

MONROE COUNTY ENVIRONMENTAL HEALTH/SANITARY CODE
CHAPTER V
ONSITE SEWAGE DISPOSAL

A regulation requiring approved onsite sewage disposal systems, establishing certain specifications and minimum standards for the installation of onsite sewage disposal systems; providing for the issuance and obtaining of permits; establishing licensing and bonding requirements for sewage disposal contractors.

SECTION 500 SPECIFIC DEFINITIONS

500.01 Approved

"Approved" means acceptable for intended use as judged by the Health Officer, according to state and/or local rules, regulations, and technical data.

500.02 Alternative Method of Onsite Sewage Disposal

“Alternative Method of Onsite Sewage Disposal” means a treatment and disposal system that is not a conventional system and provides for an equivalent or better degree of protection for public health and the environment either through uniform distribution of effluent to the final disposal system, enhanced treatment prior to final disposal, or combinations thereof.

500.03 Automatic Siphon

An "automatic siphon" means a mechanical device which will automatically cause a liquid entering a receptacle to be retained until a predetermined high water level has been attained, after which it is automatically released from the receptacle until a second predetermined level has been reached, at which time the flow from such receptacle ceases until the high water level has again been attained.

500.04 Biochemical Oxygen Demand (BOD)

“Biochemical oxygen demand” is a measure of the amount of oxygen needed by microorganisms to break down solids and other readily degradable organic matter present in wastewater effluent, usually measured in mg/L or parts per million.

500.05 Contractor

“Contractor” means an individual with a written contract to do a specific job, who performs services at a specified price, for the construction of onsite sewage disposal systems.

500.06 Conventional System

A “conventional system” means an onsite sewage treatment and disposal system that contains a watertight septic tank with non-uniform distribution of effluent to subsurface soil trenches or an absorption bed.

500.07 Diversion Valve

"Diversion valve" means a mechanism provided to enable a switching of the effluent flow from one soil absorption system to another separate absorption system so as to permit alternate periods of loading and resting.

500.08 Dosing Chamber

"Dosing chamber" means a watertight tank or receptacle used for the purpose of retaining the overflow or effluent from a septic tank, pending its discharge to a selected point.

500.09 Effluent Filter

"Effluent filter" means an approved device installed, either inside or outside the septic tank, on the effluent side, for the purpose of improving the quality of the effluent from the septic tank to the soil absorption system.

500.10 Filter Material

"Filter material" means a medium of inert material or aggregate used in sewage disposal systems; e.g., washed gravel, stone, crushed rock, or other material, approved by the Health Officer.

500.11 Floodway

A "floodway" includes the channel of a river or stream and the area adjacent to the channel that will carry moving water during times of flood. This is a high hazard portion of the floodplain.

500.12 Flush Toilet

"Flush toilet" means a plumbing receptacle containing a portion of water, which receives human excreta and is designed to discharge the contents to an outlet connection by means of a flush of water.

500.13 Food Service Establishment

"Food service establishment" means a fixed or mobile restaurant, coffee shop, cafeteria, short order café, luncheonette, grill, tearoom, sandwich shop, soda fountain, tavern, bar, cocktail lounge, nightclub, drive-in, industrial feeding establishment, private organization serving the public, rental hall, catering kitchen, delicatessen, theater, commissary, or similar place in which food or drink is prepared for direct consumption through service on the premises or elsewhere, and any other eating or drinking establishment or operation where food is served or provided for the public.

500.14 Geosynthetic Fabric Standards

“Geosynthetic fabric” means a lightweight non-woven fabric used as the separation material on top of drainfield stone to provide separation between the soil cover and the stone. The fabric used shall meet the following specifications:

| <u>Property Value</u> | <u>Test Method</u> | <u>Minimum Avg. Roll</u> |
|------------------------|--------------------|--------------------------|
| Grab Tensile, lbs | *ASTM D4632 | 35 lbs, minimum |
| Grab Elongation, % | *ASTM D4632 | 50%, minimum |
| Puncture lbs | *ASTM D4833 | 10 lbs, minimum |
| Trapezoidal tears, lbs | *ASTM D4533 | 11 lbs, minimum |
| **AOS.US Sieve # | *ASTM D4751 | 20US sieve#, min. |
| **AOS.US Sieve # | *ASTM D4751 | 70US sieve#, max. |

*American Society for Testing and Materials Standards
**Apparent Opening Size: A property that indicates the approximate largest particle that would effectively pass through the geosynthetic fabric.

