

ALABAMA STATE BOARD OF HEALTH ADMINISTRATIVE CODE

BUREAU OF ENVIRONMENTAL SERVICES

DIVISION OF COMMUNITY ENVIRONMENTAL PROTECTION

**CHAPTER 420-3-6 SEPTAGE MANAGEMENT**

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**420-3-6-.19 Repealer**

**420-3-6-.20 Effective Date**

**420-3-6-.01 Purpose.** The purpose of these Rules is to:

establish requirements regarding the approval, permitting, siting, operation, record keeping, and closure of land application facilities; to regulate septage management practices; to require minimum sanitary practices for the treatment, storage, and land application of septage and other permitted wastes; and to authorize regular inspections. This

Chapter contains the minimum standards for the Land Application of Septage to non-public contact sites as set forth in Title 40 of the Code of Federal Regulations (CFR)

Part 503, entitled "Standards For The Use Or Disposal Of Sewage Sludge." In addition, this chapter also establishes minimum standards for the treatment of grease, as defined in these Rules, at septage land application sites.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

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**420-3-6-.02 Definitions.** When used in this Chapter the following terms and words shall be construed and have the meaning assigned to them as follows, except where the context prohibits:

(1) Agricultural Land - land on which a food crop, feed crop, or fiber crop is grown, including, but not limited to, range land and land used as pasture.

(2) Annual Application Rate - the maximum amount of septage, expressed in gallons, that can be applied to a unit

area of land during a 365-day period, as determined by the crop nitrogen requirement and the nitrogen content of the septage, according to these Rules.

(3) Approved - to be either authorized, certified, or permitted by, or meets the standards of, a regulatory agency.

(4) Base Flood - a flood that has a one-percent (1%)

or greater chance of recurring in any year, or a flood of a magnitude equalled or exceeded once in 100 years on the average over a significantly long period.

(5) Bedrock - the solid rock lying beneath unconsolidated surface materials such as soil. Boulders and soft sandstone, which are capable of being removed or easily ripped with regular backhoe equipment, are excluded from this definition.

(6) Board - the State Board of Health as constituted by the Code of Alabama, 1975, Section 22-2-1, and includes the Committee of Public Health or State Health Officer when acting as the Board.

(7) Covenant(s) Running With The Land - an agreement between the property owner and another which is recorded in the office of the Probate Judge or other records office and which is intended to bind successors in title.

(8) Easement - a legally executed interest in land or property owned by other person(s) which entitles the holder to specified use or enjoyment.

(9) Engineer - a person registered as a professional

engineer with the State of Alabama Board of Registration for Professional Engineers and Land Surveyors, practicing under the Rules of Professional Conduct (Code of Ethics).

(10) EPA - The United States Environmental Protection Agency.

(11) Facility - all land and appurtenances thereon used for the storage, treatment, and land application of septage or other permitted waste.

(12) Flood Prone Area - any area which is subject to a flood during some portion of the year. This definition refers to areas that are subject to flooding as observed or indicated by soil characteristics as defined in the standards of the National Soils Handbook, United States Department of Agriculture.

(13) Forest Land - a tract of land covered by a concentration of trees and related vegetation in non-urban areas sparsely inhabited by, and infrequently used by, humans.

(14) Grease - oil, animal fat, vegetable fat, and similar wastes generated from food preparation activities at a domestic residence, restaurant, retail food service operation, school, or institutional source, that are captured in a grease trap. Industrial waste is excluded from this definition.

(15) Grease Trap - a watertight tank or receptacle in which the grease present in sewage or food service waste is intercepted and congealed, and from which it may be skimmed from the surface of the liquid waste for disposal.

(16) Groundwater - water below the land surface in the zone of saturation.

(17) Health Officer - the Health Officer for the State of Alabama as provided in Section 22-2-8, Code of Alabama, 1975 or his or her designee.

(18) Hydrogeologist - a graduate of an accredited university who is trained in the science of ground water geology, or in the study of subsurface waters and related geologic aspects of surface waters, and who currently practices in the field of hydrogeology.

(19) Industrial Waste - any liquid waste, grease, sludge, or other waste resulting from any process of industry, manufacture, trade or business, other than food preparation, or from the development of natural resources.

(20) Land Application - the spraying or spreading of septage onto the land surface so that the septage can either condition the soil or fertilize crops or vegetation grown in the soil.

(21) Lime Stabilization - the addition of a sufficient quantity of quicklime or hydrated lime to septage or other permitted waste to raise and maintain the pH at twelve (12) or higher for a minimum period of thirty (30) minutes

(22) Local Health Officer - the county, area, or regional health officer of a local health department elected in accordance with Sections 22-3-2(5) and (6), Code of Alabama, 1975, or appointed by the State Health Officer, or his designee.

(23) Marine Sanitation Waste - sewage or similar waste generated on board a boat or water-going vessel and stored in a holding tank before discharge or removal.

(24) Onsite Sewage Disposal System - any system of piping, treatment devices, pumps, alarms, or other facilities or devices that convey, store, treat, or dispose of sewage on the property where it originates or on adjacent or nearby property under the legal ownership or legal easement in perpetuity of the same responsible person, where the system is not connected to a public sewer. For the purpose of these Rules, Onsite Sewage Disposal System shall include those systems located at a domestic residence, school, restaurant, retail food service operation, or institution, and shall exclude those systems used for disposal of industrial or commercial waste.

