

Lake Panorama On-Site Wastewater Management District

Rules and Regulations

Chapter One

1.0 Administrative

1.1(1) Term of Office The Administrative Committee (Committee) members shall be appointed by the Guthrie County Board of Health (Board) to three-year terms. Members may be reappointed to consecutive terms.

1.1(2) Vacancies Vacancies on the Committee shall be filled by the Board of Health within two months of the vacancy. Members of the Committee shall either be residents of Guthrie County or property owners within the Management District.

1.1(3) Officers At the first meeting of each calendar year the Committee shall select a Chairperson and Vice-Chairperson as officers. The County Sanitarian shall serve as secretary.

1.1(4) Meetings The Committee shall meet at least four times per year at a time and place designated by the Committee.

1.1(5) Budget The Committee shall submit a budget request to the Board of Health annually. This budget shall be submitted to the Guthrie County Health Department at least two weeks prior to the Board of Health meeting at which the health budget is to be proposed.

1.1(6) Rules and Regulations All rules and regulations or amendments shall be presented to the Board of Health for approval prior to submission to the Guthrie County Board of Health.

1.1(7) Quorum Any three members shall constitute a quorum.

1.1(8) Voting All motions of the Committee shall be approved by a simple majority of those members present.

1.1(9) Removal of member By simple majority vote the Committee may recommend to the Board of Health the removal of a Committee member. Such removal may be recommended for improper conduct or lack of attendance at two consecutive regular meetings.

- a. Failure of the Board of Health to act upon receipt of such a recommendation at its next regular meeting shall result in automatic removal of the member.
- b. The Board of Health may vote to delay a final decision on the recommendation until the subsequent meeting of the Board in order to collect additional information.
- c. Removal of a Committee member shall be effective immediately upon motion of the Board of Health.

1.1(10) Notice of Meeting All members shall receive at least one week's advance notice of any regular meeting. Special meetings or emergency meetings may be called at the discretion of the Chair person with all members notified, if possible, and with at least 24 hours advance notice.

1.1(11) Policies The Committee may direct the sanitarian to prepare policies for the day-to-day operation of the District. Such policies need only be approved by the Committee. The Board of Health, at its own initiative, may revoke any policy of the Committee.

Lake Panorama On-Site Wastewater Management District Rules and Regulations Chapter Two

Section 1 Jurisdiction

Chapter 137 of the 2011 Code of Iowa specifies in Section 137.104 the following power of the County Board of Health:

May provide such personal and environmental health services as may be deemed necessary for the protection and improvement of the public health and issue licenses and permits and charge reasonable fees.

Under the authority granted by Chapter 137 the Board of Health and Board of Supervisors adopted Guthrie County Ordinance No. 2 titled Lake Panorama On-Site Management District Ordinance establishing the Administrative Committee and empowering the Committee to develop rules and regulations relating to the District.

These regulations shall supersede and replace other regulations of the Committee which have been in effect to date.

Section 2 General Requirements

2.1 Applicability These regulations are applicable to all sewage and wastewater treatment systems located within the Lake Panorama On-Site Wastewater Management District except those approved by other appropriate governmental agencies, i.e. Department of Natural Resources (DNR). Operation and maintenance of DNR approved systems are covered by these rules. System owners, installers, repairmen, and maintenance contract providers may be charged in Magistrate's Court for violation of any regulation herein contained pursuant to Chapter 137, Code of Iowa, Section 137.117.

2.2 Definitions The definitions applied to these regulations shall be the same as those delineated in the Guthrie County Board of Health regulations.

2.3 General regulations

2.3(1) Conformance with County Health Regulations Regulations of the Board of Health that are not addressed in these regulations shall be enforced by the Sanitarian within the District when appropriate. Any system exceeding the six-bedroom requirement must be designed by an engineer and approved by the Committee, and the Dept. of Natural Resources where appropriate.

2.3(2) Connection to public sewer

- a. No private sewage disposal system (system) shall be installed, repaired, or rehabilitated where a public sanitary sewer is available or where a local ordinance requires connection to a public system. On-site systems within the South Panorama Sanitary District are exempt from this rule and are administered by the South Panorama Sanitary District Trustees' policies.
- b. When a public sanitary sewer is not available, every building wherein persons reside, congregate, or are employed shall be provided with an approved system.
- c. It is prohibited to discharge any wastewater from private sewage disposal systems (except under an NPDES permit) to any ditch, stream, pond, lake, natural or artificial waterway, county drain tile, surface water drain tile, land drain tile, or to the surface of the ground.

2.3(3) Permit Permits are required to authorize certain aspects of these regulations.

- a. **System Installation Permit** No private sewage disposal system shall be installed until an application for a permit has been requested and a permit has been issued by the Sanitarian. The installation shall be in accordance with these regulations and those of the Board of Health where applicable. No permit shall be issued until a complete set of plans for the home is submitted for evaluation of all aspects bearing on the requirements of these rules.
- b. **Major Repair Permit** Whenever a system undergoes major repair, including but not limited to tank replacement and field replacement, a permit shall be issued for the work and an inspection of the work conducted.

- c. **Operating Permit** Any system, other than a standard septic tank and lateral field system, requires an Operating Permit as extra record keeping is required on all such systems. **Chapter 3, Section 10** systems also require an Operating Permit
- d. **Inspection Permit** An inspection fee shall be established for the administration of **Chapter 3 Section 9.3(1)**, except that individual residences charged for the Operating Permit shall not have an additional Inspection Permit fee. The inspection fee shall be charged in the year the tank is opened for inspection.

2.3(4) Flow criteria The flow requirements in designing systems shall be based upon the rate of 150 gallons per day per bedroom. Flows for non-resident structures shall be designated by the Committee on an ad-hoc basis.

2.3(5) Fees Permit, percolation test fees, and other fees shall be established by the Board of Health.

2.3(6) Permit validity Permits shall be valid for one year from issue date. From the date the house construction begins, the system must be installed within one year or prior to occupancy, whichever is earlier.

2.3(7) Repairs to existing systems At such times as any part of the existing system fails, needs repair, or replacement then such parts shall be repaired to the standards delineated in these rules rather than those in effect at the time of the original installation. Further, replacement of tanks, treatment systems, and other major system components requires complete upgrading of the system to substantial compliance with the regulations in place at the time of the repairs.

