WRA 01.08

Legal Update

A WRA Publication Exclusively for the Designated REALTOR®

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Private Sanitary System Contingencies & Comm 83

The Wisconsin Department of Commerce (DComm) adopted a fully revised version of Comm 83, Wisconsin's private septic system code, on July 1, 2000. Comm 83 has been the subject of ongoing litigation. A lawsuit filed by the League of Wisconsin Municipalities, the Wisconsin Alliance of Cities, and 1,000 Friends of Wisconsin claims that DComm, among other things, failed to prepare an adequate environmental impact statement. The WRA and other groups hired independent legal counsel to help defend against the lawsuit. On Feb. 14, 2001, Dane County Circuit Court Judge Nichol ruled that the Environmental Impact Statement was sufficient and that changes to Comm 83 were proper.

Although Judge Nichol's decision was appealed on April 9, 2001 to the Wisconsin Court of Appeals, the new Comm 83 is presumed to be valid unless a court declares otherwise. For more details on this litigation, see the WRA REALTOR® Resource Page for Comm 83 - Septic System Bill at http://www.wra.org/Resources/resource_pages/Comm83_resources.htm. A copy of Comm 83 may be obtained online at http://www.legis.state.wi.us/rsb/code/comm/comm083.pdf, or see the WRA Legal Services web page link to the Wisconsin Administrative Code at http://www.wra.org.

The new Comm 83 brings with it some new terminology. Rather than refer to private septic systems or private sanitary systems, it introduces the term "private onsite wastewater treatment systems," or POWTS.

The new Comm 83 affects the way REALTORS® will deal with private sanitary system contingencies and POWTS in general. This *Legal Update* overviews some of the provisions of Comm 83 and examines this impact.

First, the existing WRA Private Sanitary System Inspection Contingency is reviewed. This contingency is affected by Comm 83 with respect to the appropriate professionals who are engaged to inspect existing POWTS. The review standard employed by POWTS inspectors is also reviewed. Second, the contingency for Septic System Suitability found in the WB-13 Vacant Land Offer to Purchase is discussed. This contingency is affected by all of the new, non-conventional POWTS designs that may be approved under Comm 83. A discussion of the basic operational mechanics of a POWTS is followed by a review of the different types of POWTS now available for approval and use under Comm 83. The *Update* concludes with an overview of some of the other new features of Comm 83 including the required POWTS maintenance and reporting.

Comm 83 Overview

The purpose of Comm 83 is to establish minimum standards and criteria for the design, installation, inspection and management of a private onsite wastewater treatment system, POWTS, so that the system is safe

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and will protect the public. "Domestic wastewater" is wastewater normally discharged from the plumbing system of residential or small commercial buildings, including, but not limited to, sanitary, bath, laundry, dishwashing, garbage disposal and cleaning wastewaters. Comm 83 applies to a POWTS where domestic wastewater is treated and dispersed to the subsurface, and to a POWTS where a holding tank is used to collect and hold domestic wastewater for transport and treatment elsewhere. Comm 83 does not apply to a POWTS owned by the federal government and located on federal lands or a POWTS located or to be located on land held in trust by the federal government for Native Americans.

Comm 83 does not dictate the selection of certain POWTS, and instead sets parameters, options, prohibitions, and limitations for the design of POWTS.

The new POWTS may require a minimum of six inches of in situ soil, rather than the 24 inches of in situ soil required by conventional systems.

As a consequence of this flexibility, Comm 83 allows the use of five new categories of POWTS. Unlike conventional systems that rely upon the soil to treat wastewater, the new POWTS systems contain filtering devices that remove organic material and bacteria from wastewater before it is released into the ground. Because of the effectiveness of these filtering devices, the new POWTS may require a minimum of six inches of in situ soil (native or naturally occurring soil), rather than the 24 inches of in situ soil required by conventional systems. The new systems generally have been approved by the United States Environmental Protection Agency (EPA) and the Wisconsin Department of Natural Resources (DNR) and have been used for years in states like Minnesota and Michigan.

In addition to the new systems that will be made available, the proposed rule contains the following important provisions:

- Allows counties to delay usage of new system designs for new development until January 1, 2003. Counties, however, cannot delay the use of these designs for replacement systems.
- Requires plan approval and a sanitary permit before the installation of a POWTS may begin; local governmental units would still be required to review plans employing "conventional" technology for residential projects while plans for commercial projects or projects employing technologies not previously recognized would be reviewed by DComm. Plans using other types of "pre-recognized" solutions would be reviewed by either the local governmental unit or DComm depending upon where the submitter wanted the service to be performed and if the local government unit had opted to provide this service as an agent of the department.
- Requires the testing of components before the system is put into service.
- Improves inspection and maintenance requirements. The proposed code requires property owners to maintain a maintenance or service contract with a professional maintenance provider meeting the state maintenance requirements. In addition, property owners must provide a copy of the maintenance report to DComm or the county, if applicable, within 10 business days from the date of the inspection, maintenance, or servicing.
- Authorizes municipalities to prohibit the use of holding tanks, constructed wetlands, and evapotranspiration beds.

Private Sanitary System Inspection Contingency

The Private Sanitary System Inspection Contingency appears in the WRA's Addendum B to the Offer to Purchase. Addendum B is most typically used in transactions involving rural properties and other properties not served by municipal sanitary and water systems. The Private Sanitary System Inspection Contingency is one of the optional provisions that must be marked in order to be included in the offer to purchase. The Private Sanitary System Inspection Contingency also appears in substantially the same form in the WB-12 Farm Offer to Purchase. See *Legal Update 99.04* for further discussion of Addendum B, and see *Legal Update 99.07* for further discussion of the farm offer.

The Private Sanitary System Inspection Contingency provides:
"This Offer is contingent upon **(Buyer obtaining)(Seller providing) [STRIKE ONE]** no later than, ___ days after acceptance, a current report from a county sanitarian, licensed master plumber, licensed master plumber-restricted sewer, licensed plumber designer, licensed engineer, licensed plumbing inspector II, or a certified soils tester, which indicates that the private sanitary system is not disapproved for current use. The party responsible for obtaining the report(s), shall be responsible for all costs, other than pumping. The private sanitary system is to be pumped at time of inspection at Seller's expense.

