

VERNON COUNTY ZONING

318 Fairlane Dr, Suite 227
Viroqua, WI 54665
Fax: 608-637-5512
Telephone: 608-637-5271

Susan Burkhamer, Administrator

The following pages are forms for Holding Tank Application for Sanitary Permit.

Please Note the following requirements:

- Plans and specifications must be complete and clearly legible, and done in permanent ink
- ON THE INDEX PAGE BE SURE TO CHECK WHICH COMPONENT MANUAL YOU ARE USING IN THE DESIGN**
(99 Version requires Water Meter AND written statement from owner regarding final disposal of contents
– 2007 Version 2 does not require either)
- Plot plan must be drawn to scale (including a scale on the drawing) or dimensioned
- Property boundaries must be marked to (large) parcel size shown
- Include a benchmark and reference to all nearby existing systems or wells.
- A service drive/pad must be located within 25 feet of the tank service manhole and identified on the drawing.
- The following information must be filled in the blanks:
 - Page 1: design flow
 - Page 2: Installer information
 - Page 3: # of Bedrooms and installer information
 - Page 4: Plot plan
 - Page 5: Tank size and any specifications of the tank used

NOTE: If you are using a tank other than a holding tank (i.e. Two compartment septic tank for future conversion), be sure to replace page 5 with a diagram of the specific tank to be installed.
- If you are not using tank anchoring, mark page 6 N/A (Not applicable)
- Page 7, Holding Tank Agreement, must be completed at the top with the name of the Owners, Government Unit (Township) in which it is located, date and legal description. The Town Chairman must sign this document. The property owner must sign before a Notary Public. The agreement must then be recorded with the Register of Deeds at the Vernon County Courthouse (Fee Required). **THE RECORDED DOCUMENT MUST BE INCLUDED AS PAGE 7.**
- This is the design package – An application for State Sanitary Permit must be attached.
- Make check(s) payable to Vernon County Zoning
- County Holding Tank Plan Review Fee \$100.00
- Sanitary Permit Fee \$350.00

HOLDING TANK SEPTIC DESIGN
INDEX AND TITLE SHEET

Designed pursuant to the Holding Tank Component Manual

() SBD-10571-P (R.6/99) (REQUIRES WATER METER)
() Version 2.0, SBD-10855-P (N.03/07)

Plumber's/Licensed Designer's Name: _____
Address: _____
City/State/Zip: _____
Telephone: _____
Owner's Name: _____
Owner's Address: _____
City/State/Zip: _____
Property Address: _____
Subdivision/Lot: _____
Section/Township & Range: _____
Town of: _____ Parcel #: _____

INDEX COVER SHEET

PAGE:	# or N/A	
_____		HOLDING TANK SYSTEM USER'S MANUAL
_____		HOLDING TANK MANAGEMENT PLAN
_____		PLOT PLAN
_____		HOLDING TANK CROSS SECTION
_____		TANK ANCHORING CALCULATIONS
_____		HOLDING TANK AGREEMENT

Plumber's/Designer's Signature _____

Date _____

Credential Number _____

**Private On-Site Wastewater Treatment System (POWTS)
HOLDING TANK SYSTEM - USER'S MANUAL**

A. SYSTEM OPERATION:

The holding tank system serves to contain wastewater on a site until the contents are pumped and hauled to a proper point of disposal by an individual certified under Wisconsin Administrative Code Chapter NR114.

Wastewater from your interior plumbing system enters the building sewer that terminates at the inlet of a prefabricated concrete holding tank system. The tank system has a switch that is set to activate when the liquid level reaches a point 12" below the tank inlet. The switch activates a high water alarm located inside a tank alert box that is installed on a pedestal or inside the dwelling. When the tank is full of wastewater, the switch will be activated and cause an audible alarm to sound. A switch located on the tank alert box can turn off the audible alarm. The liquid waste carrier contracted to service the holding tank system should be called immediately after the alarm is switched off. There is only a limited reserve capacity left in the holding tank system after the alarm has been activated.

B. DESIGN FLOW:

The holding tank system has a total wastewater capacity of 2000 gallons. Servicing intervals cannot be predicted, as every household has varying water use habits. Use of water conserving fixtures and water conserving practices will increase the number of days before the tank needs to be serviced by a liquid waste carrier.