Section 2.3(8) Modification or remodeling of a house Any time a dwelling is remodeled, added onto, rebuilt, replaced, or otherwise substantially changed the system shall be evaluated for suitability. The Administrative Committee shall review the changes to the dwelling to determine if the system should be upgraded or replaced.

- a. Such changes that result in a home with more bedrooms than shown on the original permit shall have the system upgraded to substantially comply with these regulations.
- b. Such changes that do not result in an increased number of bedrooms but where the Administrative Committee determines that the system is inadequate shall have the system upgraded to substantially comply with these regulations.

Section 2.3(9) Sale of a property with an on-site sewage system No single-family dwelling within the Management District shall be sold without a prior inspection of the on-site sewage system by the Guthrie County Environmental Health Dept. Any repairs, reconstruction, or replacement of the parts or complete system shall be completed as part of the terms of sale of the property.

- a. Iowa law now mandates the time of transfer inspection of all private sewage treatment systems. Iowa law precludes minor repair requirements.
- b. Because of the scheduled District inspections and repair requirements, all points of repair noted in the State inspection report shall be required to be completed either by the seller, or buyer should the repairs not be done as part of the sale.
- c. The District shall provide an official letter delineating the system components, history, and condition of the system, as well as repairs required.
- d. The Dept. shall continue to provide a Contractor Repair Checklist at the time of sale inspection delineating all suggested repairs to encourage completion of work that will likely be required at subsequent regular inspections.

Section 2.3(10) Conversion of garage to living space Any garage that is converted to having living space with or without water shall be considered equivalent at minimum to one bedroom. The existing system must be increased to meet this additional bedroom(s) requirement.

Section 3 Site analysis

- a. A site evaluation shall be conducted prior to issuance of a construction permit. Consideration shall be given, but not limited to, the impact of the following: topography, drainage ways, terraces, floodplain, percent of land slope, location of property lines, location of easements, buried utilities, existing and proposed tile lines, existing, proposed and abandoned wells, amount of available area for the installation of the system, evidence of unstable ground, alteration (cutting, filling, compacting) of existing soil profile, and soil factors determined from a soil analysis, percolation test, or soil survey maps.

- b. No construction of any kind, including driveways, basement digging, etc. may be started until a meeting has been held on site between the Sanitarian and the owner/contractor for the project.
 - 1. This is to assure that the site is properly laid out to allow the on-site system to be installed in the properly designated location.
 - 2. Any changes shall be approved by the Sanitarian.
 - 3. Prior to approval of any lot construction, the system shall be laid out by the installer using a surveyor's instrument and flagging the location of all lines.
 - 4. Proper location of all tanks and appurtenant structures shall be determined.
- c. On sites with existing systems any improvements to the lots shall be reviewed by the Sanitarian prior to the improvements.
 - 1. Consideration shall be given, but not limited to, the impact of the following: landscaping, building additions, driveways, sidewalks and walkways, decks and patios, tiling, utilities installation, heat pump wells, lot boundary changes and easements.
 - 2. Such improvements shall only be allowed if the system can be modified to assure the proper operation of the system.
 - 3. Prior to approval of any lot improvement, the system changes shall be laid out by the installer using a surveyor's instrument and flagging the location of all line changes.
 - 4. Proper location of all tanks and appurtenant structures shall be determined.
- d. All systems shall be located in accordance with Table I of the Board of Health regulations. Due to the limited spatial dimensions of properties, the Committee may provide some reasonable allowances to these distances where appropriate.
- e. In many cases lot size, terrain, soil type, house size, number of bedrooms, or other factors preclude the installation of a private sewage disposal system. Such lots shall be reviewed by the Committee prior to issuance of any permit. Permits shall be approved or denied based on the following.
 - 1. On lots having soils found to have suitable percolation rates for regular lateral field systems or for drip irrigation systems and adequate space for such systems, the Administrative Committee shall mandate the protection of that space for the use of the system. As a result, the home, driveways landscaping, etc. shall be prohibited from intruding upon this space.
 - 2. On lots having soils found to have suitable percolation rates for soil absorption field systems or for drip irrigation systems, the Committee shall mandate restrictions on home size, number of bedrooms, and other relevant factors so as to ensure that the soil absorption field/drip irrigation system will fit within the designated area available.
 - 3. On lots having soils found to have unsuitable percolation rates for soil absorption field systems or for drip irrigation systems, the Committee shall deny permits for private sewage disposal systems. All such systems are assumed to be surface discharge systems and shall not be allowed.
 - 4. The approval of the use of an innovative, technologically complex system by the Committee shall confer no liability for its operation upon said Committee and, at any time such systems do not operate as purported by the manufacturer or installer, the Committee may direct the repair or replacement of said system.
 - 5. On-site sewage treatment technologies are advancing rapidly and it is not possible to delineate the various specialized treatment systems available. However, such systems would include but not be limited to: aeration, peat filters, fabric filters, foam filters, and combinations of such systems. All such systems shall be individually designed by a registered professional engineer knowledgeable in that system and the manufacturer/installer shall abide by whatever additional requirements the Administrative Committee mandates. In most cases, the systems shall be required to be larger than that suggested by the manufacturer/installer. Such things as filtration, re-circulation, pre-tanks, and other treatments may be required. Aerobic treatment units, which fall into this category, are common enough that these systems are delineated in **Section 7.6** of these regulations. Maintenance inspections shall be set by the type of system with peat filters receiving an annual inspection in the second or third quarter.
 - 6. Any system, except for rock trench subsurface disposal systems, requires special maintenance and, therefore, shall require maintenance contracts which shall be individually designed. Additional stipulations shall be established by the Committee according to the

specific treatment mode chosen. An Operating Permit shall not be approved until an agreement on the maintenance contract is signed.

7. Should a maintenance contract not be maintained the Administrative Committee shall have the authority to deny use of the home served by that on-site sewage system until a contract is in place and an inspection verifies the proper operation of that system. Failure to maintain a contract shall be a violation of these regulations.
8. Any system requiring a maintenance contract shall require an Operating Permit renewed annually.

Section 4 Surface discharges

All discharges from on-site systems which are discharged into any surface water or to the surface of the ground shall be treated in a manner that will conform with the requirements of NPDES General Permit No. 4 issued by the Department of Natural Resources, as referenced in 567—Chapter 64. Prior to the installation of any system discharging to waters of the State a Notice of Intent to be covered by NPDES General Permit No.4 shall be submitted to the Department. Systems covered by this permit must meet all applicable requirements listed in the NPDES permit.