"Contingent Satisfaction / Right to Cure
Each contingency selected above (well water, well system or private sanitary system) shall be deemed satisfied unless Buyer, within five days of the earlier of 1) Buyer's receipt of the applicable water, well or sanitary system report(s) or 2) the deadline for delivery of said report(s), delivers to Seller and Seller's agent, a copy of the report(s) and a written notice stating why the report(s) do(es) not satisfy the standard set forth in the contingency(ies) selected. Seller **(shall) (shall not) [STRIKE ONE]** have the right to cure. (Seller shall have a right to cure if no choice is indicated.) If Seller has the right to cure, Seller may satisfy this contingency by 1) delivering a written notice of Seller's election to cure within 10 days of receipt of Buyer's notice; and 2) by curing the defects in a good and workmanlike manner which satisfies the standard set forth in the above-selected contingency and by giving Buyer a report of the work done prior to closing. This Offer shall be null and void if Buyer makes timely delivery of the above notice and report and 1) Seller does not have the right to cure; or 2) Seller has a right to cure; but a) Seller delivers notice that Seller will not cure, or b) Seller does not timely deliver the notice of election to cure. A private sanitary system defect may be cured only by repairing the current private sanitary system or by replacing the current private sanitary system with the same type of system which meets the standard stated above, unless otherwise agreed to in writing."

The Private Sanitary System Inspection Contingency is modeled after the optional inspection contingency in the residential offer to purchase. The parties indicate which party will provide the necessary inspection report and specify when the buyer must receive it. The offer is made contingent upon either the seller providing or the buyer obtaining, by the stated deadline, a current report from a county sanitarian, licensed master plumber, licensed master plumber-restricted sewer, licensed plumber designer, licensed engineer, licensed plumbing inspector II, or a certified soils tester. The expert's report must indicate that the private sanitary system is not disapproved for current use. The private sanitary system must be pumped at the time of the inspection, at the seller's expense. The party responsible for obtaining the report shall pay all other costs.

The contingency requires that a specific type of professional or expert inspect the private sanitary system to determine whether the stated standard is met. The professionals and the inspection standard presently listed in the Private Sanitary System Inspection Contingency were suggested by DComm.

Certified Inspectors

Although some of the titles have changed, the credentialed individuals listed in the Private Sanitary System Inspection Contingency are qualified to inspect at least some parts of an existing POWTS system, but not necessarily all of it. For example, a certified soil tester may be qualified to determine if a POWTS system is properly sited above a limiting condition such as groundwater or bedrock, but may not be qualified to attest to the structural stability of a septic tank or the adequacy of related piping material. Another credentialed individual not listed in the contingency — a certified septage servicing operator (pumper) — may be qualified to examine a septic tank, but may not be able to attest to the adequacy of the drainfield or to whether the soil is acceptable. Of course, many individuals carry multiple credentials and may be qualified to provide the level of inspection service that is desired.

Because of all of these variables, REALTORS® must be careful when helping clients and customers find the proper certified personnel to conduct private sanitary system inspections. It may be prudent to not only confirm what credentials the person has, but also to discuss the type of system to be inspected with the contractor to try to see whether his or her expertise is sufficient with

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respect to each component in the POWTS.

The current terminology for the appropriate credential-holders at DComm is as follows. These are the professionals who should be considered for performing private sanitary inspections under the inspection contingency.

- Master Plumber: Installs plumbing and submits plans for plumbing systems when that person is responsible for the installation (certified by DComm).
- Master Plumber - Restricted Service: Installs or modifies POWTS, building sewers, and private interceptor main sewers; also works with water services and private water mains (certified by DComm).
- Plumbing Designer: prepares plans and specifications; consults, investigates and evaluates plans and specifications in the fields of plumbing systems and private sewage systems (licensed by the Department of Regulation and Licensing).
- Engineer: Provides professional service requiring the application of engineering principles and data where the public welfare or the safeguarding of life, health or property is concerned and involved, such as consultation investigation, evaluation, planning, design, or responsible supervision of construction, alteration, or operation, in connection with any public or private utilities, structures, projects, bridges, plants and buildings, machines, equipment, processes and works (licensed by the Department of Regulation and Licensing).
- POWTS Inspector: Inspects POWTS for the purpose of administering and enforcing the provisions of Chapters Comm 81 to 87, as an authorized representative of DComm or a county (certified by DComm).
- POWTS Maintainer: Evaluates and monitors POWTS components for the purpose of providing the management of a POWTS (certified by DComm).
- Soil Tester: Conducts soil evaluations relative to the discharge or disposal of liquid domestic wastes into the soil (certified by DComm).
- Septage Servicing Operator: Removes septage from a septic tank, soil absorption field, holding tank, etc. and disposes of or recycles the septage (certified by the DNR).
- County Sanitarian: This is a general title conferred by the counties for individuals who carry one or more of the credentials listed above and meet other qualifications established by the county.

For information about the criteria needed for these credentials, go to http://www.wisconsin.gov/state/app/license?COMMAND=gov.wi.state.cpp.license.command.LoadLicenseHome. Lists of persons currently holding these credentials may be found at: http://www.commerce.state.wi.us/SB/SB-CredentialsList.html#plumbing

"Not Disapproved for Current Use"

The enactment of Comm 83 does not change the fact that the inspection of existing POWTS, in the past and present, is an unregulated activity, at least at the state level. There are a few local ordinances that require some level of inspection of existing POWTS at the time of a real estate transfer. Although there is ongoing discussion about standardizing POWTS inspection procedures, at present the level of detail involved in the inspection is basically left to the parties involved.

The Private Sanitary System Inspection Contingency provides that the private sanitary system needs to be shown to not be disapproved for current use. REALTORS® sometimes express frustration with that standard, noting that the standard is too low and that a system that is not disapproved for current use may still have problems. Sometimes parties or REALTORS® suggest a private sanitary system should be measured against current code or the code at the date of installation.

Despite these objections, the standard of "not disapproved for current use" is consistent with the new Comm 83, which does not apply the new POWTS standards retroactively to systems installed before July 1, 2000. It is DComm's position that the practice of holding an existing POWTS to current code standards will often lead to the modification or replacement of perfectly acceptable systems that were legally installed years ago, but do not measure up to current standards. Accordingly, Wis. Admin. Code § Comm 83.03(2) states "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 . . .." There are a couple of exemptions relating to a two-foot (rather than three-foot) vertical soil separation distance for systems installed prior to Dec. 1, 1969, and to mandatory maintenance and reporting requirements, but generally older systems should be measured against the rules that were in effect at the time they were installed rather than against the current code.