(25) Other Permitted Waste - grease, portable toilet waste, or marine sanitation waste.

(26) Pathogen - a disease-causing organism, including, but not limited to, certain bacteria, protozoa, and viruses.

(27) Permit - a formal written authorization, license,

or approval issued by the Board or Local Health Officer or other regulatory authority.

(28) Person - any individual, household, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of the state, any interstate body, or any other private or public legal entity.

(29) pH - the logarithm of the reciprocal of the hydrogen ion concentration and a measure of alkalinity on a scale of 1 to 14. On said scale, 1 is extreme acid and 14 is extreme alkaline.

(30) Portable Toilet Waste - a waste resulting from chemical toilets, privy holding tanks, or other equipment designed for temporary collection and storage of waste containing human feces or residuals of such, or any other such waste having similar characteristics.

(31) Public Contact Site - land that has a high potential for contact or use by the public, including, but not limited to, public parks, athletic fields, cemeteries, and golf courses.

(32) Refusal Layer - a layer of highly compacted soil, boulders, rock, or other compacted material, below the soil surface, that is difficult or impossible to penetrate with soil boring equipment, such as a hand auger.

(33) Septage - sewage or a mixture of sewage, sludge, fatty materials, human feces, and liquid removed during the pumping of a domestic onsite sewage disposal system. For the purposes of these Rules, the term septage shall exclude marine sanitation and portable toilet wastes that have not been pre-treated in a manner approved by the Board.

(34) Septic Tank - a horizontal watertight tank or receptacle used as a reservoir for the purpose of receiving or depositing the sewage contents or drainage from any or all of the following: water closets, lavatories, showers, bathtubs, clothes washing machines, kitchen sinks, grease traps, dishwashers, or other household waste appurtenances until anaerobic decomposition is to a considerable extent effected.

(35) Sewage - any liquid waste containing animal or vegetable matter in suspension or solution, and may include liquids containing chemicals in solution from water closets, urinals, lavatories, bathtubs, showers, laundry tubs or devices, floor drains, drinking fountains, or other sanitary fixtures.

(36) Sewage Tank Pumping Contractor - a person engaged in the business, operation, or practice of removing and

disposing of sludge, grease, septage, or solid or liquid waste from sewage tanks.

(37) Sewer System - the conduits, sewers, and all devices and appurtenances by means of which sewage is collected, pumped, treated, and disposed of, all of which are owned and operated by a municipality, utility, a legally constituted agency of government, or a private enterprise.

(38) Shall - a mandatory requirement.

(39) Sinkhole - a depression in the topography without a surface outlet for drainage from the low point. Sinkholes are common in areas containing limestone and generally result from the collapse of solution caverns.

(40) Soil - the naturally occurring unconsolidated mineral and organic material of the land surface developed from rock or parent material and less than or equal to 2.0 millimeters in particle size as measured in place. Soil consists of sands, silts, and clays, or a combination of these, and may contain larger aggregate materials, such as rock, as well as variable amounts of naturally occurring, organic materials. Soil includes the O, A, E, B, and C Horizons, as defined in the National Soils Survey Manual.

(41) Soil Boring - a hole of 8 inches or more in diameter excavated into the ground to a depth of five (5) feet or to the depth of the refusal layer, whichever is less, using a hand auger, post hole digger, or other equipment for the purpose of exposing the soil profile.

(42) Soil Classifier - a person registered as a professional soil classifier with the State of Alabama Board of Registration for Professional Soil Classifiers and practicing under the Rules and Regulations and Code of Ethics of such.

(43) Soil Observation Pit - an excavation in the soil that is large enough to facilitate the visual examination of the soil profile to a depth of five (5) feet or to the refusal layer, whichever is less, and from which is obtained a description of the soil characteristics. Soil observation pits are usually excavated by backhoe-type equipment and can comfortably accommodate the observer.

(44) State - the State of Alabama.

(45) Surface Water - water above the surface of the ground, including, but not limited to, the waters of any bay, river, stream, watercourse, pond, lake, swamp, or spring located partially or wholly within the State, including the Gulf of Mexico.

(46) Vector - an agent, such as an insect, rodent, or other organism capable of mechanically or biologically transferring a pathogen from one animal to another.

(47) Vermin - any of various small animals or insects that are destructive, annoying, or injurious to health, including, but not limited to, flies, cockroaches, rodents, foxes, and weasels.

(48) Vicinity Map - a map which indicates the region near or about a place and the proximity to prominent, permanent, or established landmarks, and which indicates correct road or street names and/or numbers, and which is sufficiently accurate to locate the property without additional direction or assistance.

(49) Watertable Elevation - the upper limit of the portion of the ground wholly saturated with water.

(50) Wet Season Watertable - the watertable elevation occurring during that portion of the year which receives the highest amount of rainfall, as observed during actual measurement by a soil classifier or engineer, or as determined by a soil classifier based on established soil indicators.

(51) Wetlands - those areas that are defined in 40 CFR 232.2(r), entitled "Protection of Environment."

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

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**420-3-6-.03 Limitations.** Nothing in these Rules shall be construed to limit the authority of a municipal or county government from adopting more stringent requirements to be used in conjunction with these Rules.