Section 5 Building sewers

- 5.1 Type Building sewers used to conduct wastewater from a building to the primary treatment unit of a system shall be constructed of Schedule 40 plastic pipe (or SDR 26) or stronger with solvent-weld or bell-and-gasket type joints.
- 5.2 Size Such building sewers shall not be less than 4” in diameter.
- 5.3 Grade Such building sewers shall be laid to the following minimum grades:
 - a. 4-inch sewer.....12 inches per 100 feet
 - b. 6-inch sewer.....8 inches per 100 feet
- 5.4 Cleanouts
 - a. A cleanout shall be provided where the building sewer leaves the house and at least every 100’ of run.
 - b. An accessible cleanout shall be provided at each change in direction or grade if a 90-degree elbow is used.

Section 6 Primary treatment-septic tanks

- 6.1 General requirements
 - 6.1(1) Tank required Every on-site system shall have as a primary treatment unit a septic tank as described in this rule.
 - 6.1(2) Prohibited waste All wastewater from the facility serviced shall discharge into the septic tank except as follows:
 - a. Softener brine from a water softener is prohibited to enter any portion of the system. Such brine must be discharged to a brine pit or other approved discharge site. All new construction shall have a brine pit installed at the time of construction for present, or future, water softener use.
 - b. Discharge from hot tubs and spas is prohibited to enter any portion of the system. Such water shall be discharged to the yard or other such area in a manner that does not create a nuisance condition.
 - c. Septic tanks shall not be used for the disposal of chemical wastes or grease in quantities which might be detrimental to the bacterial action in the tank or for the disposal of drainage from roof drains, foundation drains, or area drains. Sumps shall not discharge to the septic tank.
 - 6.1(3) Easements No septic tank shall be located upon property under ownership different from the ownership of that property or lot upon which the wastewater originates unless easements to that effect are legally recorded and approved by the Committee.
 - 6.1(4) Effluent discharge All septic tank effluent shall discharge into a secondary treatment system in compliance with these regulations.

6.1(5) Capacity The minimum liquid holding capacity shall be as specified in the following chart (capacity may be obtained by using one or more tanks)

1,2 or 3 bedroom homes.....	1250 gallons
4 bedroom homes.....	1500 gallons
5 and 6 bedroom homes.....	2000 gallons

The presence of a high volume water use fixture such as a whirlpool bath, other jetted-style tub, or similar appliance, requires an additional 500 gallon capacity tank system.

6.1(6) Tank design Tank design shall be in accordance with the County regulations except as follows:

- a. Access must be provided to all parts of the septic tank necessary for adequate inspection, operation, and maintenance.
- b. An access opening over the inlet and outlet baffles shall be at least 18" in the smallest dimension.
- c. All tank accesses must be above grade where feasible.
- d. On older tank risers, if greater than 18", must be a donut-style lid such that there is a smaller lid no less than 12" for an opening. This is to facilitate the inspection program and must be extended above grade. Lids above grade level are exempt except that lids >28" must be converted to 18". Existing lids in pits shall be modified to remove the pit and extend the riser above grade.
- e. All accesses into new tanks must be a plastic riser cast into the tank lid with fitted risers and accompanying lid to assure water-tightness. Risers must be a compatible unit that is sealed to the tank with appropriate material and the lid appropriate for the riser.
- f. Without special permission of the Committee no tank shall be deeper than 5' from final grade to top of tank.
- g. Effluent filters shall be installed in the final outlet baffle of the tank system. Effluent filters shall be of 8" diameter. Filters shall be installed on systems showing lateral ponding, where reasonable.
- h. Only cement tanks shall be allowed except by special allowance when location prohibits use of cement tanks. In such special cases, fiberglass or certain approved plastic tanks may be allowed.

6.1(7) Connecting pipes

- a. Minimum diameter The pipes connecting septic tanks installed in series and at least the first 5' on the effluent side of the last tank shall be a minimum of 4" in diameter Schedule 40 plastic.
- b. Tank connections All inlet and outlet connections at the septic tanks shall be made by flexible boot gaskets cast into the concrete and adaptable to the 4" Schedule 40 plastic by using a strap clamp to assure water tightness. Other gaskets may be approved, if appropriate, by the Sanitarian.
- c. Joints All joints in connecting Schedule 40 plastic pipe shall be approved plastic pipe connections such as solvent welded or compression-type gaskets. No joints are allowed in the fill space between a tank and undisturbed ground.
- d. Unstable ground Schedule 40 plastic pipe shall be used extending across excavations or unstable ground to at least 2' beyond the point where the original ground has not been disturbed in septic tank installations. If the excavation spanned is more than 2', it must be filled with sand or compacted fill to provide a firm bed for the pipe. The first 12" of backfill over the pipe shall be applied in thin layers using material free from stones, boulders, large frozen chunks of earth, or any similar material that would damage or break the pipe.

6.1(8) Prohibited construction There shall be no construction of any kind covering any portion of the septic tank.

Section 7 Secondary treatment

Soil absorption systems are the best available treatment technology and shall always be used. Drip irrigation is a tertiary treatment that is an option when a rock trench soil absorption field is not possible.

7.1 General requirements

7.1(1) Location All subsurface soil absorption systems shall be located on the property to maximize the vertical separation distance from the bottom of the absorption trench to the seasonal high groundwater

level, bedrock, hardpan, or other confining layer, but under no circumstances shall this vertical separation be less than 3'.

7.1(2) Soil evaluation A percolation test or professional soil analysis is required before any soil absorption system is installed. A percolation test shall be performed by Health Department staff or by a registered, professional engineer who shall consult the Sanitarian prior to conducting the percolation test or soil analysis. The Committee shall review all percolation tests and soil analyses submitted and may reject tests deemed not properly performed. The Committee may require both a soil analysis and a percolation test.

- a. The percolation test procedure is outlined in the Board of Health regulations. (See Appendix)
- b. If a professional soil analysis is performed, soil factors such as soil content, color, texture, and structure shall be used to determine a percolation rate.
- c. An area is deemed suitable for conventional soil absorption if the average percolation test rate is between 1 min. and 60 min. per inch. Rates for systems such as mounds and drip irrigation can be up to 120 minutes per inch.
- d. Prior to construction, an additional test hole 6' deep may be required in the center of the proposed absorption area to determine the location of groundwater, rock formations, or other confining layers. This hole shall be provided by the contractor by digging with a backhoe.
- e. If a seasonal high groundwater level is present within 3' of the trench bottom, then corrective measures to eliminate this problem must be performed as approved by the Sanitarian.
- f. In situations where specific location or site characteristics would appear to prohibit normal installation of a soil absorption system, design modifications which could overcome such limitation may be approved by the Committee.

