



CR 86-204

State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

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STATE OF WISCONSIN)
)
DEPARTMENT OF NATURAL RESOURCES)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Bruce B. Braun, Deputy Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. WW-58-86 was duly approved and adopted by this Department on April 23, 1987. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have here-
unto set my hand and affixed the
official seal of the Department at
the Natural Resources Building in
the City of Madison, this 10th
day of July, 1987.


Bruce B. Braun, Deputy Secretary

(SEAL)

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ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
REPEALING, REPEALING AND RECREATING, AND CREATING RULES

IN THE MATTER of repealing s. NR 206.07(2)(i) .
and (j); repealing and recreating ch. NR 113; . WW-58-86
and creating s. NR 205.07(2)(h) of the .
Wisconsin Administrative Code pertaining to .
septage disposal. .
.

Analysis Prepared by Department of Natural Resources

The rules are promulgated under the authority of ss. 144.02, 146.20 and 227.11(2)(a), Stats., and interpret s. 146.20, Stats. The major components of the proposed administrative code are as follows:

1. These rules apply to any person servicing septic and holding tanks, pumping chambers, grease interceptors, septage beds, seepage pits, seepage trenches, privies and portable restrooms.
2. Requires all businesses, unless exempt by statute, engaged in servicing to be licensed by the Department. Each business license fee is based on the number of vehicles. New business applicants will be required to take an oral or written examination to demonstrate knowledges of the principles of proper landspreading, site management and qualifications (in existing NR 113).
3. Require the Department to to renew hauler's license for certain types and numbers of violations during the last license period (new proposal).
4. Requires periodic equipment inspections and sets minimum equipment standards (in existing NR 113).
5. Requires each business to have a written procedure on spills and accident cleanup (new proposal).
6. Sets requirements for large (3,000 gpd or greater) holding tank wastewater disposal approvals by the Department (new proposal).
7. Sets priorities for small holding tank wastewater disposal (new proposal).
8. Sets requirements for agricultural land disposal of septage which include hydraulic loading, slope, depth to bedrock and groundwater, separation distances, waiting periods, permeability, etc. (more specific than old NR 113).

9. Requires that septage not be land applied in excess of the nutrient requirements of the crops (new proposal).
10. For disposal site that receive more than three complete septage applications per year, certain soil tests are required (new proposal).
11. Sets specific criteria for soil evaluations at a disposal site (new proposal).
12. Sets criteria for a voluntary county regulation of septage (new proposal).
13. Requires specific site information submittals to the Department prior to use of a site for disposal (new proposal).
14. Requires record keeping by the hauler and annual submittals to the Department (new proposal).
15. Sets regulations for septage storage facilities (new proposal).

SECTION 1. Chapter NR 113 is repealed and recreated to read:

Department of Natural Resources
Chapter NR 113

Servicing Septic or Holding Tanks, Pumping Chambers, Grease Interceptors, Seepage Beds, Seepage Pits, Seepage Trenches, Privies, or Portable Restrooms.

- NR 113.01 Purpose
- NR 113.02 Applicability
- NR 113.03 Definitions
- NR 113.04 General requirements
- NR 113.05 Licensing and registration
- NR 113.06 Vehicle inspections, servicing and licensing
- NR 113.08 Disposal of domestic wastes
- NR 113.09 Site evaluation
- NR 113.10 Application rates
- NR 113.11 County regulation
- NR 113.12 Department regulation
- NR 113.13 Septage storage facilities
- NR 113.14 Disposal of liquid industrial wastes
- NR 113.15 Suspension and revocation
- NR 113.16 Penalties

NR 113.01 PURPOSE. The purposes of this chapter are to establish standards for the servicing of septic and holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies and portable restrooms; to provide for the use and disposal of these wastewaters while protecting public health from unsanitary and unhealthful practices and conditions; and to protect surface waters and groundwaters of the state from contamination by septage.

NR 113.02 APPLICABILITY. These rules shall be applicable to licensed and registered haulers, owners and any person servicing septic and holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies and portable restrooms. Persons providing the following services shall be exempt from these rules:

- (1) The transport of liquid industrial wastes for reprocessing.
- (2) The transport of agricultural materials of vegetable origin not mixed with other wastes which are returned to cropland, either an active or inactive status, as manure.
- (3) The transport of animal excrement and associated bedding.
- (4) The use or disposal of hazardous waste which is regulated under s. NR 181.
- (5) The use or disposal of solid waste which is regulated under ch. NR 500 to 522.
- (6) The use or disposal of POTW sludge which is regulated under ch. NR 204.

NR 113.03 DEFINITIONS. In addition to the definitions and abbreviations in ss. 144.01 and 146.20, Stats., the following definitions shall apply to terms used in this chapter:

(1) "Agricultural land" means land that is being used or will be used within 8 months for crop production.

(2) "Application rate" means the hydraulic loading limits placed on a landspreading operation normally expressed as gallons/acre/week.

(3) "Available nitrogen" means the nitrogen present in the septage in inorganic forms or converted from organic forms and which can be absorbed and assimilated by growing plants.

(4) "Available water capacity" means the amount of water which is readily held by the soil and available for plant uptake. Available water holding capacity shall be calculated using the following table:

<u>Textural Classification System</u>		<u>Factor for Use in Calculation * of Available Water Capacity (inch/inch)</u>
<u>ILHR</u>	<u>USDA</u>	
Sand	Sand Loamy Sand	0.02
Sand Loam	Sandy Loam	0.10
Loam	Loam	0.20
Silt Loam	Silt Loam Silt	0.22
Clay Loam	Sandy Clay Loam Clay Loam Silty Clay Loam	0.19
Clay	Sandy Clay Silty Clay Clay	0.17

*Use the following method to show that the soil has 5 inches of available water capacity:

Multiply the number of inches of each soil texture in the soil profile (above groundwater and bedrock) by the appropriate factor given above.

Example:

10 inches of sandy loam	$10 \times .1 = 1$
20 inches of loam	$20 \times .2 = 4$
10 inches of silt loam	$10 \times .22 = \underline{2.2}$
	7.2

(5) "Bedrock" means the rocks that underlie soil material. Bedrock is present at the earth's surface when the weathered in-place consolidated material, larger than 2mm in size, is greater than 50% by volume.

(6) "Business" means any individual, partnership, corporation or body politic that does servicing for hire.

(7) "Cation exchange capacity" means the sum total of exchangeable cations adsorbed by a soil, expressed in milliequivalents per 100 grams of oven dry soil.

(8) "Certified soil tester" or "CST" means a person satisfactorily passing the examination offered to achieve certification and possessing a current certificate as issued by the department of industry, labor and human relations under s. 145.045, Stats.

(9) "Community well" means a well which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Any public well serving 7 or more homes, 10 or more mobile homes, 10 or more apartment units, or 10 or more condominium units shall be considered a community well unless information is available to indicate that 25 year-round residents will not be served.

(10) "Complete application" means the uniform spreading of septage over the entire site at a rate not to exceed 13,070 gallons per acre per week of septic tank wastewater, 8,710 gallons per acre per week of holding tank waste water or 4,360 gallons per acre per week of grease interceptor wastewater.

(11) "County", when used in reference to the governmental unit responsible for the regulation of private sewage systems, means the towns, villages and cities, rather than the county, in any county that has a population in excess of 500,000.

(12) "Crops for direct human consumption" means crops that are consumed directly by humans without some type of processing that would minimize or eliminate pathogens.

(13) "Crops for indirect consumption" means crops that are consumed by an animal and the animal is consumed by humans or the crop is processed to minimize or eliminate pathogens prior to consumption by humans.

(14) "Department" means the department of natural resources.

(15) "Disposal" means the controlled discharge of septage to a POTW, treatment or storage lagoon or an agricultural or dormant field for the purpose of safely recycling nutrients back into the environment.

(16) "Dormant field" means a field that is not currently used or will not be used within 8 months for the growing and harvesting of crop. A dormant field is not a tilled field and septage may not be spread for more than 5 years without a crop being grown and harvested.