500.15 Gley colorations

“Gley Colorations” means a type of hydric soil that exhibits a greenish-blue-grey soil color due to wetland conditions.

500.16 Highest Known Water Table

“Highest Known Water Table” means the elevation in the soil profile where evidence is present that water has displaced oxygen in the soil for a prolonged period of time, determined by the presence of redoximorphic features, gley colorations, or free water in the soil.

500.17 Homeowner

“Homeowner” means any person who owns a single or two family dwelling and has the intention of occupying said dwelling.

500.18 Installer

“Installer” means any person licensed under this Code to construct and install onsite sewage disposal systems.

500.19 Maintenance Agreement

“Maintenance agreement” means a contract for a period of time to provide maintenance of mechanical equipment provided by a qualified service provider.

500.20 Manual of Septic Tank Practice

“Manual of Septic Tank Practice” means a publication of the United States Department of Health, Education and Welfare Publication No. (HSM) 72-10020, formerly known as

"PHS Publication No. 526," revised 1967, for sale by the Superintendent of Documents,
U.S. Government Printing Office, Washington, D.C. 20201

500.21 Nonresidential

“Nonresidential” means any parcel being developed for any use other than a single or two family habitable building or for a residential habitable building in a platted subdivision that falls under the jurisdiction of Act 288 of the Public Acts of 1967, as amended, commonly referred to the Land Division Act.

500.22 Nuisance

"Nuisance", under this Code, means any condition where effluent from any onsite sewage disposal system is exposed to the surface of the ground or is permitted to drain on or to the surface of the ground, into any ditch, storm sewer, lake, pond, river, or stream, or when the odor, appearance, or presence of the effluent may have an obnoxious or detrimental effect on or to the senses and/or health of persons.

500.23 Onsite Sewage Disposal System;

"Onsite Sewage Disposal System" method of wastewater disposal other than a public system which is under the jurisdiction of the Michigan Public Health Code, Part 41 of Act 451 of the Public Acts of 1994, as amended, which receives human excreta, liquid wastes, or both from one premise. Included within the scope of this definition are septic tank-soil absorption systems, privies, chemical toilets, and such other types as may be approved by the Health Officer.

500.24 Ped

Ped means a unit of soil structure; an aggregate, such as prism, block, or granule formed by natural process.

500.25 Pretreatment System

“Pretreatment system” means any technology or combination of technologies that precedes the discharge of wastewater to the onsite sewage disposal system for the purpose of improving the water quality of the effluent.

500.26 Redoximorphic Features

“Redoximorphic Features” means mottling of soil and is identified by the presence of oxidized and reduced states of iron in the same ped.

500.27 Septic Tank

A "septic tank" is a watertight and structurally sound receptacle used for storage and decomposition of human excrement and domestic wastes. Septic tanks and dosing tanks used for onsite sewage disposal systems shall be structurally sound when installed, so as

to support the weight of the soil around and above the tank in both a full and empty condition and be of sufficient weight to prevent buoyancy

500.28 Service Provider

“Service Provider” means an individual authorized by the manufacturer of the pretreatment or onsite sewage disposal system and recognized by the Monroe County Health Department, who represents the manufacturer and/or is the distributor of a pretreatment or onsite sewage disposal system who contracts services to perform maintenance on pretreatment or onsite sewage disposal systems.

500.29 Sewage

"Sewage" means a combination of the domestic liquid or semi-solid wastes. This includes human excreta, garbage disposal wastes, dishwater, bath water, and laundry wastes, together with all liquid wastes that could be a hazard to public health or create a nuisance.

500.30 Sewer

A "sewer" is a watertight conduit for carrying sewage.

500.31 Single Installation License

“Single Installation License” means a license to install one onsite sewage disposal system serving a dwelling within Monroe County in which the homeowner has the intention of occupying.

500.32 Soil Absorption System

"Soil Absorption System" means a method of utilizing the soil for subsequent absorption of sewage; e.g., a trench, bed, or a combination thereof.

500.33 Surface Water

“Surface Water” means the water that is exposed or flows on the ground surface.

500.34 Total Suspended Solids (TSS)

“Total suspended solids” means a measure of the amount of solid matter in wastewater or effluent usually measured in mg/L or parts per million.

500.35 Variance

“Variance” means a written authorization to deviate from a specific provision of this regulation.

