN/CSA B64.2.

7. Backflow preventers with intermediate atmospheric vent shall conform to ASSE 1012 and dual check type atmospheric port backflow preventers shall conform to CAN/CSA B64.3.

8. Reduced pressure backflow preventers and reduced pressure fire protection principle backflow preventers, or backflow preventers, reduced pressure principle type (RP) shall conform with ASSE 1013 or CAN/CSA B64.4.

Note: Reduced pressure backflow preventers and reduced pressure detector fire protection backflow preventers are not permitted for cross connection control.

9. Double check backflow prevention assemblies shall conform to ASSE 1015 or CAN/CSA B64.5.

Note: Double check fire protection backflow preventer assemblies are not permitted for cross connection control.

10. Individual thermostatic, pressure balancing, and combination pressure balancing and thermostatic control valves serving individual showers shall conform to ASSE 1016 or CAN/CSA B125.

11. Trap seal primer valves, water fed shall conform to ASSE 1018.

12. Vacuum breaker wall hydrants, freeze resistant automatic draining type shall conform to ASSE 1019, types A or B.

13. Pressure vacuum breaker assemblies shall conform to ASSE 1020 or CAN/CSA B64.1.2.

14. Laboratory faucet backflow preventers shall conform to ASSE 1035 and laboratory faucet type vacuum breakers shall conform to CAN/CSA B64.7.

15. Reduced pressure detector fire protection, backflow prevention assemblies shall conform to ASSE 1047.

16. Double check detector assembly backflow preventers shall conform to ASSE 1048.

17. Back siphonage backflow vacuum breakers shall conform to ASSE 1056.

18. Hose connection backflow preventers shall conform to ASSE 1052.

19. Backflow preventers for carbonated beverage machines shall conform to ASSE 1022.

20. Dual check backflow preventers in freeze resistant types of wall hydrants shall conform to ASSE 1053.

(d) *Pipe saddles.* Pipe saddles shall be installed in accordance with the instructions of the saddle manufacturer and conform to all of the following limitations:

1. Pipe saddles may be installed on private interceptor main sewers, building sewers, underground drain and vent pipe and tubing, and where otherwise approved by the department.

2. A saddle for drain piping shall have a radius in accordance with s. SPS 382.30 (8) (a).

3. The material of the saddle shall be compatible with the materials of the pipes which are to be connected to the saddle.

4. The hole in the pipe which is to receive the saddle shall be drilled or cored to match the saddle outlet.

5. Straps or clamps which wrap around the pipe and saddle shall be provided by the manufacturer of the saddle.

6. Saddles shall be installed with straps or clamps which wrap around the pipe and saddle.

7. Proper hangers or bedding shall be provided to maintain alignment between the opening in the pipe and the saddle.

Table 384.30-10
PIPE FITTINGS

Material	Standard
Acrylonitrile butadiene styrene (ABS)	ASTM D2468; ASTM D3311; ASTM F409

Cast bronze	ANSI B16.15; ANSI B16.24
Cast copper alloy	ASME B16.18; ASME B16.23; ASME B16.26
Cast iron	ASME B16.4; ASME B16.12; ASME B16.1; ASME B16.45
Chlorinated polyvinyl chloride (CPVC)	ASTM F437; ASTM F438; ASTM F439
Copper	ASME B16.22; ASME B16.29
Crosslinked Polyethylene (PEX)	ASTM F1807
Ductile iron and gray iron	AWWA C110; AWWA C153; ANSI B16.42
Malleable iron	ANSI B16.3
Polyethylene (PE)	ASTM D2609; ASTM D2683; ASTM D3261
Polyvinyl Chloride (PVC)	ASTM D2464; ASTM D2466; ASTM D2467; ASTM D3311; ASTM F409; ASTM F1336; ASTM F1866
Polyvinyl Chloride (PVC) Gasketed Sewer Fittings	ASTM F1336
Stainless steel	ASTM A403
Steel[a]	ANSI B16.5; ANSI B16.9; ANSI B16.11; ANSI B16.28
Styrene-rubber (SR)	ASTM D2852

[a] Steel fittings and malleable iron fittings to be used in a water supply system shall be galvanized-coated in accordance with ASTM A123/123M.
[b] See s. SPS 384.30 (4) (intro.) concerning the maximum lead content for fittings.
[c] Copper and copper alloy fittings conforming to MSS SP-103, may not be installed underground.

Table 384.30-11
Pipe And Tubing For Water Distribution Systems Downstream Of Treatment Devices Designed To Serve Fixtures, Appliances And Devices That Provide ≤1 Gpm At Each Outlet

Material	Standard
Copper[b,c]	ASTM B42; ASTM B88
Polyethylene (PE)[a]	NSF 51; NSF 61
Polypropylene (PP)[a]	NSF 51; NSF 61
Polyvinylidene fluoride (PVDF)[a]	NSF 51; NSF 61
Polyvinyl chloride (PVC)[a]	NSF 51; NSF 61

[a] These materials are approved for cold water use only.
[b] Copper tubing, Type M, shall not be installed underground.
[c] Copper pipe or tubing shall not be installed if the pH of the water to be conveyed is 6.5 or less.

(6) SPECIAL MATERIALS. (a) *Sheet lead.* Sheet lead for the following uses may not weigh less than indicated in subds. 1. and 2.

1. Site-fabricated flashings for vent pipes, 3 pounds per square foot; and
2. Prefabricated flashings for vent pipes, 2½ pounds per square foot.

(b) *Traps and fixture drain connection fittings.* Copper or tubular brass traps and fixture drain connection fittings shall be at least of 20 gage material.

(c) *Sheet copper.* Sheet copper for the following uses may not weigh less than indicated in subds. 1. and 2. and shall conform to ASTM B152.

1. Flashing for vent pipes, 8 ounces per square foot; and

2. Flush tank linings, 10 ounces per square foot.

(d) *Cleanout plugs.* Cleanout plugs shall be of brass or plastic. Brass cleanout plugs shall be used with metallic piping only and shall conform to ASTM A74. Plastic cleanout plugs shall conform to the requirements of sub. (5) (a).

(e) *Flush pipes and fittings.* Flush pipes and fittings shall be of nonferrous material and shall conform to ASME A112.19.5.

(f) *Safing material.* Safing materials shall be waterproof when subjected to 2 feet of hydrostatic head when tested in accordance with ASTM C1306 or ASTM D4068. The material shall be recognized by the manufacturer for use as a safing material.

(g) *Geotextile fabrics.* Geotextile fabric used in a POWTS to prevent backfill material from entering the distribution cell shall meet the requirements listed in Table 384.30-12.

Table 384.30-12
GEOTEXTILE FABRICS

Property	Test Method	Minimum Average Roll Value
Grab Tensile, lbs	ASTM D4632	35 lbs, minimum
Grab Elongation, %	ASTM D4632	50%, minimum
Puncture, lbs	ASTM D4833	10 lbs, minimum
Trapezoidal tear, lbs	ASTM D4533	11 lbs, minimum
AOS, US Sieve #	ASTM D4751	20 US sieve #, minimum
AOS, US Sieve #	ASTM D4751	70 US sieve #, maximum

(h) *Leaching chambers.* Leaching chambers for distribution cell components of POWTS or stormwater subsurface infiltration systems shall meet all of the following requirements:

1. Constructed of corrosion resistant materials.
2. Designed to prevent soil surrounding the chamber from entering the chamber.
3. Capable of withstanding pressures that the leaching chamber is intended to encounter.

(i) *Stone aggregate.* Stone aggregate which is used as a filtering medium or to create a distribution cell in a treatment or dispersal component of a POWTS or stormwater subsurface infiltration system shall meet all of the following requirements:

1. Conform to ASTM Standard C33 for coarse aggregate prior to washing.
2. Be washed to remove fine material.
3. Be ½ to 2½ inch in size.
4. Have a hardness value of at least 3 on Moh's Scale of Hardness.

Note: Stone that can scratch a copper penny without leaving any residual stone material on the penny has a hardness value of at least 3 on Moh's Scale of Hardness.

(j) *Sand.* Sand that is placed as a ~~filtering~~ medium in a stormwater subsurface infiltration system shall ~~conform to ASTM Standard C33 for fine aggregate.~~meet all of the following requirements:

1. Conform to ASTM Standard C33 for fine aggregate.
2. Be comprised of an outwash parent material.
3. Have a hardness value of at least 3 on Moh's Scale of Hardness.

(k) *Synthetic aggregate.* Synthetic aggregate that is used as a filtering medium or to create a distribution cell in a treatment or dispersal component of a POWTS or stormwater subsurface infiltration system shall meet all of the following requirements:

1. Be made from inert materials.
2. Be ½ inch to 2½ inches in size.
3. Be made of material that will not contaminate groundwater.
4. Be recognized by the manufacturer for use as a filtering media or a material to create a distribution cell.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; am. (4) (intro.), Register, August, 1988, No. 392, eff. 9-1-88; renum. (2) (e) to (g) to (f) to (h), cr. (2) (e), am. Table 84.30-4, r. and recr. Table 84.30-5, Register, August, 1991, No. 428, eff. 9-1-91; am. (2) (c), (d) 1. and (e), r. (2) (d) 3., renum. (2) (d) 4. to be (2) (d) 3., cr. (2) (i), Register, April, 1992, No. 436, eff. 5-1-92; am. (3) (a), Tables 1, 3 to 9, 10 and 11, Register, September, 1992, No. 441, eff. 10-1-92; am. Table 84.30-9, cr. (4) (g), Register, September, 1993, No. 453, eff. 10-1-93; am. Tables 84.30-2, 84.30-3, 84.30-6, 84.30-8 and 84.30-9, r. Table 84.30-10a, (6) (a) 1. and (c) 1., cr. (4) (h) and (5) (b) 4., r. and recr. (5) (b) 3., (c) and (6) (f), renum. (6) (a) 2. and 3. and (c) 2. and 3. to be (6) (a) 1. and 2. and (c) 1. and 2., Register, February, 1994, No. 458, eff. 3-1-94; correction in (6) (a) (intro.) made under s. 13.93 (2m) (b) 7, Stats., Register, February, 1994, No. 458; am. Table 84.30-1, (5) (c) 7., 11., 12., 13, 14., cr. (5) (c) 16., 17., Register, February, 1997, No. 494, eff. 3-1-97**;** am. Tables 84.30-5 and 84.30-9, cr. (6) (g) to (j) and Table 84.30-12 and r. and recr. (2) (d), Register, April, 2000, No. 532, eff. 7-1-00 except Table 84.30-9, eff. 5-1-00; cr. (5) (c) 10., renum. (5) (c) 10. to 17., to be (5) (c) 11. to 18. and am. (5) (c) 1., 3., 4., 6. to 9., am. Tables 84.30-3, 5, 6, 8, 9, 10 and 11; Register, December, 2000, No. 540, eff. 1-1-01; reprinted to correct printing error in Table 84.30-1, Register, April, 2001, No. 544; CR 02-002: r. and recr. (1) (intro.), cr. (1) (f), (2) (j), (4) (i), and Table 84.30-11, am. (2) (intro.), (4) (c) to (e), (f) 2. a., (5) (a), (b) 3., (d) and Tables 84.30-1 to 6, r. Tables 84.30-7 and 10, renum. Tables 84.30-8 to 9m and 11 to be Tables 84.30-7 to 10 and am., Register April 2003 No. 568, eff. 5-1-03; CR 02-129: am. (2) (j) and (4) (e) 2., renum. (4) (d) to be (4) (d) 1., cr. (4) (d) 2. and (4) (e)

4., r. and recr. (4) (e) 3., r. (4) (i) Register January 2004 No. 577, eff. 2-1-04; CR 04-035: cr. (4) (d) 3. and (6) (k), am. (5) (c) 8., (6) (h) (intro.), (i) (intro.) and (j) (intro.) Register November 2004 No. 587, eff. 12-1-04; CR 07-100: am. (6) (j) Register September 2008 No. 633, eff. 10-1-08; CR 08-055: cr. (5) (c) 20., am. (4) (e) 2., Tables 84.30-2, 84.30-5 to 84.30-8 and 84.30-10, r. (4) (f) and (g), renum. (4) (h) to be (4) (f) Register February 2009 No. 638, eff. 3-1-09; CR 10-064: am. (4), Tables 84.30-7 and 84.30-8 Register December 2010 No. 660, eff. 1-1-11; correction in (2) (a), (b), (c), (d) 1., 2., 3., (e), (i), (j), (3) (a), (b), (c), (d), (e) 3., (4) (d), (e) 1., 2., 3., (5) (a), (d) 2., (6) (g), Table 384.30-1, Table 384.30-10 made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 13-062: am. (4) (intro.) Register February 2014 No. 698, eff. 3-1-14.

SPS 384.40 Joints and connections. (1) GENERAL. (a) *Tightness.* Joints and connections in the plumbing system shall be watertight and gastight as required by test or system design, whichever is greater, or as required by the adopted product standard or department approval.

Note: The testing requirements for tightness are in s. SPS 382.21.

(b) *Preparation of pipe ends.* Pipe ends shall be prepared in accordance with the applicable pipe standard or the pipe or fitting manufacturer's instructions.

(c) *Prohibited joints and connections.* Unless otherwise permitted in this chapter or ch. SPS 382 or 383, all of the following types of joints and connections shall be prohibited:

1. Cement or concrete joints.
2. Mastic or hot poured bituminous joints.
3. Elastomeric rolling o-rings between different diameter pipes.
4. Solvent cement joints between different types of plastic pipe other than ABS and PVC in non-pressurized systems.
5. Roll grooving of galvanized steel pipe.

(2) ABS PLASTIC PIPE. Joints between acrylonitrile butadiene styrene plastic pipe or fittings shall be installed in accordance with pars. (a) to (c).

(a) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions.

1. 'Drain and vent systems.' Mechanical push-on joints for drain and vent systems shall conform to ASTM D3212.
2. 'Water supply systems.' Mechanical push-on joints and mechanical compression-type joints for water supply systems which use a flexible elastomeric seal shall be suitable for potable water.

(b) *Solvent cemented joints.* Solvent cemented joints shall be made in accordance with ASTM D2235 and its appendix, ASTM D2661 or ASTM F628.

1. Joint surfaces shall be clean and free of moisture.
2. Solvent cement conforming to ASTM D2235 shall be applied to all joint surfaces and the joint shall be made while the cement is wet.
3. Solvent cement shall be handled in accordance with ASTM F402.
4. Solvent cement used on pipes and fittings of a water supply system shall conform to NSF 14 and shall be certified by a nationally recognized testing agency as to conforming to NSF 14. The container for the solvent cement shall bear the certification mark of the testing agency.

(c) *Threaded joints.* Threaded joints shall only be used on pipes of schedule 80 or heavier. Threaded joints shall conform to ASME B1.20.1. The pipe shall be threaded with dies specifically designed for plastic pipe. Thread lubricant or tape approved for such use shall be applied to the male threads only.

(3) BLACK STEEL PIPE. Joints between black steel pipe or fittings shall be in accordance with pars. (a) to (d).

(a) *Threaded joints.* Threaded joints shall conform to ASME B1.20.1. Pipe joint compound or tape shall be used on the male threads only.

(b) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions.

(c) *Caulked joints.* Caulked joints shall only be used for drain or vent piping. Caulked joints for hub and spigot piping and fittings shall be firmly packed with oakum or hemp. Molten lead shall be poured in one operation not less than one inch deep and not to extend more than 1/8 inch below the rim of the pipe, and caulked tight. Paint, varnish or other coatings may not be used on the joining material until after the joint has been tested and approved.

1. Caulked joints for drain piping shall be used only in a vertical position.
2. Caulked joints for vent piping may be used for piping in a vertical or horizontal position.

(d) *Welded joints.* Joints between black steel pipe or fittings may be welded.

(4) BRASS PIPE. Joints between brass pipe or fittings shall be in accordance with the provisions of pars. (a) to (d).

(a) *Brazed joints.* All joint surfaces to be brazed shall be cleaned bright by other than chemical means. Brazing filler metal conforming to AWS A5.8 or other approved material shall be used. The joining of water supply piping shall be made with lead-free materials. Solders and fluxes containing in excess of 0.2% lead shall not be used.

