

OAKLAND COUNTY HEALTH DIVISION

SANITARY CODE

ARTICLE III

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**ARTICLE III
SEWAGE DISPOSAL AND TREATMENT**

To protect the public health and safety from nuisances and causes of sickness resulting from inadequate sewage disposal and treatment, there are hereby provided the following rules and regulations relating to the construction, location and operation of on-site sewage disposal systems within the County of Oakland.

SECTION 1 – DEFINITIONS:

- 1.1 Sanitary Sewage – The term sanitary sewage shall mean human excreta, as well as all waste discharges from toilets, urinals, sinks, laundries, shower baths, bathtubs, dishwashers, garbage grinders, and septic tank overflow or effluent.
- 1.2 Industrial Waste – The term industrial waste shall mean the liquid waste products from industrial processes as distinct from sanitary sewage.
- 1.3 On-site Sewage Disposal System – The term on-site sewage disposal system shall mean the sanitary sewage treatment and/or disposal device installed to service an individual home, business, or industrial establishment in areas not served by municipal sanitary sewers.
- 1.4 Subsurface Sewage Disposal System – The term subsurface sewage disposal system shall mean that part of the on-site sewage disposal system that distributes the overflow or effluent from a septic tank or other sewage treatment facility in an arrangement of absorption trenches, dry wells, or seepage beds below the ground surface, so as to allow the effluent to be absorbed by the surrounding soil.
- 1.5 Septic Tank – The term septic tank shall mean a water-tight covered receptacle designed and constructed to receive the discharge of sewage, separate solids from the liquid, digest organic matter and store digested solids through a period of detention, and allow the clarified liquids to discharge for final disposal.
- 1.6 Mechanical Septic Tank – The term mechanical septic tank shall mean a device designed and constructed to receive the discharge of sewage and to theoretically destroy the organic matter through the application of increased aeration by mechanical means.
- 1.7 Sanitary Sewer – The term sanitary sewer shall mean any enclosed water-tight conduit for transporting sanitary sewage.

- 1.8 Approved Materials – Approved materials shall be those materials identified in this regulation or other materials designated in the future by the Oakland County Health Division and identified in an addendum.
- 1.9 Premise – The term premise shall mean any dwelling, building, or other place where human beings reside, are employed or congregate.
- 1.10 Water Supply System – The term water supply system shall mean the well casing through which the potable water is obtained by means of a pump and the suction pipe between the well casing and the pump.
- 1.11 Private Water Supply System – The term private water supply system shall mean that system which serves not more than a single dwelling or a dwelling with two family residential units.
- 1.12 Public Water Supply Systems – The public water supply systems shall mean all other water supply systems not herein defined as private water supply systems or municipal water supply systems.
- 1.13 Municipal Water Supply System – The term municipal water supply system shall mean that system which serves cities, villages, townships, districts, communities and condominiums with the water being distributed by a network of pipes and water mains.
- 1.14 Residence – The term residence shall mean any dwelling of one or more rooms arranged for the use of one or more individuals living together as a single housekeeping unit, with cooking, living, sanitary and sleeping facilities.
- 1.15 Non-Residence – The term non-residence shall mean all other structures or buildings not herein defined as a residence.
- 1.16 Person – The term person shall mean natural persons, individuals, firms, partnerships, corporations, companies, societies, and associations, and every agent, officer or employee of any thereof.

SECTION 2 – UNLAWFUL SEWAGE DISPOSAL:

- 2.1 Unlawful Disposal Defined – It shall be unlawful for any person to construct, install, alter, repair, maintain, or cause to be constructed, installed, altered, repaired, or maintain any premise which is not equipped with an on-site sewage disposal system or served by a sanitary sewer. Any on-site sewage disposal system shall be constructed, installed, altered, repaired and maintained in accordance with the provisions of these regulations. Under no conditions may the sewage from an existing or hereafter constructed premise be deposited upon the

surface of the ground, into roadside ditches, watercourses, inland lakes, or into any closed drain other than a sanitary sewer.

- 2.2 Industrial Waste – It shall be unlawful for any person to dispose of industrial waste in a manner which tends to create a dangerous or obnoxious condition, or creates a menace to health or safety, or impairs the use by any person of any lake, stream, or other body of water.