SECTION 501

JURISDICTION AND ADMINISTRATION

501.01 Jurisdiction

This regulation applies to the installation and maintenance of all onsite sewage disposal systems within Monroe County serving:

- (a) Single and two family habitable buildings
- (b) Nonresidential structures with effluent discharge less than 1000 gallons per day (gpd)

501.02 State Laws and Regulations

The installation and use of onsite sewage disposal systems shall conform to the applicable requirements of Sections 2433 through 2446 of the Michigan Public Health Code, 1978 PA 368, as amended, Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and Part 22, Administrative rules and Part 4, Department of Environmental Quality Administrative Rules for On-Site Water Supply and Sewage Disposal for Land Divisions and Subdivisions, R 560.406 to R 560.428, the Michigan Criteria for Subsurface Sewage Disposal, April 1994, as amended and to the rules and regulations adopted pursuant to said Acts and criteria. Privies shall conform to the Public Health Code, Part 127 of P.A. 1978, as amended.

501.03 Sewage Disposal Facilities Required

All devices including flush toilets, urinals, lavatories, sinks, bathtubs, showers, laundry sinks, or any other device from which sewage emanates shall be connected to an approved onsite sewage disposal system. However, when public sanitary sewers are available, specified in the Natural Resources and Environmental Protection Act, Part 31, of Act 451 of the Public Acts of 1994, as amended, all devices where sewage emanates shall be connected to said public sanitary sewer system. Footing drainage, downspouts, water softener regenerating water, or any other waste not defined as sewage shall not be connected to or discharged into any part of the onsite sewage disposal system, or its immediate vicinity.

501.04 Premise Occupancy

It shall be unlawful for any person to occupy, or permit to be occupied, any premise that is not equipped with an adequate onsite sewage disposal system for the disposal of all forms of sewage in a sanitary manner. Such facilities shall be constructed in accordance with the provisions of this regulation. Under no condition may the sewage from an existing or hereafter constructed premise be discharged or deposited upon the surface of the ground, or into any lake, river, stream, county drain, ditch, pond, or storm sewer. Any premise constructed or maintained that is not in accordance with these regulations may be declared unfit for habitation and may be so posted by the Health Officer. A habitable building posted as unfit for human habitation shall be vacated within a reasonable period

of time not to exceed 30 days, unless said violation has been corrected within this specified time limit.

501.05 Condemnation of Existing Installations

The Health Officer may condemn and order repaired or replaced any existing onsite sewage disposal system where the effluent therefrom is exposed to the surface or is permitted to drain onto the surface of the ground, or into any lake, river, county drain, storm sewer, pond, or stream, or where the seepage of effluent therefrom may endanger a public or private water supply, or where an improperly constructed or maintained onsite sewage disposal system creates a public or private nuisance.

501.06 Drains

When the Health Officer determines that improperly treated sewage is flowing from the outlet of any public or private drain of unknown course or origin, he/she may issue public notices requiring the owner of the property from which such sewage originated, to comply with the provisions of Section 501.03 of these regulations. Public notices shall consist of the posting of at least five conspicuous notices in the area served by said drain. After not less than 30 days following posting of the notices, the Health Officer may plug, or cause to be plugged, the outlet of said drain, except an established county or inter-county drain, until such time as the sources of the sewage have been located. Owners of premises known to be discharging improperly treated sewage in said drain posted by the Health Officer shall be given written notice of corrections required within the time allowed by the posted notices. Failure to comply shall be considered a violation of this regulations. The Health Officer shall not be liable for any damages, that result or might result from action authorized by this section.

501.07 Separate Systems for Each Habitable Building

Unless specifically approved by the Health Officer, each onsite sewage disposal system shall serve only one habitable building. No septic tank, tile field, or any part thereof shall be located on any property other than that where the habitable building is located except by a properly recorded deed restriction and written permission of the Health Officer.

501.08 Maintenance

An onsite sewage disposal system shall be continually operated and maintained in accordance with this regulation. A septic tank shall be serviced by having sludge pumped out at such intervals as necessary to prevent carry-over of solids into the absorption field. The pumping service shall be provide by a septage hauler licensed under Part 117 of the Natural Resources and Environmental Protection Act, Act 451 of the Public Acts of 1994, as amended.