(b) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions. Mechanical push-on joints and mechanical compression type joints for water supply systems which use flexible elastomeric seals shall be suitable for potable water.

(c) *Soldered joints.* All joint surfaces to be soldered shall be cleaned bright by other than chemical means. A nontoxic flux shall be applied to all joint surfaces. Solder conforming to ASTM B32 or other approved material shall be used. The joining of water supply piping shall be made with lead-free materials. Solders and fluxes containing in excess of 0.2% lead shall not be used.

(d) *Threaded joints.* Threaded joints shall conform to ASME B1.20.1. Pipe joint compound or tape shall be used on the male threads only.

(5) CAST IRON PIPE. Joints between cast iron pipe or fittings shall be installed in accordance with pars. (a) and (b).

(a) *Caulked joints.* 1. 'Drain and vent systems.' Caulked joints for hub and spigot pipe of drain and vent systems shall be firmly packed with oakum or hemp. Molten lead shall be poured in one operation not less than one inch deep and not to extend more than $^{1}/_{8}$ inch below the rim of the pipe, and caulked tight. Paint, varnish or other coatings may not be used on the joining material until after the joint has been tested and approved.

2. 'Water supply systems.' Joints for bell and spigot pipe of water supply systems shall be firmly packed with treated paper rope. Molten lead shall be poured in one operation to a depth of 2½ inches.

(b) *Mechanical joints.* 1. 'Drain and vent systems.' a. Mechanical push-on joints for drain and vent systems shall have gaskets which conform to ASTM C564.

b. Mechanical sleeve joints for drain and vent systems shall have a rubber sealing sleeve conforming to ASTM C564, CISPI 310 or FM 1680. Where a stainless steel band assembly is used, the band assembly shall conform to CISPI 310 or FM 1680. Mechanical joints shall be installed in accordance with the manufacturer's instructions.

2. 'Water supply systems.' Mechanical push-on joints and mechanical compression type joints for water supply systems shall conform to AWWA C111/A21.11. Lead tipped gaskets may not be used.

(c) *Threaded joints.* Threaded joints shall conform to ASME B1.20.1. Pipe joint compound or tape shall be used on the male threads only.

(6) CPVC PLASTIC PIPE. Joints between chlorinated polyvinyl chloride plastic pipe or fittings shall be installed in accordance with the provisions of pars. (a) to (c).

(a) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions. Mechanical push-on type joints which use flexible elastomeric seals shall be suitable for potable water.

(b) *Solvent cemented joints.* Solvent cemented joints shall be made in accordance with ASTM D2846 or ASTM F493.

1. Joint surfaces shall be clean and free of moisture. Cleaner, primer and cement shall be installed in accordance with the manufacturer's instructions for use of the solvent cement.

2. Solvent cement conforming to ASTM F493 shall be applied to all joint surfaces and the joint shall be made while the cement is wet.

3. Solvent cement shall be handled in accordance with ASTM F402.

4. Primer and solvent cement used on pipes and fittings of a water supply system shall conform to NSF 14 and shall be certified by a nationally recognized testing agency as to conforming to NSF 14. The containers for the primer and the solvent cement shall bear the certification mark of the testing agency.

(c) *Threaded joints.* Threaded joints shall only be used on pipes of schedule 80 or heavier. Threaded joints shall conform to ASME B1.20.1. The pipe shall be threaded with dies specifically designed for plastic pipe. Thread lubricant or tape approved for such use shall be applied to the male threads only.

(7) CONCRETE PIPE. (a) *Circular pipe.* Joints between circular concrete pipe or fittings shall be made by use of an elastomeric seal conforming to ASTM C443 or C990.

(b) *Elliptical pipe.* Joints between elliptical concrete pipe or fittings shall be made by use of materials conforming to ASTM C887 Type II or ASTM C990.

(8) COPPER PIPE AND TUBING. Joints between copper pipe, tubing or fittings shall be installed in accordance with pars. (a) to (e).

(a) *Brazed joints.* All joint surfaces to be brazed shall be cleaned bright by other than chemical means. Brazing filler metal conforming to AWS A5.8, NSF/ANSI 61, annex G, or other approved material shall be used. The joining of water supply piping shall be made with lead-free materials.

(b) *Flared joints.* Flared joints may be used on annealed tubing for water supply systems and shall be made by the use of a tool designed for that operation.

(c) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions. Mechanical push-on joints and mechanical compression type joints for water supply systems which use flexible elastomeric seals shall be suitable for potable water.

(d) *Soldered joints.* All joint surfaces to be soldered shall be made in accordance with ASTM B828. Flux approved by NSF for use in potable water systems shall be applied to all joint surfaces. Solder conforming to ASTM B32, NSF/ANSI 61, annex G, or other approved material shall be used. The joining of water supply piping shall be made with lead-free materials.

(e) *Threaded joints.* Threaded joints shall conform to ASME B1.20.1. Pipe joint compound or tape shall be used on the male threads only.

(9) DUCTILE IRON PIPE. (a) *Mechanical joints.* Mechanical push-on joints and mechanical compression type joints for water supply systems shall conform to AWWA C111. Lead tipped gaskets may not be used.

(b) *Threaded joints.* Threaded joints shall conform to ASME B1.20.1. Pipe joint compound or tape shall be used on the male threads only.

(10) GALVANIZED STEEL PIPE. Joints between galvanized steel pipe or fittings or between galvanized steel pipe and cast iron fittings shall be installed in accordance with pars. (a) to (c).

(a) *Threaded joints.* Threaded joints shall conform to ASME B1.20.1. Pipe joint compound or tape shall be used on the male threads only.

(b) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions. Mechanical push-on joints and mechanical compression type joints for water supply systems which use flexible elastomeric seals shall be suitable for potable water.

(c) *Caulked joints.* Caulked joints shall only be used for drain or vent piping. Caulked joints for hub and spigot piping and fittings shall be firmly packed with oakum or hemp. Molten lead shall be poured in one operation not less than one inch deep and not to extend more than $^1/_8$ inch below the rim of the pipe, and caulked tight. Paint, varnish or other coatings may not be used on the joining material until after the joint has been tested and approved.

1. Caulked joints for drain piping shall be used only for piping in a vertical position.
2. Caulked joints for vent piping may be used for piping in a vertical or horizontal position.

(11) LEAD PIPE. Joints between lead pipe or fittings shall be installed in accordance with pars. (a) and (b).

(a) *Burned joints.* Burned joints shall be uniformly fused together into one continuous piece. The thickness of the joint shall be at least as thick as the lead being joined. The filler metal shall be of the same material as the pipe.

(b) *Wiped joints.* A wiped joint shall be full wiped, having an exposed surface on each side of the joint not less than 3/4 inch and shall be at least 3/8 inch thick at the thickest point.

(12) PE PLASTIC PIPE AND TUBING. Joints between polyethylene plastic pipe, tubing or fittings shall be in accordance with pars. (a) to (c).

(a) *Flared joints.* Flared joints shall be made by use of a tool designed for that operation. Flared joints shall be made in accordance with ASTM D3140.

(b) *Heat fusion joints.* Heat fusion joints shall be made in accordance with ASTM D2657. Heat fusion joints shall be of a socket fusion type.

1. Joint surfaces to be fused shall be clean and free of moisture.
2. All joint surfaces shall be heated to the temperature recommended by the pipe or fitting manufacturer and joined.
3. The joint shall be undisturbed until cool.

(c) *Mechanical joints.* Mechanical joints may be installed in accordance with the manufacturer's instructions. Mechanical push-on joints and mechanical compression type joints which use flexible elastomeric seals shall be suitable for potable water.

(13) PEX PLASTIC TUBING. Joints between crosslinked polyethylene plastic pipe, tubing or fittings shall be made in accordance with the manufacturer's instructions.

(14) PVC PLASTIC PIPE. Joints between polyvinyl chloride plastic pipe or fittings shall be in accordance with pars. (a) to (c).

(a) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions.

1. 'Drain and vent systems.' Mechanical push-on joints for drain and vent systems shall conform to ASTM D3212.
2. 'Water supply systems.' Mechanical push-on joints and mechanical compression type joints for water supply systems which use flexible elastomeric seals shall be suitable for potable water.

(b) *Solvent cemented joints.* Solvent cemented joints shall be made in accordance with ASTM D2855.

1. Joint surfaces shall be clean and free of moisture. A primer conforming to ASTM F656 shall be applied to all joint surfaces.
2. Solvent cement conforming to ASTM D2564 shall be applied to all joint surfaces and the joint shall be made while the cement is wet.
3. Solvent cement shall be handled in accordance with ASTM F402.
4. Primer and solvent cement used on pipes and fittings of a water supply system shall conform to NSF 14 and shall be certified by a nationally recognized testing agency as to conforming to NSF 14. The containers for the primer and the solvent cement shall bear the certification mark of the testing agency.

(c) *Threaded joints.* Threaded joints shall only be used on pipes of schedule 80 or heavier. Threaded joints shall conform to ASME B1.20.1. The pipe shall be threaded with dies specifically designed for plastic pipe. Thread lubricant or tape approved for such use shall be applied to the male threads only.

(15) STAINLESS STEEL. Joints between stainless steel pipe or fittings shall be installed in accordance with the provisions of pars. (a) to (c).

(a) *Mechanical joints.* Mechanical joints shall be installed in accordance with the manufacturer's instructions. Mechanical push-on type joints which use flexible elastomeric seals shall be suitable for potable water.

(b) *Threaded joints.* Threaded joints shall conform to ANSI B1.20.1. Pipe joint compound or tape shall be used on the male threads only.

(c) *Welded joints.* Joints between stainless steel pipe or fittings may be welded.

(16) JOINTS BETWEEN PIPE AND FITTINGS OF DIFFERENT MATERIALS. Connections between pipes of different materials shall be made with mechanical compression type joints, installed in accordance with manufacturer's instructions or as specified in pars. (a) to (e).

(a) *Copper to cast iron.* Connections between copper pipe or tube and cast iron pipe shall be by means of either caulked joints in accordance with sub. (5) (a) or threaded fittings in accordance with sub. (5) (c).

(b) *Copper to galvanized steel.* Connections between copper pipe or tube and galvanized steel pipe shall be by use of an adapter fitting. The copper pipe shall be soldered to the adapter in accordance with sub. (8) (d). The galvanized steel shall be threaded to the adapter in accordance with sub. (10) (a).

(c) *Cast iron to steel or brass pipe.* Connections between cast iron pipe and galvanized or black steel or brass pipe shall be by means of:

1. Caulked joints in accordance with sub. (5) (a); or
2. Threaded joints in accordance with sub. (5) (c).

(d) *Plastic to other materials.* 1. Connections between plastic pipe and cast iron pipe shall be by means of:

a. Caulked joints in accordance with sub. (5) (a); or

b. Threaded joints in accordance with sub. (5) (c).

2. Except as provided in par. (f), connections between different types of plastic pipe or between plastic pipe and other piping materials other than cast iron shall be by means of threaded joints in accordance with sub. (14) (c).

(e) *Lead to other piping materials.* Connections between lead pipe and other piping materials shall be by use of an adapter fitting conforming to s. SPS 384.30 (5) (a). The lead pipe shall be caulked or burned to the adapter fitting in accordance with sub. (11).

(f) *ABS plastic to PVC plastic.* For solvent-cemented connections between ABS and PVC piping in non-pressurized systems, all of the following shall apply:

1. Joint surfaces shall be clean and free of moisture.
2. Primer conforming to ASTM F656 shall be applied to all PVC joint surfaces.
3. Solvent conforming to ASTM D3138 shall be applied to all joint surfaces and the joint shall be made while the cement is wet.
4. Solvent shall be handled in accordance with ASTM F402.

(17) CONNECTION OF FIXTURES. Flanged fixtures which have integral traps shall be mechanically fastened to the drain piping by means of a compatible fitting. The joint between the fixture and the fitting shall be sealed with a watertight gasket or setting compound.

(18) CONNECTION OF PIPE TO CONCRETE STRUCTURES. Joints between concrete structures and piping shall be made with mechanical joints in conformance with ASTM C923, ASTM C564 or as otherwise permitted by local authority. Openings for pipe connections that are installed with mechanical joints conforming to ASTM C564 shall have an inside diameter of that required for cast iron pipe in conformance with ASTM A74.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; am. (5) (b) 1. b., Register, September, 1992, No. 441, eff. 10-1-92; am. (1) (a) and cr. (13m), Register, February, 1994, No. 458, eff. 3-1-94; am. (2) (c), (3) (a), (4) (a), (c) and (d), (8) (a), (d), (9) (b), (10) (a) and (14) (c), renum. (7) to be (7) (a), cr. (7) (b); Register, December, 2000, No. 540, eff. 1-1-01; CR 02-002: am. (1) (c) 1. to 4., (6) (b) (intro.) and 1., (8) (d), (17) (d) 2., r. (6) (b) 4., renum. (6) (b) 5. to be (6) (b) 4., cr. (17) (f) and (19), Register April 2003 No. 568, eff. 5-1-03; CR 08-055: am. (2) (a) 2., (4) (b), (6) (a), (8) (c), (9) (a), (10) (b), (14) (a) 2. and (15) (a), r. (12) and (16), renum. (13), (13m) and (17) to (19) to be (12), (13) and (16) to (18) and am. (12) (c) Register February 2009 No. 638, eff. 3-1-09; correction to renumbering of (13) to (18) made under s. 13.92 (4) (b) 1., Stats., Register February 2009 No. 638; CR 10-064: am. (5) (c), (6) (c), (8) (e) Register December 2010 No. 660, eff. 1-1-11; correction in (1) (c), (16) (e) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672; CR 13-062: am. (8) (a), (d) Register February 2014 No. 698, eff. 3-1-14.

SPS 384.50 Alternate approvals and experimental approvals. (1) GENERAL. The provisions of chs. SPS 382 to 384 are not intended to prevent the use of a plumbing material or product not specifically addressed therein if the plumbing material or product has been approved by the department.

(2) ALTERNATE APPROVAL. (a) Plumbing materials or products determined by the department to comply with the intent of chs. SPS 382 to 384 and ch. 145, Stats., and not approved under s. SPS 384.10, shall be issued an alternate approval. Alternate approvals shall be issued by the department in writing.

(b) The department may require the submission of any information deemed necessary for review. Sufficient evidence shall be submitted to the department to substantiate:

1. Assertions of function and performance; and

2. Compliance with the intent of chs. SPS 382 to 384 and ch. 145, Stats.

(c) The department shall review and make a determination on an application for alternate approval within 3 months of receipt of all information and fees required to complete the review.

(d) The department may impose specific conditions in issuing an alternate approval, including an expiration date for the alternate approval. Violations of the conditions under which an alternate approval is issued shall constitute a violation of this chapter.

(e) If, upon review, the department determines that a plumbing material or product does not comply with the intent of chs. SPS 382 to 384 and ch. 145, Stats., the request for alternate approval shall be denied in writing.

(3) EXPERIMENTAL APPROVAL. (a) The department may allow the installation of a plumbing material or product for the purpose of proving compliance with the intent of chs. SPS 382 to 384 and ch. 145, Stats.

(b) An experimental approval shall be required for each plumbing material or product to be installed for the purpose of proving compliance with the intent of chs. SPS 382 to 384 and ch. 145, Stats. A separate experimental approval shall be obtained for each project where such a product is to be used. Experimental approvals shall be issued by the department in writing. Experimental approvals shall be denied by the department in writing.

(c) The department may require the submission of any information deemed necessary for review.

(d) The department may limit the number of applications it will accept for experimental approval of products.

(e) The department shall review and make a determination on an application for experimental approval within 6 months of receipt of all information and fees required to complete the review.

(f) The department may impose specific conditions in issuing an experimental approval. Violations of the conditions under which an experimental approval is issued shall constitute a violation of this chapter.

(g) If the department issues an experimental approval:

1. Plans detailing the installation of the plumbing material or product shall be submitted to the department in accordance with s. SPS 382.20 (4) or 383.22.

2. A copy of the experimental approval shall be attached to the submitted plans and approved plans.

3. A letter of consent from the owner of the installation shall be attached to the submitted plans and approved plans. The letter shall acknowledge that the owner has received and read a copy of the experimental approval and s. SPS 384.50.