SECTION 3 – PERMIT REQUIRED:

- 3.1 Permit Necessary – It shall be unlawful for any person to construct, install, alter, repair, or cause to be constructed, installed, altered, or repaired any on-site sewage disposal system or other device for the disposal of sewage without first obtaining a permit from the Oakland County Health Division.
- 3.2 Application Procedure – Application for an on-site sewage disposal system permit shall be made in writing in a manner outlined and on forms furnished by the Oakland County Health Division. The application shall be accompanied by a scaled plot plan and the service fee established by the Human Resources Committee. Forms and directions to prepare the required plot plan are available at the Oakland County Health Division.
- 3.3 Issuance of Permit – The Oakland County Health Division shall issue an on-site sewage disposal system permit when the data obtained indicates that the requirements of these regulations and/or applicable State Statutes will be or have been met. The permit must be obtained prior to the issuance of a building permit by the local unit of government. The permit will be valid as written for a period of two years from date of issuance and void thereafter. The permit shall be issued to the property owner or to a person licensed under Public Act 383 of Public Acts 1965, as a residential builder or maintenance and alteration contractor.
- 3.4 Permit Denied Reasons – The Oakland County Health Division shall refuse to issue an on-site sewage disposal system permit when the data obtained indicates that the requirements of these regulations and/or applicable State Statutes have not or cannot be met. The reasons for denial shall be identified in writing by the Oakland County Health Division.

SECTION 4 – REQUIREMENTS FOR THE CONSTRUCTION AND LOCATION OF ON-SITE SEWAGE DISPOSAL SYSTEMS:

- 4.1 Scope of On-site Sewage Disposal Systems – On-site sewage disposal systems will receive the sanitary wastes only for on-site treatment and disposal in a manner prescribed herein and may consist of septic tanks, holding tanks, sub-surface drains, electrical devices, mechanical septic tanks and/or sand beds.

- 4.2 Location of On-site Sewage Disposal Systems – On-site sewage disposal systems shall be located not less than ten (10) feet from all building foundations; ten (10) feet from all property lines; fifty (50) feet from all lakes, streams and other bodies of water; fifty (50) feet from all private water supplies; seventy-five (75) feet from all water supplies used by or available to the public; two-hundred (200) feet from all municipal water supplies, unless otherwise exempted by the Michigan Department of Public Health and not within proposed or dedicated road right-of-way in municipalities where the Master Plan of the Oakland County Road Commission has been adopted.
- 4.3 Protection of Water Supply Systems – No sewer connecting the building served and the septic tank shall be installed within ten (10) feet of a private or public water supply. All such sewers installed within fifty (50) feet of a private water supply or seventy-five (75) feet of a public water supply shall be of cast iron service weight, or its equal, not less than four (4) inches in diameter, shall have water-tight joints and shall be laid with not less than ¼ inch per foot slope. Sewers located more than fifty (50) feet from private water supplies, seventy-five (75) feet from public water supplies and two-hundred (200) feet from municipal water supplies shall be constructed of vitrified bell and spigot tile with slip seal or cemented joints, or other approved material.
- 4.4 Sewer Construction – Header pipe as well as sewer lines between the septic tank and header or distribution box shall be bell and spigot with water tight joints, slip seal type of vitrified tile with water tight joints, or plastic pipe with fittings, adapters, and solvents meeting the specifications of the State Plumbing Board.
- 4.5 Septic Tank Construction – The septic tank shall be constructed of concrete, cement blocks, bricks, or other material approved by the Oakland County Health Division. The tank shall be of water-tight construction and the structural design and materials used shall be in accordance with generally accepted good engineering practice providing a sound, durable tank which will safely sustain all dead and live loads and liquid and earth pressure involved in each case. A straight inlet shall be provided. The outlet device shall extend into the middle one-third of the liquid level of the septic tank. The invert of the outlet shall be located not less than ten (10) inches below the top of the tank and not less than two (2) inches below the invert of the inlet. The tank shall be provided with manholes of sufficient size to facilitate the inspection and cleaning of the tank. All septic tanks shall be connected to a subsurface disposal system complying with the requirements of Section 5. A compartmented tank will have a manhole on the top of each compartment and the first compartment shall have a capacity equal to 1/2 to 2/3 the total capacity.
- 4.6 Size of Septic Tank – The minimum liquid capacity of septic tanks for a premise will be one thousand (1000) gallons. In residential installations there will be a minimum liquid septic tank capacity of two hundred and fifty (250) gallons per

bedroom for each bedroom in excess of four. In a non-residential installation the size of septic tank will be based on the anticipated water use.