501.09 Mechanical Systems for Sewage Treatment

Before the installation of residential or nonresidential mechanical device or system for treatment of sewage by aeration, flotation, or other processes exclusive of conventional septic tanks and/or dosing tanks, written application shall be made to the Health Officer for approval. Complete information about the mechanical system shall be provided to the Health Officer, including but not limited to, manufacturer, model number, design specifications, independent test data, warranties, guarantees, and other data needed for evaluation. Prior to approval by the Health Officer, a continuing maintenance agreement for the life of the mechanical system shall be required and submitted by a qualified service provider authorized to do business in Michigan.

501.10 Abandonment of Onsite Sewage Disposal Systems

When any existing onsite sewage disposal system is abandoned or its use terminated, the existing septic tank(s), dosing tank(s), and drywell(s) shall be pumped, the tank top removed, and the tank filled with material approved by the Monroe County Health Department or crushed and removed from the premise.

501.11 Engineered Onsite Sewage Disposal System Plans

Plans at scale prepared by a licensed engineer in the State of Michigan, or a Registered Sanitarian in the State of Michigan, or a Registered Environmental Health Specialist as specified by the National Environmental Health Association shall be required for all onsite sewage disposal systems serving nonresidential structures as defined in this regulation.

SECTION 502

LICENSING AND BONDING OF CONTRACTORS

502.01 Initial Licensing:

A contractor, prior to commencing any work to install onsite wastewater disposal systems within Monroe County, shall apply for and obtain an annual sewage disposal system installation license from the Monroe County Health Department. Each applicant for such license shall take and successfully pass a written examination prepared by the Health Officer. A fee, as stated in the Health Department Fee Schedule, shall accompany each application. The annual licensing period shall expire on December 31st of each year.

A license shall not be issued to any contractor for hire to install septic tanks and onsite sewage disposal systems unless a performance bond, the amount of said bond as stated in the Health Department Fee Schedule, that is valid for a period of at least one year beyond the expiration date of said license, is made, executed, and delivered to the Health Officer in the name of Monroe County. The bond shall be made available for payment to the Monroe County Health Department in the event of necessary servicing, repair, and/or replacement of any onsite sewage disposal system covered by said bond. If at any time the contractor does not have a valid bond as outlined in this chapter, the Health Officer may declare void the permit for each private sewage treatment system covered by said bond and may forthwith order the vacating of any or all premises served by such system, in accordance with Section 202.03 of this regulation. Charges against this bond may

include necessary costs of servicing, repair, replacement, and subsequent inspection of said sewage treatment system, with customary allowance for overhead charges. A surety company authorized to do business in Michigan shall execute the bond..

502.02 Initial Licensing: Homeowner

A homeowner prior to commencing any work to install an onsite sewage disposal system shall apply for and be issued a single installation license to install an onsite sewage disposal system serving a habitable building within Monroe County in which the homeowner has the intention of occupying. Each applicant for such license shall take and successfully pass a written examination prepared by the Health Officer. A single application license shall not require a performance bond as described in Section 502.01.

502.03 License Renewal

Before renewal of the onsite sewage disposal system installation license issued under the provisions of Section 502.01, any contractor licensed under the provisions of Section 502 shall be required to take and successfully pass a written examination prior to renewal of a license. If the person or contractor has installed a minimum of five sewage disposal systems in the past calendar year the written examination may be waived at the discretion of the Health Officer.

503.04 Expiration of Permits

Any permit issued pursuant to the requirements of the preceding sections shall be valid for the term of 12 months from the date of issuance, unless declared void as provided for in Section 503.05, and no construction, alteration, and/or extension shall continue without renewal of said permit. Said permit shall not be transferable to any new owner or to another location on the same parcel of property or to a different location and/or owner at a different parcel of property. One 60-day permit extension may be granted provided the request for the extension is received in writing and prior to expiration of said permit.

503.05 Stop Work Order - Void Permit

The permit for an onsite sewage disposal system may be declared void and a "Stop Work Order" posted by the Health Officer if the area designated for the onsite sewage disposal system is disturbed by major filling, excavating, paving, or flooding, or by the installation of a public sewer, by location of a water supply well or other feature so as to encroach on any required isolation distance. The permit may also be declared void if there is any increase in the scope of the project prior to, during, or following construction of said system, or when the construction of the onsite sewage disposal system is found in violation with the provisions of these regulations.