(17) "Dosing chamber" means a system that employs a pump or automatic siphon to elevate or distribute effluent to the soil treatment system.

(18) "Dry run" means a drainage pathway, either natural or artificial, with definable banks, which contains a confined flow during periods of natural runoff.

(19) "Floodplain" has the meaning specified in s. NR 116.03(11).

(20) "Food chain crops" means tobacco and crops grown for human consumption, and pasture, forage, and feed grain for animals whose products are consumed by humans.

(21) "Grease interceptor" means a water tight receptacle designed to intercept and retain grease or fatty substances contained in kitchen and other food wastes.

(22) "Groundwater" means any of the waters of the state, as defined in s. 144.01(19), Stats., occurring in a saturated subsurface geological formation of permeable rock or soil.

(23) "High groundwater level" means the higher of either the elevation to which the soil is saturated as observed as a free water surface in an unlined hole, or the elevation to which the soil has been seasonally or periodically saturated as indicated by soil color patterns throughout the soil profile. For the purposes of these rules, high groundwater shall be established by the presence of low chroma mottles.

(24) "High rate disposal" means septage disposal which exceeds the annual or lifetime application rates required for specific crops or fields. High rate disposal field require public noticing prior to department approval and shall meet the requirements of NR 180.

(25) "High use field" means a field that receives more than 3 complete applications of septage per year and the number of applications are limited to the crops nutrient requirements. These fields require soil analysis and investigation under ss. NR 113.08(3)(b)12 and 13 and 113.09.

(26) "Holding tank" means an approved watertight receptacle for the collection and holding of sewage.

(27) "Hydraulic loading rate" means the volume of waste discharged per unit area per unit time.

(28) "Incorporation" means the mixing of septage with topsoil, by injecting, discing, mold-board plowing, chisel plowing or rototilling to a minimum depth of 4 inches within 24 hours of landspreading.

(29) "Injection" means the subsurface placement of septage to a depth of 4 to 12 inches.

(30) "Land application" means the incorporation of septage into the soil or the placing of septage onto the soil surface.

(31) "Licensed disposer" means any person servicing septic and holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms who holds a valid Wisconsin sanitary license.

(32) "Licensed plumber" means a person who is licensed under s. 145.06, Stats., by the department of industry, labor and human relations.

(33) "Lifetime loading limit" means the maximum cumulative total amount of a specific substance that can be applied to a particular field based upon the physical and chemical characteristics of the specific field.

(34) "Liquid industrial wastes" means industrial wastes which are biodegradable and of animal or plant origin, and includes suspended solids which are in a nongaseous fluid or semifluid state and are not regulated by ch. NR 181, 214 or 500 to 522.

(35) "Litter free" means the absence of nonbiodegradable material such as plastics and glass of 2 inches or greater in length on the soil surface.

(36) "Low use field" means a field that receives 3 or less complete applications of septage per year. These fields typically do not require soil investigation under s. NR 113.09 if soil conservation service maps are available.

(37) "Mottling" means irregular areas of different color in the soil that vary in contrast, density, number and size. Mottling generally indicates poor aeration and impeded drainage.

(38) "Noncommunity well" means a public well that is not a community well.

(39) "Nuisance" means any source of filth, odor or probable cause of sickness pursuant to the provisions of s. 146.14, Stats.

(40) "Pasture crop" means a crop such as legumes, grasses, grain stubble or stover which is consumed by animals while grazing.

(41) "Pathogens" means microorganisms, including bacteria, viruses, and all forms of animal parasites, which are capable of producing an infection or disease in a susceptible host.

(42) "Permit" means a specific or general Wisconsin pollutant discharge elimination system (WPDES) permit.

(43) "Permeability" means the rate of movement of liquid through the soil. Permeability shall be calculated using the following table:

Textural Classification System

<u>ILHR</u>	<u>USDA</u>	<u>Permeability Inches/Hour</u>
Sand	Sand Loamy Sand	Greater Than 6
Sandy Loam	Sandy Loam	2.0 - 6.0
Loam	Loam	0.6 - 2.0
Silt Loam	Silt Loam Silt	0.6 - 2.0
Clay Loam	Sandy Clay Loam Clay Loam Silty Clay Loam	0.6 - 2.0
Clay	Sandy Clay Silty Clay Clay	0.1 - 2.0

(44) "Ponding" means the presence of free liquid over an area of 3 square feet or more visible 2 hours after application of the septage. An example of a 3 square foot area would be an area 3 feet by 1 foot.

(45) "Portable restroom" means fixtures, incorporating holding tank facilities, designed to directly receive human excrement. Portable restrooms are self-contained units, may be designed for one or more person's use at a given time and are readily transportable. Portable restroom wastewater shall be disposed of as holding tank wastewater.

(46) "Posting" means the placement of signs on the perimeter of a septage disposal field. Signs shall contain a notice of septage application, name, address, and telephone number of the hauler spreading the septage and shall be spaced not more than 500 feet apart.

(47) "Privately owned domestic wastewater treatment work" means a facility which has a permit under ch. 147, Stats., treats domestic wastewaters, and is owned and operated by a nonmunicipal entity or enterprise such as a mobile home park, restaurant, hotel, motel, country club, etc.

(48) "Private pumper" means a person who services septic or holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms on real estate owned or leased by the person and who disposes of no more than 3000 gallons per week of septage on the same contiguous parcel.

(49) "Private well" means one or more sources of groundwater including facilities for storage and conveyance such as wells, springs, pumps, pressure tanks, and reservoirs, on one property, other than a public well.

(50) "Privies" means a cavity in the ground or a portable above ground device constructed for toilet use incorporating holding facilities designed to receive human excrement either to be partially absorbed directly by the surrounding soil or stored for decomposition and periodic removal. The septage from privies pumped more frequently than once per year shall be disposed of as holding tank wastewater.

(51) "Publicly owned wastewater treatment work" or "POTW" has the meaning specified in s. NR 211.03(8).

(52) "Publicly owned treatment works holding tank service area" means the area outside the POTW's sewer service area, but inside or equal to the POTW's planning area where a contract has been developed for holding tank wastewater to be treated at the POTW.

(53) "Publicly owned treatment works planning area" means the area delineated in map form in which the planning for a specific POTW is being or has been prepared to cover.

(54) "Publicly owned treatment works sewer service area" means the area presently served and anticipated to be served by a sewage collection system as approved under ch. NR 121 or as a facility planning effort done under ch. NR 110, if no NR 121 designation has been made.

(55) "Registration" means a process of formally notifying the department by a person involved in servicing septic and holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms who is exempt by statute from needing a valid Wisconsin sanitary license.

(56) "Remote location" means a field that is not located within 2,000 feet of a nonagricultural business, nonagricultural residence, recreational area or within 500 feet of a U.S. or state highway.

(57) "Seepage bed" means an excavated area larger than 5 feet in width which contains a bedding of aggregate and has more than one distribution line so constructed as to allow disposal of effluent by soil absorption.

(58) "Seepage pit" means an underground receptacle so constructed as to allow disposal of effluent by soil absorption through its floor and walls.

(59) "Seepage trench" means an area excavated one to 5 feet in width which contains a bedding of aggregate and a single distribution line so constructed as to allow disposal of effluent by soil absorption.

(60) "Septage" means the wastewater or contents of septic or holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms.

(61) "Septic tank" means a tank which receives and partially treats sewage through processes of sedimentation, oxidation, flotation and bacterial action so as to separate solids from the liquid in the sewage and discharges the liquid to a soil absorption system. Typically the tank must be pumped every 2 to 3 years. Tanks that are pumped more frequently than once every 6 months are in effect operating like a holding tank and the wastewater shall be disposed of as holding tank wastewater.

(62) "Servicing" means removing the scum, liquid, sludge, or other wastes from any septic or holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms and properly disposing of the contents as set forth in this chapter.

(63) "Site" means property used for the disposal or storage of septage.

(64) "Site management" means the physical manipulation of site characteristics to minimize the potential of septage runoff during the spring thaw or rainfall events. Management may include contour mold board plowed lanes in the soil perpendicular to the slope. Lanes may not be wider than 15 feet with the unplowed contours above and below greater in width.