4. The completed installation shall be inspected for compliance with the approved plans by the department. A report on the completed installation shall be written by the department.

5. A written report, from the party who was issued the experimental approval, shall be submitted to the department detailing the function and performance of the installed plumbing material or product. The report shall be completed at time intervals specified by the department, but not less than once a year.

6. On-site inspections shall be performed by the department at time intervals specified by the department, but not less than once a year. A report on the inspection shall be written by the department. The department may assess a fee for the inspection.

7. Five years after the date of the completed installation the department shall within 6 months order the removal of the plumbing material or product, issue an approval, or renew the experimental approval for another 5-year period to obtain additional information to determine the result of the experiment.

(h) If chs. SPS 382 to 384 or ch. 145, Stats., are revised to include or permit an experimental plumbing material or product to conform with the intent of chs. SPS 382 to 384 and ch. 145, Stats., the department shall waive the requirements of par. (f) as to that material or product.

(4) MODIFICATIONS. If a plumbing material or product with an alternate or experimental approval or the installation of an experimentally approved plumbing material or product is modified or additional assertions of function or performance are made, the alternate or experimental approval shall be considered null and void, unless the product is resubmitted to the department for review and the approval is reaffirmed.

(5) REVOCATION. The department may revoke an alternate or experimental approval issued under this section for any false statements or misrepresentations of facts or data on which the alternate or experimental approval was based or as a result of product failure.

(6) LIMITATIONS. An alternate or experimental approval of a plumbing material or product issued by the department may not be construed as an assumption of any responsibility for defects in design, construction, or performance of any plumbing material or product nor for any damages that may result.

(7) FEES. Fees for the review of a plumbing material or product under this section and any required on-site inspections shall be submitted in accordance with ch. SPS 302.

History: Cr. Register, May, 1988, No. 389, eff. 6-1-88; correction in (7) made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1988, No. 392; correction in (7) made under s. 13.93 (2m) (b) 7., Stats., Register, February, 1994, No. 458; am. (3) (g) 1. and 7., Register, April, 2000, No. 532, eff. 7-1-00; correction in (1), (2) (a), (b) 2., (e), (3) (a), (b), (g) 1., 3., (h), (7) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Chapter SPS 385

SOIL AND SITE EVALUATIONS

Yellow highlight-proposed changes

Note: Chapter H 65 as it existed on May 31, 1983 was repealed and a new Chapter ILHR 85 was created effective June 1, 1983. Chapter ILHR 85 was renumbered Chapter Comm 85 under s. 13.93 (2m) (b) 1., Stats., and corrections made under s. 13.93 (2m) (b) 7., Stats., Register, February, 1997, No. 494. Chapter Comm 85 as it existed on June 30, 2000 was repealed and a new chapter Comm 85 was created, Register, April, 2000, No. 532, eff. 7-1-00. Chapter Comm 85 was renumbered chapter SPS 385 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

SPS 385.01 Purpose. The purpose of this chapter is to establish the minimum requirements for evaluating and reporting soil and site characteristics that may affect treatment or dispersal of wastewater, treated wastewater, final effluent or nonwater-carried human wastes.

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

SPS 385.02 Scope. (1) Pursuant to s. 145.02, Stats., this chapter applies to all soil and site evaluations conducted relative to the treatment or dispersal of wastewater, treated wastewater, final effluent or nonwater-carried human wastes into soil.

(2) A department interpretation of the requirements in this chapter shall supersede any differing interpretation by a lower level jurisdiction. A department decision on the application of the requirements in this chapter shall supersede any differing decision by a lower level jurisdiction.

Note: A decision of the department may be appealed. Section 101.02 (6) (e), Stats., outlines the procedure for submitting requests to the department for appeal hearings and the department procedures for hearing appeals.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 07-100: renum. to (1), cr. (2) Register September 2008 No. 633, eff. 10-1-08.

SPS 385.10 Qualifications. (1) SOIL EVALUATION. A soil evaluation for treatment or dispersal of wastewater, treated wastewater, final effluent or nonwater-carried human wastes regulated by chs. SPS 383 and 391 shall be performed by an individual who is a certified soil tester. A soil evaluation for the treatment or dispersal of stormwater regulated under ch. SPS 382 shall be performed by an individual who is either a certified soil tester or one who holds a professional soil scientist license under ch. GHSS 4.

Note: Section SPS 305.33 delineates the qualifications and certification procedures for certified soil testers.

(2) SITE EVALUATION. A site evaluation, relative to the installation of a POWTS treatment, holding or dispersal component location, or to determine land slope or setback distances to topographic or other site features shall be performed by a Wisconsin registered architect, professional engineer, designer of plumbing systems, designer of private sewage systems or land surveyor; a certified soil tester or POWTS inspector; or a licensed master plumber or master plumber-restricted service.

(3) SOIL SATURATION DETERMINATIONS. Soil saturation determinations may only be conducted and reported by an individual who is a certified soil tester.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 04-035: am. (1) Register November 2004 No. 587, eff. 12-1-04; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 385.20 Soil evaluations. (1) GENERAL. (a) Soil boring methods and procedures shall comply with this section.

(b) Maximum soil application rates shall be determined relative to the soil texture, structure and consistence for each soil horizon or layer.

Note: Section SPS 383.44 establishes maximum soil application rates and soil treatment capability for the design of POWTS treatment or dispersal components consisting in part of in situ soil.

(2) NUMBER, TYPE AND DEPTH OF EVALUATIONS. (a) *General.* The number, type, depth and location of soil profile evaluations shall be sufficient to delineate the area under investigation and to assure consistency of the data within that area.

(b) *Number and area.* 1. a. Except as provided in subd. 1. d. and subd. 2., a minimum of 3 soil profile evaluation excavations shall be used to delineate a site within which POWTS treatment or dispersal components consisting in part of in situ soil are to be located.

b. For estimated daily flows of 1,000 gallons per day or less, at least one soil profile evaluation excavation per treatment or dispersal site shall be constructed as a soil pit, and described in accordance with s. SPS 385.30 (1) (c).

c. For estimated daily flows greater than 1,000 gallons per day, at least 3 soil profile evaluations per treatment or dispersal site shall be constructed as soil pits, and described in accordance with s. SPS 385.30 (1) (c).

d. The department or governmental unit may require additional soil profile evaluation excavations to be constructed where soil variability considerations may not be adequately addressed. The department or governmental unit may specify that soil profile descriptions in accordance with s. SPS 385.30 (1) (c) be conducted for any additional soil profile evaluation excavations.

2. At least one soil pit or soil boring shall be used to establish soil suitability for a pit privy.

Note: Sections SPS 383.44 (3) and 391.12 (1) (b) 1. contain further information regarding privy siting and soil requirements.

(c) *Type.* 1. Soil profile evaluations used to determine soil application rates shall be conducted using soil pits.

2. Soil profile evaluations used to determine or identify soil horizon depths, soil color, soil texture, redoximorphic feature colors or depth to groundwater or bedrock shall be conducted using either soil pits or soil borings.

(d) *Depth.* Soil profile evaluations shall extend an adequate depth below the land surface to identify soil properties critical to soil treatment or dispersal of wastewater, treated wastewater, final effluent or nonwater-carried human waste.

(3) EXCAVATION METHODS. (a) *Soil profile excavations.* A soil profile excavation shall be of such size and construction to allow accurate determination of soil characteristics.

(b) *Soil borings.* 1. Soil borings shall be created by means of a soil bucket auger, soil probe, split-spoon sampler or Shelby tube having at least a 2 inch diameter.

2. A soil boring may not be created by means of a power auger.

(c) *Soil pits.* A soil pit shall be of adequate size, depth and construction to enable a person to safely enter and exit the pit and to complete a morphological soil profile description.

Note: Occupational safety and health administration regulations (29 CFR 1926, Subpart P) apply to certain types of excavations, and the persons entering such excavations need to be familiar with those regulations.

(4) SOIL EVALUATION CONDITIONS. (a) Soil color evaluations shall be performed on days when light conditions permit accurate color determinations.

(b) Frozen soil material shall be thawed prior to conducting evaluations for soil color, texture, structure and consistence.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; correction in (2) (b) 1. b., c., d. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 385.30 Soil profile description and interpretations. (1) GENERAL. (a) A soil profile description shall be prepared for each soil profile excavation constructed.

(b) Soil profile descriptions shall be written in accordance with the descriptive procedures, terminology and interpretations found in Chapter 3 of the *Soil Survey Manual*, USDA, October, 1993, except where modified by, or in conflict with, this chapter.

(c) A soil profile description to substantiate soil application rates shall include at least all of the following morphological information for each soil horizon or layer:

1. Thickness in inches or decimal feet.
2. Munsell soil color notation.
3. Soil mottle or redoximorphic feature color, abundance, size and contrast.
4. United States Department of Agriculture, USDA, soil textural class with rock fragment modifiers.
5. Soil structure grade, size and shape.
6. Soil consistence.
7. Root abundance and size.
8. Soil boundary.
9. Occurrence of saturated soil, groundwater, bedrock or disturbed soil.

(d) A soil profile description to substantiate soil characteristics other than for application rates shall include the information specified in par. (c) 1. to 4. and 9.

(2) SOIL INTERPRETATIONS. (a) Redoximorphic features or mottles shall be interpreted as zones of seasonal or periodic soil saturation or groundwater, except as provided under sub. (3).

(b) Unless otherwise determined under s. SPS 385.60, the highest elevation of seasonal soil saturation shall be the ground surface where redoximorphic features are present within 4 inches of any of the following:

1. An A horizon that extends to the ground surface.
2. The lower boundary of overlying fill material where no buried A horizon exists.
3. An A horizon buried by overlying fill material.

(3) SOIL COLOR PATTERN EXEMPTIONS. (a) Without filing a report under s. SPS 385.60 (2), a certified soil tester may discount the following conditions, not limited by enumeration, as indicators of seasonally saturated soil:

1. Fossilized soil color patterns formed by historic periodic soil saturation.
2. A soil profile where redoximorphic features are confined within 12 inches of tension saturated silt loam or finer textured soil immediately overlying unsaturated coarse sandy loam or coarser textured soil that has a depth in the coarser material adequate to accommodate a distribution cell and dispersal zone.
3. A soil profile where redoximorphic features are confined within 24 inches of tension saturated silt loam or finer textured soil immediately overlying unsaturated coarse loamy sand or coarser textured soil that has a depth in the coarser material adequate to accommodate a distribution cell and dispersal zone.
4. Residual sandstone colors.
5. Unevenly weathered glacially deposited material, glacially deposited material naturally gray in color, or concretionary material in various stages of decomposition.
6. Deposits of lime.
7. Light colored silt or fine sand coatings on soil ped surfaces.

(b) Without filing a report under s. SPS 385.60 (2) for a specific site, the department may accept the results of soil saturation determinations or of the hydrograph procedure under s. SPS 385.60 previously conducted for areas adjacent to the site, provided that the soil profile descriptions and interpretations confirms that the soil and site conditions are similar for the specific site and the adjacent areas.

(4) SOIL COLOR PATTERN REPORTS. The certified soil tester shall report and describe any soil color pattern exemptions encountered.

(5) DETERMINATION REQUESTS. A certified soil tester may request assistance by the governmental unit or department staff in evaluating the significance of unusual soil color patterns as indicators of soil saturation that may not indicate saturated soil conditions. The governmental unit or department may decline to provide such assistance, and defer to the use of soil saturation determinations pursuant to s. SPS 385.60 or some other method.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: r. and recr. (2) (b) and (3) (a) 2. and 3. Register January 2004 No. 577, eff. 2-1-04; CR 07-100: am. (5) Register September 2008 No. 633, eff. 10-1-08; correction in (2) (b) (intro.), (3) (a) (intro.), (b), (5) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 385.40 Evaluation reports. (1) GENERAL. A soil evaluation report shall be prepared and submitted to the governmental unit having jurisdiction upon the completion of the evaluation and associated report form.

(2) SOIL REPORT CERTIFICATION AND FORMAT. (a) *Soil evaluation reports.* Soil evaluation reports shall be prepared in a format specified by the department and this chapter.

Note: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or 411 (Telecommunications Relay) or at docsales@doa.state.wi.us, or at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

(b) *Certification.* 1. Except as provided in subd. 2., each page of a soil evaluation report shall bear:

a. The ~~original~~ signature of the certified soil tester who collected the data;

b. The certified soil tester's identification number; and

c. The date the report is signed.

2. When more than one sheet of a soil evaluation report is bound together into one volume, only the title sheet shall:

a. Be required to be signed, dated and bear the identification number of the certified soil tester who collected the data; and

b. Clearly identify all other sheets comprising the bound volume.

Note: Nothing in this chapter is intended to prohibit the submission and acceptance of planning documents in an electronic or digital media.

(3) REPORT CONTENTS. (a) *Site report.* A site evaluation report shall include at least all of the following:

1. The site's legal description to within 40 acres.

2. The date the data was collected.

3. A legible and permanent site plan that complies with all of the following:

a. Is presented on paper no smaller than 8 ½ inches by 11 inches in size.

b. Is drawn to scale or fully dimensioned.

c. Shows the extent of the site evaluated for soil dispersal or treatment.

4. Location information for all points under investigation including structures, property lines and other encumbrances to the treatment or dispersal component placement on the site.

5. Pertinent elevation data, such as:

a. A reference to, and description of, a permanent vertical and horizontal reference point or bench mark from which all distances and elevations are delineated on the site plan;

b. The natural, undisturbed surface grade elevation for all soil profile excavations;

c. The percent and direction of land slope for the site under evaluation;

d. Ground surface contour lines at an interval appropriate for the conditions present;

e. The floodplain elevation, if established, and current surface elevation of any adjacent navigable waters or reservoir; and

f. The existing grade adjacent to the groundwater elevation observation pipe, the top of the observation pipe, and the bottom of the observation pipe.

(b) *Soil report.* A soil evaluation report shall include at least all of the following:

1. A site evaluation report pursuant to par. (a).

2. The date soil evaluations were conducted.

3. The site's legal description to within 40 acres.

4. Soil profile descriptions pursuant to s. SPS 385.30 for all soil profile evaluation excavations.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: am. (3) (a) 3. (intro) Register January 2004 No. 577, eff. 2-1-04; correction in (3) (b) 4. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 385.50 Governmental unit review. (1) GENERAL. (a) A governmental unit shall review all soil evaluation reports and site evaluation reports within 6 months of receipt.

(b) Upon completing the review of a soil evaluation report a governmental unit shall accept the report, reject the report, request additional information or clarification, or require verification under sub. (2).

(c) When a report is deemed acceptable, a governmental unit shall so indicate on the report and file the report for future reference.

(d) If the report is not acceptable, a governmental unit shall notify the submitter in writing and shall state the deficiencies or actions, or both, necessary to bring the report into compliance with this chapter or ch. SPS 383.

(2) VERIFICATION. (a) *Soil.* 1. The governmental unit or the department may require the property owner or the certified soil tester to provide soil pits in accordance with s. SPS 385.20 (3) for verification of soil profile evaluation data.

2. The certified soil tester who is responsible for the soil report shall be present at the site during the verification of soil profile evaluation data if so requested by the governmental unit or the department.

3. Soil verifications may not be conducted under adverse weather or light conditions that may lead to inaccurate results.

(b) *Site.* 1. The governmental unit or the department may require the property owner or certified individual who prepared the site report to provide assistance and equipment to verify site conditions.

2. The certified individual who is responsible for the site report shall be present at the site during the verification of site conditions if so requested by the governmental unit or department.

(c) *Report.* The governmental unit or the department shall complete a written report for each soil or site verification completed, and the results or findings of the report shall be filed with the soil and site evaluation report for future reference.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; correction in (1) (d), (2) (a) 1. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 385.60 Soil saturation determinations. (1) GENERAL. (a) A property owner, or the owner's agent, may submit documentation to prove that redoximorphic features, or other soil color patterns, at a particular site are not indicative of periodically saturated soil conditions or high groundwater elevation.

(b) Documentation shall be in the form of an interpretive determination, soil saturation determination, hydrograph

procedure or artificially controlled navigable water determination pursuant to this section.