503.06 Onsite Sewage Disposal System Permit Evaluation Process

Before a permit to install an onsite sewage disposal system will be issued, test borings shall be made by a representative of the Monroe County Health Department, or excavations conducted by a backhoe operator independently contracted by the property owner or applicant, while the representative of the Monroe County Health Department is present, within the area proposed for the sewage disposal system to determine that the groundwater level and soil formation comply with this section. The following criteria shall be used in determining the suitability of the property to provide satisfactory drainage and area for an onsite sewage disposal system:

- (a) Soil Analysis - The soil classification and interpretations as provided by the United States Department of Agriculture, Natural Resources Conservation Service, and the use limitations pertaining to that soil classification will be considered by the Health Officer and used as part of the property evaluation. Test borings or excavations shall be made, to a minimum depth of four feet, within the area proposed for the onsite sewage disposal system to determine that the groundwater level and soil formation comply with this section.
- (b) Highest Known Water Table
- (c) Hardpan Clay, Impervious Material - Impervious hardpan clay, stone or shale, if present, shall be at least four feet below the bottom of the soil absorption system, and shall also be at least four feet below the parent ground surface.

- (d) Filled Ground - Filled ground or "made land" shall be acceptable only under specific written approval of the Health Officer and in any case shall be compacted or allowed to settle for at least one year from time of the filling. Filling shall not be allowed over unstable soil, peat, muck, organic material, or within 100 feet of any lake, stream, pond, or other surface body of water.
- (e) Replacement Area - Sufficient area shall be set aside or put on reserve for a future replacement system. Such replacement system area shall at least equal the area required for the initial system.

503.07 Denial of Onsite Sewage Disposal Permit Application

The Health Officer shall have the right to reject an application for construction of an onsite sewage disposal system if any of the following are present:

- (a) Where a publicly operated sewage system is available; or
- (b) When the property served lacks sufficient area for an original and replacement onsite sewage disposal system; where the replacement area is at least equal the area required for the initial system; and/or lacks sufficient area to maintain the proper isolation distances from property lines, surface waters, and water supply systems; or
- (c) Where the soil classification as determined by the United States Department of Agriculture, Natural Resources and Conservation Service, indicates a percolation rate of more than 60 minutes per inch and a field evaluation confirms the presence of soils containing a high proportion of silt and/or clay except as provided for in Section 503.08; or
- (d) Where the highest known water table or evidence thereof is less than two feet from the natural ground surface, except where present in soils containing a high proportion of silt and/or clay as provided for in Section 503.08; or
- (e) Where the property is subject to flooding by inclusion within the floodway as determined by the United States Geological Survey (USGS) or Housing and Urban Development (HUD); or
- (f) Where rock formation or other impervious strata is within four feet of the natural ground surface; or
- (g) Where slopes are greater than 12%; or
- (h) Where the parcel is in violation of Act 288 of the Public Acts of 1967, as amended, commonly referred to the Land Division Act, or
- (i) Where conditions exist or may be created which may endanger the public health or environment; or
- (j) Where the septic tank or any part of the onsite sewage disposal system would be inaccessible for cleaning or inspection.

503.08 Exceptions to Denial of Onsite Sewage Disposal System Permit

Except that the presence of soils containing a high proportion of silt and/or clay shall not be the sole determinant for rejecting an application for construction of an onsite sewage disposal system, and

If the application for construction is for a single or two family dwelling or a nonresidential structure with projected effluent flows less than 1000 gallons per day; (*) and

If the size of the parcel has enough width and depth to provide the area for the onsite sewage disposal system and a replacement area of equal size, then;

- (a) The applicant shall submit an acceptable plan drawn to scale prepared by a Professional Engineer licensed by the State of Michigan, or a Registered Sanitarian in the State of Michigan, or a Registered Environmental Health Specialist as specified by the National Environmental Health Association for review and approval by the Monroe County Health Department;

- (b) The onsite sewage disposal plans shall indicate sufficient area for all planned structures, onsite water supply, and the areas designated for onsite wastewater disposal.

Prior to issuance of an onsite sewage disposal permit issued under the following exceptions, the applicant shall record with the Monroe County Register of Deeds the current affidavit being used by the Monroe County Health Department for construction of onsite sewage disposal systems. The affidavit shall become null and void when the single or two family habitable building or nonresidential structure has been legally connected to an approved public wastewater disposal system.

(*) The criteria for determining whether a permit for an onsite sewage disposal system shall be issued for a residential dwelling in a platted subdivision shall be that which is stated in Act 288 of the Public Acts of 1967, as amended, commonly referred to the Land Division Act.