While "not disapproved for current use" may appear ambiguous, DComm finds that it allows some helpful discretion. It is important that a certified individual focuses more on whether the system is effectively treating and recycling wastewater and protecting public health and the environment, than on whether the technical requirements of a code are met (i.e. whether the correct piping material was used for a repair or whether a septic tank has the exact minimum capacity required).
Therefore, parties wishing to employ

higher standards in the Private Sanitary System Inspection Contingency may consider substituting the applicable code standards at the time of installation in place of the "not disapproved for current use" language. Measuring an existing POWTS against current code is generally not recommended. The "not disapproved for current use" language in the Private Sanitary System Inspection Contingency is regarded by DComm as a practical, completely adequate approach.

Sanitary District Provision

Addendum B includes another provision that refers to sanitary systems, only this time the parcel is located within an established sanitary district.

In this provision, the buyer is notified that the property may be located in a sanitary district which may impose taxes, special assessments or other charges for sewer planning and construction, user fees, or other costs upon the owner of the property. The buyer is encouraged to contact the sanitary district officials to inquire about such potential costs.

Vacant Land Septic System Suitability

Land that is the subject of a WB-13 Vacant Land Offer to Purchase may be purchased because the buyer intends to develop it by building a house, a subdivision, a condominium, or another development project. Some of the potential developmental concerns facing a prospective buyer are addressed in the Proposed Use Contingency on the last page of the vacant land offer.

Proposed Use Contingency

The optional Proposed Use Contingency is comprised of a list of contingencies for subsoil conditions hindering development; subsoil conditions suitable for a septic system; easements, covenants and restrictions; permits, licenses, and approvals; and utility connections. At the beginning of this contingency, the buyer states his or her proposed use of the property and is instructed to check the optional contingency items that apply. For each contingency item that is selected, the contingency is deemed satisfied unless the buyer, within a specified number of days after acceptance, gives the seller written notice of the items that have not been satisfied, and written evidence showing why the contingency item(s) cannot be satisfied. The seller is not provided with a right to cure in the vacant land offer, so if the parties desire such a provision, it will have to be added in an addendum.

"**PROPOSED USE CONTINGENCY**: Buyer is purchasing the property for the purpose of: ________________________________.
This Offer is contingent upon Buyer obtaining the following:
Written evidence at **(Buyer's) (Seller's) [STRIKE ONE]** expense from a certified soils tester or other qualified expert that indicates that the Property's soils at locations selected by Buyer and all other conditions which must be approved to obtain a permit for an acceptable private septic system for: ________________________________ [insert proposed use of Property, e.g., three-bedroom single family home] meet applicable codes in effect as of the date of this offer. An acceptable system includes all systems approved for use by the State for the type of property identified at line 277. An acceptable system does not include a holding tank, privy, composting toilet or chemical toilet or other systems excluded in additional provisions or an addendum per lines 179-188 (e.g. mound system)."

Septic System Suitability

This portion of the Proposed Use Contingency permits the buyer to obtain written evidence from a certified soils tester (or other qualified expert) that the soils and other conditions meet the applicable code requirements for the installation of an "acceptable private septic system" that is appropriate for the buyer's proposed property use. The proposed use, such as a three-bedroom single-family house, bar and restaurant, six-bedroom duplex, etc. would be written into the contingency in the space on line 277. The drafter must indicate whether this information will be obtained at the seller or buyer's cost.

What is or is not an acceptable system is up to the discretion of the parties. The contingency states that an "acceptable system" does not include holding tanks, privies, composting or chemical toilets, or any other type of septic system designated in the offer as not acceptable. This means that the buyer may modify this provision. If the buyer believes that a holding tank is an acceptable system, the buyer may cross out the reference to "a holding tank" on line 279. If the buyer believes that evapotranspiration beds and constructed wetlands are not acceptable systems, the buyer will need to write this into the offer under Additional Provisions or in an addendum to the offer. It is up to the buyer to define what is an acceptable system by listing all of those types of systems that are not acceptable.

> Buyers should talk with POWTS professionals to determine what are the best systems for a particular property.

What is and is not an acceptable POWTS is a new question with the enactment of the new Comm 83 because it authorizes the components necessary for five new categories of POWTS. The buyer may need to be educated about these new possibilities before he or she can intelligently decide what types of POWTS are not acceptable. Buyers should talk with POWTS professionals to determine what are the best systems for a particular property.

Before reviewing the old and new categories of POWTS now potentially available, it is necessary to understand the basic functions processes involved in a POWTS.

POWTS Treatment and Disposal Processes

All onsite sewage system designs use the same basic processes to treat and dispose of domestic wastewater: separate solids, remove organic material, and reduce the number of bacteria. The difference is that some use media other than native soil to treat wastewater, in contrast to the conventional system, which requires three feet of native soil for the treatment and dispersal of wastewater.

1. Material Separation

This process occurs in the septic tank when wastewater divides into three zones. The top zone is composed of fats, oils, grease, and other materials that will float. The bottom layer is the denser, heavier solids. The middle layer is clarified or semi-clear wastewater, composed of dissolved and suspended organic (of animal or vegetable origin) and inorganic (artificial) material, and microorganisms.

2. Biological Oxidation of Organic Materials

Onsite sewage systems remove organic materials from wastewater with microbial organisms. Anaerobic (active in the absence of oxygen) biological consumption occurs in a septic tank. Aerobic (occurring only in the presence of oxygen) biological consumption occurs in the soil or in an aerobic treatment chamber. As the wastewater continues to pass through the soil, the microbe colonies are fed and will grow. These colonies stimulate the growth of other life forms, which use the simpler life forms as food sources. In an onsite sewage system properly designed and operated, the soil treatment component becomes a self-regulating ecosystem that consumes organic material, leaving a byproduct that is much like the material found on a forest floor.

3. Nutrient Immobilization and Uptake

Nutrients, such as nitrogen, chloride, phosphorous, calcium, sodium, and potassium are captured and removed in different ways. Some nutrients will react with minerals in the soil, forming new compounds that are insoluble. Other nutrients are attracted to and held in place by soil particles until they are either released or consumed. Evaporation will immobilize certain nutrients. Nutrients such as nitrogen, phosphorous, potassium, calcium, and sodium are taken in by plant and animal life, which use the nutrients to grow and reproduce.

4. Disinfection

Pathogenic (disease-producing) substances can be inactivated by exposing them to certain combinations of oxygen, temperature or light. Sewage can also be disinfected with chemicals, such as chlorine or ozone. Also, dilution is effective for certain substances, like nitrate, that only cause adverse effects at elevated concentrations.

5. Water Disposal

Effective water disposal is critical to the proper functioning of an onsite sewage system. Inadequate water disposal can cause ponding of wastewater that may promote mosquito growth, create safety hazards such as ice dams and soft spots and, if the wastewater is not fully treated, a health hazard.