(2) INTERPRETIVE DETERMINATIONS. (a) A written report by a certified soil tester evaluating and interpreting redoximorphic soil features, or other soil color patterns, may be submitted to the department in lieu of high groundwater determination data. The written report shall conclusively ~~demonstrate that the existing soil morphological features or color patterns are not indicative of~~ determine current conditions of periodic soil saturation and assess their effect upon the operation of a POWTS.

(b) The Except as provided under par. (d), the department shall make a determination on the validity of the data, results and conclusions set forth in the report.

(c) The written report shall include, but is not limited to, all of the following information:

1. A soil evaluation report pursuant to s. SPS 385.40.

2. An interpretive review of the site including, but not limited to, all of the following:

a. Local hydrology.

b. A historical interpretation of the local geomorphology.

c. Soil disturbance and hydraulic modification.

d. The landscape position and local topography in the area under investigation.

3. Soil series and mapping units, if available, for the immediate area, as listed in the USDA soil survey.

4. Data, if any, from previous soil saturation determinations in similar soil conditions and landscape position.

5. Any written reports, comments or recommendations by the governmental unit or department staff.(d) The department may exempt an interpretive determination from review under this subsection if the report is prepared by a professional soil scientist who is licensed under s. 470.04, Stats.,

(3) SOIL SATURATION DETERMINATION. (a) *General.* Actual elevations of soil saturation may be determined at specific sites in accordance with the soil saturation determination procedures in par. (c).

(c) *Precipitation.* 1. Precipitation data reported for soil saturation determination purposes shall include monthly totals for September through May, and daily totals for February through May.

2. Precipitation data totals under subd. 1. shall be from either the closest local station to the site where the observation pipe is installed, or the average from the 3 closest local stations to the site. If averaging is used, the totals under subd. 1. shall be submitted for all 3 stations.

(d) *Regional water tables.* 1. Where sites are subject to a broad, relatively uniform, regional water table, the fluctuation observed over a several year cycle shall be considered.

2. At such sites, and where free water levels are more than 5 feet below grade, determinations shall be made using the hydrograph procedures contained in sub. (4).

3. Areas affected by a regional water table shall be delineated by the department in consultation with the affected counties and the Wisconsin Geological and Natural History Survey.

(e) *Fine textured soil.* 1. The department may prohibit soil saturation determinations in fine textured soil with high matric potentials where determination results may be inconclusive.

2. In such cases, the department may approve alternative methods to address the direct determination of saturated or near saturated soil conditions not enumerated in this section.

(f) *Groundwater elevation observation pipe installation and construction.* 1. Number of observation pipes. a. At least 3 groundwater elevation observation pipes shall be installed to delineate the area under investigation.

b. The governmental unit or department may require more than 3 observation pipes to adequately evaluate potential soil saturation conditions.

2. Observation pipe depth. a. At the request of the department or governmental unit, at least one observation pipe shall be constructed to a depth of 15 feet below the ground surface to determine if high groundwater elevation conditions are due to a perched water table and the possible extent of the saturated zone.

b. Other observation pipes shall terminate at specific depths below grade that will serve to evaluate where shallow perched zones of soil saturation occur within the soil profile.

c. The governmental unit or department may designate specific observation pipe depths and locations based on soil and site conditions, or experience in a particular geographic area or topographic position.

d. An observation pipe may not be less than 24 inches deep.

3. Observation pipe construction. The direct observation of soil saturation conditions shall be accomplished by means of observation pipes conforming to this subdivision and Figure 385.60-1.

a. The observation pipe shall be of a material meeting the standards in s. SPS 384.30 Table 384.30-1, except that lead pipe may not be used.

b. The inside diameter of an observation pipe may not be less than 2 inches or more than 4 inches nominal size.

c. The borehole diameter shall be 2 to 4 inches larger than the outside diameter of the observation pipe.

d. The top of the observation pipe shall terminate at least 18 inches above grade and be provided with a vented cap.

e. The bottom of the observation pipe shall terminate with a slotted, or screened pipe. The slots or screen shall extend 6 to 18 inches above the bottom of the pipe and be at least 4 inches below the filter pack seal. The slots or screen shall not be hand cut and shall be designed to retain soil particles with a diameter of greater than 0.02 inch.

f. Except for the vented end cap, joints between lengths of pipe and fittings shall conform to s. SPS 384.40.

g. Finished grade around the observation pipe shall be sloped away from the observation pipe using soil material.

h. At a minimum, the upper 12 inches of annular space surrounding the observation pipe shall be sealed by puddled clay,

bentonite, or an equal-parts mixture of soil, bentonite and cement. A surface seal may not be necessary if the entire soil profile is sand.

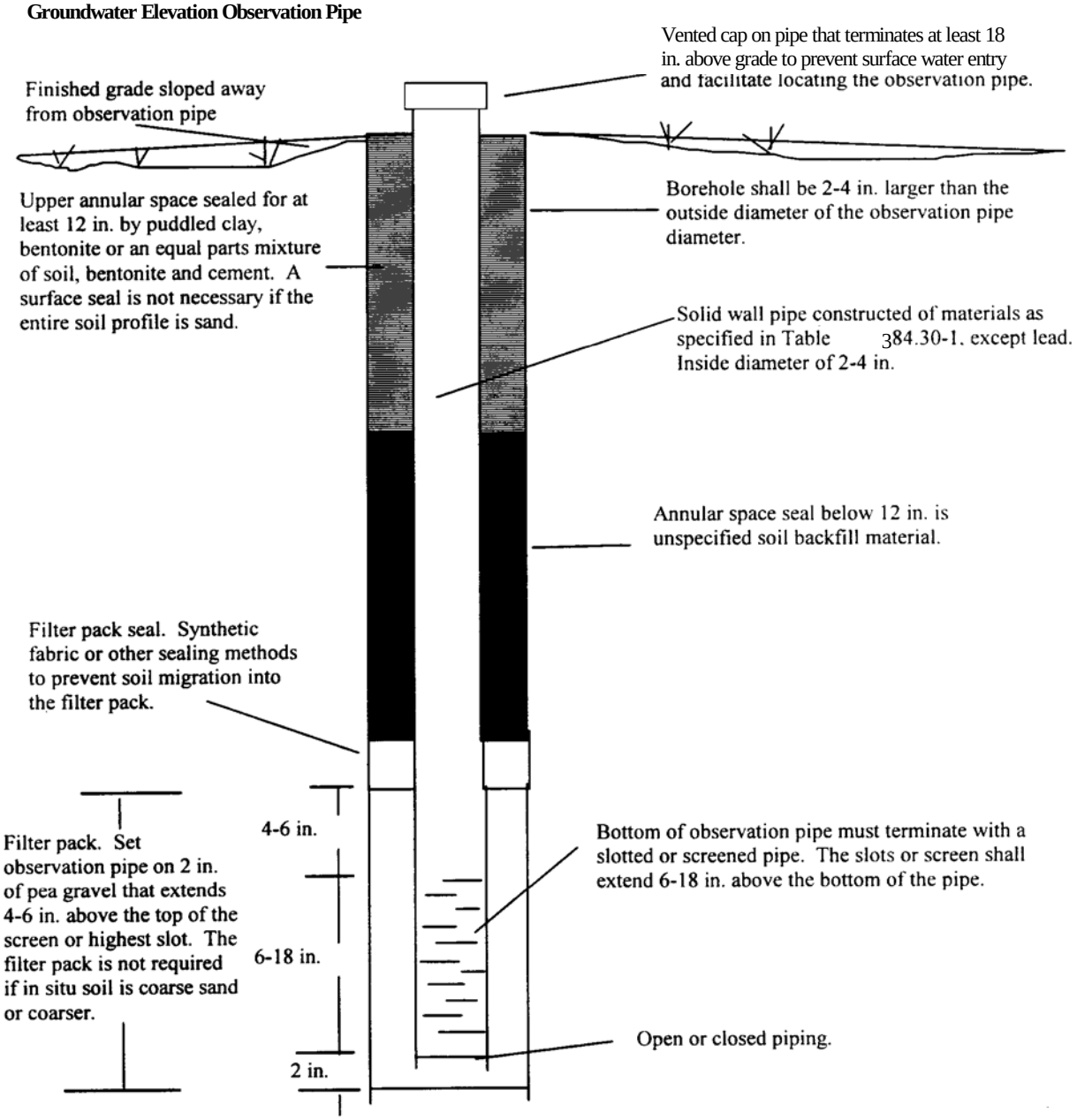
i. The annular space seal below 12 inches and to the top of the filter pack seal may be of unspecified soil material.

j. A filter pack seal shall be installed above the filter pack to prevent soil migration downward into the filter pack.

k. The observation pipe shall be set on at least 2 inches of pea gravel that extends 4 to 6 inches above the top of the screen or highest slot. The gravel filter pack is not necessary if the natural soil is coarse sand or coarser.

DRAFT
June 24, 2016
This is a Preliminary Draft for Discussion Only
Subject to Change
Figure 385.60-1

Groundwater Elevation Observation Pipe



(g) *Observations.* 1. Observation period. The observation period for soil saturation determinations shall begin on or before the appropriate date specified in Figure 385.60-2, and end June 1.

2. Alternate observation period. The department may approve an alternate observation period if the data presented conclusively demonstrates equivalency to conditions encountered during a normal spring observation period.

3. Minimum frequency. Observations shall be made on the first day of the observation period and at least every 7 days thereafter until the observation period is complete.

(h) *Conclusions.* 1. The highest level of soil saturation shall be considered the highest level of free water observed in an observation pipe on 2 occasions 7 days apart during the observation period.

2. The results of soil saturation determinations under this section shall be considered inconclusive if the precipitation totals under par. (c) do not equal or exceed:

a. 8.5 inches from September 1 through the last day of February; and

b. 7.6 inches from March 1 through May 31.

Figure 385.60-2
Latest Date to Begin Spring Soil Saturation Monitoring

Zone A	**February 15**
Zone B	**March 1**
Zone C	**March 15**

(i) *Reporting data.* 1. Within 180 days of the completion of the observations, 3 copies of the following data shall be submitted to the department for review:

a. A soil and site evaluation report pursuant to s. SPS 385.40.

b. Observation pipe installation, depth, location and elevation information.

c. Precipitation data and name of any local station used.

d. Observation dates.

e. Current and any prior observation results.

f. Any governmental unit observations or reports pertaining to the soil saturation determination observations, observation pipe construction or soil/site conditions.

2. Within 180 days of the completion of the observations, one copy of the data specified in subd. 1. shall be filed with the governmental unit having jurisdiction.

(j) *Report forms.* Soil saturation determination results shall be reported on forms specified by the department.

Note: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or 411 (Telecommunications Relay) or at docsales@doa.state.wi.us, or at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

(k) *Failure to report.* Failure to file soil saturation determination results with the governmental unit and department within 60 days may disqualify the site from future soil saturation or interpretive determinations.

(4) HYDROGRAPH PROCEDURE. (a) 1. Except as provided in subd. 3., where regional water table fluctuations are considered in deep sandy soil, the predicted high groundwater elevation shall be established using hydrograph documentation.

2. Except as provided in subd. 3., the highest groundwater elevation shall be determined by direct observation during the soil profile evaluation or by one of the hydrograph methods outlined in pars. (b) to (d), whichever is highest.

3. The department or governmental unit may accept use of the hydrograph procedure to predict regional water table levels on sites where inclusions of sandy loam or finer soil material, or massive conditions exist.

(b) 1. If there is less than 5 feet to free water below original grade, the procedures detailed in sub. (2) or (3) shall be used to determine the highest predicted groundwater elevation at the site.

2. If there is 5 feet or more to free water below original grade, the hydrograph procedure may be used to determine the highest predicted groundwater elevation at the site.

(c) When free water at the site is 5 to 10 feet below grade, all of the following procedures apply:

1. A completed soil and site evaluation report pursuant to s. SPS 385.40 that confirms the elevation of free water, if observed, shall be prepared.

2. a. A slotted or screened groundwater elevation observation pipe shall be installed at the proposed system location to a depth of at least 12 inches below the free water elevation.

b. The observation pipe shall be installed pursuant to sub. (3) (f) 3.

3. a. The water level in the observation pipe shall be recorded after completion of the observation pipe installation and 7 days later.

b. The highest of the 2 water levels shall be used to complete the hydrograph procedure.

4. The permanent USGS groundwater elevation well or wells as assigned by the governmental unit or department shall be read within 24 hours of establishing the actual free water elevation at the site.

5. The hydrograph procedure shall be completed and the results shall be submitted for review to the governmental unit having jurisdiction in a format specified by the department.

Note: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or 411 (Telecommunications Relay) or at docsales@doa.state.wi.us, or at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

(d) When free water at the site is more than 10 feet below grade, all of the following procedures apply:

1. A completed soil and site evaluation report pursuant to s. SPS 385.40 that confirms the elevation of free water, if observed, shall be prepared.

2. The permanent USGS groundwater elevation well or wells assigned to the project by the governmental unit or department shall be read within 24 hours of the actual free water determination at the site.

3. The hydrograph procedure shall be completed and the results shall be submitted for review to the governmental unit having jurisdiction in a format specified by the department.

Note: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or 411 (Telecommunications Relay) or at docsales@doa.state.wi.us, or at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

(e) The governmental unit or the department may request more than one USGS groundwater well or other wells assigned by the governmental unit or the department be used to complete the hydrograph procedure.

(f) The governmental unit or the department may reject or suspend use of the hydrograph procedure when erratic groundwater tables are present due to recent, significant recharge events.

(5) ARTIFICIALLY CONTROLLED NAVIGABLE WATERS DETERMINATION. (a) If the groundwater elevation at a site is influenced by the artificial control of navigable waters by a recognized management entity, all of the following conditions shall be addressed:

1. If loamy sand or coarser soil textures prevail at a site, the groundwater elevation at the site shall be compared to the current and highest controlled navigable water elevation.

2. The highest normal groundwater elevation at such sites shall be the higher of either the observed elevation or an adjusted elevation based on the controlled water.

(b) An artificially controlled navigable waters determination report shall be prepared and submitted for review to the governmental unit having jurisdiction upon completion of the determination and associated report.

(6) SOIL SATURATION OBSERVATION PIPE REMOVAL. The following requirements shall apply to all groundwater elevation observation pipes installed pursuant to this section:

(a) *Removal timeline.* Unless specifically approved by the governmental unit or department, all groundwater elevation observation pipes shall be removed within 60 days after the completion of soil saturation determination.

(b) *Contamination conduit.* Any groundwater elevation observation pipe found by the department or governmental unit to be acting as a conduit for groundwater contamination shall be ordered removed immediately.

(7) VERIFICATION. (a) *Verification.* 1. The governmental unit or department may request verification of soil saturation determinations pursuant to s. SPS 385.50 (2), and proper observation pipe installation pursuant to this section.

2. The governmental unit or the department may require any groundwater elevation observation pipe deemed by the governmental unit or the department to be in poor contact with the surrounding soil to be reinstalled pursuant to this section.

(b) *On-site visits.* 1. The governmental unit or department may visit sites during soil saturation determination periods or at other reasonable times to determine the accuracy of data.

2. A written record of on-site visits in subd. 1. shall be maintained by the agency conducting the visits.

History: Cr. Register, April, 2000, No. 532, eff. 7-1-00; CR 02-129: r. and recr. (1) and (3) (h) 1., am. (2) (c) (intro.), (2) (c) 2. b., (3) (i) 1. (intro.) and 2., (4) (a) 1. and 2., (4) (c) (intro.), 2. b., 5., (d) (intro.) and 3., r. (3) (b), cr. (4) (a) 3., (4) (e) and (f), and (5), renum. (5) and (6) to be (6) and (7) Register January 2004 No. 577, eff. 2-1-04; corrections in (3) (a) and (h) made under s. 13.93 (2m) (b) 7., Stats., Register January 2004 No. 577; CR 07-100: am. (4) (c) 5., (d) 3. and (5) (b) Register September 2008 No. 633, eff. 10-1-08; correction (2) (c) 1., (f) 3. (intro.), a., f., (g) 1., (i) 1. a., (4) (c) 1., (d) 1., (7) (a) 1. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Please review. No revisions at this time.

