Regulation 61-43

Standards for the Permitting of Agricultural Animal Facilities

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SC DEPARTMENT *of* ENVIRONMENTAL SERVICES

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PART 50
GENERAL DEFINITIONS

For purposes of this regulation, the following definitions apply:

"Active Animal Facility" means a facility with a minimum of 30,000 pounds normal production animal live weight and in production.

"Affected Person" means a property owner with standing within a one (1)-mile radius of the proposed building footprint or permitted poultry facility or other animal facility, except a swine facility, who is challenging on his own behalf the permit, license, certificate, or other approval for the failure to comply with the specific grounds set forth in the applicable Department regulations governing the permitting of poultry facilities and other animal facilities, other than swine facilities.

"Agricultural animal" means an animal confined in an agricultural facility.

"Agricultural facility" means a lot, building, or structure, which is used for the commercial production of animals in an animal facility.

"Agronomic rate" means the animal manure and other animal by-products' application rate designed: (1) to provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land; (2) to minimize the amount of nitrogen in the animal manure that passes below the root zone of the crop or vegetation grown on the land to groundwater; (3) to provide the amount of other organic and inorganic plant nutrients which promote crop or vegetative growth, such as calcium-carbonate equivalency; and (4) to provide the amount of phosphorus needed by the crop or vegetation grown on the land without causing an excessive buildup of phosphorus in the soil.

"Animal" means any domesticated animal.

"Animal by-product" means a secondary or incidental product of animal production that may include bedding, spilled feed, water or soil, milking center washwater, contaminated milk, hair, feathers, dead animals or other debris. This definition may also refer to dead animal or animal manure compost.

"Animal facility" means an agricultural facility where animals are confined and fed or maintained for a total of forty-five (45) calendar days or more in a twelve (12)-month period and crops, vegetative, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Structures used for the storage of animal manure and other animal by-products from animals in the operation also are part of the animal facility. Two (2) or more animal facilities under common ownership or management are considered to be a single animal facility if they are adjacent.

"Animal Facility Management Plan" means a plan prepared by the United States Department of Agriculture's Natural Resources Conservation Service (USDA-NRCS) or a professional engineer detailing the management, handling, treatment, storage, or utilization of manure generated in an animal facility. This plan shall include facility management details and a detailed map of each manure utilization area showing all buffer zones and setbacks, a description of the land use, the crops grown on the site, the timing for application of manure to the land and a land use agreement if the site is not owned by the permittee.

"Animal Feeding Operation" means a lot or facility where animals have been, are, or will be stabled or confined and fed for a total of forty-five (45) calendar days or more in any twelve (12)-month period.

“Animal manure” means animal excreta or other commonly associated organic animal manures including, but not limited to, bedding, litter, feed losses, or water mixed with the manure.

“Annual animal manure application rate” means the maximum amount of animal manure that can be agronomically applied to a unit area of land during any 365-day period.

“Annual constituent loading rate” means the maximum amount of a constituent that can be applied to a unit area of a manure utilization area during any 365-day period.

“Application rate” means the amount of manure applied at any one time.

“Approval to Operate (ATO)” means a letter from the Department granting approval to place the facility into operation.

“Average animal live weight” means the sum of the average exit weight of the animal from the facility and the average entry weight divided by two, as shown by the following formula:

Average animal live weight = (Average Exit Weight + Average Entry Weight)/2

“Broker” means a person who accepts or purchases animal manure or other animal by-products from agricultural facilities and transfers this product to a third party for land application.

“Certification of Construction” means a document, certified by the consultant, PE, or NRCS staff, that a certain construction project has been completed in accordance with the terms, conditions, and specifications contained in the permit of applicable regulations.

“Closed facility” means an animal facility that has ceased operations (no confined animals at the facility) and is no longer in production, and all lagoons and waste storage ponds have been properly closed out and cannot be placed back into operation without a new permit.

“Commercial Facility” means an animal facility that produces animals or animal by-products for commercial sale, boards animals, rents animals, or provides a service utilizing the animals for a fee.

“Compost” means an organic soil conditioner that has been stabilized to a humus-like product, is free of viable human and plant pathogens and plant seeds, does not attract insects or vectors, can be handled and stored without nuisance, and is beneficial to the growth of plants.