- 4.7 2500 Gallon Septic Tank and Larger – It shall be unlawful to install or construct an on-site sewage disposal system with a capacity of 2500 gallons or larger without first having an architect or engineer submit plans in triplicate to the Oakland County Health Division for its approval.

SECTION 5 – SUBSURFACE DISPOSAL SYSTEM:

- 5.1 General Requirements – The location of a subsurface sewage disposal system shall comply with the same requirements as specified for the location of on-site sewage disposal system. The disposal system shall not drain into any open ditch, highway, drain, county drain, storm drain, lake, stream or other body of water nor shall it be permitted to drain to the surface of the ground. Dry wells, seepage beds and other methods of disposing of effluent shall be used only when deemed necessary and approved by the Oakland County Health Division prior to construction. Construction of subsurface disposal systems in unstable or unsettled filled grounds will not be approved. Subsurface disposal systems shall not be closer than four (4) feet to any known water table. Subsurface disposal systems shall be covered with at least eight (8) inches but not more than thirty (30) inches of fill material. Tile disposal fields shall contain not less than two lines and the length of any tile line shall not exceed one hundred (100) feet. The acceptable trench widths are listed in Table #1, Section 5.4.
- 5.2 Soils Evaluation – A minimum of two (2) soil borings or excavations will be made by the applicant, or his agent, on each building site in the area where the proposed on-site sewage disposal system is to be located, and recorded by the applicant or his agent in accordance with the procedure prescribed by and available at the Oakland County Health Division. The Oakland County Health Division may refuse to issue a septic tank permit when the data obtained from soil explorations reveal fine textured soils (clays and silts) and high subsurface water table elevations.
- 5.3 Field Tile Construction Standards – Field tile used in the tile disposal field or bed installations shall meet A.S.T.M. (American Society for Testing Materials) standards for extra quality clay or cement tile; shall not be less than four (4) inch inside diameter tile; and shall be laid with 1/4 to 1/2 inch open joints. The top half of all open joints shall be covered with prefabricated clips, polyethylene plastic material with a minimum single thickness of 10 mils, strips of heavy asphalt treated building paper (20 pound weight minimum) or other approved material. The slope or grade of the tile lines shall not exceed three inches in one hundred (100) feet. Acceptable tile line spacing (center to center) is listed in Table #1 and #2, Section 5.4. There shall be a minimum of six (6) inches of stone beneath the tile across the width of the trench, and a minimum of two (2) inches

of stone over the tile for the entire width of the trench. The stone material shall be 10 A washed stone, or other material acceptable to the Oakland County Health Division. Such material shall be graded ranging in diameter size from ¼ to 1 ½ inches and shall be free from dust, sand or excessively fine material.

- 5.4 Factors Affecting the Size of the Drain Field – The size of the subsurface disposal system shall be based on anticipated water use and the type and structure of the subsoils. Under optimum soil conditions, where the soil is composed entirely of coarse sand, gravel, or a coarse sand gravel mixture, a minimum of one hundred and ninety (190) square feet of absorption area per bedroom is required for residences. Additional bedrooms will require the following:

TABLE #1 – Optimum Soil Conditions

No. of Bedrooms	12” Trench 4’ on Centers	18” Trench 4’ on Centers	24” Trench 6’ on Centers	36” Trench 8’ on Centers
2	380 Lineal Ft.	254 Lineal Ft.	190 Lineal Ft.	130 Lineal Ft.
3	570 Lineal Ft.	381 Lineal Ft.	285 Lineal Ft.	195 Lineal Ft.
4	760 Lineal Ft.	508 Lineal Ft.	380 Lineal Ft.	260 Lineal Ft.
5	950 Lineal Ft.	635 Lineal Ft.	475 Lineal Ft.	325 Lineal Ft.