503.09 Nonresidential Site Acceptance Criteria:

- (a) Only developments where daily flows will be less than 1000 gallons per day (gpd).
- (b) Plans drawn to scale as specified in this regulation shall be for a mechanical onsite sewage disposal system providing a uniform distribution of effluent to the onsite sewage disposal system.
- (c) Food service facilities shall not be considered unless the site meets all criteria contained in Appendix F of the Michigan Criteria for Subsurface Sewage Disposal, April 1994, as amended.
- (d) When pretreatment is required, it must produce effluent meeting wastewater performance standards of ≤ 30 mg/L for total suspended solid (TSS) and ≤ 30 mg/L for Biochemical Oxygen Demand (BOD) or the current industry standards.
- (e) The owner is responsible to ensure lifetime maintenance and operation of the pretreatment system by a qualified service provider.
- (f) Only contractors licensed by the Monroe County Health Department shall be authorized to install nonresidential onsite sewage disposal systems.
- (g) The contractor shall install the onsite sewage disposal and/or pretreatment system only in conformance with the manufacturer's installation requirements.
- (h) The property owner shall be required to connect to public sanitary sewer when it is available as defined by Act 368 of the Public Acts of 1978, as amended.

503.10 Nonresidential Pump and Haul Criteria

- (a) Only nonresidential developments where daily flows will be less than 100 gallons per day (gpd) and unsuitable soil conditions.
- (b) Plans drawn to scale by a Professional Engineer licensed by the State of Michigan, or a Registered Sanitarian in the State of Michigan, or a Registered Environmental Health Specialist specified by the National Environmental Health Association, shall be submitted for review and approval by the Monroe County Health Department.
- (c) The holding tank shall be structurally sound, watertight, and meet current industry standards.
- (d) The holding tank shall be equipped with an audio and visual high-level alarm.
- (e) The nonresidential facility will be equipped with low flow fixtures.
- (f) The holding tank shall have sufficient openings to allow access for servicing, inspections, and maintenance, and be properly constructed to prevent infiltration of surface water.

- (g) The holding tank capacity shall be sized with a minimum of two days storage capacity.
- (h) The holding tank shall be located in an area to prevent the contamination of surface or ground waters or create a public health hazard or nuisance.
- (i) The tank shall be located in an area that protects the environment and limits public access.
- (j) The owner is responsible to ensure lifetime maintenance and operation of the holding tank.
- (k) The owner shall submit an annual pumping report to the Monroe County Health Department
- (l) The owner shall be subject to an annual site inspection and assessed a fee for such inspection as indicated in the Monroe County Health Department fee schedule.

- (m) The owner shall prepare and implement a contingency plan. The contingency plan at a minimum shall outline a program to respond to the rapid mitigation of:
 - 1. Equipment failure
 - 2. Utility failure
 - 3. Excessive flows
 - 4. Other conditions or events that create a public health hazard or nuisance
- (n) The owner may be required to install a subsurface sewage disposal system if the daily flows increase to greater than 100 gallons per day.

Prior to issuance of a pump and haul permit issued under the preceding criteria, the applicant shall record with the Monroe County Register of Deeds the current affidavit being used by the Monroe County Health Department for construction of a pump and haul facility. The affidavit shall become null and void when the nonresidential structure has been legally connected to an approved public wastewater disposal system or subsurface sewage disposal system.

503.11 Moratorium on Construction

The Health Officer, at his/her discretion, may institute a moratorium on construction of onsite sewage disposal systems when conditions are present in the soils that would adversely affect the proper construction, installation, and operation of an onsite sewage disposal system. Said moratorium shall be published in a newspaper of general circulation and take immediate effect. By written authorization of the Health Officer consideration may be given to a specific installation, when that installation is in the best interest of public health protection.

503.12 Variances

A variance to provisions of this regulation may be made when the Health Officer determines that a special circumstance is present. Upon written authorization of the Health Officer, the owner may construct or cause to be constructed an onsite sewage disposal system, under the direction of the Health Officer and subject to such conditions as he/she may require, considering the limitations of the property, the protection of public health, and the prevention of any nuisance. An alternate method of onsite sewage disposal may be approved by the Health Officer when in his/her judgment, special factors warrant such a variation. Requests for variances to install an alternative method of onsite sewage disposal shall be in writing and presented to the Monroe County Health Department.