7.1(3) Site limitations

- a. Roof, foundation, and storm drains shall not discharge into or upon subsurface soil absorption systems. Where appropriate, eave troughs shall be required.
- b. Grading, improvements, driveways, and other structures cannot create drainage pathways onto subsurface soil absorption field areas.
- c. There shall be no construction of any kind, including driveways, over the subsurface soil absorption system. Vehicle access to the system is prohibited.
- d. Connecting solid lines under driveways shall be constructed of Schedule 40 plastic or equivalent. Measures to protect from freezing shall be employed when necessary, including insulation and pipe sleeving.
- e. No subsurface soil absorption system shall be constructed on any property under ownership different from the ownership of the property or lot upon which it originates unless easements to that effect are legally recorded and approved by the Committee.

7.1(4) Split fields Subsurface soil absorption fields installed in areas with percolation test rates of 20-60 min./inch shall be composed of two equal fields each containing 75% of the total field length specified in Table I. Each field shall receive the effluent in alternating years. Such alternating of fields shall be done by the Sanitarian. All alternating fields shall be pressure dosed.

7.2 Trench requirements

7.2(1) Percolation charts The following charts are used to determine appropriate subsurface trench lengths.

- a. Table I specifies the lineal feet of subsurface trenches required in accordance with the results of the standard percolation test under normal conditions.
- b. Table II lists an optional method of determining length of subsurface trenches when space is a problem. This table for increased rock usage shall be used only when the size of lots limits the use of the standard length trenches. This table is only applicable to percolation test rates of less than 20 min./inch.
- c. Table II must not be used when the soil profile indicates it is not proper nor can it be used when the potential for a water table problem exists. Under no circumstances can the trench depth exceed 36".
- d. Table III must be utilized additionally to determine actual rock depth for percolation test rates of 20 min./inch or greater.

Table I
Soil Absorption System Sizing Chart
(Lineal feet of absorption trench)

Min. Per Inch	Two-bedroom 300gpd	Three-bedroom 450gpd	Four-bedroom 600gpd	Five-bedroom 750gpd	Six-bedroom 900gpd
1-10	200	265	320	385	460
11-15	230	300	400	500	600
16-19	275	365	440	530	635
20-25	325	420	500	600	720
26-30	360	470	565	680	815
31-35	390	510	615	740	890
36-40	420	550	660	790	950
41-45	450	585	700	840	1010
46-50	475	615	740	890	1070
51-55	495	645	775	930	1115
56-60	510	660	800	960	1150

Table II
Alternative Option for Increased Rock Usage
Perc rate < 20 min./inch

<u>Depth of gravel below distribution line</u>	<u>Reduction in trench lengths as taken from Table I</u>
16"	20%
20"	33%
24"	40%

Table III
Rock Depth for Various Percolation Rates

Percolation rate (min./inch)	Depth of Rock
0-19	12 inches
20-40	16 inches
41-60	20 inches

- e. For any percolation test rate a reduction of 20% in total length can be allowed when dosing is employed.
- f. Lateral trench reduction for both dosing and increased rock depth shall be calculated as follows:

<u>Percolation rate (min./inch)</u>	<u>Total gravel depth</u>	<u>% Reduction from Table I</u>
0-19	16"	30%
0-19	20"	40%
0-19	24"	45%
20-60	24"	25%

- g. If soil analysis is utilized, the person analyzing the site shall determine a value from the soil analysis to fit Table I. Tables II, III, and **Section 7.2(1)f.** may be utilized where appropriate.
- h. Soils with percolation rates of 20 min./inch or more shall have a backhoe bucket with side raker teeth utilized to install rock trench lateral fields.

7.2(2) Conventional subsurface soil absorption trenches shall not be installed in soils that have a percolation rate less than one min./inch or greater than 60 min./inch.

7.2(3) Construction Details

- a. Depth Lateral trenches shall not exceed 36" in depth. Not less than 6" of porous soil shall be provided over the laterals. A shallow trench with as near the minimum cover as possible is strongly recommended. Minimum separation between trench bottom and groundwater, rock formation, or other confining layer shall be 36" even if extra rock is used under the pipe.
- b. Length No gravity absorption trench shall be greater than 100' long. Pressure laterals may be longer if approved by the Sanitarian.
- c. Separation distance At least 5' of undisturbed soil shall be left between each trench edge on level sites. Additional separation of 2' is recommended on sloping sites.
- d. Grade Trench bottom should be constructed level from end to end.
- e. Compaction Prior to construction, the subsurface absorption system shall be located and fenced with snow fence, or equivalent, to prevent compaction of the area with no removal of the fence at any time during home construction, except to install the system. After installation, the fence shall be re-installed until the home is completed. Warning signs, provided by the Sanitarian, must be posted on the fence.
- f. Fill soil Soil absorption systems shall not be installed in fill soil. Disturbed soils which have stabilized for at least five years may be approved upon soil analysis or percolation test results. The Committee may reject any fill site deemed to not be suitable for an absorption system.
- g. Graded sites Removal of upper layers of soil from an absorption system site is prohibited. Areas graded down may not be used as soil absorption system sites except as approved by the Committee after suitable soil analysis and testing and after at least five years of non-disturbance.
- h. Soil Smearing Soils with significant clay content shall not be worked when wet. The Sanitarian, upon observing significant smearing, shall have the authority to stop work on the subsurface soil absorption system until the soil has dried to allow minimal smearing.
- i. Frozen Ground In months where there is frost in the ground the sanitarian may prohibit installation of any portion of a system due to frozen ground conditions.

7.2(4) Gravel systems Only rock trench lateral field systems shall be allowed as the preferred subsurface soil absorption system. Rockless pipe systems and chamber systems shall not be used. Also allowed shall be drip irrigation systems.