Non-residences will require a minimum of one (1) square foot of absorption area per gallon of anticipated water use. The square footage of absorption areas will be increased where soil conditions are less than optimum, but still acceptable for an on-site sewage disposal system. Acceptable soil conditions are those which consist of fine sand, sand and silt mixture, or clay silt sand mixture with the sand comprising at least 50% of the mixture. A minimum of two hundred and fifty (250) square feet of absorption area per bedroom is required for residences under these conditions. Additional bedrooms will require the following:

TABLE #2 – Acceptable Soil Conditions, But Less Than Optimum

No. of Bedrooms	12” Trench 4’ on Centers	18” Trench 4’ on Centers	24” Trench 6’ on Centers	36” Trench 8’ on Centers
2	500 Lineal Ft.	334 Lineal Ft.	250 Lineal Ft.	175 Lineal Ft.
3	750 Lineal Ft.	500 Lineal Ft.	375 Lineal Ft.	240 Lineal Ft.
4	1000 Lineal Ft.	668 Lineal Ft.	500 Lineal Ft.	305 Lineal Ft.
5	1250 Lineal Ft.	835 Lineal Ft.	625 Lineal Ft.	370 Lineal Ft.

Non-residence will require a minimum of one (1) square foot of absorption area per five tenths (0.5) gallons of anticipated water use.

- 5.5 Covering – Final earth cover provided over the subsurface disposal system shall be not less than eight (8) inches to a maximum of thirty (30) inches.

5.6 Final Inspection – It shall be unlawful to backfill a septic tank and subsurface disposal system installation until an inspection has been completed and approval granted by the Oakland County Health Division or its authorized representative. The installer shall leave uncovered the following portions of the sewage disposal system in order that the final inspection may reveal good workmanship and compliance with this code and any stipulations as may be noted on the construction permit:

- a. top of septic tank, inlet and outlet
- b. header – full length
- c. footer – full length
- d. the entire length of the last line of drain tile installed
- e. an opening every 20’ in each line of tile.

5.7 Dry Wells – Dry well installations may be used only when permission is granted by the Oakland County Health Division prior to installation. Such installations shall be installed in accordance with the specifications and plan available from the Oakland County Health Division.

5.8 Dry Well Absorption Area – The size of dry well installations shall be based on the type and structure of the subsoils. Under optimum soil conditions, where the soil is composed entirely of coarse sand, gravel, or a coarse sand/gravel mixture, a minimum of one hundred and ninety (190) square feet of absorption area per bedroom is required. Where soil conditions are less than optimum, but still acceptable for on-site sewage disposal, a minimum of two hundred and fifty (250) square feet of absorption area per bedroom is required. Acceptable soil conditions are those which consist of fine sand, sand and silt mixture, or clay/silt/sand mixture with the sand comprising at least 50% of the mixture.

Dry well installations require a minimum of 6” of 10 A stone, or equivalent, on the bottom. The 1 ft. and 2 ft. of 10 A stone in Table # 3 below refer to the amount of stone placed around the perimeter of the dry well.

TABLE #3

750 gal.	Dry well with 1 ft. of 10 A stone = 160 sq. ft. of Absorption area.
1000 gal.	Dry well with 1 ft. of 10 A stone = 192 sq. ft. of Absorption area.
1000 gal.	Dry well with 2 ft. of 10 A stone = 240 sq. ft. of Absorption area.
1000 gal.	Short Dry well with 1 ft. of 10 A stone = 156 sq. ft. of Absorption area.
1000 gal.	Short Dry well with 2 ft. of 10 A stone = 188 sq. ft. of Absorption area.

- 5.9 Ground Water Elevations Acceptable for Dry Wells – The highest ground water elevation must be at least 4’ from the bottom of the stone layer under the dry well.
- 5.10 Cutdown Installations – When soils explorations reveal the presence of acceptable soils beneath unacceptable soils, an excavation or cutdown through the unacceptable soils will be required. No cutdown shall exceed 12 ft. in depth.
- 5.11 Mechanical Septic Tank – All mechanical septic tanks used in sewage treatment facilities for non-municipal uses shall be subject to approval by the Oakland County Health Division for installation in the County of Oakland. All such treatment plants shall be maintained and operated by the local governmental unit or by Oakland County Department of Public Works acting as their agent.