503.13 Installation Inspection Required

After construction of the onsite sewage disposal system has been completed to the extent of the placement of all sewer and distribution lines, and before any portion of the distribution lines have been covered or placed in operation, a request for an inspection

shall be made to the Health Officer. It shall be the responsibility of the licensed installer to notify the Health Officer that the onsite sewage disposal system is ready for inspection. An inspection by the Health Officer is required or may be conducted any time deemed necessary, to ensure compliance with all permit specifications and to ensure protection of public health and the environment, after the onsite sewage disposal system has been completed but before any portion of the onsite sewage disposal system has been covered or placed in operation. Upon approval of the system for backfill, the onsite sewage disposal system shall not be allowed to remain open for longer than 48 hours, unless otherwise approved by the Health Officer. The following site conditions shall exist at the time of the final inspection or be viewed and approved by the Health Officer prior to issuance of final approval

- (a) All inlets and outlets to the septic tank(s) shall be exposed;
- (b) The access cover(s) of the septic tank(s) shall be exposed;
- (c) The sewer line from the septic tank(s) to the onsite sewage disposal system shall be exposed;
- (d) When a soil absorption bed or field (i.e., trenches) is installed, the individual bed or trenches shall be exposed with the aggregate in place.

503.14 Altered or Repaired Existing Onsite Sewage Disposal Systems

An onsite sewage disposal system shall conform to the minimum construction requirements of this regulation if the following applies to the building(s) being served by the system:

- (a) Reconstruction after existing structure is voluntarily demolished;
or
- (b) Reconstruction after fire or casualty destroys over 50% of the building; or
- (c) Reconstruction of existing building that exceeds 50% replacement;
or
- (d) The intended use for the existing habitable building is to be changed.

SECTION 504

REQUIREMENTS FOR THE CONSTRUCTION AND MAINTENANCE ONSITE SEWAGE DISPOSAL SYSTEMS

504.01 Septic Tanks

- (a) Location. No septic tank or onsite sewage disposal system shall be located where it is inaccessible for cleaning or inspection purposes nor shall any structure be placed over any existing tank making the same inaccessible for cleaning and inspection purposes.
- (b) Manholes. Every septic tank shall be provided with one or more suitable openings with covers. One of the openings is to be located over the outlet to permit inspection and cleaning. Where the top of the septic tank is located more than six inches below the finished grade, watertight manholes shall be built up to within six inches of the finished grade.
- (c) Inlets and Outlets. The bottom of the inlet line into the septic tank shall be at least two inches above the operating water level of the tank. The outlet shall be constructed to permit withdrawal of liquid from the middle third of the depth of the liquid in the tank and to prevent the escape of floating or settled solids and must allow for a minimum air chamber of eight inches. The inlet must be so designed to permit gas above the liquid level to pass through the inlet line and out the vent pipe servicing the sewer line

leading to the tank. All pipe connections to a septic tank shall be watertight and surrounding excavation shall be properly backfilled.

- (d) Construction Material. Concrete pre-fabricated tanks shall be constructed of washed aggregate, and properly vibrated to produce concrete tanks having a minimum compressible strength of 4000 pounds per square inch. All septic tanks shall be fitted with inlet and outlet-connectors that conform to American Society for Testing and Materials (ASTM) C923 specifications. Septic tanks constructed of materials other than concrete must be approved by the Health Officer. No septic tank shall be less than four feet in depth measured from the flow line, or less than five feet between the inlet and outlet.
- (e) Number and Capacities. Septic tanks hereafter installed shall have a minimum liquid capacity equal to the maximum volume of sewage flowing into it during any 36-hour period. The first septic tank in

any sewage disposal system shall be a minimum of 1,500 gallons capacity with at least two chambers or consist of two septic tanks in series totaling a minimum of 1,500 gallons. Minimum size for any additional septic tank in series shall be 500 gallons. For each additional bedroom over four add 500 gallons to septic tank capacity.

- (f) Dosing Tanks and Pumps. A dosing tank and pump may be required when the liquid capacity of the septic tank is over 2,000 gallons. The dosing tank shall be constructed of watertight material approved by the Health Officer. It shall be equipped with a watertight manhole which terminates no lower than finished grade and which facilitates repair, maintenance, and cleaning. The pumps shall be of the type designated as sewage lift pumps and constructed of material approved by the Health Officer. The pumps shall be sized to properly dose the subsurface sewage disposal system in accordance with current industry standards and proper application rates. A minimum of an audio/visual high water level warning device shall be installed in all dosing tanks. All electrical connections associated with the dosing tank shall comply with the local electrical codes.
- (g) Effluent Filter. An effluent filter shall be installed on the effluent side of the septic tank and shall be accessible for cleaning. The effluent filter shall be sized based on the estimated flow from the structure served by the onsite sewage disposal system. Effluent filter material shall be no greater than 1/16th inch in size.