- a. A minimum of 12" clean, washed river rock shall be used in the trench. This gravel shall be of such size that 100% will pass a 2.5" screen and 100% will be retained on a .75" screen. Limestone or crushed rock is not allowed as a rock medium.
- b. Lateral trenches shall be 24" in width. A trench width of up to 36" is permissible with Committee approval. No reduction in field will be granted for 36" width.
- c. The trench bottom should be level, except that fall of no more than 4"/100' is allowed.
- d. Untreated building paper, synthetic drainage fabric, straw, or other approved material shall be laid so as to separate the gravel from the soil backfill.
- e. Transit readings shall be taken on all lateral lines at the proximal and distal ends to assure proper grade. Additional readings may be required for any connecting piping from distribution boxes or manifolds to determine proper fall.
- f. Gravity systems Additional requirements for such systems shall be as follows:
 - 1. Pipe Distribution pipe shall be PVC rigid plastic meeting ASTM Standard 2729, or other suitable material approved by the Committee. The inside diameter shall not be less than 4" with perforations at least .5" and no more than .75" in diameter spaced no more than 40" apart. Two rows of perforations shall be provided located 120 degrees apart along the bottom half of the tubing (each 60 degrees up from the bottom center line). The end of the pipe shall be fitted with an observation port.

2. Distribution Distribution on sloped sites shall be by either drop boxes or a distribution box method. Serial distribution may be allowed with permission of the Sanitarian. On flat sites either serial distribution or a distribution box may be employed. Manifolds are not allowed.
 - a. Drop boxes and distribution boxes shall be of plastic composition.
 - b. Distribution shall be laid out in an approved manner that does not allow water to follow a trench from one distribution line to another.
 - c. Distribution boxes shall not feed any lateral greater than 100' in length.
 - d. Laterals in a distribution box system shall all be equal in length, except that a line may vary from the common length by 10% in special circumstances.
 - e. Distribution boxes shall have a 45-degree or more inlet letdown.
 - f. Speed levelers must be installed on all lateral outlets.
 3. An observation port shall be installed at the outer end of every lateral line. This shall consist of a Tee at the end of the lateral pipe with a section of the perforated pipe extending down to the bottom of the rock layer and a piece of solid pipe extending from the Tee to 2" above grade. All piping shall be glued together with a cap (not glued) covering the above grade pipe.
 4. Such ports shall be maintained by the homeowner to be visible and at least 2" above the surface of the ground. Caps and ports must be kept in proper repair at all times to allow for the Sanitarian to inspect the conditions of the laterals. Caps must be of the proper size for the port.
 5. Any subsurface soil absorption field of 400' or more must be pressure-dosed.
- g. Pressure systems Additional requirements for such systems shall be as follows:
1. The manifold and distribution pipe shall be rigid, plastic pipe (Schedule 40 or equivalent) of 1-2" inside diameter. The lateral pipe shall be laid in the rock layer as near to level as possible.
 2. All joints shall be pressure fittings solvent welded.
 3. The distribution pipe shall be placed in the upper 3" of rock with the holes turned downward.
 4. No perforations shall be allowed in the last 3' of the outer end of the lateral pipe or in the first 3' of the lateral pipe.
 5. The length of pressure laterals is not limited to 100' nor do all laterals in a system have to be of equal length.
 6. The system shall be pressure-tested for proper operation prior to covering. This shall be accomplished by installing an elbow and cap mechanism at the distal end of each lateral with a 1/8" hole in the cap to check for squirt height. Said cap to be replaced at the end of the test with a solid cap.
 7. Discharge holes in the pipe shall not be smaller than 3/16" or larger than 3/8" without special permission. The normal specified size shall be 1/4".
 8. Hole spacing shall not be less than 2' or more than 10'.
 9. Pump head shall correspond as closely as possible to that needed to pressurize the highest elevation lateral to 3' of head minimum.
 10. The system is to be designed so that approximately equal volumes of water are delivered to each lateral on a per foot basis. This is accomplished by varying the hole size and spacing and using valves to regulate flow to a particular lateral. The dose per pump cycle shall be approximately 200 gallons per dose.
 11. Each lateral shall have a valve at the proximal end with a box to grade to allow adjustment of the flow. Existing systems that experience uneven distribution shall have such valves installed on all lines as a means of correction.

12. An observation port shall be installed at the outer end of every lateral line. Such ports shall be of 4" rigid, solid, plastic pipe of less than Schedule 40 weight. The pipe shall be within 3' of the end of the lateral with the pipe extending from the bottom of the trench to at least 2" above final grade. In the rock layer, the pipe shall have a series of ¼" holes installed but shall be solid through the dirt layer.
13. Such ports shall be maintained by the homeowner to be visible and at least 2" above the surface of the ground. Caps and ports must be kept in proper repair at all times to allow inspection of the lateral condition. Caps must be of the proper size for the port.
14. The manifold line shall be laid in such an approved fashion as to prevent effluent from seeping from line to line.
15. Any subsurface soil absorption field of 400' or more must be pressure-dosed.

7.3 Mound systems Under suitable site conditions the use of a mound system is allowed. The mound system shall be installed according to the current Board of Health regulations in effect at the time the mound is approved for installation. The Committee reserves the right to add additional stipulations if necessary to protect the health and condition of the Lake and residents.

7.4 Drip irrigation systems Specifications given in these rules are minimal and may not be sufficient for all applications. Technical specifications are changing with experience and research. Other design information beyond the scope of these rules may be necessary to properly design a drip irrigation system.

7.4(1) Pretreatment These systems must be preceded by a secondary treatment system with National Sanitation Foundation approval discharging a treated, filtered effluent with BOD and TSS values less than 30 mg/L. A septic tank must precede the secondary treatment. The size shall be determined by the engineer designing the system with the approval of the Dept.

7.4(2) Groundwater separation Drip irrigation systems shall have a minimum vertical separation distance to high groundwater level or bedrock of 20".

7.4(3) Maximum slope Drip irrigation systems shall not be installed on slopes of more than 25%.

7.4(4) Emitter layout

- a. Discharge rate Systems shall be designed so that emitters discharge approximately 1 gpm at 12 psi or other rates suggested by the manufacturer and approved by the Committee.
- b. Grid size Drip lines shall be run in parallel lines at least 2' apart. Emitters shall be placed in the drip lines on 2' intervals with emitters offset 1' between adjacent lines. Each emitter shall cover 4 square feet of absorption area.
- c. Field size The field shall be sized at least according to the design of the manufacture. Where appropriate the manufacturer's registered engineer must design the sizing of the system. Sales companies cannot size systems. (See **Section 3e.5**)
- d. Depth of lines Drip lines shall all be laid on the contour 6-12" deep with a maximum line length of 100'.
- e. Interconnection Drip lines shall all be connected to supply and return headers such that the entire system will automatically drain back to the pump pit upon completion of the pumping cycle. Vacuum breakers shall be positioned at the high point of the supply and return headers.