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

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**420-3-6-.04 Other Approvals Not Implied.** Approval of any land application facility or operation by the Local Health Officer or the Board does not constitute or imply approval by a county, municipality, or other agency having planning, zoning, or other legal jurisdiction. Similarly, approval of a land application facility or operation by other agencies does not negate the required approval by the Local Health Officer or the Board in accordance with this Chapter.

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

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**420-3-6-.05 Applicability.** This Chapter applies to any person who prepares septage that is applied to the land; to any person who applies septage to the land; to the septage that is applied to the land; and to the land on which septage is applied. In addition, this Chapter applies to the treatment of other permitted waste at land application facilities.

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

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**420-3-6-.06 General.** Septage and other permitted waste shall be treated and disposed of by means of a publicly or privately owned sewage treatment plant, approved landfill, or other approved facility, where such facilities are available, and where septage or other permitted waste is accepted by those facilities.

(1) If access to a sewage treatment plant, sanitary landfill, or other approved facility is denied, or for some reason is not feasible, due to cost, distance, or other factor, the application of septage or septage mixed with other permitted waste at a land application facility may be approved pursuant to these Rules, if deemed appropriate by the Local Health Officer or the Board.

(2) Where septage or septage mixed with other permitted waste is land applied, it shall be collected, stored, transported, treated, and applied in a manner consistent with the requirements of this Chapter and all applicable laws of the local, state, and federal government or agency, and in such a manner as to prevent the creation of a nuisance, insanitary condition, or a potential health hazard.

(3) In determining whether septage or septage mixed with other permitted waste to be land applied, or that was land applied, constitutes an endangerment to the public health, the Board or Local Health Officer shall consider the quantity and composition of the waste, the location and condition of the application area, the presence and extent of pathogens or vectors, and other factors which would warrant special concern.

(4) Options that are permissible under local, state, and federal law for the treatment or disposal of septage and other permitted waste are as follows:

(a) Discharge of the waste to a publicly or privately owned sewage treatment plant for disposal, in accordance with

EPA's regulations in 40 CFR Part 503 pertaining to sewage sludge.

(b) Disposal of the waste in a municipal solid waste landfill in accordance with EPA's regulations in 40 CFR Parts 257 and 258, which, among other things, require free-flowing liquids to be dried or solidified before disposal.

(c) Land application of the waste in strict accordance with the provisions of these Rules, provided that options (a) and (b), above, are not feasible, due to distance, access, or other limitations.

(d) The treatment of the waste at a composting facility in accordance with EPA's regulations in 40 CFR Part 503.

(e) The treatment of the waste by incineration in accordance with EPA's regulations in 40 CFR Part 503.

(f) Other proposed methods which comply with all applicable local, state, and federal laws.

(5) As used in these Rules, words in the masculine gender also include the feminine and neuter genders, words in the singular include the plural, and words in the plural include the singular.

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

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**420-3-6-.07 Prohibited Practices.** Any person who prepares septage or other permitted waste that is applied to the land, who applies septage or septage mixed with other permitted waste to the land, or who owns or uses the land on which septage or septage mixed with other permitted waste is applied, shall employ measures necessary to prevent those activities and practices that are prohibited under this Rule.

(1) Such prohibited activities and practices shall include the following:

(a) The spraying, spreading, or depositing of septage or septage mixed with other permitted waste on any land for which a current Land Application Permit has not been issued by the Local Health Officer.

(b) The spraying, spreading, or depositing at a permitted land application facility of the following materials:

1. Septage from persons who have not been issued a current Sewage Tank Pumper Permit by the Local Health Officer, in accordance with Chapter 420-3-1, Onsite Sewage Disposal Rules.

2. Grease or similar waste from residences, restaurants, schools, or other sources that are served by a sewer system, except in accordance with the requirements of these Rules.

3. Sewage sludge or similar waste from sewage treatment plants.

4. Portable toilet waste and marine sanitation waste, unless specifically approved in writing by the Board, or which has not been pre-treated in a manner acceptable to the Board.

5. Industrial waste.

(c) The land application of septage or septage mixed with other permitted waste at a public contact site, including, but not limited to, a public park, golf course, cemetery, or highway shoulders and medians.

(d) The disposal of grease in dewatering pits, or the surface or subsurface application of grease on any land, except when mixed with septage pursuant to requirements of Rule 420-3-6-.10 of this Chapter.

(e) The land application of septage or septage mixed with other permitted wastes that have not been lime-stabilized to a pH of twelve (12) or higher for a minimum period of thirty (30) minutes).

(f) The use of alkaline materials or substances other than lime to stabilize septage or other permitted waste for land application without prior written approval from the Board.

(g) The discing of septage or septage mixed with other permitted waste into the soil, except in conjunction with the cultivation for, and the establishment of, a new crop or vegetative cover.

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

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**420-3-6-.08 Land Application Permits.** No person shall apply septage or septage mixed with other permitted waste to any land of this State for which a current Land Application Permit has not been issued in accordance with these Rules.

(1) Before any person may establish, operate, or materially alter or modify a land application facility for the purpose of receiving, treating, or land applying septage or septage mixed with other permitted waste, he shall apply to and obtain from the Local Health Officer a Land Application Permit on forms provided by the Board and in accordance with the requirements of this Rule.