6. Byproduct Disposal

Virtually all wastewater treatment systems create "septage:" byproducts such as the grit, solids, and scum that cannot be treated in septic tanks. Septage that cannot be treated onsite must be hauled elsewhere for treatment and / or disposal.

POWTS Components

The treatment and disposal processes are achieved in a POWTS with several similar components that can be combined in a variety of ways to make different types of onsite sewage systems.

Septic Tanks

A septic tank is an anaerobic biological treatment and clarification chamber. Newer septic tank designs include an influent baffle that retains floating material in the septic tank and an effluent filter that reduces the likelihood that solids, fats, greases, oils and larger suspended solids will leave the septic tank. Septic tanks only partially treat the substances found in raw domestic wastewater.

Pumping Systems

A pumping system is designed to move the water from one component of the onsite system, e.g. the septic tank, to another component where wastewater is dispersed for treatment and / or disposal. The pumping system has three basic elements: the pump, the pump chamber, and the distribution piping.

Monitoring Components

The typical conventional onsite sewage system has observation ports for viewing the bottom of the distribution surface (beds or trenches) where effluent is distributed to the soil. A system is considered to be properly functioning if the trench is not continuously ponded. A system is considered failing if effluent erupts to the ground surface or the septic tank contents back up into the building. Tank levels and monitoring wells must be periodically checked to see if water is ponding.

Pressure distribution components and holding tanks are equipped with alarms that warn users when the tank is too full. Alarms also are used to indicate that pumps must be repaired or that a holding tank needs to be pumped.

Disinfection Units

There are three types of non-soil disinfection units in use: chlorination units, ozonation units, and ultraviolet units. Chlorination units use some form of chlorine, most commonly hypochlorite, to kill pathogens in the wastewater stream. Ozonation units introduce ozone, a highly reactive form of oxygen into the wastewater. Ultraviolet units use ultraviolet light to kill the pathogens. Unlike soils, these units are controlled, engineered devices with known operational parameters and capabilities, but they are also maintenance- and input-intensive.

Types of POWTS

A POWTS is an assemblage of components that together treat and disperse domestic wastewater. All of the systems described below, with the exception of holding tanks, have at least one type of treatment chamber and a system that disperses water from the treatment chamber into soil for additional treatment and dispersal.

A POWTS is an assemblage of components that together treat and disperse domestic wastewater.

Conventional POWTS that discharge septic tank effluent directly to soil for treatment typically require a minimum vertical separation (soil depth) of 36 inches. This means that the soil into which wastewater from the treatment component is dispersed must be at least 36 inches deep, that is, at least 36 inches above bedrock or groundwater. In conventional systems, this 36 inches is in situ soil (soil that naturally exists at the site), which must have certain physical characteristics. In mound and other systems, where the in situ soils are not sufficiently deep or lack adequate physical characteristics, additional fill (soils selected for their water dispersal capability) are added to establish the necessary thickness of appropriate soils for this treatment and dispersal component.

POWTS that discharge effluent which has been "pre-treated" to a quality higher than that produced by a standard septic tank can complete the treatment with reduced vertical separation. Such systems include those using aerobic treatment units or sand filters.

All onsite sewage systems are prone to variability in performance. The amount of wastewater coming into the system varies widely because it is dependent on household activities. For example, water use frequently increases on weekends in some households. Because of this variation, the amount of water dispersed to the soil also varies widely. Systems can fail to accept discharges and cause surface ponding or even backups of sewage. Periodic maintenance and inspection is one the primary means of ensuring that onsite systems perform as intended.

The following discussion divides the different categories of POWTS permitted under the new Comm 83 into three categories: traditional POWTS, new POWTS, and POWTS subject to prohibition by municipal ordinance. Diagrams and further description of most of these POWTS types can be found at http://www.wra.org/pdf/government/landuse/Onsite_System_Descriptions.pdf.

Traditional POWTS

These POWTS will generally be the most familiar because they were permitted prior to July 1, 2000. These POWTS include the conventional onsite sewage system, in-ground pressure distribution systems, mound systems, and at-grade systems.

Conventional Onsite Sewage Systems

A "conventional" system consists of a septic tank for primary clarification and distribution pipes that transport clarified wastewater by gravity onto a soil absorption area for treatment and dispersal. In Wisconsin, conventional systems can be used where the native soils are of a depth, texture, and structure to provide at least 36 inches of unsaturated, permeable soil between the bottom of the infiltrative surface - the area where clarified effluent drains out of distribution pipes - and either bedrock or high groundwater. The bottom of the infiltrative surface is typically about 20 inches below the ground surface. Thus conventional systems may require at least 56 inches of unsaturated in situ soil between the surface and groundwater or bedrock. If all conditions are within the capacity of the system, conventional systems effectively remove organic materials and disinfect the wastewater before it reaches groundwater or bedrock.

Conventional systems have few controls. There are no methods to control the flow entering the septic tank or the soil. The loads discharged to the soil vary with the amount of time the wastewater has been allowed to settle in the septic tank, which is a function of the flow into the septic tank. If grease, oil, scum, or solids are washed through the septic tank, or excessive organic material is in the water, the biomat and soil will eventually clog, resulting in surface eruption or backup into the plumbing.
The effectiveness of conventional systems also depends on the type and permeability of native soils, the slope and drainage pattern of the site, the depth to groundwater, the system's proximity to wells or springs used for water sources, and the distance from surface waters.

The conventional onsite sewage system is the most common type in Wisconsin and nationwide because it is the simplest and most economical system to install and maintain. A conventional onsite sewage system should provide continuous service provided minimal maintenance is provided. The septic tank must be periodically pumped and checked for watertightness. The soil absorption field must be checked for continuous ponding, an indication of system failure. If there is ponding, either water usage must be lowered, or the soil absorption area must be expanded.

In-Ground Pressure Distribution Systems

In these systems, the septic tank and soil components function like those in conventional systems and require a minimum of 36 inches of unsaturated in situ soil above groundwater or bedrock. For pressure distribution systems, the depth of soil above the treatment zone varies with the diameter of the distribution pipes, thus the minimum in situ soil depth ranges from 49 to 53 inches. Pressure distribution is required for soils with lower infiltration rates, i.e. soils with weak or massive structures and higher clay contents.

Unlike conventional systems, however, an in-ground pressure system provides a level of control by discharging the septic tank into a pump chamber, where the water is held and later pumped to and equally distributed over the soil absorption area. Dosing limits the amount applied to the soil at one time. Pump operation strategies include dosing based on the volume of water in the pump chamber, or dosing based on time intervals. Dosing based on volume means that the pumps will activate whenever a preset volume is achieved. Dosing based on time intervals means that pumps will be activated by a timer that delivers a specified volume based on the rated flow of the pumps.