(65) "Soil" means the unconsolidated material which overlies bedrock.

(66) "Soil conservation practice" means a measure used to retain surface water and soil on agricultural fields including, but not limited to, contour strip cropping, terracing, and grassed waterways.

(67) "Soil conservation service" or "SCS" means United States department of agriculture, soil conservation service.

(68) "Soil pH" means the acidity or alkalinity of a sites soil (plow layer) expressed in pH values. A soil that tests pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The pH of the soil in the plow layer is measured in water by a pH meter with a glass electrode (electrometric method) as specified in "Wisconsin Procedures for Soil Testing, Plant Analysis and Feed and Forage Analysis", Department of Soil Science, The University of Wisconsin-Extension, Madison, Wisconsin 53706, Revised 1980.

Note: Copies of this publication are available for inspection at the offices of the Department of Natural Resources, the Secretary of State and the Revisor of Statutes.

The degree of acidity or alkalinity is expressed as:

	pH
Extremely acid.....	Below 4.5
Very strongly acid.....	4.5 to 5.0
Strongly acid.....	5.1 to 5.5
Medium acid.....	5.6 to 6.0
Slightly acid.....	6.1 to 6.5
Neutral.....	6.6 to 7.3
Mildly alkaline.....	7.4 to 7.8
Moderately alkaline.....	7.9 to 8.4
Strongly alkaline.....	8.5 to 9.0
Very strongly alkaline.....	9.1 and higher

(69) "Soil profile" means the vertical arrangement of unconsolidated materials into distinct layers or horizons which overlie the bedrock.

(70) "Soil saturation" means that the soil pore space is filled with water.

(71) "Spill" means the uncontrolled discharge, dumping, leaking or placing of any septage so that 50 gallons or more of septage or any of its constituents may be admitted into the air, be discharged into any waters of the state or otherwise enter the environment.

(72) "Surface application" means spreading septage on the surface of the land without mixing the septage with the soil.

(73) "Surface water" has the meaning specified in s. NR 101.03(4).

(74) "Violation" means a failure to comply with any provision of this chapter in which the licensed or registered disposer has been given due process.

(75) "Wetlands" means those areas where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic vegetation, and which have soils or vegetation indicative of wet conditions.

(76) "Wisconsin pollutant discharge elimination system permit" or "WPDES permit" means a permit issued by the department under ch. 147, Stats., for the discharge of pollutants.

(77) "Wisconsin soil testing program" means the soil analysis and fertilizer recommendation program established by the university of Wisconsin-extension through the soil science department.

(78) "Wisconsin sanitary license" means a license to service septic and holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms, issued by the department pursuant to s. 146.20(3), Stats.

NR 113.04 GENERAL REQUIREMENTS. (1) LICENSE REQUIREMENTS. No business, unless exempted by statute, may engage in servicing unless the vehicle and equipment used have been initially inspected by the department and issued a

license indicating conformity with all requirements of this chapter. A business license fee is based on the number of vehicles used by the business.

Note: Licensed plumbers and private pumpers are exempted from vehicle licensure by s. 146.20, Stats.; however, such servicing shall be in conformity with this chapter.

(2) CHANGES. Every business required to be licensed by this chapter shall notify the department in writing within 15 days of any change in address, change of servicing equipment or change of owner.

(3) DISPOSAL. No vehicle operator may dispose of septage unless the disposal is done in accordance with this chapter or under county authority approved by the department under s. 146.20(5m), Stats.

NR 113.05 LICENSING AND REGISTRATION. (1) INITIAL LICENSURE; APPLICANT REQUIREMENTS. Applicants for licensure shall meet the following requirements:

(a) Every business, with the exception of private pumpers, before engaging in the practice of servicing in this state, shall make application on forms prepared by the department. Surety bonds and license fees as described in pars. (b) and (c) shall accompany each application.

Note: Application forms are available at department district and area offices.

(b) Before receiving a license, the applicant shall execute and deposit with the department a surety bond covering the period for which the license is issued, by a surety company authorized to transact business within the state, to indemnify persons for whom faulty work is performed. The bond shall be in the amount of \$1,000 per business for residents of the state and \$5,000 per business for nonresidents; provided that the aggregate liability of the surety to all persons shall, in no event, exceed the amount of the bond. The bond shall be conditioned on the performance of services in conformity with all

applicable health laws and rules. A security deposit in form acceptable to the department and subject to the same condition may be accepted in lieu of a surety bond.

(c) The initial license fee for each business is \$25 for each vehicle for a resident business and \$50 for each vehicle for a nonresident business. Licenses are not transferable or proratable. In addition to the initial license fee, a groundwater fee of \$50 for each business shall be submitted for credit to the groundwater fund.

(2) INITIAL LICENSURE; DEPARTMENT REQUIREMENTS. Prior to issuance of a license, the department shall assure that the following requirements are met:

(a) The department shall inspect the servicing equipment and operating procedures. The vehicle sticker may not be issued if the equipment is found to be in noncompliance with this chapter.

(b) Licensed plumbers engaged in servicing shall be issued a registration number upon submittal of an application and registration fee. The department shall also require vehicle inspection as a registration requirement.

(c) Every license applicant shall have sufficient knowledge of sanitation and of the principles underlying the operation, servicing and disposal of septic and holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies and portable restrooms to safeguard the public health and welfare. The department shall require each applicant to take an oral or written examination and receive a passing grade to demonstrate knowledge of the principles of proper landspreading, site management and qualifications for licensure. The department shall, within 14 days of notification of the applicant receiving a grade on the septage qualification examination, take action by either approving or denying the licensing application.

(d) Businesses using more than one vehicle shall be issued the same license number and an annual sticker for each vehicle.

(3) LICENSE RENEWAL. All licenses expire on June 30; licenses shall be issued annually by the department. Businesses seeking license renewal shall meet the following renewal requirements:

(a) Application for renewal shall be filed with the department 30 days prior to expiration; if filed after the expiration date, a late fee of \$5 shall be charged in addition to the renewal fee.

Note: Anyone servicing systems without a current business license under s. NR 113.05 shall be subject of the penalties in s. NR 113.16. Payment of a late fee under s. NR 113.05(3)(a) does not relieve a violator from being subject to such penalties.

(b) A surety bond or deposit as described in sub. (1)(b), covering the period of the renewed license shall accompany the application.

(c) The renewal fee shall accompany the renewal application. The annual renewal fee and groundwater fee are the same as for initial licensure in accordance with sub. (1)(c).

(d) Prior to renewal, servicing equipment shall be inspected at least once every 2 years by the department or by a department approved inspector. An annual vehicle sticker may not be issued if the equipment is found to be unsatisfactory or is in noncompliance with this chapter. The department may not renew a business license for a business that does not have at least one vehicle meeting these requirements.

(e) The department may not issue or renew a license for a business which has cumulative violations of one or more of the following violations of ss. NR 113.06(4), 113.08, 113.09 and 113.10, and s. 29.29, Stats., during the last license period:

Number of vehicle stickers issued to the business	Number of violations that result in the nonrenewal of the business license
1 to 3	3
4 to 9	6
Greater than 10	9

(4) REGISTRATION. A licensed plumber or a person who services septic and holding tanks, dosing chambers, grease interceptors, seepage beds, seepage pits, seepage trenches, privies or portable restrooms located on real estate owned or leased by the person and who disposes of no more than 3000 gallons of septage per week on the same contiguous parcel is not required to obtain a business license but is required to register annually, prior to doing any servicing, by submitting a completed department registration application and submitting a \$15 registration fee.

(a) A registration application shall be filed with the department 30 days prior to expiration; if filed after the expiration date, a late fee of \$5 shall be charged in addition to the registration fee.

Note: Anyone servicing systems without currently being registered under s. NR 113.05 shall be subject to the penalties in s. NR 113.16. Payment of a late fee under s. NR 113.05(4)(a) does not relieve a violator from being subject to such penalties. Registration forms are available at department district and area offices.