SECTION 6 – SEWAGE DISCHARGE FROM PUBLIC OR PRIVATE DRAINS:

- 6.1 Sewage From Unknown Origin – Whenever the Board of Health upon information and belief believes that there is improperly treated sewage flowing from the outlet from any public or private drain of an unknown cause and origin, such Board shall hold a public hearing for the purposes of determining whether the believed improperly treated sewage is polluting.
- 6.2 Board of Health to Call Meetings – The Board of Health shall give notice of the time and place of such hearing by publication in newspaper of general circulation in the county, at least ten (10) days before such meeting. Notice shall also be served on the Clerk of each Township, City and Village in the geographical area determined to be the origin of the improperly treated sewage by certified mail at least five (5) days before such meeting. Notices shall also be served at least ten (10) days before such meetings by certified mail to each person whose name appears upon the last City or Township tax assessment roll at the address shown on such roll, as owning land within the area believed to be causing the pollution. Prior to publication and mailing of such notices, the Board of Health shall tentatively determine by resolution the geographical area where the suspected improperly treated sewage originates.
- 6.3 Board of Health Shall Issue Notices – Whenever, after such public hearing as required in Section 6.2, the Board of Health shall determine that improperly treated sewage is flowing from the outlet of any public or private drain of unknown cause and origin, it shall issue notices requiring persons owning the premises as shown on the City or Township tax assessment roll at the address shown on such roll to connect such sewage flow to a publicly operated sewage disposal system if available or in the absence thereof, to comply with the provisions of Article III, Section 4 and 5 of this Sanitary Code. Notices shall be given by posting in five (5) conspicuous places in the geographical area determined to be the origin of the improperly treated sewage and also notice shall be sent by certified mail to each person whose name appears upon the last City or

Township tax assessment roll as owning land and to the Clerk of each Township, City and Village in the above described geographical district at the address shown on such roll.

- 6.4 Insanitary Drain May Be Plugged – After not less than thirty (30) days following the posting and mailing of such notices, the Board of Health may plug or cause to be plugged the outlet of said drain until such time as the sources of the improperly treated sewage has been located. Owners of property known to be discharging improperly treated sewage in such drain shall be given written notice of the corrections required and shall have thereafter, thirty (30) days to make such corrections.

Failure to comply with such notices shall be a violation of this code and punishable as set forth in Article I Section 5.

- 6.5 Abandonment of Septic Tank – When a premise connects to a sanitary sewer, the septic tank is to be abandoned in accordance with specifications available from the Oakland County Health Division.

SECTION 7 – ENGINEER’S PLAN:

- 7.1 Engineer’s Plan – When an application for an on-site sewage disposal permit has been denied (Section 3.4) for reasons identified in writing by the Oakland County Health Division and before there can be further consideration by the Environmental Health Services of the Oakland County Health Division of such application the applicant will present a plan for a sewage disposal system prepared by a professional engineer, to be reviewed by the Environmental Health Services to determine if the reasons for the initial denial have been satisfactorily resolved by the designing engineer. If the Environmental Health Services determines that the engineer’s plan has satisfactorily resolved the on-site problems, the Division shall forthwith favorably endorse the application based on the engineer’s plan.

If the Environmental Health Services determines that the engineer’s plan does not resolve the initial reason for denial, the application shall stand as denied.

SECTION 8 – APPEAL BEFORE SANITARY CODE APPEAL BOARD:

- 8.1 Right of Appeal – A person who has been denied a permit as required by this Article shall have the right to appeal by petition in writing and directed to the Oakland County Health Division and such appeal shall be heard before the Sanitary Code Appeal Board. Such petition must be accompanied with a fee and must be submitted within thirty (30) days from the receipt of the written notice of the denial.

SECTION 9 – EFFECTIVE DATE:

These regulations shall effect on January 1, 1973, Adopted by the Oakland County Board of Health on October 18, 1972, Amendment, Sec. 6.5, Adopted by the Board of Commissioners December 5, 1974; Amendment, Sec. 8.1, Adopted by Board of Commissioners June 5, 1975.

PROCEDURE FOR ABANDONMENT OF A SEPTIC TANK

1. THE SEPTIC TANK SHALL BE PUMPED AND ITS CONTENTS REMOVED BY A STATE LICENSED SEPTIC TANK CLEANER.
2. THE TOP OF THE SEPTIC TANK SHOULD THEN BE CRUSED AND THE VOID FILLED WITH EARTH, PREFERABLY SAND, AND COMPACTED.

ALTERNATE METHOD

1. SAME AS STEP #1, ABOVE.
2. FILL THE CLEANED SEPTIC TANK WITH SAND TO AT LEAST THE TANK OUTLET LEVEL.