C. WARNING:

Failure to have the holding tanks serviced on a timely basis may cause wastewater to back up into the dwelling and/or discharge from the holding tank's manhole cover. The discharge of sewage to the surface of the ground is a public health hazard and subject to enforcement action by Pierce County.

Soil settling around the tank perimeter may occur after it has been backfilled. All depressions caused by soil settling should be filled with soil material to prevent surface water collection. Depressions left unfilled may allow surface water to freeze and cause frost damage to the manhole riser ring joints or the other tank components.

Do not drive over or near the buried holding tank system with any vehicle or construction equipment. This action may result in a cracked tank(s). This type of damage may allow groundwater to enter the holding tank(s) and increase the frequency of pumping.

Many disease-causing viruses, parasites, and bacteria are present in the holding tank's wastewater. Even the slightest exposure to wastewater may adversely affect one's health and increase the risk of serious illness.

Please note that the owner of this POWTS must provide the septic servicing operator with reasonable access to the tank(s). This may include (but is not limited to) construction of a designated drive or servicing pad to within 25 horizontal feet and/or to within 15 vertical feet to bottom of the tank(s), foot traffic over and through property, or vehicle traffic over and through property.

D. TROUBLE-SHOOTING

1. Wastewater backs-up or overflows manhole cover:
 - a. High water alarm not working.
 - b. Tanks not pumped.
2. High water alarm not working:
 - a. Tank alert box not plugged into electrical outlet.
 - b. Audible alarms switch on silent mode.
 - c. Tank switch installed improperly or defective.
 - d. Tank switch electrical connections faulty.
 - e. Electrical line to switch defective.
3. Groundwater entering tank:
 - a. Tank manhole riser ring joints leaking.
 - b. Tank sidewalls or base cracked.

**Private On-Site Wastewater Treatment System (POWTS)
HOLDING TANK SYSTEM - USER'S MANUAL (Continued)**

E. MAINTENANCE:

1. The tank alert box has a test button that should be pushed once a month to assure the high water alarm system is working properly.
2. The float containing the high water alarm switch may need to be cleaned whenever scum or solids build up on its outer surface. Accumulation of solids on the float may interfere with switch activation.
3. All manhole covers padlocks should be oiled or greased periodically to ensure free movement of lock components.
4. The locking device should be inspected after each tank servicing to prevent unauthorized entry.

F. CONTINGENCY PLAN IN THE EVENT OF FAILURE:

A badly cracked holding tank may need to be replaced depending upon the amount of damage and the crack's location. The tank manufacturer should be contacted to make a determination as to whether the tank can be repaired or needs replacement. Groundwater may enter the cracked tank requiring more frequent servicing by the contracted liquid waste carrier until the tank is repaired or replaced.

G. CONTACTS IN THE EVENT OF COMPONENT FAILURE

REGULATORY AGENCY: Vernon County Zoning and Sanitarian
 Erlandson Building, 318 Fairlane Dr., Room 227,
 Viroqua, WI 54665
 (608) 637-5271

NAME OF INSTALLER: Name: _____
 Address: _____

 Phone: _____

**Private On-Site Wastewater Treatment System (POWTS)
HOLDING TANK MANAGEMENT PLAN**

This Private Onsite Wastewater Treatment System (POWTS) has been designed, and is to be installed and maintained according to Comm. 83, Wis. Admin. Code, the Holding Tank Component Manual (version 1 SBD-10571-P 6/11/1999 or version 2 SBD-10855-P 3/2007) and Vernon County Sanitary Code.