(2) The initial application for a permit shall be made to the Local Health Officer for review by the Board and shall be accompanied by the following information:

(a) The name(s), mailing address(es), and telephone number(s) of the applicant, business, and property owner, and the street address, or location, of the proposed land application facility.

(b) A copy of the property deed, including any easements or "Covenant(s) Running With The Land" and a letter from the property owner, if other than the applicant, granting permission, for a period of at least two (2) years, to the applicant to use the property for the treatment and

application of septage or septage mixed with other permitted waste.

(c) Evidence of an investigation of alternative options locally available to the applicant for the disposal of septage and other permitted waste. Such evidence must demonstrate, to the satisfaction of the Local Health Officer or the Board, that the land application of septage and septage mixed with other permitted waste is the only option available to the applicant. Such evidence shall include, but not be limited to, the following:

1. A list of sewage treatment plants, municipal solid waste landfills, or other approved disposal facilities available to the applicant.

2. Letter(s) of correspondence or statement(s) from each sewage treatment plant, municipal solid waste landfill, or other approved disposal facility indicating whether septage or other permitted waste are accepted at those facilities.

(d) A plat map showing the exact location of the proposed facility providing the total acreage; the setback distances from key natural and man-made features referenced in Rule 420-3-6-.09 of this Chapter that are within 1,000 feet of the facility; the location of all soil borings and soil observation pits; and the location of all points of entry to the facility.

(e) The results of three (3) soil borings or soil observation pits per acre at the proposed facility performed by an engineer or soil classifier. A soil classifier may determine a lesser number of soil borings or soil observation pits needed to adequately represent the soil over the area of the land application facility, but in no case shall this number be less than one (1) per acre. The soil borings or pits shall be excavated to a minimum depth of five (5) feet or to the depth of the refusal layer. The soils profile of the soil borings or pits shall be described as to the color (according to Munsell Color Charts), texture, and depth of each soil change encountered; the depth to the parent material, refusal layer, or bedrock if encountered; and the depth to the wet season watertable. The soil borings or observation pits shall be located to adequately represent the entire application area and shall be made available to the Local Health Officer or the Board for inspection. The Board or

Local Health Officer may request additional soil borings or observation pits if deemed necessary.

(f) A copy of a Soil Conservation Service soil survey map indicating the area of the proposed facility with a description of the soils within said area.

(g) A U.S. Geological Survey topographical map indicating the location of the proposed facility, property boundaries, natural and artificial drainage features, wells, and other natural geographic features, within 1,000 feet.

(h) A vicinity map.

(i) A hydrogeological report, performed by a hydrogeologist, relating to the area of the proposed facility, verifying that the application of septage or septage mixed with other permitted waste over the area of the proposed facility will not pose a threat to the groundwater and aquifer, to surface waters, or to any public or private drinking water wells.

(j) A Septage Management Plan describing the methods to be used to transport, store, lime-stabilize, screen, and land apply septage or septage mixed with other permitted waste to comply with requirements of Rule 420-3-6-.10, and methods to be used to control erosion, surface run-off, and infiltration. The plan shall address the method by which other permitted waste, if accepted at the facility, will be mixed with septage and lime-stabilized before spreading on the land. In addition, a tracking system shall be proposed in the management plan to ensure that septage is spread uniformly over the area of the facility and to ensure that the annual application rate, specified in Rule 420-3-6-.10, is strictly observed over the entire area. Such a tracking system may consist of a division of the application area into sectors to be marked by flagging, or other method which would facilitate the rotation of individual applications, and effective record keeping. The Local Health Officer or the Board may direct the permit holder to make changes to the Septage Management Plan at any time, if deemed necessary.

(k) The name(s), address(es), telephone number(s), and Sewage Tank Pumper Permit number(s) of the person(s) who will deliver septage or other permitted waste to the land application facility. Those persons who will land apply

septage or septage mixed with other permitted waste at the proposed facility shall be clearly indicated.

(l) The expected volumes in gallons of septage or other permitted waste to be received, stored, and land applied at the facility annually. In addition, the type of crop(s) growing or to be grown on the land, the anticipated crop yield per acre, and the crop nitrogen requirement in pounds per acre per 365-day period, as obtained from the Board, shall be specified.

(m) A letter from an engineer pertaining to any used storage tanks to be used to store or treat septage or other permitted waste at the proposed land application facility, certifying that said tanks are suitable for their intended purpose.

(n) A description of measures that will be used to properly store or dispose of septage or other permitted waste in the event of equipment failure; when access to the facility is restricted due to flooded, frozen, snow-covered, or other

conditions; or during an emergency. Such measures may include the cessation of additional deliveries of septage or other permitted waste to the facility; the use of storage tanks; or the disposal of septage or other permitted waste at a sewage treatment plant or approved landfill. Evidence of agreements made with a sewage treatment plant or an approved landfill shall be presented.

(3) The applicant shall employ the services of an engineer in support of the initial application for the Land Application Permit. Subsequent applications for permit renewal may be signed and submitted by the applicant, provided that no significant changes have occurred to the facility or the operation.