Chapter SPS 386

BOAT AND ON-SHORE SEWAGE FACILITIES

Note: Chapter H 80 as it existed on September 30, 1980 was repealed and a new chapter H 80 was created effective October 1, 1980; renumbered to be chapter ILHR 84 effective June 1, 1983; renumbered to be chapter ILHR 86 effective March 1, 1985. Chapter ILHR 86 was renumbered Chapter Comm 86 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 86 was renumbered chapter SPS 386 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

SPS 386.01 Applicability. This chapter as authorized by s. 30.71, Stats., for the abatement of water pollution through control of the discharge of sewage from boats maintained or operated at any time upon the inland or outlying waters of the state, defined in s. 29.001 (45) and (63), Stats., shall be applicable to any boat which is equipped with a toilet.

Note: Section 29.001 (45) and (63), Stats., provides: All waters within the jurisdiction of the state are classified as follows: Lakes Superior and Michigan, Green Bay, Sturgeon Bay, Sawyer's harbor and the Fox river from its mouth up to the dam at De Pere are outlying waters. All other waters, including the bays, bayous, and sloughs of the Mississippi river bottoms, are inland waters.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.01, Register, May, 1983, No. 329, eff. 6-1-83; correction made under s. 13.93 (2m) (b) 7., Stats., Register, February, 1994, No. 458; corrections made under s. 13.93 (2m) (b) 7., Stats., Register, April, 2000, No. 532.

SPS 386.02 Definitions. The following definitions shall apply in the interpretation and enforcement of this chapter.

(1) "Department" means the department of safety and professional services.

(2) "Approved" means written approval from the department.

(3) "Boat" means every description of watercraft, other than a seaplane, on the water, used or capable of being used as a means of transportation on water, s. 30.50 (2), Stats.

(4) "Deodorant" means a substance or process which masks or destroys offensive odor.

(5) "Holding tank" means a permanently installed container which receives the discharge from one toilet or more and retains the sewage for shore disposal.

(6) "Maintain and operate" means to moor and occupy or to navigate, steer, sail, row or otherwise to exercise physical control over the use or movement of a boat.

(7) "Owner" means the person who has lawful possession of a boat by virtue of legal title or equitable interest therein which entitles that person to such possession.

(8) "Portable toilet" means a self-contained unit with a flushing device which retains sewage in a holding tank for disposal to a sewage system acceptable to the department.

(9) "Recirculating system" means a holding tank with all necessary appurtenances to provide for the recirculation of flushing liquid and for the receiving, venting and shore removal of sewage.

(10) "Sealed" means making a toilet incapable of discharging sewage into the waters upon which a boat is operated or moored.

(11) "Sewage" means human body wastes.

(12) "Toilet" means any device, facility or installation designed or constructed for use as a place for receiving sewage directly from the human body.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.02 and am. (1) Register, May, 1983, No. 329, eff. 6-1-83; correction in (3) made under s. 13.93 (2m) (b) 7., Stats., Register, April, 2000, No. 532; correction in (1) made under s. 13.92 (4) (b) 6., Stats., Register December 2011 No. 672.

SPS 386.03 Petition for variance. (1) PROCEDURE. The department shall consider and may grant a variance to an administrative rule upon receipt of a fee and a completed petition for variance form from the owner, provided an equivalent degree of safety is established in the petition for variance which meets the intent of the rule being petitioned. The department may impose specific conditions in a petition for variance to promote the protection of the health, safety and welfare of the employees or the public. Violation of those conditions under which the petition is granted constitutes a violation of these rules.

(2) PETITION PROCESSING TIME. Except for priority petitions, the department shall review and make a determination on a petition for variance within 30 business days of receipt of all calculations, documents and fees required to complete the review. The department shall process priority petitions within 10 business days.

Note: Copies of the petition for variance form (SBD-9890) may be downloaded at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.03, Register, May, 1983, No. 329, eff. 6-1-83; r. and recr. Register, October, 1984, No. 346, eff. 11-1-84; cr. (2), Register, February, 1985, No. 350, eff. 3-1-85.

SPS 386.04 Contract applicability. Applicable provisions of this regulation shall be construed to be a part of any order or agreement, written or verbal, for the installation of a holding tank, recirculating system, provisions of a portable toilet or shore disposal facility or appurtenances thereto.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.04, Register, May, 1983, No. 329, eff. 6-1-83.

SPS 386.05 Approval required. (1) GENERAL. Any prefabricated tank, portable toilet or toilet proposed for installation in boats used upon the inland or outlying waters of the state shall receive the approval of the department. The manufacturer of any prefabricated tank, portable toilet or toilet shall submit, in duplicate, plans and specifications showing construction details for such facility. The owner of a custom built tank or toilet shall similarly submit such details in duplicate for approval prior to installation. The department may require the submission of other information or the unit itself, in the case of a portable toilet, to complete its review.

(2) APPROVED UNIT LISTING. The department shall keep a current list of approved prefabricated tanks, portable toilets and toilets for installation on boats and shall provide a copy of such current list to the bureau of law enforcement, department of natural resources.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.05, Register, May, 1983, No. 329, eff. 6-1-83.

SPS 386.06 Holding tank, toilet and appurtenances. (1) MATERIAL. Each holding tank and toilet shall be constructed of a plastic which is resistant to acid, alkali and water; stainless steel with comparable resistance or other approved material. Metal combinations shall be galvanically compatible.

(2) HOLDING TANK STRENGTH. A holding tank, with all openings sealed, shall show no signs of deformation, cracking or leakage when subjected to a combined suction and external pressure head of 5 pounds per square inch. It shall be designed and installed so as not to become permanently distorted with a static top load of 200 pounds.

(3) TEMPERATURE RESISTANCE. All materials used shall be capable of withstanding a temperature range of from -22º F. (winter storage) to the maximum operating temperature obtainable when operating in an ambient temperature of 140º F.

(4) MOUNTING. The tank and toilet shall be rigidly and permanently secured in place in such manner that the tank, toilet and piping will not fall.

(5) CAPACITY. The capacity shall be sufficient to receive the waste from the maximum number of persons that may be on board during an 8-hour period. The passenger rating shall be that indicated on the boat's capacity plate or that of a boat of similar size should the plate be illegible or missing.

(a) *Holding tank.* The capacity shall be determined on the basis of contribution of $4^1/_2$ gallons per person per 8-hour day for a toilet of the hand pump type. If standard waterflush toilets are installed, the minimum capacity shall be at $13^1/_2$ gallons per person per 8-hour day.

(b) *Recirculating toilet.* The capacity of the tank of a recirculating type unit shall be determined on the basis of a contribution of one-quarter gallon per person per 8-hour day.

(6) CONTROLS. Each holding tank shall contain a sewage level device which actuates a warning light or other visible gauge when the tank becomes three-fourths full. The light or other device shall be located so that it can be readily observed. The sewage level device shall be in operable condition at any time the boat is used. Such water level indicator shall be installed so as to be removable and be of such design and of such size as to make a watertight seal with a tank opening that is sufficiently large to accommodate the sewage level device.

(7) MAINTENANCE. (a) A separate manhole shall be provided in the top of the tank for maintenance purposes. A plate or cap capable of making a watertight seal shall be provided on the opening which shall be of sufficient size to readily permit cleaning and maintenance.

(b) *Deodorant.* Any deodorant used in a holding tank, approved portable toilet or recirculating toilet shall be easily obtainable and constitute a minimum hazard when handled, stored and used according to the manufacturer's recommendations and form no dangerous concentration of gases nor react dangerously with other chemicals used for the same purpose.

(8) OPENINGS FOR PIPING. Openings shall be provided in each holding tank for inlet, outlet and vent piping. The openings and pipe fittings shall be so designed as to provide watertight joints between the tank and the piping. Plastic opening fittings shall be of the rigid serrated type. Inlet openings should preferably be such that they could accommodate fittings that would be connected to piping of a minimum nominal inside diameter (I.D.) of $1^1/_2$ inches. Outlet openings shall be such as to accommodate at least $1^1/_2$ inch I.D. piping. Vent pipe openings shall be able to accommodate fittings for at least a one-half inch I.D. pipe, and should preferably be located at the top of a conical frustum or cylindrical vertical extension of the tank which is at least 2 inches in diameter at the base and 2 inches or more in height.

(9) PIPING AND FITTINGS. (a) *Size.* The piping from a toilet to the holding tank shall be at least as large as the trap of the toilet fixture. The piping from the holding tank or toilet to the pumpout connection shall have a nominal inside diameter of at least one and one-half inches.

(b) *Material.* All waste and venting piping shall be made of galvanized steel, wrought iron or yoloy pipe; lead; brass; type M copper; or flexible or rigid plastic pipe. Assembly shall be made with threaded fittings in the case of ferrous or brass pipe; lead or solder type fittings in the case of lead and copper pipe; and with threaded fittings, insertable clamp type fittings, or weldable fittings in the case of plastic pipe. Clamps, usable only with plastic pipe, shall be made of stainless steel. All piping materials and fittings shall be capable of withstanding a pressure of at least 75 pounds per square inch and a combined maximum suction and external pressure head equivalent to 50 feet of water.

(c) *Location.* No piping, other than that for venting, associated with the boat sewage system shall pass through the hull. The vent pipe shall terminate with an inverted U-bend, the opening of which shall be above the maximum water level in the toilet or holding tank. At least one vent terminal shall be constantly open to the atmosphere. The terminal of the outlet pipe shall be of the female connection type and be located above the holding tank in a manner that makes gravity discharge of the contents impractical. It shall have an airtight capping device marked "WASTE" and the cap and flange shall be embossed with the word "WASTE".

(10) ELECTRICAL SYSTEM. The electrical system associated with the boat holding tank or toilet system shall conform to accepted practice and create no hazards.

(11) PORTABLE TOILET. Each portable toilet shall meet the material requirements and temperature resistance requirements of subs. (1) and (3). Exposed surfaces shall be of reasonably smooth and cleanable material. Capacity of the flush tank and holding tank shall be adequate for the intended use. Portable toilets shall be designed to prevent spillage of contents of the holding tank when the toilet is tipped or portable toilets shall be secured on board.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.06, Register, May, 1983, No. 329, eff. 6-1-83.

SPS 386.07 Overboard discharge inactivation. No boat equipped with a means of discharging sewage directly from a toilet or holding tank into the water upon which the boat is moored or is moved shall enter inland or outlying waters of the state until such means of discharge is inactivated. An owner or operator of a boat equipped with such means of discharge shall contact a representative of the department of natural resources or a local law enforcement official with respect to inactivation before entering state waters. Overboard discharge inactivation shall include as a minimum either disconnection of the toilet piping, removal of the pumping device, securely plugging the discharge outlet, sealing of the toilet bowl with wax or other method approved by the official contacted. The inspecting official shall provide the boat owner or operator with a signed written statement as to the method of inactivation accepted. The owner or operator shall give information as to the inland or outlying waters he or she plans to navigate and as to the time of stay on such waters.

Note: Discharge of wastes from boats in any form would be contrary to s. 29.601 (3), Stats.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.07, Register, May, 1983, No. 329, eff. 6-1-83; correction made under s. 13.93 (2m) (b) 5., Stats., Register, February, 1994, No. 458.

SPS 386.08 On-shore disposal facilities. (1) PUMP. A self-priming pump, suitable for pumping sewage, shall be provided for the on-shore removal of sewage from boat holding tanks and toilets; the installation of which shall be in accord with the appropriate state and local regulations. Head characteristics and capacity shall be based on installation needs for the site. The pump may be either fixed in position or portably mounted.

(2) SUCTION HOSE. The suction hose shall be of non-collapsible quality, preferably made with reinforcement. A quick-connect dripproof connector shall be fitted to the end of the hose that is attached to the boat piping outlet.

(3) DISCHARGE HOSE. Quality flexible hose, compatible with the pump characteristics, may be used. All permanent piping shall conform to the state plumbing regulations. [chs. SPS 382 and 384]

(4) SEWAGE DISPOSAL REQUIREMENTS. (a) *Public facilities.* When connection to a public sanitary sewer is economically feasible, the disposal piping shall be designed to discharge thereto. [ch. SPS 384]

(b) *Private facilities.* When a public sewer is not available, a private sewage disposal system installed in compliance with applicable state plumbing regulations shall be provided unless adequate private treatment and disposal facilities are already available. [chs. SPS 382 and 383]

(5) WATER SUPPLY REQUIREMENTS. The on-shore disposal facility shall be served by a water supply piping system to permit flushing of the facilities serviced. If a potable water supply is the source for flushing, the distribution piping shall be protected from backsiphonage and backpressure.

(6) PLAN APPROVAL. Every owner, personally or through an authorized representative, shall obtain written approval from the department prior to award of any new or modified construction of shore disposal facilities set forth in this section. Three sets of plans and specification of such new or modified shore disposal facilities to be constructed for the purpose of pumping out boat holding tanks and toilets, receiving sewage from portable toilets, and disposing of the sewage shall be submitted to the department for review as to acceptability. Plans and specifications shall cover in detail the materials to be used, the pump characteristics, the water supply system, and when applicable, the size and construction of the septic or holding tank, results of soil percolation and boring tests and layout of the soil absorption system. Location of all wells within 50 feet of the absorption system, the surface water high water level and the general topography of the area shall be shown on the plans.

(7) DISPOSAL OF PORTABLE TOILET WASTES. Sewage from portable toilets shall be discharged into an approved fixture or other approved device designed to receive sewage.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.08, Register, May, 1983, No. 329, eff. 6-1-83; correction in (3), (4) (a), (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 386.09 Alternate facilities. (1) CHEMICAL TYPE TOILETS. Nonrecirculating chemical toilets may be used in lieu of a toilet flushed by water provided the container is not portable and the use of on-shore pumping facilities is provided for in the design of the unit. The design of the toilet and on-shore disposal adaptation shall be approved.

(2) INCINERATOR TYPE TOILETS. An approved incinerator type toilet may be used in lieu of a toilet flushed by water provided it is of adequate capacity to handle the passenger load. Equipment for on-shore removal and disposal of resulting ash shall be kept on board.

(3) PORTABLE TOILETS. An approved portable toilet may be used in lieu of a permanently installed toilet provided it is of adequate capacity to handle the passenger load. Sewage in the holding tank shall be properly disposed of on shore. Units shall be temporarily secured on board, if necessary, to prevent spillage of contents.

History: Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.09, Register, May 1983, No. 329, eff. 6-1-83.

SPS 386.10 Operation and maintenance. All facilities controlled by this chapter shall be maintained in good operating condition at all times. All necessary tools for repair and maintenance shall be kept on board or on dock, as the case may be, and shall be properly stored when not in use. Extra fuses for electrical equipment and extra indicator lights shall be on hand. Pump-out suction hoses should be adequately drained through the pump before disconnection and then properly stored or capped. Pumping equipment shall be shut off before the hose is disengaged from the boat outlet pipe. Any equipment on board shall not be used or operated to allow discharge of sewage to surface waters.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.10, Register, May, 1983, No. 329, eff. 6-1-83.

SPS 386.11 Prohibited facilities. No person shall use or permit to be used as a holding facility for sewage a pail, plastic bag or any other type of portable, semiportable or disposal receptacle aboard boats not specifically permitted by the provisions of this chapter.

History: Cr. Register, September, 1980, No. 297, eff. 10-1-80; renum. from H 80.11, Register, May, 1983, No. 329, eff. 6-1-83.

Please review. No revisions at this time.

Chapter SPS 387

PRIVATE ONSITE WASTEWATER TREATMENT SYSTEM REPLACEMENT OR REHABILITATION FINANCIAL ASSISTANCE PROGRAM

Note: Chapter NR 124 as it existed on February 29, 1992 was repealed and a new Chapter ILHR 87 was created effective March 1, 1992. Chapter ILHR 87 was renumbered Chapter Comm 87 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 87 as it existed on December 31, 1998 was repealed and a new chapter Comm 87 was created effective February 1, 1999. Chapter Comm 87 was renumbered chapter SPS 387 under s. 13.92 (4) (b) 1., Stats., Register December 2011 No. 672.

SPS 387.01 Purpose. The purpose of this chapter is to establish rules under s. 145.245, Stats., for the implementation and administration of a financial assistance program to reimburse eligible property owners a portion of the cost of replacing or rehabilitating failing private onsite wastewater treatment systems (POWTS).