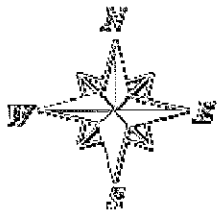
1. This POWTS is designed to accommodate all wastewater generated by a 3 bedroom residence.
2. The owner of this POWTS is responsible for system operation and maintenance, including all provisions in the attached Holding Tank Maintenance Agreement.
3. Each time the wastewater in the tank reaches 90% of the tank(s) capacity or a level of 12" below the inlet (at which time the alarm will activate), a licensed septage pumper must be called to empty the tank's contents and dispose of them in accordance with NR 113, Wis. Adm. Code.
4. At each service event, the service provider should visually inspect the condition of the tank, risers and manhole cover(s) and verify that the alarm system functions and manhole locking devices are present. Discrepancies are reported to the owner in a timely manner for corrective action. All corrective actions shall comply with the county sanitary ordinance and Comm. 83 and 84 Wis. Adm. Code.
5. Service events or inspections of this POWTS shall be reported to the county at least once every three years.
6. The owner may not remove any of the wastes from the holding tank(s), or cause such wastes to be removed by any person not authorized to do so under Ch. 281, Wis. Statutes. The discharge of wastes tank to the ground surface, including intentional discharges and discharges caused by neglect, constitutes a failing POWTS and may result in issuance of correction orders or a citation by the county or state.
7. No one should enter a holding tank for any reason without being in full compliance with OSHA standards for entering a confined space. The atmosphere within these tanks may contain lethal gases, and rescue of a person from the interior of the tank may be difficult or impossible.
8. In the event that this POWTS fails and cannot be repaired, a code compliant replacement holding tank may be installed in the same location (a new sanitary permit is required for such a replacement). Connection to municipal services would also be considered at this time if they are deemed available to the property.
9. If this POWTS is replaced, or its use discontinued, components no longer in use it shall be abandoned in accordance with Comm. 83.33 Wis. Adm. Code.
10. If there is a problem with, or question about this installation, the following persons should be contacted:
 - a. Installer: _____ Phone: _____
 - b. Service Provider: _____ Phone: _____
 - c. Regulatory Agency: Vernon County Zoning and Sanitarian
Erlandson Building, 318 Fairlane Dr., Room 227,
Viroqua, WI 54665
(608) 637-5270

PLOT PLAN

FILE INFORMATION

PROPERTY LOCATION

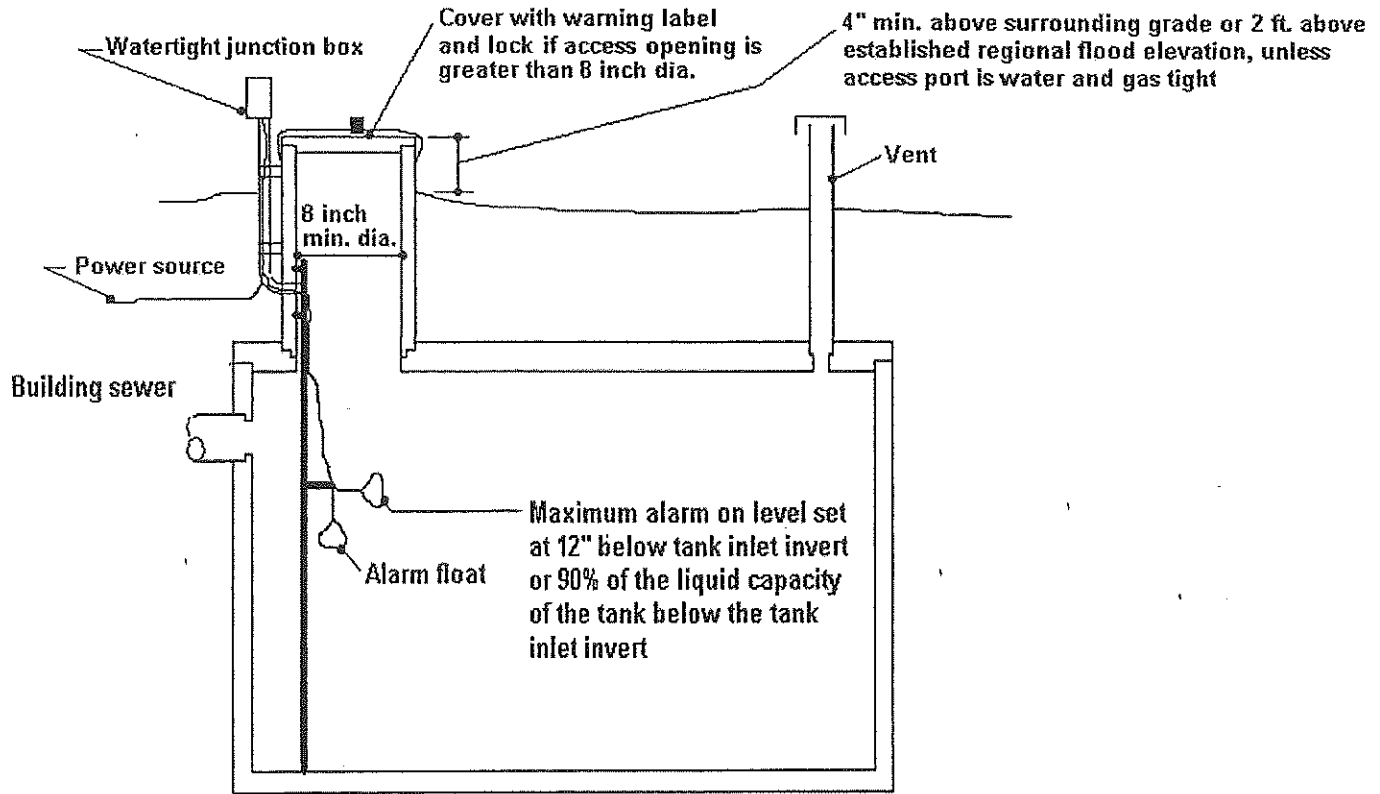
Owner	_____ ¼, _____ ¼, Section _____, T_____ N, R_____ E or W
Tax Parcel ID #	<input type="checkbox"/> City, <input type="checkbox"/> Village, <input type="checkbox"/> Town of _____, Vernon County, WI