504.02 Onsite Disposal Systems

- (a) Location: The soil absorption system shall not be located under any drive parking area, paved surface, or building;
- (b) Distribution Header: A header shall be set so as to afford an even distribution of all septic tank effluent throughout the subsurface distribution lines. The pipe between a septic tank and distribution system shall be connected in the center of the distribution header, except for a manifold header shall be required for headers exceeding 25 feet in length;
- (c) Distribution System: The soil absorption system shall be constructed with materials that comply with Michigan Department of Environmental Quality (MDEQ) standards. Straw or other approved materials that meet current industry standards shall be placed between the stone and final cover of soil to prevent soil from filtering into the stone. Approval of an onsite sewage disposal system may be withheld if the distribution lines are not laid at a uniform grade, or is in poor condition, or if soil has been allowed to fill up the void spaces around the filter material, or if the soil at the soil aggregate interface has been sealed due to improper construction technique, or when the installation does not conform to the requirements of the permit;
- (d) Elevated Absorption Areas: Proper construction practices require that when any construction and installation of a soil absorption sewage

disposal system involves an elevated absorption area, the sand berm shall be installed around the entire system. When construction of an onsite sewage disposal system results in an increase in the elevation of the parcel, construction of a surface water diversion to divert surface water from said elevated system shall be required to prevent runoff onto adjacent properties. The diversion shall be approved by the municipality in which the system will be constructed. Exceptions to this requirement:

1. A 100-foot isolation distance is maintained between the property line and the gravel within the wastewater disposal system;
2. Where a minimum of four feet of permeable soil is present to allow for the rapid percolation of water into the ground.

- (e) Connection of Distribution Lines: All distribution lines in a soil absorption system shall be connected with a header and footer. The header is to be a solid plastic pipe; the footer shall be perforated;
- (f) Excavation of Soils: Any excavation for the installation of an onsite sewage disposal system shall be done in a manner that does not smear or seal the sides or bottom of the soil excavation;
- (g) Aggregate: Stone used in any subsurface disposal system shall be washed gravel, or limestone. The source of the stone shall meet the specifications of and be approved in writing by the Health Officer prior to its use in any subsurface disposal system;
- (h) Depth of Earth Cover: The onsite sewage disposal system shall be covered with a soil texture equal to or more permeable than a loamy sand to a minimum depth of 12 inches to a maximum depth of 18 inches. No portion of the onsite sewage disposal system shall be covered with impermeable soils such as clays or silts. The cover shall be graded so as to aid in the runoff of rainwater.

504.03 Required Minimum Isolation Distance in Feet

| FROM THE: | TO SEPTIC TANK: | TO ABSORPTION FIELD / ABSORPTION BED | TO SEWER LINE: |
|--------------------------------------|-----------------|--------------------------------------|----------------|
| Drilled Well | 50 | 50 | 50 |
| Buried Water Holding Tank or Cistern | 50 | 50 | 50 |
| Point Well (Dug Well) | 100 | 100 | 100 |
| Property Line | 10 | 10 | 5 |
| Basement Wall | 10 | 15 | N/A* |
| Crawl Space or Foundation | 5 | 10 | N/A* |
| Bank or Drop-off | 10 | 25 | 10 |
| Road Right-of-Way | 10 | 10 | 10 |
| Surface Water | 100 | 100 | 25 |
| Swimming Pools | 25 | 25 | 10 |
| Center of County Drains | 100 | 100 | 25 |
| Center of Roadside Ditches | 25 | 25 | N/A* |
| Edge of Driveway | 10 | 10 | N/A* |

*N/A means "not applicable"

| ITEMS | MAXIMUM | MINIMUM |
|---|-------------|--------------------|
| Absorption system : distance between distribution lines | 4 feet | 2 feet |
| Absorption system: distance between distribution lines and bed wall | 2 feet | 1 foot |
| Number of lateral trenches | --- | 2 |
| Size of gravity distribution conduit | --- | 4 inches |
| Size of pressurized distribution conduit | --- | ½ inch |
| Length of trenches | 100 feet | N/A |
| Width of trenches | 36 inches | 18 inches |
| Space between trenches, wall-to-wall | 5 feet | 3 feet |
| Depth of cover material | 18 inches | 12 inches |
| Slope of tile lines | 4"/100 feet | Level Preferred |