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. Register January 2005 No. 589, eff. 2-1-05.

SPS 387.02 Applicability. For applications received under the provisions of this chapter, subs. (1) and (2) shall apply. For date of installation of existing systems, sub. (3) shall apply.

(1) This chapter applies to applications received by the department on or after February 1, 2005.

(2) Applications received by the department prior to February 1, 2005 are governed by the rules as they existed on or before January 31, 2005.

(3) This chapter applies to existing failing POWTS installed prior to July 1, 1978.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1) and (2), cr. (3) Register January 2005 No. 589, eff. 2-1-05.

SPS 387.03 Definitions. The following definitions apply to this chapter.

(1) "Department" means the department of safety and professional services.

(2) "Determination of failure" has the meaning given in s. 145.245 (1) (a), Stats.

Note: Section 145.245 (1) (a), Stats., reads:
"Determination of failure" means any of the following:
1. A determination that a private sewage system is failing, according to the criteria under s. 145.245 (4), Stats., based on an inspection of the private sewage system by an employee of the state or a governmental unit who is certified to inspect private sewage systems by the department.
2. A written enforcement order issued under s. 145.02 (3) (f), 145.20 (2) (f) or 281.19 (2), Stats.
3. A written enforcement order issued under s. 254.59 (1), Stats., by a governmental unit.

(3) "Failing private sewage system" has the meaning given in s. 145.245 (4), Stats.

Note: Section 145.245 (4), Stats., reads:
The department shall establish criteria for determining if a private sewage system is a failing private sewage system. A failing private sewage system is one which causes or results in any of the following conditions:
(a) The discharge of sewage into surface water or groundwater.
(b) The introduction of sewage into zones of saturation which adversely affects the operation of a private sewage system.
(c) The discharge of sewage to a drain tile or into zones of bedrock.
(d) The discharge of sewage to the surface of the ground.
(e) The failure to accept sewage discharges and back up of sewage into the structure served by the private sewage system.

(4) "Governmental unit" has the meaning as given in s. 145.01 (5), Stats.

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

(5) "Owner", for the purposes of this chapter, means the person that owns the structure that is served by a failing POWTS.

(6) "Participating governmental unit" means a governmental unit which applies to the department for financial assistance under this chapter, and which meets the conditions as specified in s. 145.245 (9), Stats.

(7) "Person" means any one of the following:

(a) Any individual including the estate of an individual.

(b) Two or more individuals having a joint or common interest in a principal residence, as defined in s. 145.245 (1) (c), Stats., which uses a POWTS.

Note: Section 145.245 (1) (c), Stats., reads:
"Principal residence" means a residence which is occupied at least 51% of the year by the owner.

(c) A nonprofit corporation as defined in s. 181.0103 (17), Stats.

(7m) "POWTS" has the same meaning as s. SPS 381.01 (182) and (194).

Note: Sections SPS 381.01 (182) and (194) read:

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

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

Note: Section 145.01 (12), Stats., reads:

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

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

(9) "Project period" means any of the following:

(a) For applications submitted to the department for installations of replacement of private sewage systems, project period means the period of time beginning on February 1 and ending on December 31 of the following year.

(b) For applications submitted to the department for annual costs of monitoring replacement experimental sewage systems, project period means the period beginning on February 1 and ending on December 31 of the 5th year after the date of installation.

(c) For applications for loans as provided in s. 145.245 (12m), Stats., the project period means the period beginning on February 1 and ending on December 31 of the following year after the date of installation.

Note: Records of applications are retained for the current project period only. Any loan applications, therefore, should be made in the current project period.

(10) "Small commercial establishment" has the meaning given in s. 145.245 (1) (e), Stats. Small commercial establishment includes a farm, including a residence on a farm, if the residence is occupied by a person who is an operator of the farm and if the maximum daily wastewater flow rate of the farm and residence is less than 5,000 gallons per day as determined by the design criteria of the state plumbing code.

Note: Section 145.245 (1) (e), Stats., defines small commercial establishment as a commercial establishment or a business place with a maximum daily wastewater flow rate of less than 5,000 gallons per day.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; correction in (7) (c) made under s. 13.93 (2m) (b) 7., Register, April, 2000, No. 532; CR 04-068: am. (5), (7) (b) and (9) (intro.), cr. (7m) and (9)(c) Register January 2005 No. 589, eff. 2-1-05; correction in (7m) made under s. 13.92 (4) (b) 7., Stats., Register September 2008 No. 633; correction in (1), (7m) made under s. 13.92 (4) (b) 6., 7., Stats., Register December 2011 No. 672.

SPS 387.04 Application by governmental units to participate. An application by a governmental unit to participate in this program shall include at least all of the following:

(1) Certified copies of the following approved resolutions of the governing body of the governmental unit as follows:

(a) A resolution designating an authorized representative and authorizing such representative to apply for a grant under s. 145.245, Stats., and this chapter on behalf of the governmental unit. The authorized representative shall be an official or employee of the governmental unit.

(b) A resolution certifying that grants will be used for rehabilitation or replacement of a POWTS for a principal residence or small commercial establishment owned by a person who meets the eligibility requirements of s. 145.245 (5), Stats., that the funds will be used as provided under s. 145.245 (6), Stats., and that the maximum allowable amount of financial assistance will not exceed the amount permitted under s. 145.245 (7), Stats., and Tables 387.30-1 to 387.30-6.

(c) A resolution certifying that grants will be used for replacement or rehabilitation of POWTS which will be properly installed and maintained.

(d) A resolution certifying that financial assistance provided to the governmental unit will be disbursed to eligible owners, as specified in s. SPS 387.30 and s. 145.245, Stats.

(2) Documentation of a regulatory program to insure proper installation and maintenance of all new or replacement POWTS constructed in the area of jurisdiction of the governmental unit. An approvable regulatory program shall include the following:

(a) Adoption of an ordinance that specifically requires compliance with the maintenance program set forth in par. (d). and that specifically grants enforcement authority to the governmental unit.

(b) A system for providing written notice of the maintenance program requirements to each owner applying for a sanitary permit.

(c) An inspection program, that includes at least one inspection during installation of a POWTS.

(d) A maintenance program in effect.

Note: For additional maintenance program requirements, refer to ch. SPS 383.

(e) A central record keeping system, capable of maintaining records for a period of not less than six years from the date of a POWTS installation and capable of providing evidence that the governmental unit is administering the program as specified in this chapter.

(f) Where considered appropriate by the governmental unit, a system of user charges and cost recovery that assures that each recipient of service under this program will pay a proportionate share of the program costs. User charges and cost recovery may include the cost of the grant application fee and the cost of supervising and maintaining an installation and maintenance program.

(3) Other information as requested by the department.

History: CR 04-068: cr. Register January 2005 No. 589, eff. 2-1-05; correction in (1) (b), (d) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

Please review. No revisions at this time.

SPS 387.05 Grant application by participating governmental units. (1) (a) The participating governmental unit shall review information received from owners and determine eligibility under s. 145.245, Stats., and this chapter, except for applications for monitoring as specified in s. SPS 387.31.

(b) In order to receive an allocation of financial assistance, the participating governmental unit shall prepare and submit an application to the department. The application shall be on forms acceptable to the department.

Note: The Department forms required in this chapter are available for a nominal fee at telephone 800-DOC-SALE or 411 (Telecommunications Relay) or at docsales@doa.state.wi.us, or at no charge at the Department's Web site at http://dsps.wi.gov through links to Division of Industry Services forms.

(2) An application from a participating governmental unit for financial assistance to replace or rehabilitate a POWTS shall include all of the following:

(a) A list of owners approved as eligible by the participating governmental unit. The list shall include, at a minimum, the name of each owner and the maximum allowable amount of financial assistance as determined under s. SPS 387.30 or 387.31.

(b) Other information as requested by the department.

(3) Governmental units may request pre-application assistance including technical assistance from the department.

(4) Applications for grants from participating governmental units shall be postmarked no later than January 31 for consideration in the following project period. Participating governmental units may request in writing to the department prior to December 31, a six-month extension to the project period.

History: CR 04-068: cr. Register January 2005 No. 589, eff. 2-1-05; correction in (1) (a), (2) (a) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.10 Categories of POWTS. The department and the participating governmental unit shall use the following categories of failing POWTS to determine financial assistance eligibility under s. 145.245 (5), Stats., and s. SPS 387.20, to financial assistance under s. 145.245 (7), Stats., and ss. SPS 387.30 and 387.31:

(1) ELIGIBLE FOR FINANCIAL ASSISTANCE AWARD. As specified in s. 145.245 (5), Stats., only category 1 or category 2 failing POWTS are eligible for assistance under this chapter.

Note: Section 145.245 (5), Stats., defines failure for two categories which are eligible for grant awards — Category 1, failing private sewage system as defined in s. 145.245 (4) (a) to (c), Stats.; Category 2, failing private sewage system as defined in s. 145.245 (4) (d), Stats.

(2) INELIGIBLE FOR FINANCIAL ASSISTANCE AWARD. As specified in s. 145.245 (5), Stats., those systems that fail as a result of back up of sewage into the structure served, are not eligible for assistance under this chapter.

Note: Section 145.245 (5), Stats., defines Category 3, failing private sewage system as defined in s. 145.245 (4) (e), Stats., as ineligible for a grant award.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (intro.), (1) and (2) Register January 2005 No. 589, eff. 2-1-05; correction in (intro.) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.20 Eligibility of owners. (1) GENERAL. A person who owns a principal residence served by a category 1 or 2 failing POWTS installed prior to July 1, 1978 or a business which owns a small commercial establishment served by a category 1 or 2 failing POWTS installed prior to July 1, 1978 is eligible for financial assistance under this chapter if the person or business:

(a) Meets the eligibility requirements set forth in s. 145.245, Stats., and this chapter.

Note: Section 145.245 (5) (c) 1., Stats., specifies that to be eligible for grant awards under this section, the annual family income of the person who owns the principal residence may not exceed $45,000. Section 145.245 (5) (d) 1., Stats., specifies that to be eligible for grant awards under this section, the annual gross revenue of the business that owns the small commercial establishment may not exceed $362,500.

(b) Submits an application to the participating governmental unit in which the failing POWTS is located.

(c) Has completed all rehabilitation or replacement work in accordance with the enforcement order and the state plumbing code, chs. SPS 382 to 384. Any variances or petitions to modify specific state plumbing code requirements shall be approved in writing by the department prior to the installation of the system.

(d) Owned the principal residence or small commercial establishment which is served by the category 1 or 2 failing POWTS. A person does not meet this condition if he or she did not own the property at the time the POWTS was failing and subject to a determination of failure. The buyer of the property is not eligible if the failing POWTS was replaced prior to the date of sale. The seller of the property is not eligible if the determination of failure was made after the date of sale.

(2) PRIVATE NONPROFIT ENTITIES. For the purposes of this chapter a small commercial establishment may be owned by a private nonprofit corporation as defined in s. 181.0103 (17), Stats.

Note: Section 181.0103 (17), Stats., means a nonstock nonprofit corporation subject to the provisions of this chapter, except a foreign corporation.

(3) INELIGIBLE ENTITIES. Structures owned by any of the following entities are not eligible for financial assistance awards:

(a) The state.

(b) An office, department, independent agency, institution of higher education, association, society or other body in state government.

(c) An authority created under ch. 231 or 234, Stats.

(d) A city, village, town or county.

(e) A federal agency, department or instrumentality.

(f) An interstate agency.

(4) REPLACEMENT AND EXISTING STRUCTURES. (a) For a principal residence or small commercial establishment that meets all of the requirements of s. 145.245, Stats., the maximum allowable financial assistance amount shall be limited to the minimum POWTS capacity that would have been necessary to serve the original structure. Any increase in capacity required to serve a larger replacement structure shall not be eligible.

Note: An example where par. (a) applies would be a POWTS that once served a 3-bedroom structure and the replacement structure is 4 or more bedrooms; the financial assistance would be based on the maximum allowable amount for a POWTS sized for 3-bedrooms.

(b) For a principal residence or small commercial establishment that meets all of the requirements of s. 145.245, Stats., the maximum allowable financial assistance amount shall be limited to the minimum POWTS capacity that would have been necessary to serve the existing structure. Any increase in capacity required to serve the existing structure may be eligible.

Note: An example where par. (b) applies would be a POWTS that once served a 2-bedroom structure and such POWTS was later determined to be acceptable for a 3-bedroom structure. The existing structure served by such POWTS contains 3 bedrooms; the financial assistance would be based on the maximum allowable amount for a POWTS sized for 3-bedrooms.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; correction in (2) made under s. 13.93 (2m) (b) 7., Register, April, 2000, No. 532; CR 04-068: am. (1) (intro.), (1) (b), (d) and (3) (intro.), r. and recr. (4) Register January 2005 No. 589, eff. 2-1-05; correction in (1) (c) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.21 Ineligibility of owners. (1) As specified under s. 145.245 (5m) (b), Stats., the department shall notify a governmental unit if it receives a certification under s. 49.855 (3), Stats., that an individual is delinquent in child support or maintenance payments or owes past support, medical expenses or birth expenses.

(2) The department or a governmental unit shall deny an application under sub. (1) if the department receives a certification under s. 49.855 (3), Stats., that the owner or an individual who would directly benefit by the financial assistance is delinquent in child support or maintenance payments or owes past support, medical expenses or birth expenses.

(3) The department or a governmental unit shall deny an application if a financial assistance amount under this chapter has been previously awarded for rehabilitation or replacement work at the same site, except for financial assistance awarded on an annual basis for monitoring of approved experimental POWTS, as specified in s. SPS 387.31.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (2) and (3) Register January 2005 No. 589, eff. 2-1-05; correction in (1) and (2) made under s. 13.93 (2m) (b) 7., Stats., Register January 2005 No. 589; correction in (3) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.30 Maximum allowable financial assistance amount. (1) ELIGIBLE REHABILITATION OR REPLACEMENT WORK. Except as provided under sub. (5) and s. SPS 387.72, POWTS work eligible for financial assistance awards shall be limited to those activities listed in the financial assistance awards under sub. (3), and Tables 387.30-1 to 387.30-6 and the maximum amount specified in s. 145.245 (7) (c), Stats.

Note: Section 145.245 (7) (c), Stats., limits the state grant share to $7,000.

(2) LEAST COSTLY METHODS. As specified in s. 145.245 (7) (b), Stats., costs allowable in determining financial assistance funding under this section may not exceed the costs of rehabilitating or replacing a POWTS by the least costly methods. Only eligible work necessary to meet the minimum requirements of the state plumbing code by the least costly methods may be allowed in determining financial assistance awards under this chapter.

Note: Section 145.245 (7) (b) reads: "Except as provided in par. (e), costs allowable in determining grant funding under this section may not exceed the cost of rehabilitating or replacing a private sewage system by the least costly method, except that a holding tank may not be used as the measure of the least costly method for rehabilitating or replacing a private sewage system other than a holding tank."

(3) FINANCIAL ASSISTANCE AWARDS. Financial assistance awards shall be determined by calculating the maximum allowable financial assistance amount by type of system, system component, or service provided.

(a) *Site evaluation and soil testing.* The maximum allowable financial assistance amount for site evaluation and soil testing is $250.

(b) *Installation of a replacement or additional POWTS anaerobic treatment component.* The maximum allowable financial assistance amount for installation of a replacement POWTS anaerobic treatment component is listed in Table 387.30-1.

(c) *Installation of a POWTS dosing component and lift pump or siphon.* The maximum allowable financial assistance amount for installation of a POWTS dosing component and lift pump or siphon is listed in Table 387.30-2.

(d) *Installation of a non-pressurized and in-ground pressure POWTS treatment or dispersal component.* The maximum financial assistance amount for installation of non-pressurized and in-ground pressure POWTS treatment or dispersal component is listed in Table 387.30-3.

(e) *Installation of an at-grade or mound POWTS treatment or dispersal component.* The maximum allowable financial assistance amount for installation of at-grade or mound POWTS treatment or dispersal component is listed in Table 387.30-4.

(f) *Installation of a POWTS holding tank component.* The maximum allowable financial assistance amount for installation of a POWTS holding tank component is listed in Table 387.30-5.