(4) The permit holder shall ensure that all persons who deliver, store, treat, or land apply septage or septage mixed with other permitted waste, or perform other practices or operations at the facility, comply with all the requirements of these Rules. Any violation at the facility shall be treated as a violation by the permittee, who shall be the subject of enforcement actions taken or initiated by the Board or Local Health Officer.



(5) All land application permits shall be valid for one year. In order to continue operating the permitted site, the permit holder shall, at least forty-five (45) days prior to the expiration date, make an application to renew a permit to the Local Health Officer on forms provided by the Board and provide information indicated in subparagraphs (2)(a), (c), (j), (k), and (l) of this Rule. The Local Health Officer may request additional information if necessary. A copy of all permits and permit renewals issued by the Local Health Officer shall be provided to the Board.

(6) The permit holder of each semisolid waste landfarming facility, for which a current permit was issued by the Local Health Officer prior to the effective date of this Chapter, shall, within thirty (30) days of the effective date of this Chapter, submit to the Local Health Officer an initial application for a Land Application Permit.

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

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**420-3-6-.09 Sites For Land Application Facilities.** The location of a land application facility shall not pose a threat or endangerment to surface waters; to groundwater or the aquifer; to public or private drinking water wells; to a residence or public contact site; or to wetlands, or otherwise cause a nuisance menacing public health.

(1) It shall be the responsibility of the applicant for a Land Application Permit to determine the suitability of the proposed facility area for the application of septage or septage mixed with other permitted waste by virtue of its hydrogeology and soil characteristics, and to present supporting evidence of same to the Local Health Officer.

(2) In order to minimize the potential threat to the public health and the risk of contamination by septage or septage mixed with other permitted waste, the location of all land

application facilities shall adhere to the following setback restrictions:

(a) A minimum distance of five hundred (500) feet from the nearest public or private drinking water well, surface water, wetland, marsh, or base flood.

(b) A minimum distance of three hundred (300) feet from the nearest residence, restaurant, retail food service operation, school, institution, or public contact site.

(c) A minimum distance of one hundred (100) feet from a water supply line.

(d) A minimum distance of seventy-five (75) feet from all property boundaries.

(e) A minimum separation of twenty-four (24) inches between the soil surface and the wet season watertable, refusal layer, or bedrock.

(3) Land application facilities shall not be located in a flood prone area.

(4) The maximum slope at any part of a land application facility where septage or septage mixed with other permitted waste is applied shall not exceed twelve percent (12%).

(5) The land application area and the area extending three hundred (300) feet from the outer boundaries of the facility shall contain no evidence of subsurface fractures, solution cavities, sinkholes, excavation bore holes, abandoned wells, or any other natural or man-made conduits that could allow direct contamination of groundwater, as determined by a qualified hydrogeologist.

(6) The land application facility shall be served by an access route or road which shall be capable of withstanding the anticipated traffic, and which shall be kept in good repair by the applicant.

**Authors:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

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22-10-1 and 2, and 22-26-1, 2, and 3.

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**420-3-6-.10 Operation Of Land Application Facilities**. The operation and management of a land application facility shall not: cause a nuisance or hazard menacing public health or the environment; provide harborage or food for vermin or vectors; or cause contamination or pollution of groundwater, surface waters, or public or private drinking water wells. All land application facilities shall be operated in accordance with the requirements of this Rule.

(1) Septage or septage mixed with other permitted waste may be land applied to agricultural land, forest land, and other non-public contact sites in accordance with these Rules. A crop or vegetative cover shall be present during each application to prevent soil erosion and surface runoff of the waste, and to absorb the nitrogen present in the waste. Septage or septage mixed with other permitted waste shall not be applied to bare soil except immediately preceding the sowing or planting of a new crop or vegetative cover, when it shall be plowed or disced into the soil. Under no circumstances shall septage be applied to a public contact site, as defined in this Chapter.

(2) Before each load of septage or septage mixed with other permitted waste is land applied it shall be pre-treated according to the following procedures:

(a) Septage, and other permitted waste if present, shall be mixed and lime-stabilized by the addition and thorough agitation of a sufficient quantity of quicklime or hydrated lime to uniformly raise the pH to 12 or higher for 30 minutes or more. If, on recording the pH after the elapse of 30 minutes, it is below 12, additional lime shall be added to raise the pH to 12 throughout the entire load for 30 minutes before it is land applied. No septage or septage mixed with other permitted waste shall be land applied where its pH is less than 12. Operators shall be equipped during the preparation of each load of septage to accurately measure the pH.

(b) Septage, and other permitted waste if present, shall be screened of plastic and metal objects, and other debris,

which shall be disposed of in accordance with Chapter 420-3-5, Solid Waste Rules, of the Administrative Code.

(3) When quicklime or hydrated lime are used, they shall be administered in accordance with the product label directions, including all safety precautions. **Quicklime releases great heat when mixed with water and can cause severe burning of the skin and eyes.**

(4) It shall be a violation of these Rules for any person to accept, treat, store, or spread grease at a land application facility, unless specifically approved to do so under a Land Application Permit issued by the Local Health Officer.

(a) Grease shall not be spread on or applied to the land at any land application facility permitted pursuant to these Rules, except after the grease is mixed with septage at a ratio of one (1) part grease, or less, to three (3) parts of septage. The mixture shall be lime-stabilized according to subparagraph (2) (a) of this Rule, and thoroughly agitated before being spread or applied on the land. The mixture of septage and grease shall be screened in accordance with (2) (b) of this Rule before being land applied.