Overheating pumps are one of the mechanical issues that arise with in-ground pressure systems. They are also subject to deterioration of electrical wiring or connections. Deterioration results from exposure to harsh weather or corrosive gasses inside the pump chamber. Pump components wear, and distribution piping, because of its smaller diameter, can become clogged.

Like a conventional onsite sewage system, an in-ground pressure system should provide continuous, lifetime service when minimal maintenance is provided.

Mound Systems

A mound system consists of a septic tank, pump chamber / pressure distribution system, sand fill, and in situ soils. A mound is designed so that clarified effluent is dispersed over sand fill and in situ soils for treatment. The septic tank and pump chamber function as they do in an in-ground pressure system, but rather than discharge wastewater to the soil, the pump chamber discharges it to an above-ground, free-standing sand fill placed upon a plowed area of in situ soil. The primary difference between a mound system and a conventional system is that the soil component is composed of sand fill placed over in situ soil, and the distribution component is above ground. Both, however, have a 36-inch vertical separation above a limiting factor such as bedrock or high groundwater.

Mound systems present unique maintenance issues. First, sand quality affects mound performance. If the sand has an abundance of "fines," which are clay and silt, the mound will bind and not transmit water. Also, the soil interface must not be smeared. Smearing results when the soil is prepared while it is still too moist. Smearing has the effect of sealing soil pores and stopping the flow of water.

Mounds must also be oriented so that water is evenly dispersed as it moves from the mound. If water is concentrated, a puddle could result. And if the soil tends to move water horizontally, not vertically, water may erupt in proximity to the base of the mound. Extending the soil cover will usually abate this problem.

Mounds are allowed in Wisconsin on sites with at least 24 inches of suitable native soil. An advantage of the mound design is that some part of the treatment zone can be elevated above the ground to compensate for site conditions with high groundwater or rocky soils. The mound systems eliminate the need for holding tanks.

At-Grade Systems

These consist of a conventional septic tank, pump chamber / pressure distribution, and in situ soils. Unlike a conventional system where the distribution piping and the infiltrative layer are below ground, in an at-grade system the distribution piping is placed on a prepared bed at ground surface, that is, "at grade." The distribution piping is covered to protect it from freezing and damage. The minimum unsaturated in situ soil below the distribution piping, however, is 36 inches, the same as in a conventional system.

At-grade systems present maintenance issues similar to mounds. If the site is not properly prepared, leakage at the base can result.

New POWTS

These new POWTS options are now permissible because the essential components and technologies integral to these POWTS have approval under Comm 83. These POWTS include the drip irrigation system, aerobic systems, disinfection unit systems, A+4 mound systems, and sand filter systems. The questions and answers found within these descriptions come from DComm.

Drip Irrigation or Drip-Line Dispersal

This is a pressure distribution system that is intended to provide the benefits of an in-ground pressure system and a soil absorption bed. A series of flexible, small-diameter tubes are buried 6 to 10 inches below the ground. This piping receives effluent from either a septic tank or aerobic treatment unit and disperses it to soil. The piping can be buried beneath turf and among stands of trees or other vegetation where traditional soil absorption areas are impractical.

Drip irrigation systems depend upon the use of "emitters" to apply water to the soil. These emitters apply approximately 1.49 gallons of water per hour. To function, the distribution system must be backwashed and periodically flushed. Models come equipped with automatic backwashing / filtering systems. These systems, along with the associated pumps, tanks, and flushing, must be maintained if the system is to function properly.

Aerobic Treatment Units

These are self-contained, biological treatment chambers that may be included in an onsite sewage system. Domestic wastewater is subjected to aerobic conditions in these units to remove organic material and nutrients. These units may also contain filtering devices such as a filter fabric or stone media. Aerobic treatment units are designed to remove most pathogens. A soil treatment and dispersal component is still the necessary final component in a system with an aerobic treatment unit.

Aerobic treatment units have been in use in Wisconsin since 1990. These systems use a small compressor to force air through the wastewater before it is dispersed to the soil. This promotes the growth of bacteria that consume organic substances. These units have been used to rehabilitate clogged conventional systems. Because the bacteria accomplish effective pre-treatment, these systems have been installed on sites with only two feet of native soil.

Studies suggest, however, as little as 12 inches of in situ soil may be sufficient if supplemented with another 12 inches of sand. The soil absorption area may also be downsized due to the higher quality effluent which prevents clogging, depending upon the types of soils present.

Aerobic treatment units present their own unique maintenance issues. First, they must be activated. This can occur naturally but generating a mature microbial colony in the tank may take several weeks. To hasten the process, aerobic treatment units can be "seeded" with cells from another aerobic treatment unit. Because the purpose of the unit is to transform organic material into biomass, aerobic treatment units must be pumped at regular intervals lest they become too full of organisms and fail. Environmental conditions that disrupt this balance will lead to unit failure unless corrected. Manufacturers recommend that these units be inspected every six months or whenever an alarm is activated.

Aerobic treatment systems rely on blowers, pumps, baffles, and tanks, all of which must be inspected and maintained. And, because they rely on electricity, they are prone to upset if power is cut to the blowers and fans. If the power is shut off long enough, the microorganisms will die off, and the tank may have to be pumped and reseeded. In comparison to soil treatment systems, aerobic treatment systems require much more maintenance and are much more susceptible to failure if this maintenance is not applied.

What constitutes a mechanical POWTS treatment component? Does this include the Bio-Microbics Fast, Cromaglass, Whitewater, Multi-flow, Norwecom, etc. type systems that in the past have been approved and allowed or does it include mechanical systems that are of a specialized type of design? What is the definition of a "Mechanical" POWTS?

Mechanical POWTS treatment components primarily consist of aerobic treatment units. They may also include other units such as sand filters where some form of mechanical treatment mechanism or process is involved within another component. For example, some ATU's are self-contained - the entire treatment process is contained in a tank specifically designed for that unit. Others may consist of a treatment component that is designed to be placed inside of another tank that is also serving other treatment processes.

Disinfection Units

There are three types of non-soil disinfection units in use: chlorination units, ozonation units, and ultraviolet units. Chlorination units use some form of chlorine, most commonly hypochlorite, to kill pathogens in the wastewater stream. Ozonation units introduce ozone, a highly reactive form of oxygen into the wastewater. Ultraviolet units expose pathogens to ultraviolet light that kills the pathogens. Unlike soils, these units are controlled, engineered devices with known operational parameters and capabilities, but they are also maintenance- and input-intensive.