(g) *Replacement exterior grease interceptor.* The maximum allowable financial assistance amount for installation of a replacement exterior grease interceptor is listed in Table 387.30-6.

Please review. No revisions at this time.

Table 387.30-1
MAXIMUM ALLOWABLE FINANCIAL ASSISTANCE AMOUNT FOR INSTALLATION OF A REPLACEMENT POWTS ANAEROBIC TREATMENT COMPONENT

Installation of a Replacement POWTS Anaerobic Treatment Component by Number of Bedrooms			
Number of Bedrooms	**Financial Assistance Amount**	**Number of Bedrooms**	**Financial Assistance Amount**
1 or 2	$500	6	$750
3	550	7	875
4	650	8 or more	950
5	725		

Table 387.30-2
MAXIMUM ALLOWABLE FINANCIAL ASSISTANCE AMOUNT FOR INSTALLATION OF A POWTS DOSING COMPONENT AND LIFT PUMP OR SIPHON

Installation of a POWTS Dosing Component and Lift Pump or Siphon	
Number of Bedrooms	**Financial Assistance Amount**
1 or 2	$1,100
3 or 4	1,200
5 or more	1,250

Table 387.30-3
MAXIMUM ALLOWABLE FINANCIAL ASSISTANCE AMOUNT FOR INSTALLATION OF NON-PRESSURIZED AND IN-GROUND PRESSURE POWTS TREATMENT OR DISPERSAL COMPONENT

Installation of a Non-Pressurized And In-Ground Pressure POWTS Treatment or Dispersal Component							
Design Loading Rate in Gallons Per Square Foot Per Day	**Percolation Rate When Properly Filed with the Governmental Unit Before July 2, 1994 (minutes per inch)**	**Financial Assistance Amount by Number of Bedrooms**					
		1	**2**	**3**	**4**	**5**	**Each Additional Bedroom**
0.7 or more	0 – less than 10	$1,400	$1,450	$1,925	$2,100	$2,100	$250
0.60 to 0.69	10 – less than 30	1,475	1,475	2,100	2,200	2,250	250
0.50 to 0.59	30 – less than 45	1,475	1,475	2,100	2,400	2,450	300
0.49 or less	45 - 60	1,475	1,550	2,325	2,725	2,750	300

Table 387.30-4
MAXIMUM ALLOWABLE FINANCIAL ASSISTANCE AMOUNT FOR INSTALLATION OF AT-GRADE OR MOUND POWTS TREATMENT OR DISPERSAL COMPONENT

Installation of an At-Grade Or Mound POWTS Treatment or Dispersal Component						
Type of Design	**Financial Assistance Amount by Number of Bedrooms**					
	1	**2**	**3**	**4**	**5**	**Each Additional Bedroom**
At-Grade	$2,050	$2,350	$2,600	$3,200	$3,800	$275
High Groundwater Mound	2,550	3,500	4,100	4,750	4,775	300
High Bedrock Mound	4,000	4,600	4,675	4,775	4,775	350
Slowly Permeable Mound [a]	3,250	3,600	4,400	4,750	4,750	375
Less Than 24” or Greater Than 12% Slope Mound	3,050	4,175	4,400	4,775	4,775	375

[a] A slowly permeable mound may be designed based on a percolation rate of greater than 60 minutes per inch and less than or equal to 120 minutes per inch, or a soil application rate of 0.3 or less.

Table 387.30-5
MAXIMUM ALLOWABLE FINANCIAL ASSISTANCE AMOUNT FOR INSTALLATION OF A POWTS HOLDING TANK COMPONENT

Installation of a POWTS Holding Tank Component			
Number of Bedrooms	**Financial Assistance Amount**	**Number of Bedrooms**	**Financial Assistance Amount**
3 or fewer	$2,800	6	$4,400
4	3,200	7	4,775
5	3,850	8	4,775
		Each Additional Bedroom	400

Table 387.30-6
MAXIMUM ALLOWABLE FINANCIAL ASSISTANCE AMOUNT FOR INSTALLATION OF REPLACEMENT EXTERIOR GREASE INTERCEPTOR

Installation of Replacement Exterior Grease Interceptor by Capacity			
Capacity (in gallons)	**Financial Assistance Amount**	**Capacity (in gallons)**	**Financial Assistance Amount**
Up to 1,249	$550	1,500 to 1,749	$750
1,250 to 1,499	650	1,750 to 1,999	800
		2,000 or more	900

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4) USE OF FINANCIAL ASSISTANCE AWARD TABLES FOR SMALL COMMERCIAL ESTABLISHMENTS. In order to use Tables 387.30-1 to 387.30-6 for small commercial establishments, where applicable, divide the design daily wastewater flow rate in gallons per day by 150, round off to the next highest whole number and use the result in place of the number of bedrooms.

(5) EXCEPTIONS TO THE FINANCIAL ASSISTANCE AWARD TABLES. (a) The department may determine on a case-by-case basis the maximum allowable financial assistance amount for types of POWTS which are not covered under sub. (3) and Tables 387.30-1 to 387.30-6.

(b) The maximum allowable financial assistance amount for POWTS work done on property owned by a licensed plumber or contractor engaged in the business of installing POWTS shall be limited to two-thirds of the financial assistance amount or $4,667, whichever is less.

(c) The maximum allowable financial assistance amount for each principal residence or small commercial establishment shall be limited to 60% of the total cost of replacement or the amount determined under sub. (3) and Tables 387.30-1 to 387.30-6, whichever is less.

Note: Under s.145.245 (7) (d), Stats., if the income of the person who owns a principal residence exceeds $32,000 and the residence is served by a category 1 or category 2 failing private sewage system, the amount of the grant award under this section is limited to the amount determined in par. (c) less 30% of the amount which the person's income exceeds $32,000.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. Register January 2005 No. 589, eff. 2-1-05; CR 07-100: am. (1) and Tables 87.30-3 to 5 Register September 2008 No. 633, eff. 10-1-08; correction in (1), (3) (b), (c), (d), (e), (f), (g), (4), (5) (a), (c) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.31 Maximum allowable financial assistance amount for experimental POWTS. (1) Pursuant to s. 145.245 (7) (e), Stats., this section establishes the parameters for allocating the maximum allowable state financial assistance award for experimental POWTS.

(2) The department may determine on a case-by-case basis the maximum allowable financial assistance amount for the installation and monitoring of an experimental POWTS installed under s. 145.02 (3) (b), Stats.

(3) As specified in s. 145.245 (11m) (d), Stats., the department may prorate available funds for the installation and monitoring of an experimental POWTS.

Note: Section 145.245 (7) (e), Stats., reads: "Costs allowable for experimental private sewage systems shall include the costs of installing and monitoring experimental private sewage systems installed under s. 145.02 (3) (b) and this section."

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. Register January 2005 No. 589, eff. 2-1-05.

SPS 387.32 Ineligible rehabilitation or replacement work. For the purposes of establishing work which is not eligible for a financial assistance award under this chapter, the following items or projects are considered ineligible work:

(1) (a) Rehabilitation or replacement of a failing POWTS conducted before the date on which the governmental unit adopts this program.

(b) Rehabilitation or replacement of a failing POWTS with an experimental POWTS conducted without department pre-approval as specified under s. SPS 387.40 (1) (b).

(2) Except for site evaluation, soil testing under s. SPS 387.30 (3) (a) and issuing the sanitary permit, rehabilitation or replacement of a failing POWTS done before the determination of failure was made.

(3) Rehabilitation or replacement of a failing POWTS where a determination is made that public sewer is available to the property as determined by the municipality that owns or operates the public sewer.

(4) Connection to a municipal sewage treatment works.

(5) Installation of a small sewage treatment plant with a surface discharge.

(6) Installation of a POWTS to replace a privy.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1) to (3) and (6) Register January 2005 No. 589, eff. 2-1-05; correction in (1) (b), (2) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.40 Application by owners. (1) CONTENTS. (a) In order to be eligible to receive a financial assistance award under this chapter, the owner of a failing POWTS shall submit an application to the participating governmental unit in which the POWTS is located. The application shall be made on forms that are acceptable to the department.

(b) In order to be eligible to receive a financial assistance award for experimental systems under this chapter, an owner shall receive written pre-approval for such system from the department and submit information, in addition to those items specified in par. (a), that:

1. Documents that the experimental system is being conducted by an individual or entity as a research project under the management of the department.
2. Indicates the objectives of the experiment relative to treatment capabilities.
3. Delineates proposed sampling protocols of influent and effluent loads and flows.
4. Includes a proposed schedule for the installation, monitoring, reporting and conclusion.
5. Includes a copy of the monitoring contract with an estimate of the costs of monitoring for the project period.
6. Provides other documentation as requested by the department or participating governmental unit.

(2) PRINCIPAL RESIDENCE. The application by the owner of a principal residence shall be made on forms acceptable to the department and shall include all of the following:

(a) *Evidence of annual family income.* A person who owns a principal residence shall provide the evidence of income required under s. 145.245 (5) (c) 2. and 3., Stats., or the alternative evidence of income required under s. 145.245 (5) (c) 4., Stats., and s. SPS 387.50.

(b) *Sanitary permit number and date of issuance.* A legible copy of the application for the sanitary permit issued by the governmental unit in which the POWTS is located.

(c) *Additional information.* If within three years of the date in which the enforcement order was issued or determination of failure was made, the applicant has bought or sold the principal residence served by a failing POWTS, the person shall provide the following additional information:

1. A copy of the closing statement, the sale contract, escrow agreement or other documentation which shows the date of sale of the property.
2. A copy of the closing statement, sale contract, escrow agreement or other documentation which shows that the cost of replacing the failing POWTS has or will be incurred at the owner's expense.

(3) SMALL COMMERCIAL ESTABLISHMENTS. The application for eligible owners of small commercial establishments, as specified in s. 145.245 (5) (a) 2., Stats., shall be made on forms acceptable to the department and shall include all of the following:

(a) *Evidence of annual business income.* As specified in s. 145.245 (5) (d) 2., Stats., a business which owns a small commercial establishment shall provide one of the following as evidence of annual gross revenue:

1. A copy of the federal income tax return filed by the business for the tax year prior to the year in which the enforcement order was issued or determination of failure was made or for the tax year in which the determination of failure was made.
2. If the small commercial establishment is owned by a private nonprofit corporation as defined in s. 181.0103 (17), Stats., the nonprofit corporation shall provide a profit and loss statement for the commercial establishment for the tax year prior to the year in which the enforcement order was issued or determination of failure was made or for the tax year in which the enforcement order was issued or determination of failure was made.

Note: As specified in s. 145.245 (11) (d), Stats., the department may not allocate more than 10% of the funds available under this subsection each fiscal year for grants for small commercial establishments.

Note: As specified in s. 145.245 (5) (a) 2., Stats., a business must own the small commercial establishment in order to be eligible for a grant amount. A business which leases a small commercial establishment is not eligible. Therefore, the application and income eligibility requirements must be met by the owners of the property served by the failing private sewage system.

(b) *Sanitary permit number and date of issuance.* A legible copy of the application for the sanitary permit issued by the county in which the POWTS is located.

(c) *Additional information.* If within 3 years of the date that the enforcement order was issued or determination of failure was made, and an owner has bought or sold the small commercial establishment served by a failing POWTS, the person shall provide the following additional information:

1. A copy of the closing statement, sale contract, escrow agreement or other documentation which shows the date of sale of the property.
2. A copy of the closing statement, sale contract, escrow agreement or other documentation which shows that the cost of replacing the failing POWTS has or will be incurred at the owner's expense.

(d) *Other information.* Any other information that may be requested by the department or participating governmental unit.

Please review. No revisions at this time.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; correction in (3) (a) 2., made under s. 13.93 (2m) (b) 7., Register, April, 2000, No. 532; CR 04-068: am. (1) (a), (b), (2), (3) (a) 1., 2., (b) and (c) Register January 2005 No. 589, eff. 2-1-05; correction in (2) (a), (3) (a) 2. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.50 Alternate evidence of income. A participating governmental unit may consider any of the following criteria as satisfactory evidence of income:

(1) A copy of the owner's federal income tax return or federal income tax forms for the taxable year in which the enforcement order was issued or determination of failure was made and, if married and filing separately, a copy of the federal income tax return or federal income tax forms for that same year for the owner's spouse.

(2) In conjunction with the evidence of income required under sub. (1), an affidavit from the owner. The affidavit shall state the reason that a reduction in net income or adjusted gross income is expected in the year in which the enforcement order was issued or determination of failure was made, and the estimated amount of that reduction, for the taxable year in which the enforcement order is issued or determination of failure is made.

(3) An affidavit from the owner of the principal residence or small commercial establishment stating the reason that he or she was not required to file a federal income tax return or federal income tax forms in the year prior to the year in which the enforcement order was issued or for the year in which the determination of failure was made.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. Register January 2005 No. 589, eff. 2-1-05.

SPS 387.70 Allocation of funds and financial assistance awards. (1) GENERAL. The department shall allocate funds available for financial assistance awards to participating governmental units as provided in s. 145.245 (11), Stats., except for funds so specified in s. SPS 387.72.

(2) PRORATION. (a) If available funds are not sufficient to fully fund all applications, the department shall prorate available funds under s. 145.245 (11m), Stats. A prorated payment shall be deemed full payment of the financial assistance.

(b) A financial assistance application denied under s. 145.245 (11m) (c), Stats., is not eligible for awards in a later fiscal year.

(3) REVISION OF ALLOCATION OR AWARD. (a) If the department finds that an owner listed in the application of a governmental unit does not meet the eligibility requirements under s. 145.245 (5), Stats., the department may reduce an allocation to the governmental unit in the current or in a following fiscal year.

(b) The department may withhold funds allocated to a governmental unit and initiate enforcement under s. SPS 387.80, if a governmental unit does not meet the conditions specified under s. 145.245 (9), Stats.

(c) The department may reallocate any withheld or recovered funds in the following fiscal year.

(4) EXPERIMENTAL SYSTEMS. The allocation and payment of financial assistance awards for experimental POWTS shall be in accordance with ss. SPS 387.31 and 387.72.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1), (2) and (4) Register January 2005 No. 589, eff. 2-1-05; correction in (1), (3) (b), (4) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.71 Payments to participating governmental units. (1) Except as provided in s. SPS 387.72, financial assistance payments shall be made to the participating governmental unit which shall be responsible for disbursing all funds received from the department for the purposes for which the financial assistance award was made.

(2) A participating governmental unit shall request payment on forms acceptable to the department and shall include such information as required by the department to document satisfactory completion of eligible work. Payments shall be requested in accordance with the payment schedule included in the financial assistance award conditions.

(3) The total financial assistance amount payable to a participating governmental unit is limited to the amount of funds awarded to the participating governmental unit under this chapter. The specific financial assistance amount for individual owners of a POWTS is limited to the maximum allowable financial assistance amount under s. SPS 387.30. Payment based on a prorated financial assistance amount shall constitute a complete payment for that owner.

(4) At any time before final payment of the financial assistance, the department may review and audit any request for payment. Based on the review or audit, any payment may be reduced for prior overpayment or increased for prior underpayment.

(5) The participating governmental unit shall return to the department any funds, including any interest derived therefrom, received under this chapter which are not disbursed to eligible owners.

(6) The department may authorize the withholding of a financial assistance payment where it determines in writing that a participating governmental unit has failed to comply with program objectives, financial assistance award conditions, or reporting requirements. Such withholding shall be limited to only that amount necessary to assure compliance.

(7) The department shall withhold a financial assistance payment to the extent of any indebtedness, relating to the provisions of this chapter, of the participating governmental unit to the state of Wisconsin, unless it determines that collection of the indebtedness will impair accomplishment of the program objectives and that continuation of the specific project is in the best interest of the state of Wisconsin.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1) to (4), (6) and (7) Register January 2005 No. 589, eff. 2-1-05; correction in (1), (3) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.72 Payments for monitoring of experimental systems. (1) Except as provided in ss. SPS 387.70 and 387.71, the department shall make financial assistance payments for monitoring of experimental POWTS to the individual or entity performing the monitoring for the maximum allowable amount on an annual basis up to the approved estimated costs for monitoring for eligible work for a project period.

