

ORDER OF THE STATE BOARD OF HEALTH

AMENDING RULES

Pursuant to authority vested in the State Board of Health by Sections 140.05 (3) and 145.02 (2), Wis. Stats., the State Board of Health hereby amends Subsections H 62.20 (1) (b), (d) and (e) of the plumbing regulations relating to septic tanks as follows:

Subsections H 62.20 (1) (b), (d) and (e) of the WISCONSIN ADMINISTRATIVE CODE are amended to read:

(b) Permission to construct. In cities, villages, towns and town sanitary districts permission to construct sewage treatment systems shall be obtained from the local plumbing inspector, where available, local health officer, or health committee. Such permission should be in addition to any approval by the board.

(d) Materials. Septic tanks shall be water-tight below the cover and be built so as to constitute a separate structure. They shall be made of welded metal or monolithic concrete. Metal tanks shall be made of new, hot rolled commercial quality steel or equally suitable metal. The gauge of the metal for the septic tanks shall be as follows:

<u>Septic Tank Capacity</u>	<u>Tank Component</u>	<u>Gauge of Metal</u>
500 - 800 gallons	Bottom and side walls	14
	Cover	12
	Baffles	12
1,000 - 1,800 gallons	Complete Tank	10
2,000 or more gallons	Complete Tank	7

Steel tanks, including cover with rim, inlet and outlet collars and manhole extension collars shall be constructed with welded joints in such manner as to provide structural stability and watertightness. Steel tanks shall be coated, inside and outside, in compliance with U. S. Department of Commerce Commercial Standard 177. Any damage to the bituminous coating shall be repaired by recoating prior to installation of the tank. Steel tanks shall have affixed permanently thereto the seal of the Underwriters Laboratories, Inc. of Chicago, Illinois.

Precast concrete tanks shall have a minimum wall thickness of 2 inches. The concrete shall be of such mix as to withstand a compressive load of at least 3,000 pounds per square inch.

Each tank shall be clearly marked to show capacity, name and address or registered trade mark of the manufacturer.

(e) Capacity and design. 1. The size of a septic tank shall be based on the number of persons using the building to be served or upon the nature of use and type of waste. The minimum liquid capacity of a septic tank measured below the outlet shall be 500

gallons for any installation. The liquid depth shall not be less than 3 feet nor more than 6 feet. The total depth of tank shall be at least 8 inches greater than the liquid depth. For each additional person over six to be accommodated in the described buildings, the liquid capacity shall be increased as indicated in the following table:

Apartment buildings - - - - -	60 gal.
Bars, and cocktail lounges- - - - -	3 "
Bowling alley (per alley rather than per person) - - - - -	125 "
Bowling alley with bar (per alley rather than per person) - - - - -	225 "
Camps - summer use only - - - - -	15 "
Drive-in theaters (per car space) - - - - -	50 "
Factories and offices, exclusive of industrial wastes - - - - -	15 "
Hotels and motels (5 or more rooms) (per bed space) - - - - -	50 "
Mobile home parks - - - - -	30 "
Picnic parks - toilet wastes- - - - -	5 "
Picnic parks with showers and toilets - - - - -	10 "
Restaurant - kitchen and toilet wastes- - - - -	10 "
Restaurant - kitchen wastes only- - - - -	3 "
Retail stores - - - - -	5 "
Rooming houses or boarding house (per bed space) - - - - - (non-transient establishments providing rooms, with or without meals)	50 "

Rooming houses, tourist (per bed space) - - - (4 or less rooms, cabins or cottages)	50 gal.
Self service laundries - toilet wastes only -	40 "
Service stations- - - - -	5 "
Single family dwelling- - - - -	75 "
Swimming pool bath houses - - - - -	10 "

Note: The foregoing figures exclude bar, industrial and other wastes unless specifically mentioned.

For schools and other part time use buildings where more than 20 persons are to be served, the capacity of the tank shall be increased above the minimum size by the quantities per additional person indicated in the following table:

Churches and part time assembly halls - - - -	7.5 gal.
Schools - - - - -	15 "
Schools with meals served - - - - -	20 "
Schools with meals served and showers provided- - - - -	25 "

Where a food waste grinder, automatic clothes washer, or a dish washer, singly or in combination, are connected to the plumbing system, the septic tank shall be increased in size at least 50 per cent over that size required on basis of population served.

Where large volumes of wastes, other than sewage, are tributary to the tank the capacity shall be increased to provide a two day holding period. Under such conditions approval of the design of the sewerage system shall be obtained from the board. See H 62.22 (41), (42), (43).

2. Rectangular tanks shall have a minimum width of 30 inches and shall be constructed with the longest dimensions parallel to the direction of flow. All single compartment cylindrical tanks shall have an inside diameter of not less than 48 inches. When increased capacity is to be provided by using a number of prefabricated tanks the minimum capacity of any unit shall be 500 gallons. When more than two tanks are installed in series approval of the board shall be obtained.

3. The inlet and outlet on all tanks or tank compartments shall be provided with open-end cast iron sanitary tees or baffles made of approved materials, so constructed as to distribute flow and retain scum in tank or compartments. The tees or baffles shall extend at least 6 inches above and 9 inches below the liquid level. The inlet and outlet arrangements shall provide for free flow of air between inlet and outlet. At least 2 inches of clear space shall be provided over the top of baffles or tees. The bottom of the outlet pipe shall be at least 2 inches lower than the bottom of the inlet pipe.

The inlet and outlet pipes between a septic tank and firm ground beyond the excavation made to install the tank shall be cast iron pipe or other pipe approved by the board for this specific purpose. The joint between the pipe and tank shall be made watertight. A sand bedding, three inches thick, and sand backfill of

the excavation shall be provided for steel tank installations. The sand may be pit run material of such size that 100% will pass through a one-inch screen. The bedding for such tanks and back-fill around all tanks shall be tamped into place, care being taken to prevent damage to the coating.

The inlet and outlet openings of all tanks shall contain a "boss," stop or other provision which will prevent the insertion of the sewer piping beyond the inside tank wall facing.

All connections made between the sewer piping and the tank openings shall be made to conform to sections H 62.15 and H 62.16.

4. Each single compartment tank and each unit of a multi-compartment tank shall be manufactured or provided with at least one manhole opening at least 20 inches square or 20 inches in diameter. Manholes shall be extended to within at least 12 inches of the ground surface and be provided with substantial concrete, steel, stone or cast iron covers. On steel tanks the collar for manhole extensions shall be at least 2 inches high.

An inspection opening shall be provided over the inlet baffle of all septic tanks which may be either a manhole or a pipe at least 4 inches in diameter. The upper end of the inspection pipe or manhole shall terminate not more than 6 inches below the ground surface.

5. The design of all prefabricated septic tanks shall be approved by the board.

6. The discharge of surface, rain, and other large volumes of clear water into a treatment tank is prohibited.

The amendments to H 62.20 (1) (b), (d) and (e) are to become effective on October 1, 1962.

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The amendments as contained herein shall take effect on October 1, 1962 as provided in Section 227.026 (1) (b), Wis. Stats., subject to approval under the provisions of Section 14.225, Wis. Stats.

Dated March 1, 1962

STATE BOARD OF HEALTH

Seal

Carl N. Kuepfer, M.D.
Executive Secretary