(b) The registration fee shall accompany the registration application. Registered haulers that use rented equipment to service their system shall submit with the registration application all of the previous years equipment rental invoices.

(c) The registration applicant, excluding licensed plumbers, may not be eligible for registration and is to be licensed if the following apply:

1. The septage is not disposed of on the same parcel.

Note: Transporting septage to a POTW is not disposal on the same property.

2. More than 3,000 gallons of septage per week is generated and proposed to be disposed of on the same contiguous parcel.

3. Adequate acceptable land for proper disposal has not been demonstrated to the department.

4. An adequate contingency plan for disposal of septage during adverse weather conditions has not been supplied to the department.

(d) Annually, the department shall supply a list of all the registered haulers in a given county, if the county desires this information.

(e) Servicing and land application may not be accomplished by the use of a pump and hose or pipe system.

TABLE 1
YEARLY FEE AND SURETY BOND SCHEDULE SUMMARY

	Initial Licensing	Renewal of Licensing	Initial Registration	Renewal of Registration
	NR 113.05(1)	NR 113.05(3)	NR 113.05(4)	NR 113.05(4)
Commercial Hauler				
1. Business Fee				
Resident	\$25/vehicle	\$25/vehicle	N/A	N/A
Nonresident	\$50/vehicle	\$50/vehicle	N/A	N/A
2. Surety Bond				
Resident	\$1000/business	\$1000/business	N/A	N/A
Nonresident	\$5000/business	\$5000/business	N/A	N/A
3. Groundwater Fee				
	\$50/business	\$50/business	N/A	N/A
Licensing Exempt- Licensed Plumbers	N/A	N/A	\$15/business	\$15/business
Licensing Exempt- Private Haulers	N/A	N/A	\$15	\$15
Late Filing Fee	\$5	\$5	\$5	\$5

NR 113.06 VEHICLE INSPECTIONS, SERVICING AND LICENSING. (1) INSPECTION.

Any person engaged in servicing shall allow the equipment to be used to be inspected upon request and at any reasonable time and place, as may be designated by the department. Inspections of servicing equipment shall be performed at least once every 2 years by the department or by a department approved inspector.

(2) LICENSING. All licenses issued under this chapter shall expire on June 30 of each year.

(3) EQUIPMENT REQUIREMENTS. Vehicles and operations shall conform to this chapter and vehicles shall display a license sticker in accordance with sub.(3)(m)1. All vehicles and equipment used in servicing shall conform to the following:

(a) All vehicles and all equipment shall be maintained in operational condition and in conformance with this chapter at all times.

(b) The vehicles and implements used in servicing shall be used for no other purpose except the hauling or servicing of septage, grease interceptors, municipal wastewater treatment sludges, or animal wastes at a farm. However, use of the vehicle for fire protection service, oil recovery and industrial wastes not regulated under ch. NR 181 or 500 to 522 is permissible if the tank is flushed and decontaminated prior to and after use. A vehicle which is utilized for the servicing of portable restrooms may be used for other tasks associated with the operation of the business.

(c) Vehicles and equipment shall be stored in a manner which will not cause a nuisance to the general public.

(d) The minimum allowable tank size shall be 1000 gallons, with the following exceptions:

1. Private pumpers;
2. Tanks used for servicing only portable restrooms;
3. Tanks put into service prior to [the effective date of this rule];
4. A smaller supplemental tank may be used where found necessary and adequate by the department.

(e) Department approval of any trailer-mounted servicing equipment shall be on an individual basis for specific uses only.

(f) Portable tanks or containers used for servicing, other than approved trailer-mounted servicing equipment, are prohibited. All approvable tanks or

containers shall be attached to the vehicle by welding or bolts and cannot be used for containing liquids that are intended for direct contact with humans or animals.

(g) Each tank shall be strong enough for all conditions of operation, leakproof, contain inertia baffles and be designed to be kept tightly closed to prevent spillage or escape of odors while in transit or storage. Tanks shall be constructed of suitable metal or materials approved by the department and mounted permanently on a truck chassis, except where trailer-mounted equipment is approved.

(h) Pumps shall be adequate for the required service. The installation shall be designed to prevent backflow or leakage. Connections shall be provided with caps or seals.

(i) Discharge valves on tanks shall be watertight, capped when not in use, and constructed and located so as to permit unobstructed discharge at the place of disposal.

(j) Starting January 1, 1988, all servicing equipment used for surface spreading of septage, including equipment in service prior to [the effective date of this rule], shall have a splash plate or some other department approved method or device to facilitate uniform septage application. New servicing equipment put into operation after [effective date of this rule] shall be in conformance with this provision prior to use.

Note: The use of a vehicle cab controlled discharge valve is encouraged by the department. The cab controlled valve is intended to help prevent ponding and keep the vehicle moving while landspreading septage.

(k) Hoses and piping, when not in actual use, shall be stored so as to prevent leakage or dripping of septage in transit, or the ends of hoses and pipes shall be connected or sealed with tightly fitted caps or covers, or the hoses and pipes shall be cleaned with water between uses so as not to cause a nuisance by leakage or dripping of septage during transit.

(l) Any person subject to the requirements of this chapter shall provide or have available facilities for washing the vehicles, tanks, implements, and tools. Facilities shall be designed to prevent a nuisance to the general public.

(m) Vehicles used in servicing shall meet the following identification requirements:

1. No person may operate a vehicle used for servicing unless a valid license or registration sticker is prominently displayed on the rear of the vehicle servicing tank.

2. Every licensee is required to paint on both sides of each vehicle the words "Wisconsin Sanitary Licensee" and immediately under these words "License No. " with the number of its license in the space so provided with letters and numbers at least 2 inches high with 1/2-inch minimum brush strokes and in a color distinct from its background.

3. Licensed plumbers shall display their registration number and plumber's license number in the manner set forth in subd. 2.

4. No private pumper may operate any vehicle used for servicing unless the pumper prominently displays on both sides of any vehicle so employed the words "Not For Hire" and immediately under these words "Registration No. " in letters at least 4 inches high with 1/2-inch minimum brush strokes and in a color distinct from the background. Leased or rented vehicles may use magnetic weatherproof signs rather than painted letters and numbers.

5. The capacity of the tank in gallons, in lettering and numbers at least 2 inches high with 1/2-inch minimum brush strokes, shall be painted in a color distinct from the background and readily visible on the rear of any vehicle used in servicing, with the exception of vehicles used by private pumpers.

(4) SERVICING REQUIREMENTS. Every person engaged in servicing shall conform to the following:

(a) The vehicles, implements and containers shall be operated in such a manner as not to become a health hazard or a nuisance to the general public.

(b) Any accidental spillage shall be cleaned up and the area restored so as to render it harmless to humans and animals. Spills of 50 gallons or greater shall be reported, within 24 hours, to the department or the county, if the county has been delegated septage regulation by the department.

(c) Develop a written procedure for spill and accident cleanup and have a copy of the written procedure and a copy of the current ch. NR 113 in each vehicle cab.

Note: Discharge, accidental or otherwise, of wastes from servicing vehicles may violate s. 29.29(3), 346.94(5) to (7) or 146.13, Stats., and may subject the violator to the penalties imposed by s. 346.95(2) and (3), Stats. In addition, the transport of certain materials may violate s. 347.49(2), 348.10(2), Stats., or MVD 4.01(3) and (4).

(d) The property served shall be left in a sanitary condition.

(e) All persons servicing portable restrooms shall empty the septage from the portable restroom prior to transporting the portable restroom for any purpose.

(f) Water used for flushing servicing tanks or containers shall be disposed of in the same manner as the septage.

NR 113.08 DISPOSAL OF DOMESTIC SEPTAGE. Every person engaged in servicing or authorizing servicing shall comply with the following requirements for disposal of domestic septage:

(1) DISPOSAL. (a) Disposal of septage shall be by discharge into a POTW or lagoon for treatment or storage under a WPDES permit or to appropriate agricultural or dormant lands. Septage from systems that have designated capacity at a POTW shall be taken to that specific POTW.