Plot plan area (empty)

Private On-Site Wastewater Treatment System (POWTS)

HOLDING TANK CROSS SECTION & SPECIFICATIONS



(If needed, insert different drawing to illustrate elevations, etc.)

**Private On-Site Wastewater Treatment System (POWTS)
TANK ANCHORING CALCULATION**

Per Comm. 83.43(8)(g), Wis. Adm. Code, all tank(s) must be anchored whenever they are at risk for being installed in an area where they may be located in saturated conditions all/part of the year. Using soil as the anchor has become an acceptable alternative to concrete.

Flotation potential is the displacement of the tank calculated by its volume in cubic feet.

Line A: Calculate cubic feet of tank.

___ inches high, x ___ inches wide, x ___ inches long, = ___ cubic inches.

Divide this number by 1728 to equal _____ cubic feet.

Line B: Convert the displacement to the weight of water.

_____ (from line A) cubic feet x 62.4 (weight of 1 cubic foot of water) x 1.5 (safety factor) =
_____ lbs. of lift potential.

Line C: Calculate weight needed to counter buoyancy.

_____ lbs. (Displacement weight from line B.) - _____ lbs. (weight of tank per manufacturer) = lbs. of soil needed to anchor tank: ___ lbs.

Line D: Weight of the soil media including safety factor needed over the tank to anchor the tank adequately.

Tank cover width ___ inches x tank cover length _____ inches, divided by 144 = _____ square feet x 0.083
(1 inch in foot decimal) = _____ cubic feet (volume of 1 inch of space over the tank cover).

Line E: Calculated weight of 1 inch of space over entire cover.

_____ cubic feet of space (from line D) x 100 lbs./cubic foot of = _____ lbs./inch space above cover .

Line F: Calculate inches of soil needed to counter buoyancy.

_____ lbs. (from line C) divided by ___ lbs. per inch of soil (from line E) = ___ inches need over tank cover.

TANK ANCHORING CALCULATION

Per Comm. 83.43(8)(g), Wis. Adm. Code, all tank(s) must be anchored whenever they are at risk for being installed in an area where they may be located in saturated conditions all/part of the year. Using soil as the anchor has become an acceptable alternative to concrete.

Tank Manufacturer: _____

Tank Model: _____

Tank Width _____

Tank Length _____

Water Level _____

FLOATATION CALCULATIONS:

Water Weight 62.4# per cu. Foot
10% safety factor

Width	x	Length	x	Water Height	x	Water Weight	=	_____	A
8.5						62.4			
Plus 10% Safety Factor				A x .10				_____	B
Total # of Lift								<input type="text"/>	A + B

BALLAST CALCULATIONS

Dirt Weight 110#/ cu. Foot

Width	x	Length	x	Dirt Cover	x	Dirt Weight	=	_____	C
8.5						110			
				Cover Ballast				_____	C
				Tank Weight				_____	D
				Total Ballast				<input type="text"/>	C + D

Total Ballast is equal to or exceeds Total Lift? _____