A+4 Mound System

Mound systems can be used on a wide range of difficult site conditions. The A+4 mound system, for example, has been demonstrated to perform effectively on sites with as little as four inches of unsaturated in situ soil beneath a layer of organically rich top soil referred to as "the A soil horizon." Thus, the name "A+4." Because the A soil horizon may be as little as one inch thick, these mounds may be used on sites with as little as five inches of unsaturated in situ soil above high groundwater or bedrock that meet specific soil or bedrock conditions.

The depth of an "A horizon" can affect the six-inch minimum. If an "A horizon" is present and it is more than two inches thick, the minimum depth of suitable "in situ soil" will increase proportionately based on the thickness of the "A horizon." For example, if the "A horizon" is five inches thick and there must be four inches of unsaturated soil beneath the "A horizon" then there will be a minimum total of nine inches of suitable "in situ soil."

Sand Filters

Sand filters may be added to an onsite system to treat domestic wastewater as it leaves the septic tank. The filter is layers of sand through which the wastewater either passes once in a "single pass filter" or is recycled a number of times in a "recirculating filter." The filter may be above or below the ground surface. After passing through the sand filter, the wastewater is collected in a pipe for final treatment and dispersal in in situ soil.

Because a sand filter treats domestic wastewater, the depth of in situ soil can be reduced and still provide the same or better treatment as a conventional system using 36 inches of unsaturated in situ soil. Downsizing of the soil absorption area is also possible for sand filter effluent. A minimum 12 inch vertical separation may be used with sand filter effluent, while a 24 inch minimum has been recommended for aerobic treatment units.

Sand filters present maintenance issues similar to mounds and aerobic treatment units. Like mounds, sand quality is essential. If the sand is too fine, the filter will clog. If the filter receives excessive loading, it will pond as the biomat prevents water movement. If insufficient recirculation occurs, the wastewater will not receive full treatment, and the microorganisms may die. Like other types of systems, sand filters are vulnerable to changes in wastewater flow and loading. They are, however, typically engineered to meter flow and recycling cycles to minimize irregularities and maximize treatment. Metering is accomplished by the use of timers and float switches that activate pumps and valves at predetermined intervals or volumes.

Sandfilter technology has been available in the United States for at least 100 years. It is currently used in Massachusetts, Maryland, Washington, Minnesota, and Oregon, where it was developed. Commonly referred to as a "mound in a box," a sandfilter is a buried chamber containing at least two feet of sand. An advantage of the sandfilter is that it is installed below ground, thus promoting ease of landscaping. The system discharges wastewater from the septic tank to the sandfilter, and then to soil. Because the sandfilter replaces two feet of native soil, it reduces or eliminates the elevation of the mound, which promotes easier landscaping. Comm 83 recognizes both single-pass and recirculating sandfilters.

POWTS Subject to Prohibition by Municipal Ordinance

POWTS subject to prohibition by municipal ordinance include holding tanks, constructed wetlands, and evapotranspiration beds. This does not necessarily mean that these types of POWTS cannot be used - they are prohibited only if banned by local ordinance. They may still be used under certain circumstances.

Holding Tanks

Holding tanks provide only incidental anaerobic treatment. They are designed to hold wastewater and must be pumped by septage service operators who transport the wastewater to a waste treatment facility or an approved soil spreading disposal site. Holding tank management is considered problematic by some local governments because of difficulties with ensuring proper disposal of septage. DComm receives anecdotal reports that some septage haulers routinely ignore discharge limits on approved disposal fields, use unapproved disposal fields, or even discharge directly into waterways.

Holding tanks are not desirable for year-round residences. They may be less expensive to install, but usually have much higher maintenance costs than conventional or mound type systems, thus typically will not be chosen unless no other option exists. Conventional systems continue to be preferred on parcels where soil conditions are suitable because they require less maintenance, and are more familiar to owners and installers than other systems currently available.

Are holding tanks still considered the "system of last resort" in the new code?

The new code does not include this provision. However, local governmental units may, by ordinance, ban or limit use of holding tanks. This includes the "system of last resort" provision in a local ordinance.

Will water meters be required for existing structures served by a holding tank system?

§ Comm 83.54(2)(c) states that influent flow meters shall be installed if a POWTS includes one or more holding tanks. This section applies to all holding tank installations - new or replacement. § Comm 83.54(2)(d) lists several methods that may be employed for metering influent flow, including the installation of a meter on the water distribution system.

Constructed Wetlands

A constructed wetland is a biological treatment system that re-creates the structure and function of a wetland.

It consists of a septic tank, one or more wetland treatment cells, and a soil absorption bed. The wetland treatment cell consists of vegetation growing in submerged gravel in a lined bed. The wetland may include animal life and open water. These systems make use of physical, chemical, and biological processes that occur in natural w etlands. As with almost all onsite sewage systems, wastewater treated in a constructed wetland must still be dispersed into a soil component.

A constructed wetland requires a higher level of maintenance, which may make it less suitable for individual residential systems. It must be planted with the proper kind of plants, which must be harvested if the nitrogen and phosphorous removal performance is to be maintained. Like other types of systems, constructed wetlands cannot be overloaded, and they must receive a minimum flow to maintain the plant and animal life in them. Constructed wetlands have been shown to provide effective treatment under a variety of conditions. They are used in Iowa, Minnesota and Canada, in physical settings and conditions that are generally very similar to conditions in Wisconsin.

Aquatic System Variation

Like constructed wetlands, aquatic systems are biological treatment systems, but are constructed in a controlled greenhouse-type environment so that optimal conditions can be maintained throughout the year. In these systems, wastewater is discharged into a series of tanks inhabited by a wide array of plant and animal life that have become acclimated to the flow and loadings produced by domestic wastewater. After treatment in these tanks, the wastewater may be disinfected and/or discharged to a soil dispersal and treatment component.

Aquatic systems require continual maintenance to ensure proper operation, particularly those that incorporate animal life. A variety of parameters must be monitored to ensure that the conditions that support the plant and animal life are sustained. For this reason, they are unsuitable for individual dwellings or small clusters of occupancies. Aquatic systems may be suitable for industrial or larger commercial occupancies where maintenance staff will be in daily to service and monitor the system.