(b) 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 be required to contract with a wastewater treatment facility for treatment of the septage. The wastewater treatment facility shall amend the sewer service area to include the commercial, industrial, recreational or residential development. The department may not indicate sufficient disposal capacity to the department of industry, labor and human relations as specified in s. ILHR 83.18(2)(b) until the sewer service area adjustments have been completed and approved.

Note: By agreement and administrative code, the department of industry, labor and human relations will not issue a plan approval for a 3000 gallons per day or greater holding tank system without the department's approval of the method of wastewater disposal.

(c) Disposal of wastewater from small holding tank and septic tank systems shall be by discharge into a POTW if the following conditions apply:

1. The holding tank is located in the POTW's sewer service or holding tank service areas.

2. The septic tank is located in the POTW's sewer service area.

Note: The acceptance requirement, for holding tank wastewater within the sewer service and holding tank service areas and septic tank wastewater within the sewer service area, is proposed for inclusion in s. NR 205.07(2)(i).

3. The holding tank is located inside the POTW's planning area but outside the POTW's sewer service and holding tank service areas if the POTW will accept the wastewater and if the cost to the hauler is less than or equal to the costs in Table 2.

TABLE 2

<u>Years</u>	<u>Maximum Fee/1000 Gallons</u>
1987-1989	\$10.00
1990-1992	\$12.00
1993-1995	\$14.00

4. In addition to the above requirements, holding tanks located within 20 miles (shortest direct route by road) of a POTW that is willing to accept, treat and dispose of the wastewater at a cost of less than or equal to the amount in Table 2, the hauler shall take the wastewater to that POTW. This provision effects those holding tank systems located in the following counties:

- a. Brown
- b. Calumet
- c. Dane
- d. Dodge
- e. Door
- f. Fond du Lac
- g. Jefferson
- h. Kenosha
- i. Kewaunee
- j. Manitowoc
- k. Milwaukee
- l. Outagamie
- m. Ozaukee
- n. Racine
- o. Rock
- p. Sheboygan
- q. Walworth
- r. Washington
- s. Waukesha
- t. Winnebago

(d) The requirement in par. (c) does not apply if storage has been provided such that the wastewater from small holding tank and septic tank systems will be landspread in accordance with a WPDES permit.

(2) DISPOSAL OF SEPTAGE AT POTW'S. (a) Nonwinter disposal. The following shall apply to disposal of septage for the period between April 16 and November 14:

1. Licensed disposers may apply to a POTW for permission to discharge septage.

2. POTW's may deny or approve an application for disposal of septage at that facility. If approved, the POTW may set conditions for disposal.

3. There are no requirements that licensed disposers discharge to POTW's or that POTW's accept and treat septage during nonwinter months other than in sub. (1)

(b) Winter disposal. The following shall apply to disposal of septage for the period between November 15 and April 15:

1. Each year, prior to September 1, licensed disposers may apply to POTW's for permission to dispose of septage during winter.

2. Applications submitted to POTW's by licensed disposers are subject to review by POTW's pursuant to s. 144.08, Stats.

Note: Section 144.08, Stats. requires that POTW's shall:

1. Review septage applications and provide a written denial or approval to the licensed disposer by October 1 of each year.

2. Develop a disposal plan for each licensed disposer approved for septage acceptance. A disposal plan, at a minimum, shall contain the following terms and conditions:

a. Specific quantities, locations, times, and methods for discharge of septage into the sewerage system.

b. Requirements to report the source and amount of septage placed in the sewerage system.

c. Requirements for the licensed disposer to pay to analyze other than residential septage.

d. Actual and equitable disposal fees based on the septage introduced into the sewerage system and calculated at the rate applied to other users of the sewerage system, and including the costs of additional facilities or personnel necessary to accept septage at the point of introduction into the sewerage system.

- e. All the terms and conditions imposed on the disposer of septage.
- f. A formal approval that the licensed disposer has permission to discharge septage to a specific POTW under specific conditions.
- 3. Accept and treat septage from licensed disposers unless:
 - a. Treatment of the septage would cause the POTW to exceed its operating design capacity or to violate any applicable effluent limitations or standards, water quality standards or any other legally applicable requirements, including court orders or state or federal statutes, rules, regulations or orders; or
 - b. The septage is not compatible with the sewerage system; or
 - c. The disposer has not applied for and received approval to dispose of septage in the sewerage system or the disposer fails to comply with the disposal plan; or
 - d. The licensed disposer fails to comply with septage disposal rules promulgated by the POTW or the conditions of the disposal plan in subd. 2.

(c) Priority system for acceptance of septage at POTW's. Licensed disposers shall cooperate with POTW's in the implementation of a septage acceptance priority system pursuant to s. NR 205.07(2)(h).

Note: The priority system for septage acceptance at POTW's in s. NR 205.07(2)(h) is as follows:

- 1. First priority. Wastes from existing or new holding and septic tanks within the POTW's sewer service area and holding tanks within the POTW's holding tank service area.
- 2. Second priority. Wastes from existing holding tanks for residential or commercial establishments outside the POTW's sewer service area and holding tank service area but inside the POTW's planning area where the holding tank was installed to replace an inadequate private sewerage system.
- 3. Third priority. Wastes from existing septic tanks and holding tanks that were installed not as a replacement to an inadequate sewer system for residential or commercial establishments outside the POTW's sewer service and holding tank service areas but inside the POTW's planning area.
- 4. Fourth priority. Wastes from new or existing septic and holding tanks for residential or commercial establishments outside the POTW's planning area.

(3) LAND DISPOSAL OF SEPTAGE. (a) Limitation. No person may dispose of septage by a landspreading method unless the spreading is done in accordance with this chapter.

Note: Any person disposing of septage by a land disposal method may be subject to the provisions of ch. 160, Stats., and ch. NR 140, if an analysis of the groundwater beneath the disposal field indicates groundwater contamination.

(b) General site criteria for all land application of septage. 1. Septage may not be landspread on soils which have a permeability rate greater than 6 inches per hour and or soils with a water holding capacity of less than

5 inches above the groundwater and bedrock. In no case may greater than the top 60 inches in a soil profile be used to obtain the 5 inches of water holding capacity.

2. Septage may not be surface applied on soils that have a permeability of less than 0.2 inches per hour within the top 6 inches of soil. Septage incorporation and injection into the soil are exempt from the 0.2 inches per hour permeability requirement.

3. Septage may not be landspread or discharged into or on any wetlands or in areas subject to ponding, including any ditch, dry run, pond, lake, stream, flowage, floodplain, cave, sinkhole, mine, gravel pit, or quarry.

4. Septage may not be landspread on any land without the owner's permission.

5. Septage shall be landspread in a manner to prevent surface runoff and to control objectionable odors. Septage may not be landspread on saturated soils during rainfall events or in areas of ponded water. All landspreading fields shall be left in a litter free condition.

6. Landspreading vehicles shall be moving forward at all times while septage is being spread. Ponding of septage shall be prohibited.

7. The pH of the soil and septage mixture shall be 6.5 or greater at the time septage is landspread unless it can be shown that the septage will modify the soil pH to 6.5 or greater. A low use or dormant field need not have a soil pH analysis performed for the field if soil conservation service soil survey information indicates the top 12 inches of soil is only slightly acid, neutral, or alkaline.

8. Septage may not be landspread on fields that are receiving or have received POTW sludges in the last year.

9. Septage that is land applied based on crop requirements may not be applied more than 8 months prior to the planting of the crop.

10. A minimum 2-foot wide grass strip shall be developed and maintained at the property line down slope from all land application sites.

11. Low and high use fields that are discontinued for more than one year of crop production shall be revegetated with grass or other appropriate cover.

12. Each licensed disposer proposing to use a high use field shall have a composite soil analysis completed pursuant to Sub. 14 prior to the land application of septage. The composite shall consist of a 5 acre composite made up with one sample per acre. A map, drawn to scale, shall be supplied with the soil analysis report indicating the location of each soil sampling location and composite. A soil analysis report shall include the following:

a. The analysis of soil pH, organic matter, calcium, magnesium, exchangeable potassium, available phosphorus, cadmium, copper, lead, nickel and zinc.

b. An estimate of the cation exchange capacity.

c. Recommendations on the requirements for lime and corrective and maintenance fertilizer loading rates for nitrogen (N), phosphorus (P_2O_5) and potassium (K_2O).

d. Any other parameters which the department determines may be present in the septage.