(b) It shall be the responsibility of the permit holder to ensure that the ratio of grease to septage in a mixture does not exceed 1:3 when applied on the land. During the pumping of a grease trap, the approximate portion of its contents which is grease shall be determined and recorded.

(c) The Local Health Officer or the Board may prohibit the spreading or application of additional grease at a facility if it is determined that the practice is adversely impacting the land, or for other reasons deemed appropriate to prevent the creation of a public health nuisance.

(5) The annual application rate for septage applied to agricultural land, forest land, or other non-public contact sites shall not exceed the amount as determined by the following formula:

$$\text{AAR} = \frac{N}{\quad}$$

0.0026

Where:

AAR = Annual Application Rate in gallons per acre per 365-day period.

N = Amount of nitrogen in pounds per acre per 365-day period required by the crop or vegetation grown on the land.

(a) The applicant for a permit or the permit holder, whichever is applicable, shall obtain from the Board the information indicated in Rule 420-3-6-.08(2)(1) of this Chapter in order to calculate the AAR.

(b) In the case of portable toilet and marine sanitation waste, which shall be pretreated in accordance with paragraph (7) of this Rule, the Annual Application Rate (AAR) shall be determined using the formula above, with 0.015 in place of the value 0.0026, to represent the higher concentration of nitrogen known to occur in those wastes.

(c) All septage, or mixtures of septage and portable toilet and marine sanitation waste, shall be spread uniformly over the approved area of the land application facility to ensure that no part receives waste in excess of the Annual Application Rate.

(6) To prevent the ponding or accumulation of septage or septage mixed with other permitted waste and to ensure even and uniform application, vehicles shall be equipped with a splash plate or similar device at the discharge pipe to achieve a uniform spread at least equal to the width of the vehicle. The vehicle shall be equipped with a discharge valve control accessible to the driver, or other method to open the valve while the vehicle is in forward motion. If necessary, septage or septage mixed with other permitted waste shall be maintained under pressure in the vehicle tank during dispersal, in order to achieve the desired spread. The vehicle shall be in forward motion when the valve is opened to release the contents and shall continue in forward motion until the tank is empty or until the discharge pipe is closed. At no time shall a vehicle stop or remain stationary while dispersing its contents.

(7) The land application of portable toilet waste and marine sanitation waste is discouraged. All portable toilet waste and marine sanitation waste shall be pre-treated in a

manner acceptable to the Board before they are land applied.

(8) No septage or septage mixed with other permitted waste shall be applied to land that is flooded, frozen, or snow-covered, during rains that would cause run-off, or when the surface is saturated. Under all circumstances, the applicant shall ensure that a uniform crop or vegetative cover is present on land where septage or septage mixed with other permitted waste is applied, except immediately preceding the sowing or planting of a new crop or vegetative cover, when septage or septage mixed with other permitted waste shall be plowed or disced into the soil.

(9) The boundaries of the land application facility shall be clearly marked by flagging or other material at regular intervals. The setback distance from property boundaries (75 feet), if applicable, shall also be marked to be clearly visible.

(10) Each application of septage or septage mixed with other permitted waste shall be made in sequence with previous applications to ensure uniform distribution and compliance with the annual application rate, and to derive the maximum benefit from the nutrients contained therein.

(a) The permit holder shall establish and maintain a system for rotating all land applications according to a sequence for the entire area of the facility. Where septage or septage mixed with other permitted waste is applied by persons other than the permit holder, the permittee shall indicate the precise pattern of the rotation using flagging, markers, pointers, or other devices which are clearly visible.

(b) The permit holder shall maintain a facility log and site plan in a legible form and shall ensure that data pertaining to each application are recorded. The log shall be updated after each application to record: the date, time, volume, and area or sector of last application; name and permit number of operator; and other data required under Rule 420-3-6-.11. The site plan shall show the entire facility area and the rotation pattern. It shall be clear from the log and site plan where the last application was made.

(11) Grazing animals shall not be allowed to enter any part of the land application facility that has received septage or septage mixed with other permitted waste for a minimum of 30 days thereafter. Active areas which currently receive septage or septage mixed with other permitted waste, or for which 30 days have not elapsed, shall be restricted from grazing animals by the use of appropriate fencing and gates. The permit holder may divide the area of the facility for grazing purposes and rotate the grazing animals while observing the 30-day limit.

(12) For all land application facilities, the following crop restrictions shall apply:

(a) Food crops with harvested parts that touch the septage/soil mixture and are totally above ground shall not be harvested for 14 months after application of domestic septage.

(b) Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of domestic septage when the domestic septage remains on the land surface for four months or longer prior to incorporation into the soil.

(c) Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of domestic septage when the domestic septage remains on the land surface for less than four months prior to incorporation into the soil.

(d) Animal feed, fiber, and those food crops whose harvested parts do not touch the soil surface shall not be harvested for 30 days after application of the domestic septage.

(e) Turf grown on land where domestic septage is applied shall not be harvested for one year after application of the domestic septage when the harvested turf is placed on either a lawn or land with a high potential for public exposure, unless otherwise specified by the permitting authority.