Evapotranspiration Beds

Evapotranspiration is the process of using plants and sunlight to evaporate water and disperse it to the atmosphere. The growing plants take up and immobilize nutrients. The soil ecosystem also immobilizes organic material and nutrients, and provides disinfection of wastewater. When used in combination with an aerobic treatment unit, evapotranspiration beds remove residual water and nutrients. When used in combination with a septic tank, filtration, and pump system, evapotranspiration beds provide both treatment and disposal.

The effectiveness of evapotranspiration beds varies with climate and vegetation. This is problematic in Wisconsin, where evaporation rates vary by month. An evapotranspiration bed is suitable only if it is designed to contain water during wet months but have sufficient surface area to dry out during dry months. The lining must be watertight if nutrients are to be immobilized.

POWTS Management and Maintenance

It is generally understood by the industry and property owners that all POWTS require periodic maintenance. For traditional septic tank soil absorption systems, this maintenance consists of pumping the septic tank on a periodic basis, typically every three years. With the advent of newer technologies such as aerobic treatment units, sand filters, and driplines, maintenance on a pre-determined schedule is imperative. The proper operation of these technologies is dependent on regularly scheduled status checks (typically semi-annually), with maintenance performed on an as-needed basis. Consequently, Comm 83 contains specific language requiring a management and maintenance plan for each POWTS approved for installation.

With the advent of newer technologies such as aerobic treatment units, sand filters, and driplines, maintenance on a pre-determined schedule is imperative.

Owners are ultimately responsible for operating and maintaining POWTS located on their properties so as to not create a human health hazard. The actual maintenance work, however, should be performed by someone trained in the technology to be serviced. The revised Comm 83 creates a new credential - "POWTS Maintainer" for knowledgeable, trained individuals that can service and maintain more advanced treatment technologies.

All POWTS systems approved after July 1, 2000 must be maintained according to an approved management plan. The owner of a POWTS system must have a maintenance or service contract with a POWTS maintainer if the management plan for the system includes an evaluation, maintenance, or monitoring interval of 12 months or less.

However, POWTS existing prior to July 1, 2000 also must be serviced. For an anaerobic treatment tank, servicing must be done at least when the combined sludge and scum volume equals 1/3 of the tank volume. A holding tank for a POWTS existing prior to July 1, 2000, except for camping unit transfer containers, must be serviced at least when the wastewater of the tank reaches a level of one foot below the inlet invert of the tank. The servicing or maintenance of other POWTS treatment components existing prior to July 1, 2000, shall be provided in accordance with the requirements specified by the manufacturer or designer of the component.

A POWTS that exists prior to July 1, 2000, and that has an in situ soil treatment or dispersal component shall be visually inspected at least once every three years to determine whether wastewater or effluent from the POWTS is ponding on the surface of the ground. This inspection must be performed by a licensed master plumber, a licensed master plumber-restricted service, a certified POWTS inspector, or a certified septage servicing operator under DNR regulations.

There also is a reporting requirement for all POWTS. Maintenance, inspection, or servicing events must be reported within 10 business days by the POWTS owner or their representative to DComm or its designated agent.

Who will be responsible for notifying owners of the maintenance responsibilities and servicing reports?

The owner of a POWTS is obligated to insure that the inspection, maintenance or servicing be completed. The specific inspection, maintenance or servicing requirements will either be part of an approved management plan for systems approved after the effective date of the revised code, or at intervals listed in the code for existing systems. The owner or their agent must report that data to DComm or its designated agent (county).

Who will be enforcing the inspection, maintenance, or servicing and reporting responsibilities of the owner(s)?

DComm has acknowledged that the enforcement of these requirements will primarily be the responsibility of the counties.

What must be reported under § Comm 83.55(1)?

For POWTS systems that are approved under the provisions of the new code, the completion of inspection, maintenance or servicing events that are specified in the approved management plan must be reported. For POWTS systems installed prior to the effective date of the new code, the provisions of § Comm 83.54(4) apply. In either situation it is not necessary to report unscheduled events like replacement of burned out pumps, or float switches as part of the routine management reporting process. Keep in mind though that some counties may require "repair permits" for these types of activities.

How does the new code address maintenance of mechanical aerobic treatment units, sand filters and other POWTS components?

Each POWTS design approved after the effective date of the code will include a management/maintenance plan that specifies the type and frequency of maintenance needed. In addition, POWTS designs that require inspection, maintenance or servicing at an interval of 12 months or less must have a document recorded that describes the maintenance needed. This documentation recorded in the Register of Deeds office will alert future buyers/owners of the property of the maintenance requirement.

Will the department provide samples of the maintenance or servicing forms?

No. Because each treatment component that needs routine maintenance or servicing may have unique requirements, it is expected that this information will be obtained by the system designer from the manufacturer of the component. This information can then be submitted to the county prior to sanitary permit issuance. Each county will also have to determine whether the document will be accepted for recording by their Register of Deeds office.

Is a management plan a stand-alone document, or should it be included with other documents during the plan review or sanitary permit issuance process?

The ultimate goal is to insure that the POWTS system owner has a management or maintenance plan that they can refer to. For example, the component manuals currently recognized by DComm require a "user's manual" that contains additional important information such as contact names and phone numbers. A management plan could be included as part of this manual or it could be an additional, stand-alone document. As long as the details are clearly identified, the provisions of the management plan could also be included in the POWTS design documents. The choice is up to the designer/installer about how they intend to communicate this important information to the POWTS system owner.

County Delay of New System Designs

Counties have the option to delay usage of new system designs for new development until January 1, 2003, but cannot delay the use of these designs for replacement systems. The position of the various counties, as reported to DComm 60 days after the rule's implementation, is summarized in the chart found at http://www.commerce.state.wi.us/sb/SB-Comm8360DaysStatus.pdf. Fourteen counties reported that they have or will adopt some form of delay or limit for the new POWTS technologies. Of these 14 counties opting for some form of delay, only three (Dane, Kenosha & Portage) have or will adopt a total delay of all technologies until January 1, 2003.

We keep hearing that counties can "opt out" of the entire revised Comm 83 code for a period of up to three years. Is this correct?

A county may, by ordinance, invoke an optional delay for use of certain new technologies, designs, or methods up to January 1, 2003. A county may not opt out of implementing the rest of the new Comm 83.

Can any municipality invoke the optional delay for use of certain technologies, designs or methods?

Only a county can adopt an ordinance that could contain a delay provision. The county may take into account requests from other municipalities within its boundaries when the delay provisions are added to the ordinance. For example, if a town desires to delay use of a technology for a period of time, (up to January 1, 2003) within its boundaries, the town cannot pass an ordinance to that effect. However, the town can approach the county and request that the county place that delay in its ordinance.