13. Each licensed disposer proposing to use a high use fields shall have a 5 acre composite soil sample (made up with one sample per acre) analyzed pursuant to Sub. 14 once every 3 years of use.

a. An analysis soil pH, organic matter, exchangeable potassium and available phosphorus.

b. Recommendations on corrective and maintenance fertilizer loading rates for nitrogen (N), phosphorus (P_2O_5) and potassium (K_2O).

c. Any other parameters which the department determines may be present in the septage or has been applied to the site.

14. Laboratory test results submitted to the department under this chapter shall be performed by a laboratory certified or registered under ch. NR 149.

The following tests are excluded from this requirement:

- a. Soil pH
- b. Nutrient tests of soils

15. Maximum permissible lifetime site metal loadings are listed in Table 3. When there is evidence that excessive loadings may have occurred the department may require one or more of the following:

- a. Submission of additional soil testing data;
- b. Submission of additional information on the land application program;
- c. Abandonment of the field for land application of septage; or
- d. Groundwater monitoring at the field.

TABLE 3
MAXIMUM METAL LOADINGS TO A SITE

	Maximum Site Loading based on Soil Cation Exchange Capacity (meq/100g) in lbs/ac			
	Less than 5	5-10	10-15	Greater than 15
Cd	4.5	9.0	13.5	18.0
Lead	445	890	1335	1750
Zinc	225	445	670	890
Copper	110	220	335	445
Nickel	45	90	135	180

16. The minimum separation distances and maximum slope requirements for different septage application alternatives are listed in Table 4.

TABLE 4

	Surface Spreading	Incorporation	Injection
Minimum depth from surface to bedrock and groundwater	3.0 ft	3.0 ft	3.0 ft
Maximum allowable slope (nonwinter)	6.0%	9.0%	12.0%
Maximum allowable slope (winter-site unmanaged)	2.0%	4.0%	6.0%
Maximum allowable slope (winter-site managed)	4.0%	N/A	N/A
Minimum distance to a community well	1000 ft	1000 ft	1000 ft
Minimum distance to a private or noncommunity well	200 ft	200 ft	200 ft
Minimum distance to a residence, business or recreational area	1000 ft	500 ft	500 ft
Minimum distance to a residence or business with written permission from the owner or occupant to spread closer than usual	500 ft	200 ft	200 ft
Minimum distance to a stream, river, pond, lake, sinkhole, flowage, ditch or wetland (greater than 6% to 12% slope)	N/A	100 ft	100 ft
Minimum distance to a stream, river, pond, lake, sinkhole, flowage, ditch or wetland (0% to 6% slope)	100 ft	50 ft	50 ft
Minimum distance to a dry run and a property line	50 ft	25 ft	25 ft

(c) Special site criteria for land application of septage.

1. Septage may be landspread seasonally on or into soils with a seasonal high groundwater level at a depth of greater than 2 feet but less than 3 feet

from the surface if it is demonstrated that the soil has an available water capacity greater than 5 inches for the soil above the high groundwater level.

2. Septage may not be surface applied on fields where crops are grown which will be grazed by or fed to dairy cows within one month after septage application, or where cereal grains will be harvested within two months of septage application or where nondairy animals are grazed or feed is green chopped within one month of septage application.

3. Septage may be surface applied to hay fields after the hay has been harvested but not after the hay has reached a height of 6 inches.

4. Septage may not be applied to land which is to be used within 24 months of the application or 2 crop growing seasons for the production of crops for direct human consumption if the edible portions of the crop would be in contact with the septage.

5. Public access to septage application sites shall be restricted for a period of 12 months after septage application. Access shall be restricted by the remote location, fencing, or posting of the application site in order to minimize human contact with the septage.

Note: The Department encourages the posting of all septage disposal fields.

6. All sites that are approved by the department or by a county and meet all the separation requirements at the time of approval may not have the site approval rescinded for separation distance encroachment by residences, businesses or recreational areas for a period of 5 years. This 5-year period shall run from the date of the last department or county site approval.

7. During the winter septage may not be surface spread on disposal fields with a slope of greater than 2% unless the site is managed. Site management may not allow surface spreading of septage on disposal sites with a slope greater than 4%.

8. Surface application on snow covered fields requires plowed spreading lanes (snow removal) perpendicular to the slope when the snow depth is greater than 6-inches. Plowed lanes may not be wider than 20 feet and no closer than 40 feet.

Note: Septage disposal by landspreading is discouraged but not prohibited by the department during winter months. Storing septage at a department approved storage lagoon with a WPDES permit or treatment at a POTW are the alternatives preferred by the department.

NR 113.09 SITE EVALUATION. (1) GENERAL. Site evaluation shall be conducted by a soil tester certified by the department of industry, labor and human relations in accord with ch. ILHR 81. The evaluation shall include soil conditions, properties and permeability, depth of zones of soil saturation, depth to bedrock, slope, landscape position, all setback requirements and the potential for flooding. Evaluation data shall be reported on forms provided by the department and signed by the certified soil tester. Reports shall be filed with the department for all sites investigated within 30 days of completion of testing.

(2) SOILING BORINGS; HIGH AND LOW USE FIELDS. Soil borings are required for all high use fields. Low use fields are typically not required to have soil borings as long as reliable detailed soil conservation or survey maps are available. Low use fields in which no soil information is available are required to have soil boring. For all fields that have a high degree of variability or where a detailed soil conservation or survey maps are known to be unreliable, the department or a delegated county may require soil borings or more borings than required on Table 5.

(3) SOIL BORINGS AND PROFILE DESCRIPTIONS. Soil borings shall be conducted on all high use fields and all fields with no soil maps. Borings shall be of sufficient size and extent to determine soil characteristics

important to septage disposal. Borehole data shall be used to determine the suitability of the soils at this field with respect to zones of seasonal or permanent soil saturation, available water capacity, permeability and depth to bedrock. The use of a power auger for soil borings is prohibited.

(4) NUMBER OF BORINGS REQUIRED. The number of borings shall be sufficient to adequately characterize the soil conditions and delineate unsuitable soil areas in the field, but in no case may the number be less than stated in Table 5.

TABLE 5
Required Borings

<u>Site Size In Acres</u>	<u># of Acres Per Boring With A Detailed Soil Survey Map</u>	<u># of Acres Per Boring Without A Detailed Soil Survey Map</u>
0 - 10	2	1
Greater than 10 - 40	4	2
Greater than 40	8	4

Note: Where initial soil borings indicate marked variations and depths to bedrock, high groundwater or restrictive permeability, the field shall be evaluated as if no detailed soil survey map is available. Table 5 is a minimum requirement.

(5) DEPTH OF BORINGS. Borings shall extend to a depth of at least 3 feet.

(6) RECORDS. Regardless of the number of borings evaluated and conditions observed in borings, all soil information derived from borings shall be reported.

(7) BORING LOCATIONS. Each borehole location shall be accurately located in reference to the horizontal reference point. Reports of boring locations shall either be drawn to scale or have the horizontal dimension clearly indicated between the borings and the horizontal reference point. The location of the field shall be delineated on a detailed soils survey map and a plat map, or an air photo, or a U.S. geologic survey topographic map.

(8) SOIL DESCRIPTION. Soil profile descriptions shall be written for all borings. The thickness in inches and the difference of horizons shall be indicated for each boring. Horizons shall be differentiated on the basis of color, texture, soil mottles or bedrock. Depth shall be measured from the ground surface and the slope at the boring indicated.

(a) Soil mottles. Zones of seasonal or periodic soil saturation shall be estimated at the highest level of soil mottles. The county or department may require a detailed description of soil mottling on a marginal site. The abundance, size, contrast and color of soil mottles shall be described in the following manner.