7.4(5) Pump chamber These pump pits shall meet all appropriate specifications of pump pits listed in section 7.7. Additionally, the following shall apply:

- a. Pump pits shall be at least 1000 gallons in capacity.
- b. Pump pits shall have an audible and visible alarm system either in the house or at the pump station.
- c. Pumps shall cycle to deliver a dose of 20-50 gallons of water then shut off for at least one-half hour before restarting to repeat the cycle as long as there is sufficient effluent to activate the pump float. Demand dosing is not acceptable.
- d. There shall be a high level alarm that activates when the tank is 75% full.
- e. No check valve is allowed on the pump line.
- f. A filter shall be present on the discharge line after the pump but within the pit that will not allow solids that might plug the emitters to enter the pump line.
- g. A service contract shall be maintained by the homeowner with an approved company to do a service check on this system quarterly, once annually for peat filters. This service report shall be automatically sent to the Committee by the service company within ten days of completion of the service for that quarter.

7.5(1) Intermittent sand filters Such sand filters may be allowed by the Committee with special variance if it is determined it is not possible to install a subsurface soil absorption system. These are allowed only for replacement of existing failing systems.

- a. A septic tank meeting Section 6 of the rules must be the primary treatment. At time of sale the existing tank may remain if it is in satisfactory condition or, if no tank is present, one may be required to be installed, if problems exist.
- b. Pretreatment These systems must be preceded by a secondary treatment system with National Sanitation Foundation approval discharging a treated, filtered effluent with BOD and TSS values less than 30 mg/L.
- c. Location Such sand filters shall be located as far from the shoreline as practical but in no case shall the sand filter be deeper neither than the Lake elevation nor in the water table.
- d. Ultraviolet light An ultraviolet (UV) light disinfection unit must be in service immediately after the sand filter.
- e. Sampling A sampling port shall be available after the UV light disinfection. Monitoring and effluent sampling of intermittent sand filters must meet the requirements of the NPDES General Permit No. 4. Such sampling shall be performed biannually or as directed by the Committee. The biannual samples must be collected approximately six months apart. Sampling must be performed by a qualified sampler which shall not be the property owner.
- f. Contaminant levels All intermittent sand filters having an open discharge will be sampled in accordance with the requirements of NPDES General Permit #4.
- g. Sand filter Such filters shall be dosed by pumping.
- h. Gravel specifications The bottom of the sandfilter shall have a 12" layer of gravel meeting the specifications of **Section 7.2(4)a** with the collector lines laid in the bottom 6" of rock.
- i. Collector lines One collector line shall be laid for each 3' of bottom surface area. Such lines shall be Schedule 35, or equivalent, with perforations as specified in **Section 7.2(4)f.1**.
- j. Sand barrier A 3" layer of clean, washed pea gravel shall cover the rock prior to the sand layer being added. Filter fabric shall not be used.
- k. Sand A minimum of 30" coarse, washed sand shall be placed over the pea gravel.. The sand shall meet the Iowa DOT standard for concrete sand: 100% shall pass a 9.5 mm screen, 90-100% shall pass a 4.75 mm screen, 70-100% shall pass a 2.36 mm screen, 10-60% shall pass a 600 micron screen, and 1-1.5% shall pass a 75 micron screen.
- l. Distributor gravel Above the sand an additional layer of gravel as specified in **Section 7.5(1)h** shall be laid with the distributor lines laid in the top 3" of the gravel layer.
- m. Distribution Distribution of effluent over the sand layer shall be accomplished by the use of a 1 1/2" Schedule 40 manifold. The pressure piping off the manifold shall have 1/4" holes drilled on 4' centers. There shall be one distributor line for each 2' of filter width.
- n. Size Such filters shall be 150 square feet per bedroom.
- o. Venting Any sand filter constructed after the effective date of these rules shall have at least one vent installed into the distribution layer of rock.
- p. Discharge line The discharge line from the sample port to the point of discharge shall be perforated pipe meeting the standards of **Section 7.2(4)f.1**. It shall be laid in the trench surrounded by pea gravel or septic rock meeting standards of **Section 7.2(4)a**. This is to allow as much treated effluent as possible to enter the soil prior to discharge.
- q. Pump pit The pump pit shall meet the specifications in **Section 7.7**. A filter shall be present on the discharge line after the pump but within the pump pit that will meet the same requirements as the filter specified for drip irrigation systems.
- r. Ultraviolet light All intermittent sand filters must have an ultraviolet light disinfection unit on the discharge line at a point agreed to by the owner and Sanitarian.

7.5(2) Existing non-aerated intermittent sand filters There are in existence such sand filter that are preceded by septic tank treatment with a pump chamber to dose the sand filter.

- a. Such systems shall be allowed to exist until such time as the Committee adopts rules that would replace such septic tank/sand filter systems with another system.
- b. Should such a sand filter fail and need to be replaced the system must be replaced with a drip irrigation system as described in **Section 7.4**, or if not possible, then with a secondary treatment system followed by a sand filter described in **Section 7.5(1)**. In certain cases, existing buried sand filters may be allowed.
- c. The homeowner shall maintain all plumbing fixtures in proper working order to limit the hydraulic load.
- d. Low volume toilets and showerheads shall be utilized.
- e. Water pressure shall be 65 psi or less.
- f. Garbage disposal units are prohibited.
- g. Should such system's septic tank need to be replaced the system must be replaced with a secondary treatment system as per **Section 7.5(1)**.
- h. The sand filter construction shall be maintained in at least the same condition as required by the rules in effect at the time the sand filter was installed.
- i. An ultraviolet light disinfection unit must be in service immediately following the sand filter.
- j. A sampling port shall be available immediately after the UV light disinfection
- k. There shall be no construction over the discharge line of the sand filter.
- l. Sampling of the effluent shall be done on the same schedule as other sand filters. A sampling port must be present.
- m. Septic tanks preceding such sand filters shall be pumped when scum depth exceeds 3" or when sludge depth exceeds 12".

7.6 Aerobic treatment units

7.6(1) Use Aerobic treatment units may be used only when the Sanitarian determines that the site is unacceptable for a full-sized soil absorption system. Because of the higher maintenance requirements of aerobic treatment units, preference should always be given to septic tank/soil absorption field systems.