(2) (a) The individual or entity performing the monitoring shall request payment on forms acceptable to the department and shall provide such information as required by the department to document satisfactory completion of eligible work. Subsequent annual payments for monitoring shall be requested in accordance with the payment schedule included in the financial assistance award conditions as approved by the department.

(b) The individual or entity performing the monitoring shall make a request to the department for payment of monitoring costs on an annual basis by submitting paid invoices documenting the eligible work provided as included in the financial assistance award conditions. Payments shall be awarded to the eligible individual or entity in accordance with the payment schedule included in the conditions of the financial assistance, the maximum allowable financial assistance amount, and usual and customary costs for monitoring of an experimental POWTS.

(c) A direct payment of monitoring costs shall be made to the individual or entity in accordance with this section.

(3) The total financial assistance amount payable to the individual or entity for monitoring shall be limited to the amount of funds available for allocation in the project period for experimental systems under this chapter.

(4) At any time before final payment of the approved financial assistance amount, the department may review and audit any request for payment. Based on the review or audit, any payment may be reduced for prior overpayment or increased for prior underpayment.

(5) The department may authorize the withholding of a financial assistance payment where it determines in writing that an owner has failed to comply with program objectives, financial assistance award conditions, or reporting requirements. Such withholding shall be limited to only that amount necessary to assure compliance.

(6) The department shall withhold a financial assistance payment to the extent of any indebtedness, relating to the provisions of this chapter, unless it determines that collection of the indebtedness will impair accomplishment of the program objectives and that continuation of the specific project is in the best interest of the state of Wisconsin.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1), (2) (a), (b) and (3) to (6) Register January 2005 No. 589, eff. 2-1-05; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.80 Program enforcement. If the department has reason to believe that a violation of the provisions of this chapter or of any financial assistance award or financial assistance award amendment made under this chapter has occurred, the department may take any of the following actions:

(1) Under s. 145.245 (14), Stats., the department may cause written notice to be served upon the alleged violator, and in conjunction with that notice may either:

(a) Issue an order that corrective action be taken by the alleged violator within a reasonable time.

(b) Require that the alleged violator appear before the department for a hearing to answer the charges that a violation has occurred.

(2) Under s. 145.245 (14), Stats., the department may terminate or annul financial assistance made under this section and seek recovery of some or all financial assistance funds previously paid to the participating governmental unit or owner, if an order issued under s. 145.02 (3) (f), Stats., is violated.

(3) Under s. 145.245 (14) (d), Stats., the department may suspend or terminate additional financial assistance awards made under this chapter if the department finds that a POWTS previously funded by the participating governmental unit with financial assistance awarded under this chapter is not being or has not been properly rehabilitated, constructed, installed or maintained.

(4) The department may declare as ineligible project costs directly related to the violation.

(5) The department may seek an injunction or other appropriate relief under s. 145.02 (3) (f), Stats.

(6) The department may seek the imposition of a forfeiture for each violation, pursuant to s. 145.245 (15), Stats.

Note: Section 145.245 (15), Stats., reads:

Any person who violates this section or a rule or order promulgated under this section shall forfeit not less than $10 or more than $5,000 for each violation. Each day of continued violation is a separate offense. While an order is suspended, stayed or enjoined, this penalty does not accrue.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (intro.), (2) and (3) Register January 2005 No. 589, eff. 2-1-05.

SPS 387.81 Program audit. (1) A governmental unit, owner or any other individual or entity receiving financial assistance award under this chapter shall make available to the department, upon request, any and all records necessary to ascertain compliance with this chapter and the provisions as specified in s. 145.245, Stats.

(2) The department may require documentation of monitoring and an audit of the individual or entity providing monitoring.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1) Register January 2005 No. 589, eff. 2-1-05.

SPS 387.90 Petition for variance. (1) PROCEDURE. Under ch. SPS 303, the department shall consider and may grant a variance to an administrative rule upon receipt of a fee, a completed petition for variance form from the owner, and a completed

municipal recommendation from the participating governmental unit having responsibility and an interest in the rule, provided an equivalency is established in the petition for variance which meets the intent of the rule being petitioned. The department may impose specific conditions in granting a variance to promote the protection of the health, safety or welfare of employees or the public. Violation of those conditions under which the variance is granted constitutes a violation of these rules.

(2) PETITION PROCESSING TIME. Except for priority petitions, the department shall review and make a determination on a petition for variance within 30 business days of receipt of all calculations, documents and fees required to complete the review. The department shall process priority petitions within 10 business days.

Note: Form SBD-9890-X is available on request at no charge from the department at the Division of Industry Services, P.O. Box 8935, Madison WI 53708-8935, telephone (608) 266-2112, or at the Department web site at http://www.drl.wisconsin.gov/Plan-Review/Petition-Variance/Petition-for-Variance-Forms.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1) and (2) Register January 2005 No. 589, eff. 2-1-05; correction in (1) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.

SPS 387.91 Process for appeal. (1) DETERMINATION OF INELIGIBILITY BY A PARTICIPATING GOVERNMENTAL UNIT. When a decision by a participating governmental unit is that the applicant does not meet the eligibility criteria as established in this chapter and s. 145.245, Stats., the owner may appeal the decision of the governmental unit in accordance with ch. 68, Stats.

(2) DETERMINATION OF INELIGIBILITY BY THE DEPARTMENT. When a decision by the department is that the applicant does not meet the eligibility criteria as established in this chapter and s. 145.245, Stats., the owner may appeal the decision of the department in writing within 30 days from the date of said decision in accordance with s. 227.42, Stats.

Note: Section 101.02 (6), Stats., outlines the procedure for submitting requests to the department for appeal hearings and the department procedures for hearing appeals.

History: Cr. Register, December, 1998, No. 516, eff. 2-1-99; CR 04-068: am. (1) and (2) Register January 2005 No. 589, eff. 2-1-05.

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Chapter SPS 391

SANITATION

SPS 391.01 Purpose. This chapter has the following pur- poses:

(1) This chapter establishes minimum standards and criteria for the design, installation and maintenance of sanitation systems and devices which are alternatives to water−carried waste plumb- ing fixtures and drain systems so that these sanitation systems and devices are safe and will safeguard public health and the waters of the state.

(2) This chapter establishes criteria for equal speed of access to toilets for each gender in restrooms serving an amusement facil- ity and a specialty event center where the public congregates.

Note: Chapter SPS 361 to 366 relating to commercial buildings and structures specifies the minimum number of toilet facilities for women and men.

Note: Chapter SPS 390 relating to swimming pools and water attractions contains minimum number of toilet facilities for women and men.

History: Cr. Register, April, 2000, No. 532, eff. 7−1−00; CR 04−072: am. Register July 2005 No. 594, eff. 1−1−06.

SPS 391.02 Scope. (1) This chapter has the following applications:

(a) This chapter applies to all composting toilet systems, incin- erating toilets, pit privies and vault privies installed or constructed on or after the effective date of this chapter.

(b) This chapter applies to separate−gender restrooms serving an amusement facility and a specialty event center where the pub- lic congregates that are constructed or altered as specified in s. SPS 391.14.

(2) The provisions of this chapter are not retroactively applied to existing installations unless specifically stated in the adminis- trative rule.

History: Cr. Register, April, 2000, No. 532, eff. 7−1−00; CR 04−072: am. (1) Register July 2005 No. 594, eff. 1−1−06; **correction in (1) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.**

SPS 391.03 Definitions. In this chapter:

(1) "Amusement facility" has the meaning given in s. 101.128 (1) (a), Stats.

Note: Section 101.128 (1) (a), Stats., reads as follows:
"Amusement facility" means any zoo, state or local park, amusement or theme park, state fair park, county or other local fairgrounds, or any similar facility, as deter- mined by department rule.

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

(3) "Department" means the department of safety and profes- sional services.

(4) "Facility where the public congregates" has the meaning given in s. 101.128 (1) (b), Stats.

Note: The relevant portions of section 101.128 (1) (b), Stats., read as follows: "Facility where the public congregates" means any of the following that has a general capacity or a seating capacity of 500 or more persons:
1. An amusement facility
3. A specialty event center.

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

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

(7) "Portable restroom" means a self−contained portable unit that includes fixtures, incorporating holding tank facilities, designed to receive human excrement.

(8) "Specialty event center" has the meaning given in s. 101.128 (1) (g), Stats.

Note: Section 101.128 (1) (g), Stats., reads as follows:
"Specialty event center" means an open arena used for rallies, concerts, exhibits or other assemblies, with no permanent structure for such assembly.

(9) "Vault privy" means an enclosed nonportable toilet into which nonwater−carried human wastes are deposited to a subsur- face storage chamber that is watertight.

History: Cr. Register, April, 2000, No. 532, eff. 7−1−00; CR 04−072: renum. (1) to (6) to be (2), (3), (5) to (7) and (9), cr. (1), (4) and (8), Register July 2005 No. 594, eff. 1−1−06; **correction in (3) made under s. 13.92 (4) (b) 6., Stats., Register December 2011 No. 672.**

SPS 391.04 Registrations. The installation of a vault privy or a pit privy to serve a state−owned facility shall be regis- tered with the department prior to installation. The registration of a vault privy shall be accompanied by sufficient information to determine compliance with s. SPS 384.25. The registration of a pit privy shall be accompanied by sufficient soil information to determine compliance with s. SPS 383.44 (4) (b).

History: CR 02−129: cr. Register January 2004 No. 577, eff. 2−1−04; **correction made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.**

SPS 391.10 Composting toilet systems. (1) The materials, design, construction and performance of a composting toilet system shall conform to NSF Standard 41.

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

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

(3) (a) Components for the storage or treatment of wastes shall be continuously ventilated.

(b) Ventilation ducts or vents for the composting toilet system shall conform to s. SPS 382.31 (16).

Note: See appendix for a reprint of portions of s. SPS 382.31 (16).

(4) (a) The disposal of the compost shall be in accordance with ~~EPA~~ 40 CFR part 503.

(b) The disposal of any liquid from a composting toilet system shall be either to a public sanitary sewer system or a POWTS conforming to ch. SPS 383.

History: Cr. Register, April, 2000, No. 532, eff. 7−1−00; **correction in (3) (b), (4) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.**

SPS 391.11 Incinerating toilets. (1) The design, con- struction and installation of a gas−fired incinerating toilet shall conform to ANSI Z21.61.

(2) The materials, design, construction and performance of an electric−fired incinerating toilet shall conform to NSF Standard 41.

(3) All electric and gas−fired incinerating toilets shall be listed by a testing agency acceptable to the department.

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

(4) (a) The disposal of the end product shall be of in accordance with 40 CFR Part 503, Standards for the Use or Disposal of Sewage Sludge.

Note: EPA materials relating to EPA 503, including, "Domestic Septage Regula- tory Guidance: A Guide to the EPA 503 Rule", are available from the Office of Water Resource, US EPA, 401 M Street SW, Washington D.C. 20460.

(b) The disposal of any liquid from an incinerating toilet shall be either to a public sanitary sewer system or a POWTS conform- ing to ch. SPS 383.

History: Cr. Register, April, 2000, No. 532, eff. 7−1−00; **correction in (4) (b) made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.**

SPS 391.12 Privies. (1) (a) The storage chamber of a vault privy shall conform with the requirements of s. SPS 384.25 relating to holding tanks, and shall have a minimum storage capacity of 200 gallons or one cubic yard.

(b) 1. The storage chamber of a pit privy shall be sited and located in soil recognized to provide treatment and dispersal in accordance with s. SPS 383.44 (4) (b).

Note: Chapter SPS 385 establishes procedures for conducting soil evaluations and preparing soil evaluation reports. Section SPS 305.33 delineates the qualifications and certification procedures for individuals who conduct soil evaluations.

2. Governmental units may set standards for the structure above the vault or pit for one− and two−family dwellings.

3. Privies for public use shall meet the requirements of this section and chs. SPS 361 to 366.

Note: Chapters NR 811 and 812 establish minimum separation distances between a pit or vault privy and a potable well. Chapters NR 811 and 812 are administered by the department of natural resources.

(c) The storage chamber of a vault privy shall be anchored to prevent flotation caused by saturated soil conditions.

(2) (a) The storage chamber of a pit or vault privy shall be pro- vided with a vent for the purpose of relieving explosive gases.

(b) The vent serving the storage chamber of a privy shall be:

1. At least 3 inches in diameter;

2. Installed in accordance with s. SPS 382.31 (16) (a) to (f);

and

3. Fabricated or provided with screening to prevent insects from entering the storage chamber.

(3) The servicing of a vault privy relative to the pumping, transporting and disposal of the contents shall be in accordance with ch. NR 113.

(4) The abandonment of a vault privy shall be accomplished by:

(a) Having the contents of the storage chamber pumped and disposed of in accordance with ch. NR 113;

(b) Removing the entire top of the chamber; and

(c) Filling the remaining portion of the emptied storage cham- ber with soil or other inert material to an elevation equal to or above the surrounding grade.

(5) The abandonment of a pit privy shall be accomplished by filling the storage chamber with soil or other inert material to an elevation equal to the surrounding grade.

Note: The requirements of the commercial building code, chs. SPS 361 to 366, apply to the structures built over those privies serving public buildings and places of employment.

(6) (a) A privy may not be installed in a floodway.

(b) A privy may be installed in the floodfringe provided that the area is filled to remove it from the floodfringe designation or the vault is flood−proofed.

Note: The department of natural resources determines if filling or flood−proofing is in accordance with current rules in effect for development in a floodfringe area.

History: Cr. Register, April, 2000, No. 532, eff. 7−1−00; CR 01−139: am. (1) (b) 3. Register June 2002 No. 558, eff. 7−1−02; **correction in (1) (a), (b) 1., 3., (2) (b) 2. made under s. 13.92 (4) (b) 7., Stats., Register December 2011 No. 672.**

SPS 391.13 Portable restrooms. (1) The storage chamber of a portable restroom into which human waste is to be deposited shall be watertight.

(2) The entire floor and the side walls to a height of not less than 4 inches of a portable restroom shall be of a material impervious to water.

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

SPS 391.14 Equal speed of access to toilets.

(1) APPLICATION. This section applies to the toilet fixtures in separate−gender restrooms serving an amusement facility and a specialty events center where the public congregates that are con- structed or renovated on or after January 1, 2006 only if one of the following occurs:

(a) New separate−gender restrooms are constructed or separate−gender toilets are provided, in which case this section applies only to the new restrooms.

(b) More than 50% of the square footage of an existing separate−gender restroom is renovated, in which case this section applies only to the renovated portion.

Note: Under section 101.128 (1) (d), Stats., " 'renovation' means any structural remodeling, improvement or alteration of an existing facility where the public congregates. 'Renovation' does not include any of the following:

1. Reroofing.

2. Cosmetic remodeling, including painting or the installation of wall covering, of paneling, of floor covering or of suspended ceilings.

3. An alteration to an electrical or mechanical system."

(2) NUMBER OF TOILET FACILITIES. When separate public rest- rooms or other toilet facilities are provided for males and females at an amusement facility and a specialty event center where the public congregates, the number of toilets for the females shall be provided at a ratio of 2 for every toilet and every urinal provided for the males.

History: CR 04−072: cr. Register July 2005 No. 594, eff. 1−1−06.

SPS 391.20 Incorporation of standards by reference. (1) CONSENT. Pursuant to s. 227.21, Stats., the attorney general ~~and the revisor of statutes~~ ~~have~~ has consented to the incorporation by reference of the standards listed in sub. (3).

(2) COPIES. Copies of the adopted standards are on file in the offices of the department~~, the secretary of state~~ and the legislative reference bureau. Copies of the standards may be purchased through the respective organizations listed in sub. (3).

(3) ADOPTION OF STANDARDS. The standards referenced in pars. (a) and (b) are hereby incorporated by reference into this chapter.

(a) American National Standards Institute, Inc., 1430 Broad- way, New York, New York 10018, GAS−FIRED TOILETS, Z21.61−1983.

~~(b)~~ NSF International, 3475 Plymouth Road, P.O. Box 130140, Ann Arbor, Michigan 48113−0140, NON−LIQUID SATURATED TREATMENT SYSTEMS, NSF 41−~~1998~~ 2011. (Question-should we update?)