1. 'Abundance'. Abundance shall be described as few if the mottles color occupy less than 2% of the exposed surface; common if the mottles color occupy from 2-20% of the exposed surface; or many if the mottles color occupy more than 20% of the exposed surface.

2. 'Size'. The size refers to length of the mottles measured along the longest dimension and shall be described as fine if the mottles are less than 5 millimeters; medium if the mottles are from 5 to 15 millimeters; or coarse if the mottles are greater than 15 millimeters.

3. 'Contrast'. Contrast refers to the difference in color between the soil mottles and the background color of the soil and are described as faint if the mottles are evident but recognizable only by close examination; distinct if the mottles are readily seen but not striking; or prominent if the mottles are obvious or an outstanding feature of the horizon.

4. 'Color'. The colors of the mottles shall be given using the munsell notation system.

(b) Observed groundwater. The depth to groundwater, if detected, shall be reported. Observed groundwater shall be reported at the level groundwater

reaches in the soil borehole or at the highest level of sidewall seepage into the boring. Measurements shall be made from ground level. Soil horizons above the water level in the boring shall be checked for the presence of soil mottles.

1. 'One foot exception'. Soil profiles that have an abrupt textural change with finer textured soils overlaying more than 4 feet of unmottled, loamy sands or coarse soils can have a mottled zone in the finer textured material. If the mottled zone is less than 12 inches thick and is immediately above the textural change, the field may be approved. If any soil mottles occur within the sandy material, the field shall be deemed unsuitable. The county or department may determine certain coarse sandy loam soils to be included as a coarse material.

2. 'Other soil color patterns'. Soil mottles can occur that are not due to zones of seasonal or periodic soil saturation. Examples of such soil conditions, not limited by enumeration, are:

- a. Soil mottles formed from residual sandstone deposits.
- b. Soil mottles formed from uneven weathering of glacially deposited material or glacially deposited material that may be naturally gray in color. This may include concretionary materials in various stages of decomposition.
- c. Deposits of lime in a profile derived from highly calcereous parent material.
- d. Light colored silt deposited on soil ped faces.
- e. Mottles that are usually vertically oriented on old or decayed root channels with organic dark stain, usually present in the center of the mottled area.

3. 'Reporting exceptions'. The certified soil tester shall report any mottled soil condition. If soil mottles are observed that may not be due to

soil saturation, the soil tester shall report the condition and may request a determination from the department or the county authority on acceptability of the site.

(c) Bedrock. The depth to bedrock, except sandstone, shall be established as the depth in a soil boring where greater than 50% of the weathered in-place material is consolidated. Sandstone bedrock shall be established at the depth where an increase in resistance to penetration of a knife blade occurs.

NR 113.10 APPLICATION RATES. Septage shall be applied only to agricultural lands and dormant fields and may not be applied at loading rates in excess of those listed in Table 6.

(1) The volume of septage applied annually on a site may not exceed that which is necessary to supply the nitrogen need of the crop to be grown as determined by the analysis of soil samples. The nitrogen recommendations shall be based on the university of Wisconsin soil test recommendations program except as allowed in sub. (2).

(2) Septage may be applied to leguminous crops at a volume sufficient to supply 200 lbs/ac of available nitrogen.

(3) The hydraulic loading rate of disposal shall be limited by soil characteristics but under no conditions may it exceed 8,710 gallons per acre per application for holding tank contents, 13,070 gallons per acre per application for septic tank contents and no more than 13,070 gallons/acre of septic tank contents or 8,710 gallon/acre of holding tank contents per week. Ponding of septage shall be prohibited. Mixed loads of septic and holding tank wastewater shall be land applied as holding tank wastewater.

(4) Waste from grease interceptors shall be at a department licensed sanitary landfill, land applied or through some other department approved method.

(a) Contents of grease interceptors that are land applied to agricultural lands shall be incorporated, injected or mixed with septage at a rate not to exceed 25% grease interceptor wastewater and applied in accordance with sub. (3).

(b) The hydraulic loading rate for disposal shall be limited by soil characteristics but under no conditions may exceed 4,360 gallons per acre per application for grease interceptor contents. Ponding of the grease interceptor wastewater shall be prohibited.

Table 6
Summary of Maximum Loading Rates

	<u>Maximum Weekly Hydraulic Loading</u>		<u>Dormant Field Yearly Hydraulic Loading</u>		<u>Low Use Field Yearly Hydraulic Loading</u>		<u>High Use Field Yearly Hydraulic Loading</u>
	Gal/ac	Inches	Gal/Ac	Inches	Gal/Ac	Inches	
Septic Tank Wastewater	13070	1/2	13070	1/2	39210	1 1/2	Loading is based on crop requirements
Septic Tank Wastewater (75% or More) with Grease Trap Wastewater (25% or Less)	13070	1/2	13070	1/2	39210	1 1/2	"
Holding Tank Wastewater	8710	1/3	8710	1/3	26130	1	"
Holding Tank Wastewater (75% or More) Grease Trap Wastewater (25% or Less)	8710	1/3	8710	1/3	26130	1	"
Grease Trap Wastewater (All or Greater than 25% of a Mix Load of Septage)	4360	1/6	N/A	N/A	13070	1/2	N/A

(5) For the purpose of implementing this regulation, septage is considered to have the following nutrients available to the crop listed in Table 7.

TABLE 7
Nutrients

	Surface Spreading (pounds/1000 gallons)	Incorporation or Injected (pounds/1000 gallons)
(a) Residential Septic Tank Wastewater		
Organic Nitrogen	3.75	3.75
Ammonia Nitrogen	0.63	1.25
Total Available Nitrogen	4.38	5.00
Phosphorus	5.00	5.00
Potassium	0.00	0.00
(b) Residential Holding Tank Wastewater		
Organic Nitrogen	0.25	0.25
Ammonia Nitrogen	0.25	0.50
Total Available Nitrogen	0.50	0.75
Phosphorus	0.17	0.17
Potassium	0.00	0.00

Note: Assumptions for septic tank wastewater for purposes of this chapter are as follows:

1. Septic tank contents will be considered to contain 600 mg/l of total Kjeldahl nitrogen, of which 150 mg/l is ammonia nitrogen, unless determined otherwise. These concentrations are equivalent to 5.0 pounds of total Kjeldahl nitrogen, which includes 1.25 pounds of ammonia nitrogen per 1,000-gallon load of septic tank wastewater.

2. Holding tank wastewater will be considered to contain 90.0 mg/l total Kjeldahl nitrogen, of which 60.0 mg/l is ammonia nitrogen, unless determined otherwise. These concentrations are equivalent to 0.75 pounds of total Kjeldahl nitrogen, which includes 0.50 pounds of ammonia nitrogen, per 1,000-gallon load of holding tank wastewater.

3. Fifty percent of the ammonia nitrogen contained in septage is assumed to volatilize when the septage is surface spread without incorporation or injection, and 50% is assumed to become available nitrogen. For incorporation or injection, 100% of the ammonia nitrogen is assumed to become available nitrogen.

NR 113.11 COUNTY REGULATION. A county may request the authority from the department to regulate land disposal of septage under this code.

(1) A county request shall include:

(a) A complete description of the proposed county-wide program;

(b) Proposed county-wide ordinance and regulations, which shall be consistent with department codes;

(c) Plans for personnel, budget, equipment, records system, and forms;

(d) Authority and capability to regulate and enforce the proposed regulatory program;

(e) A description of the mechanism for generating money to finance the regulatory program;

(f) A description of the records system, which shall include field locations, field tests, field owners, field users, loading rates, county inspection, annual field licenses, and enforcement actions; and

(g) Enforcement mechanisms.