7.6(2) Certification All such systems shall be certified by an ANSI-accredited third-party certified to meet current National Sanitation Foundation Standard 40, Class I. 7.6(3) Installation and operation All such systems shall be installed, operated, and maintained in accordance with the manufacturer's instructions and the requirements of the Committee. The aerobic treatment units shall have a minimum treatment capacity of 150 gallons per bedroom or 500 gallons, whichever is larger.

7.6(4) Effluent treatment The effluent from such systems shall receive additional treatment through the use of sand filters, drip irrigation, or mounds as specified above. New construction allows only for use with drip irrigation.

7.6(5) Maintenance contract A maintenance contract with a manufacturer-certified technician shall be maintained at all times.

- a. Maintenance agreements and responsibility waivers shall be recorded with the County Recorder and in the abstract of title for the premises on which such systems are installed. The homeowner is responsible for this provision.
- b. Aerobic treatment units shall be inspected for proper operation at least quarterly.
- c. The inspection report for each unit shall be forwarded to the Sanitarian within ten days of the completion of that quarter's inspection. Any additional service calls shall have the inspection report forwarded to the Sanitarian within ten days.
- d. Sampling of the effluent from discharging units must be done biannually with the samples collected approximately six months apart. The report shall be submitted to the Sanitarian.
- e. Test results shall meet the limitations set forth in NPDES General Permit #4. Any system, or portion of system, failing to meet these standards must be promptly repaired, and a retest conducted within 30 days of the repair.
- f. Should inspection by the Sanitarian reveal problems, or suspected problems, the maintenance company shall inspect the system within 5 working days and collect additional samples if deemed necessary by the Sanitarian.

7.7 Pump pits All pump pits shall comply with all applicable parts of **Section 7.4(5)**. Pump pits following aeration systems may have additional requirements.

7.7(1) Sizing Pump pits shall be of a 1000-gallon minimum size.

7.7(2) Material Pump pits may be constructed of the same materials as approved for septic tanks. However, plastic or fiberglass tanks, where allowed, cannot have more than 2' of cover over the tank unless manufacturer approved.

7.7(3) Required use Pump pits are required when elevation dictates to reach the lateral field and also on any lateral field system that is 400' or more in size. Dosing is required on all split-field systems.

7.7(4) Access A manhole of no less than 22" shall be provided into the pump pit. This manhole shall extend above grade at least 4" and shall not be obstructed by heavy objects, rock cover, or any other obstruction that limits access into the pump pit. All pump pits shall be vented which may be accomplished by loose fitting lids. Manholes should not be sealed. On regular inspections, if obstructions cover the pump pit, the pump pit will not be inspected and the owner accepts any responsibility for any issues that develop as a result.

7.7(5) Alarm All pump pits shall have an audible and visible alarm either mounted at the pump station on an outside mounting or within the home. Such alarm shall be installed so that it is activated when the pump pit exceeds a 350-gallon volume of effluent.

7.7(6) Wiring All wiring shall be done so that it is water and airtight. No plugs or other open connections shall be used. Preference is given to watertight electrical boxes mounted outside the pump pit with heat-shrink wrap units approved inside the pit.

7.7(7) Repair Any systems being repaired or replaced that involve pump stations being installed or changed shall have the pump pit volume of at least 1000 gallons used.

7.8 Pumps All pumps shall meet specifications for sewage pumps and shall be sized such that the pump will deliver the effluent to the treatment system in a manner that allows proper distribution of the effluent into the treatment system. All pumps shall be plumbed with a quick disconnect for easy removal.

7.9 Alternative methods of wastewater disposal Other methods of private sewage disposal not described in these rules shall only be allowed after special approval of the Committee. There must be a preponderance of evidence to show that any such system is capable of properly treating the effluent generated by the residence.

Section 8 Portable toilets

Portable toilets shall be required to be maintained at the following sites:

a. Any home that is under construction and that lacks a workable private sewage disposal system or water system shall have a portable toilet on site, properly positioned, and regularly serviced.

b. Any home that is being remodeled or otherwise reconstructed that lacks a workable private sewage disposal system or water system shall have a portable toilet on site, properly positioned, and regularly serviced.

c. Any home site, that is (1) undergoing extensive landscaping or other outside work of five days or longer and (2) is not available for workers to use the home bathroom facilities, must have a portable toilet on site, properly positioned, and regularly serviced.

Lake Panorama On-Site Wastewater Management District Rules and Regulations Chapter 3

Section 9 Operation, maintenance, and repair

9.1 Purposes

- a. The purpose of this chapter of rules is to extend and maintain the useful life of all existing on-site wastewater treatment systems within the District without causing undue cost or hardship to the owner.
- b. The District shall make every attempt to utilize subsurface disposal of wastewater. Surface disposal is considered temporary and as a last resort. It is not permitted on new construction.

9.2 Definitions

- a. Part-time residence: Structure having substantially continuous occupancy less than six months per year.
- b. Permanent residence: Structure having substantially continuous occupancy more than six months per year.

9.3 General requirements Inspection of existing systems

- a. Inspections shall be made when weather permits.
- b. Such inspection will be unannounced unless the inspector directs the assistance of the resident.
- c. Wastewater treatment systems at permanent residences shall be inspected at least once each year, except that tank conditions shall be checked at least once each three years.
- d. Wastewater treatment systems at part-time residences shall be inspected at least once each two years, except that the tank conditions shall be checked at least once every six years.
- e. Tanks with access ports below ground level shall be opened by the owner or owner's agent prior to the inspection if greater than 1' to the top of the access port or if obstacles to opening are present. Such risers shall be elevated above grade when opened.
- f. Any lid diameter >18" shall have the lid changed to a donut-style lid to provide a smaller opening to facilitate inspections.
- g. The District shall maintain a permanent file of inspections and historical data for each structure served by a private sewage disposal system.
- h. All secondary treatment systems shall be inspected by the certified technician as specified in **Section 7.6(5)**. However, the Sanitarian shall do an inspection of appropriate parts of the system, in accordance with other parts of this section.

9.4 Inspection items

9.4(1) Tank inspection The tank inspection shall include:

- a. sludge and scum levels
- b. determination of the conditions of the baffles, where feasible.
- c. Determination of the integrity of the tank, walls, lid, and other structural components, where feasible.

9.4(2) Mechanical parts The following shall be checked for general working conditions:

- a. pump and pump chamber
- b. dosing siphon
- c. aerator
- d. timer and alarms, when possible
- e. wiring
- f. sampling of effluent shall be done according to appropriate portions of **Section 7** by the owner.