(13) The permit holder shall employ appropriate measures to properly store or dispose of septage or other permitted waste in the event of equipment failure; when access to the facility is restricted due to flooded, frozen, snow-

covered, or other conditions; or during an emergency. Such measures may include the cessation of additional deliveries of septage or other permitted waste to the facility; the use of storage tanks; or the disposal of septage at a sewage treatment plant or approved landfill, until conditions at the facility become suitable for land application.

(14) The use of storage tanks is recommended at land application facilities where other permitted waste is accepted, so as to safely mix and lime stabilize other permitted waste with septage. Storage tanks should have a minimum holding capacity of 5,000 gallons and be equipped with a screening device to remove plastics, metals, and other debris. They should be of sufficient capacity to handle anticipated volumes.

(a) All storage tanks to be used at a land application facility shall be devoid of holes, cracks, or defects to prevent the escape of septage, and shall be inspected before use for storage. No part of any storage tank shall be covered with earth or used until the Local Health Officer is afforded the opportunity to inspect the tank and authorize its use. In the case of used tanks, whether of metal, concrete, or other material, they shall be inspected by an engineer to ensure that they are suitable for their intended purpose. A written report of said inspection shall first be made to the Local Health Officer before the tanks are used to store septage or other permitted waste.

(b) Storage tanks shall be easily accessible and adequate space shall be provided to safely maneuver vehicles. Access to storage tanks at a land application facility shall be restricted to authorized persons and a sign shall be posted in the vicinity of the tanks to be clearly visible. The letters on the sign shall be a minimum height of one (1) inch and the sign shall include, at a minimum, the words: "septage" and "no trespassing area."

(15) Prominent entry points to the land application facility shall be posted with signs stating the business name of the permit holder, the permit number, and the permit holder's telephone number. The sign shall be clearly visible with letters at least one (1) inch in height on material that is weather-resistant, and shall include the words: "septage application site" and "no trespassing area." The permit holder shall take appropriate measures to



minimize public access to the land application facility by the use of appropriate fencing materials and gates. Public access to the facility or any part thereof shall be restricted for at least 30 days after the last septage application.

(16) A method to control erosion, run-off and infiltration shall be employed at the facility. The land shall be protected by the growing and harvesting of a nitrogen-consuming crop to protect surface and groundwater from nitrogen pollution. Heavy vehicles shall not enter the land application area when the ground is saturated or flooded. When applying septage or septage mixed with other permitted waste, vehicle drivers shall avoid sloping land when vegetation or ground cover is sparse or thin to minimize the risk of run-off from the site. Septage or septage mixed with other permitted waste shall not be applied to land having a slope greater than twelve percent (12%).

(17) The permit holder shall employ adequate measures to minimize vermin and vector attraction at the land application facility. In addition to the lime stabilization requirement of this Rule, the permit holder shall harvest or mow the crop or vegetative cover when necessary to reduce the potential for vector attraction. To prevent ponding or accumulation on the land application area, and to minimize the attraction of flies, rodents, and other vectors, septage or septage mixed with other permitted waste shall be spread uniformly over the land application area in accordance with paragraph (6) of this Rule.

(18) The Local Health Officer or the Board may require the permit holder to submit the results of bacteriological tests on drinking water wells located in the vicinity of the facility, at times to be specified, if deemed necessary.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.11 Record Keeping.** All records pertaining to the operation and management of the land application facility, as

specified in this Rule, shall be maintained for a minimum period of five (5) years from the date each record is created.

(1) The following records shall be maintained in a legible form by the permit holder to record the daily activities and practices performed at the land application facility:

(a) The source of all septage or other permitted waste delivered to the facility to include:

1. the name and location of said source;
2. the name and permit number of the person making delivery;
3. the type and volume, in gallons, of waste delivered; and
4. the date of delivery.

(b) The date and time when the waste was lime-stabilized; the amount of lime added to the waste; the time of initial pH measurement of 12 or greater and the pH after 30 minutes; and the method used to perform lime stabilization, such as in a vehicle tank or in a storage tank.

(c) The location, identified by permit number, of each site on which septage or septage mixed with other permitted waste is applied.

(d) The number of acres in each site on which septage or septage mixed with other permitted waste is applied, and the method of application.

(e) The date and time septage or septage mixed with other permitted waste is applied to each site.

(f) The nitrogen requirement for the crop or vegetation grown on each site during a 365-day period, and the type of crop or vegetation.

(g) The rate, in gallons per acre per 365-day period, at which septage is applied to each site.

(h) A certification statement to read as follows:

"I certify under penalty of law, that the pathogen requirements in EPA's Pathogen Reduction Alternative 2, and the vector attraction reduction requirements in EPA's Vector Attraction Reduction Alternative 3, as detailed in the lime stabilization requirement of 420-3-6-.10(2)(a), have/have not (circle one) been met. This determination has been made under my direction and supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and the vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

(i) Other information that may be requested by the Local Health Officer or the Board.

(2) The permit holder shall ensure that all the information required under this Rule relating to each application is recorded and maintained in a legible form.

(3) A facility log shall be made available to all authorized persons when the facility is in use. The vehicle driver shall inspect the log before each application, or otherwise determine the area where waste was last applied. A site plan shall accompany the log and shall display the facility and the pattern, or sequence, by which septage or septage mixed with other permitted waste is applied.