(2) The department shall:

(a) Investigate the capability of the county to successfully implement the proposed regulatory program;

(b) Approve, conditionally approve or deny the proposed county regulatory program. Department action shall be based on the county's capability to successfully implement the proposed regulatory program; and

(c) Monitor and evaluate the performance of any county that implements an approved county-wide land disposal regulation program. Evaluation of county efforts shall be conducted after the first 12 months but before 18 months of approval of the county program. If the county is found to be performing satisfactorily, then future evaluations shall be once every 2 years. If a county fails to adequately enforce the disposal ordinance, the department shall conduct a public hearing in the county seat upon 30 days' notice to the county clerk. As soon as practicable after the hearing, the department shall issue a written decision regarding compliance. If the department determines that the county has failed to adequately enforce the disposal ordinance, the department shall by order require modifications of the county program administration or revoke the authority of the county to adopt and enforce a septage disposal ordinance. At any time after the department issues an order under this paragraph, a county may submit a new application under sub. (1). The department may enforce this section and rules adopted under this section in any county which has adopted a septage disposal ordinance.

(3) No county septage ordinance may void existing contracts between a holding tank system owner and a POTW.

(4) No county may direct the disposal of wastewater from large holding tank systems from a POTW that is presently accepting the wastewater for treatment to another POTW without the consent of both POTW's and the owner of the holding tank system.

NR 113.12 DEPARTMENT REGULATION. (1) LICENSED OR REGISTERED DISPOSER SHALL SUBMIT INFORMATION ON PROPOSED FIELDS. Each licensed or registered disposer disposing of septage shall, 7 days prior to using a disposal field, submit the following information to the department or its designee:

(a) Plat map or aerial photograph or U.S. geologic survey topographic map with the field outlined and a scale attached for easy reference.

(b) Detailed soil survey map with the field outlined (if available) or soil investigation data as required in s. NR 113.09. Soil investigation data as required in s. NR 113.09 shall be collected, validated and signed by a certified soil tester.

(c) Completed department agricultural site operations form.

(d) Any other information required by the department to make a determination on the adequacy of the proposed site.

(2) All disposal fields currently being used for septage disposal which have not been approved by the department shall be subject to the requirements of sub (1) if they are being proposed for continued use. Septage disposers shall submit the required information no later than January 1, 1988.

(3) EXCEPTION TO THE 7-DAY SUBMITTAL REQUIREMENT FOR FARMS:

(a) A licensed disposer may service and spread wastewater on the farm where the septage was generated without prior field approval.

(b) A licensed disposer may spread only on soils that meet the requirements of this chapter.

(c) A licensed disposer shall submit all information required by the department to obtain site approval within 7 days after the spreading.

(4) LICENSED OR REGISTERED DISPOSER SHALL SUBMIT RECORD KEEPING INFORMATION. Each licensed or registered disposer disposing shall submit or keep the following information on department approved forms and submit to the department or its designee:

(a) Annual submittals. 1. Completed records of the fields used, gallons and type of septage spread per acre on each field and number of acres used.

2. Agricultural soil analysis for each high use field once every 3 years of use when required by s. NR 113.08(3)(b)13.

3. Crop grown on each field.

4. Actual annual hydraulic and fertilizer application rate.

(b) Vehicle log book or invoice records system. Each licensed and registered disposer, owner and any person who services a septage system shall keep the following records and make these records available to department representatives upon request.

1. Each vehicle operator shall have and maintain a daily log book or invoice records system for that vehicle.

2. Daily log books and invoice records systems shall be kept in the vehicle for a minimum of 7 days after servicing a system.

3. Daily books and invoice records systems shall, at a minimum, contain the following information:

- a. Name and address or location of system serviced.
- b. Date and time of servicing.
- c. Type of system and description of all wastes pumped.
- d. Gallons collected.
- e. Disposal location.
- f. Date and time of disposal.

4. All servicing records (log book or invoice records) shall be kept on file and available for inspection for a period of 3 years.

NR 113.13 SEPTAGE STORAGE FACILITIES. (1) GENERAL. Existing in-ground or above-ground septage storage facilities shall be allowed as long as they meet the provisions of ch. NR 110, plans and specifications have been accepted by the department and have received a specific WPDES permit. Storage facilities installed under ch. ILHR 83 are allowed if the owner obtains a specific WPDES permit.

(2) NEW CONSTRUCTION. No person may construct any septage storage facility without first obtaining department plan and specification approval. All such facilities shall be designed in accordance with the appropriate requirements of ch. NR 110. No storage facility may operate until a specific WPDES permit is issued and an inspection and adequacy of sealing report is submitted and accepted by the department.

(3) OTHER STORAGE FACILITIES. Septage may be stored at sites such as, but not limited to, manure storage facilities and sludge storage lagoons. Septage may not be stored in manure storage facilities located on dairy farms if the storage is located within 2,000 feet of the dairy barn or in storage facilities that are located under or attached to a building where animals are housed. Prior to use, the department shall review an operations report for the facility. The facility may be used to store septage upon approval by the Department. This report shall include at a minimum:

- (a) The location of the storage facility;
- (b) The type and volume of the storage facility including construction and sealing details;
- (c) Sufficient site characteristics information to evaluate the environmental impact and suitability of such waste storage;
- (d) The name and address of the owner of the storage facility;
- (e) Any contractual arrangements involved;
- (f) The type and composition of any wastes other than septage to be stored at the facility;
- (g) Annual sampling and analysis of the combined wastes in accordance with requirements in the permit;
- (h) The methods to be used for landspreading the septage or septage mixture; and

(i) A certification that the entire contents of the storage facility shall be landspread in accordance with this chapter in instances where septage is added to a storage facility and the septage makes up 10% or more of the contents, or the septage added to the storage facility is more than 25,000 gallons.

(4) DEPARTMENT REQUIREMENTS. The department shall meet the time requirements for all permits and plan approvals in s. NR 108.03.

NR 113.14 DISPOSAL OF LIQUID INDUSTRIAL WASTES. Every person engaged in servicing shall comply with the following requirements in the disposal of industrial wastes:

(1) APPROVAL. Liquid industrial waste disposal by servicing vehicles shall be subject to prior approval.

(2) DISPOSAL. Liquid industrial wastes shall be disposed of in accordance with ch. NR 181, 214 or 500 to 522.

Note: The underground disposal of liquid industrial waste through a well or other similar method which discharges directly to groundwater is prohibited by ss. NR 112.20, 214.08 and this chapter.

NR 113.15 SUSPENSION AND REVOCATION. Any licensed business which engages in improper servicing or violates any provision of this chapter shall be subject to suspension or revocation as provided in s. 146.20(5), Stats.

NR 113.16 PENALTIES. Any person or business who engages in improper servicing or violates any section of this code shall be subject to penalties as provided in s. 146.20(6), Stats.

SECTION 2. NR 205.07(2)(h) and NR 205.07(2)(i) are created to read:

NR 205.07(2)(h) Priority system for septage acceptance at a POTW. A POTW that accepts septage for treatment and disposal and is unable to accommodate all the requests for acceptance by licensed disposers shall use the following priority system for acceptance:

1. 'First priority'. Wastes from existing or new holding and septic tanks within the POTW's sewer service area and holding tanks within the POTW's holding tank service area.

2. 'Second priority'. Wastes from existing holding tanks for residential or commercial establishments outside the POTW's sewer service area and holding tank service area but inside the POTW's planning area where the holding tank was installed to replace an inadequate private sewerage system.

3. 'Third priority'. Wastes from existing septic tanks and holding tanks that were installed not as a replacement to an inadequate sewer system for residential or commercial establishments outside the POTW's sewer service and holding tank service areas but inside the POTW's planning area.

4. 'Fourth priority'. Wastes from new or existing septic and holding tanks for residential or commercial establishments outside the POTW's planning area.

(i) Septage treatment requirements by a POTW. A POTW shall accept, treat and dispose of all of the following septage:

1. Septage that is generated within its sewer service area.

2. Holding tank wastewater that is generated outside the POTW's sewer service area but inside or equal to the POTW's planning area where a contract has been developed for acceptance, treatment or disposal.

SECTION 3. NR 206.07(2)(i) and (j) are repealed

The foregoing rules were approved and adopted by the State of Wisconsin
Natural Resources Board on April 23, 1987.

The rules shall take effect the first day of the month following
publication in the Wisconsin administrative register as provided in
s. 227.11(2) (intro.), Stats.

Dated at Madison, Wisconsin July 10, 1987

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny
Carroll D. Besadny, Sec.

(SEAL)

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