9.4(3) Disposal area The treatment system shall be checked as follows:

- a. surface conditions; i.e. wetness, unusual plant growth, erosion, and other visible signs
- b. any drop boxes, distribution boxes, alternating valves, etc. that may be exposed to the surface
- c. any surface discharge area checked for conditions indicating improper functioning of the secondary treatment system.

9.5 Operation and maintenance To aid in the proper operation and longevity of systems the following items are required and specified.

9.5(1) Septic tanks shall be pumped when scum levels exceed 6" in thickness or when sludge levels exceed 16" in depth, except as noted for sandfilters. Scrubbing or disinfecting tanks after pumping is prohibited.

9.5(2) At no time shall vehicles or construction equipment be driven on the septic tank, pump pit, secondary treatment system, or other damageable parts of the system.

9.5(3) Mechanical equipment such as pumps, siphons, aerators, and alarms shall be maintained in an operational condition as specified in the manufacturer's recommendations.

9.5(4) Wiring, connectors, and electrical components shall be repaired or replaced if deemed necessary by the Sanitarian in order to assure proper equipment operation and to prevent safety hazards.

9.5(5) Improperly operating systems cannot be repaired until the owner and Sanitarian agree on an acceptable plan for repair that conforms to these rules as best is possible. It is realized that on some existing sites the rules may not be able to be adhered to strictly and variances to certain sections may be necessary. Serious system problems will be reviewed by the Committee for approval of repairs.

9.5(6) At the time of abandonment of the old pre-1980 aerators, observation ports shall be installed on as many of the existing lateral lines as can be located.

9.6 Maintenance of the split fields

- a. The Sanitarian shall be responsible for switching the alternating valve.
- b. The valve shall be diverted from field to field once each year at approximately the same time each year.
- c. Any system which develops symptoms of failing to operate satisfactorily under this dosing schedule may have the dosing schedule modified by the Sanitarian, or additional field may be required.

9.7 Tank pumping

- a. A property owner can only hire persons or firms holding a current license from the Guthrie County Board of Health to clean septic tanks within the District. In order to properly track pumping, only pumpers registered with the Environmental Health Dept. may pump tanks.
- b. When work begins on cleaning a tank, it shall be continued without interruption until the work is done and the tank is properly closed.
- c. Contents pumped from tanks may not be applied to land within the District except in a location and manner approved by the Sanitarian and the Lake Panorama Association in order to protect the surface and groundwater quality as well as for public health concerns.
- d. When a septic tank is required to be pumped, any associated pump pit shall be cleaned first.

9.8 Disinfection The Committee may require the disinfection of certain systems that surface discharge. Such disinfection systems shall be commercially manufactured units that meet the Committee's approval and shall be UV light units.

9.9 Types of repairs To correct failing or problem systems the following may be utilized. This list is only a partial listing and others may be approved by the Committee.

- a. converting gravity-fed systems to dosed systems
- b. converting a single field to a split field
- c. releveling the distribution box
- d. increasing the dosing chamber size
- e. implementing water conservation practices and installing water conservation devices
- f. installing a second subsurface soil absorption field and developing a split field system
- g. installing of curtain drains, terraces, and other water diversion structures
- h. redirecting runoff and foundation drain water
- i. increasing the subsurface soil absorption field size
- j. installation of a mound system
- k. segregation of black water and grey water systems
- l. developing a pressurized subsurface absorption system
- m. installation of a dosed, pressure sand filter
- n. removal of structures affecting the subsurface soil absorption field
- o. installing 8" effluent filters on ponding lateral field systems.)

Section 10 Operation and maintenance of cluster systems

Section 10.1 The purpose of this section is to control the larger systems that serve multiple dwellings or other use facilities. This would include but not be limited to condominiums, conference centers, guest house facilities, multiple house systems, and dormitory camps. Such systems require on-going inspections to maintain systems in proper working order.

- a. The District shall develop and maintain a listing of all such sites including ownership, contact information, and system design as well as a maintenance protocol.
- b. The owner of each site shall provide the District with a contact person's name and phone number.

- c. Each site shall have a designated firm on call to do emergency repairs with the District allowed to contact said firm if it is not practical to notify the owner of emergency problems needing checked.
- d. All systems shall have a maintenance schedule for inspection performed by the designated firm.
 - i. Septic tank/lateral field systems shall be inspected once each six months with all components of the system checked for proper operation.
 - ii. Secondary treatment systems shall be inspected semi-annually with all components of the system checked for proper operation.
 - iii. Inspection reports shall be forwarded to the Sanitarian within ten days of the inspection.
 - iv. Any repairs required must be done timely and the Sanitarian notified of the completion of the repairs.
 - v. Pump problems or secondary treatment unit problems must be repaired immediately.
- e. All facilities shall have septic tanks checked on a schedule that is developed between the District and the owners. The owner shall be responsible for opening all tanks with the Sanitarian recording the inspection results.
- f. All facilities with pump systems must verify to the District either the presence of a multiple pump system or that reserve pumps are at hand at all times.
- g. All facilities with pump systems must install and maintain audible and visible alarm systems at the pump station.
- h. Should system problems develop the owner shall, in conjunction with the District, develop a repair plan that shall be approved by the District prior to implementation. Where applicable, Dept. of Natural Resources approval shall be obtained.

Section 11 The Committee shall establish a time limit for the completion of all repairs.

Section 12 Any consultants or other professionals required as directed by the Committee shall be the responsibility of the homeowner as regards payment for services.

Section 13 NPDES Permits For systems designed to discharge treated effluent into waters of the State or onto the surface, it will be necessary to obtain a Notice of Intent to fall under the requirements of NPDES General Permit No. 4. The Committee is responsible for determining that the requirements of the permit are met including the monitoring program. However, the homeowner is responsible for all costs associated with meeting these requirements.

Section 14 Variances Variances to these rules may be granted by the Committee provided sufficient information is submitted to substantiate the need and propriety for such action. Applications for variances and justification shall be in writing and copies filed in the Committee minutes. Minor variations to the rules may be approved by the Sanitarian.

These rules were approved by the Administrative Committee at the March 19, 2012 meeting. The rules were submitted to the Guthrie County Board of Health for review.

The Guthrie County Board of Health held a public hearing on these rules at its October 17, 2012 meeting. The rules changes presented were approved by the Board.

The rules received final approval at the October 25, 2012 Board of Supervisors meeting.