(4) The permit holder shall maintain all records specified by this Rule on forms acceptable to the Board.

(5) The permit holder shall submit records or information pertaining to the land application facility to the Local Health Officer or the Board upon request. The Local Health Officer or the Board may request such records or information to be submitted at any time, including monthly, quarterly, or at other intervals. The failure or refusal to submit such records or information to the Local Health Officer or the Board, or to deny access to same, shall be a violation of these Rules, and shall give cause to revoke a permit.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.12 Facility Closure.** The closure of a land application facility shall be performed subject to approval by the Local Health Officer or the Board and pursuant to the following requirements:

(1) The permit holder shall notify the Local Health Officer in writing of an intention to close the facility, at least ninety (90) days prior to the planned closure date.

(2) The permit holder shall also notify persons who are authorized to use the facility for land application of the intention to close the facility, at least sixty (60) days prior to the planned closure date.

(3) The permit holder shall submit to the Local Health Officer, at least sixty (60) days prior to the closure date, a site closure plan, which shall include, but not be limited to, the following items of information:

(a) A statement explaining why the facility will be closed. The statement should also indicate if the permittee possesses a Sewage Tank Pumper Permit if he will continue to pump out septic tanks or grease traps; and the alternative method(s) to be used for the disposition of septage or other permitted waste following the facility closure.

(b) The date on which the last application will be made.

(c) Other information that may be requested by the Local Health Officer or the Board.

(4) A statement shall be provided to the property owner, if other than the permit holder, indicating the date on which the last application was made and the restrictions which

apply to public access, the grazing of animals, and the growing of crops, as specified in these Rules.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.13 Inspections.** All land application facilities permitted under these Rules shall be subject to inspections by the Local Health Officer or the Board at the time permits are issued or renewed, semi-annually, or at any other time deemed necessary.

(1) The Local Health Officer or the Board may make periodic or unannounced inspections at any time during normal working hours, and shall have unlimited access to the entire area of the facility and to records required under Rule 420-3-6-.11 of this Chapter.

(2) The Local Health Officer or the Board may request the permit holder to attend an inspection of the facility, to address matters of concern, to present records, or for other reasons. The Local Health Officer or the Board may also inspect the facility in the permit holder's absence.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.14 Permit Revocation.** The Local Health Officer or the Board may modify or revoke a permit issued under these Rules for cause, to include, but not be limited to, one or more of the following:

(1) It is determined by the Local Health Officer or the Board that the continued use of the site may cause a nuisance menacing public health.

(2) The land application facility is being operated contrary to the requirements of these Rules or to the Septage Management Plan approved under the permit.

(3) The information submitted for approval was erroneous, or falsified by the owner, the applicant, or their respective agents.

(4) A deficiency or violation cited by the Local Health Officer or the Board was not corrected within a specified time period.

(5) A more viable option for the disposition of septage or other permitted waste has become available.

(6) Other reasons as deemed appropriate by the Local Health Officer or the Board.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.15 Transfer Of Permit.** Land application permits are not transferable from one person to another or from one site or facility to another.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.16 Penalty For Violations.** No agency or person shall violate any of the provisions of these Rules. Any person who violates a provision of these Rules shall be subject to punishment according to law.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.17 Appeals.**

(1) Any person who, after proper application, is denied a permit or authorization subject to these Rules shall be provided the reasons therefore and may, within seven days after receipt of said denial, apply in writing for an informal hearing to the Local Health Officer, or a designee thereof, in accordance with the Rules of the State Board of Health governing appeals.

(2) Any person who is in possession of a valid permit or authorization subject to these Rules and is notified in writing of an intent to suspend or revoke, or to deny renewal of said permit or authorization, shall be provided with the reasons therefore and may, within seven days of being notified, apply in writing for an informal hearing to the Local Health Officer, or a designee thereof, in accordance with the Rules of the State Board of Health governing appeals.

(3) If, after the informal hearing, the matter is not resolved to the satisfaction of the aforesaid person, written appeal in accordance with the Rules of the State Board of Health governing appeals may be made to the State Health Officer within seven days following said hearing. This appeal shall be sent directly to the State Health Officer, State Department of Health, 434 Monroe Street, Montgomery, Alabama 36130-3017 with a copy furnished to the Health Officer of the county from which said denial or notice of intent was issued.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.18 Severability.** The Rules, paragraphs, parts, items and provisions of this Chapter are severable. Should any portion thereof be ruled unconstitutional or unenforceable by any court, the said ruling shall not affect any other provisions of this Chapter not ruled upon.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.19 Repealer.** All rules promulgated and adopted by the Board which are in conflict with this Chapter or any provisions thereof are hereby expressly repealed.

**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

**420-3-6-.20 Effective Date.** This Chapter shall be in full force and in effect 35 days after promulgation and adoption.



**Author:** John-Paul O'Driscoll, Christie L. White and George B. Allison.

**Statutory Authority:** Code Of Ala. 1975, Sections 22-2-2(6), 22-10-1 and 2, and 22-26-1, 2, and 3.

**History:** Filed: September 20, 1989. Repealed. Filed: November 19, 1991. New Rule: Filed: October 20, 1994; effective November 24, 1994.

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