Does the revised code mandate a specific way the delay must be handled by a governmental unit?

The only requirement is that the delay must be implemented by ordinance. The revised code does not specify a specific strategy as to the scope of the limitation. As an example, options could include a complete prohibition or only within a certain geographical area, a quota system, a permit to operate requirement or a performance bonding provision. A governmental unit could choose to implement these types of strategies for any, some or all of the newer technologies.

Counties as Designated Agents for POWTS

Administration

Can a county review a design for a proposed POWTS that will serve more than one structure?

No. Counties may only review POWTS that will serve a single one- or two-family dwelling and use gravity distribution of effluent to an in-ground distribution cell.

Is there any way for a county to be able to process applications for one- or two-family POWTS designs that include a detached garage or other outbuilding that contains plumbing fixtures?

At this time, the only way for a county to process these types of POWTS designs is to request approval as a designated plan review agent. Designated agents are authorized to review plans for POWTS that will serve more than one structure or building.

What if a property owner has an existing POWTS serving their residence and now wants to add a toilet or some other plumbing fixture in a detached garage or other outbuilding?

The answer depends on the size of the existing POWTS, the change, if any, in flows and loads generated by the new plumbing fixtures, and whether the garage or outbuilding will be accessible to someone other than the property owner.

- **Example #1**: A property owner installs a toilet for their own use in a detached garage near the residence. The flows and loads to the existing POWTS will not be changing. In that case, the county can make a determination of acceptability and process the request locally. POWTS plans do not need to be submitted to the DComm.
- **Example #2**: A property owner wants to build a small workshop that will contain a retail sales area open to the public. The plumbing fixtures in the workshop will be connected to the POWTS serving the residence via a private interceptor main sewer. If the existing POWTS is large enough to handle the anticipated loads and flows, the county can make a determination of acceptability and can process the request locally. POWTS plans do not need to be submitted to DComm. If it is determined that the POWTS system must be enlarged to handle the new loads and flows, then plans must be submitted to DComm or the designated agent, if applicable, for review.

Can a county that has received DComm approval to review POWTS plans as a "designated agent" decline to review POWTS designs that meet one of the categories for which the county has approval? For example, what if the designated agent prefers not to review a POWTS design due to complexity of the design or other circumstances?

Comm 83 provides that plans for the newer types of POWTS shall be submitted for review to the department or a designated agent. Submission and review of plans under Comm 83 may, at the discretion of the submitter, be made to the department or the designated agent. The code is silent on whether a designated agent can decline a request to perform a POWTS design review. A principle reason for the plan review function is to verify the adequacy of a proposed design in relationship to the soil and site conditions where it will be installed. If the designated agent is uncomfortable making that determination, they may decline to perform the plan review and refer the applicant to DComm.

The current designated county agents for POWTS plan review, and categories of review assumed, are listed at http://www.commerce.state.wi.us/sb/SB-Comm83PlanReviewAgents.pdf.

Comm 83 Miscellaneous Implementation Issues

How is DComm reviewing designs for POWTS that may handle "high strength waste" from facilities such as supper clubs, gas station convenience stores, and bars that serve food?

DComm recognizes that designing POWTS systems for treatment of higher strength waste is a new requirement. Here are some guidelines:

- If the proposed POWTS is to serve an existing facility, the effluent can be sampled and analyzed to see if pre-treatment down to residential strength is necessary. It is important that the samples be taken when the waste stream is considered representative for the facility.
- For new facilities, data from a comparable facility may provide meaningful information in some cases. However, DComm recognizes that each facility may differ based on things like type of food served, or sanitation practices. If there is concern that the waste stream may need pre-treatment, but there is no reliable way to predict this before installation, DComm may conditionally approve the POWTS design. A condition of approval will be that once the facility is in operation, the waste stream will be sampled. If it is determined that pre-treatment is needed, the owner, as condition of approval, agrees to modify the POWTS to provide the necessary treatment components. DComm is developing a guidance document to assist division staff in determining when and how monitoring of effluent should take place.

What will be done to address soil test reports that contain percolation test and/or soil boring information based on previous code requirements?

Soil tests that contain perc test data that were filed prior to July 2, 1994 can continue to be recognized. However, a decision regarding the suitability of an individual soil report, (perc or bore hole data) can always be made as part of the sanitary permit issuance process at the county level. A county can request verification of information, additional information, or decide the report on file is inadequate and cannot be used.

We keep hearing that if a filter is installed on the outlet side of a septic tank that documentation will have to be recorded with the deed. Is this correct?

§ Comm 83.21(2)(c)5., states that documentation of maintenance requirements must be recorded with the deed for the property, if the management plan 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 of any part of the system at an interval of 12 months or less. Unless a management plan includes information from the filter manufacturer or the system designer that specifies either of the conditions cited above, documentation would not have to be recorded with the deed.

Before a county issues a sanitary permit must a plumber provide documentation that they have completed training for the approved POWTS type? Will there be a listing of certified installers that counties will have access to?

Before issuing a sanitary permit, the county should have proof that the plumber responsible for the installation had attended training for the newer type of POWTS technology involved in the system. For formal classroom training, this "proof" may be in the form of a certificate from the training course provider or a completed attendance verification form. At this time DComm does not intend to maintain a list of installers or inspectors that attend this training.

Who is responsible for testing POWTS components before a POWTS system is put into service? The county, installer, or service provider?

The installer is responsible for testing of POWTS components. The county may ask to be present at the time the testing is being conducted. For example, Marathon County has written into their proposed ordinance that they are to be notified when testing will be conducted. The county may choose to witness the testing at their discretion.

What forms are supplied by DComm?

The department has revised the sanitary permit application form, application for review form, and soil and site evaluation form. Limited supplies were sent to frequent submitters and county offices. Copies of the forms are also available as a free download on DComm's website. Other forms will be revised as time permits.

What is the proper procedure to be followed if a septic system is no longer in use?

A subsurface tank or pit that is no longer used as a POWTS component shall be abandoned by:

(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 per DNR regulations.

(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.

Pursuant to Wis. Stat. § 281.45, municipalities and sanitary districts may require connection to public sewers. § 281.45 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.'

Conclusion

For more information about POWTS and the new Comm 83, visit the WRA REALTOR® Resource Page for Comm 83 - Septic System Bill at http://www.wra.org/Resources/resource_pages/Comm83_resources.htm. The diagrams and descriptions of the different types of septic systems now potentially available is very helpful. Additional questions may be directed to DComm's POWTS Program at http://www.commerce.state.wi.us/sb/SB-PowtsProgram.html.

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