“Composting” means the biological decomposition and stabilization of organic substrates, under conditions that allow development of thermophilic temperatures as a result of biologically produced heat, to produce a final product that is stable, free of pathogens and plant seeds, and can be beneficially applied to land. Composting requires special conditions of moisture and aeration to produce thermophilic temperatures.

“Concentrated Animal Feeding Operation (CAFO)” means as defined by the Environmental Protection Agency (EPA).

“Confined Animal Manure Management (CAMM) Certification” means an operator, manager, or owner of an animal facility or manure utilization area, has received certification by completing a class and passing an exam that is provided by Clemson University, Clemson Extension, the South Carolina Department of Health and Environmental Control, and the USDA Natural Resource Conservation Service.

"Constituent limit" means a numerical value that describes the amount of a constituent allowed per unit amount of animal manure (e. g., milligrams per kilogram of total solids); the amount of a constituent that can be applied to a unit area of land (e. g., pounds per acre); or the volume of a material that can be applied to a unit area of land (e.g., gallons per acre).

"Cover crop" means a vegetative crop, including, but not limited to, oats, wheat, or barley; grasses; or other crop grown for agronomic use or to maintain topsoil and prevent soil erosion.

"Critical Habitat" means the term used to define those areas of habitat containing physical and biological features that are essential for an endangered or threatened species to recover and that require special management or protection.

"Cumulative constituent loading rate" means the maximum amount of a constituent that can be applied to an area of land.

"Cumulative impacts" means an increase or enlarging of impact to the environment or community by the successive addition or accumulation of animal facilities in an area.

"CWA" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117, 33 U.S.C. 1251 et seq. Specific references to sections within the CWA shall be according to Pub. L. 92-500 notation.

"Deemed Permitted Facility" means an agricultural animal facility that held a valid permit from the Department for their swine facility prior to July 1, 1996, or for their animal facility prior to June 26, 1998.

"Department" means the South Carolina Department of Health and Environmental Control.

"Discharge" means any release, emission or dismissal of sewage, industrial waste, agriculture waste, or other waste into any Waters of the State, whether treated or not.

"Downwind Receptors" means virtual three-dimensional coordinates placed off site where the concentrations of emissions would be measured for comparison to air quality standards.

"Dry manure" means manure, bedding, litter, feed losses, or composted animal material (animal manure or dead animals) that is not in a liquid form. Dry animal manure can normally be easily handled with a shovel or other similar equipment and it can be placed in piles without liquid manure or leachate drainage occurring.

"Dry weight basis" means calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100 percent solids content).

"EPA" means the United States Environmental Protection Agency.

"Ephemeral stream" means a stream that flows only in direct response to rainfall or snowmelt in which discrete periods of flow persist no more than twenty-nine (29) consecutive days per event.

"Evergreen Buffer" means plants such as trees, shrubs, or grasses that have foliage that remain green and functional through at least more than one growing season and are not deciduous.

"Excessive Mortality" means total animal mortality in any one twenty-four (24)-hour period that exceeds the design capacity of the normal method of dead animal disposal. This may include utilizing the barns to compost the excessive mortality.

"Expansion" means an increase in the permitted number of animals or normal production animal live weight that will result in physical construction at the facility. An animal manure treatment lagoon that is converted to an animal manure storage pond is considered an expansion of the facility. For facilities permitted prior to 1998, where the treatment/storage design function was not clearly specified, the Department shall review the facility's operation records and compliance history to determine the current function and condition of the manure handling structures. If the existing structure can handle additional animals, without physical alteration, significant changes in the original function of the structure, or any significant increase in odor, the Department may allow this increase in animals without classifying the change as an expansion.

"Feedlot" means an animal feeding operation (AFO) which is used in intensive animal farming for finishing livestock.

"FEMA" means the Federal Emergency Management Agency.

"Feed crops" means crops produced primarily for consumption by animals. These include, but are not limited to corn, grains, and grasses.

"Fiber crops" means crops including, but not limited to, flax and cotton.

"Floodplain" means land adjacent to water bodies that periodically becomes temporarily inundated with water during or after rainfall events. The land inundated from a flood whose peak magnitude would be experienced on an average of once every 100 years is the 100-year floodplain. The 100-year flood has a one percent (1%) probability of occurring in one given year.

"Food crops" means crops produced primarily for human consumption. These include, but are not limited to, fruits, vegetables, and grains.

"Footprint" means the area of ground covered by an agricultural facility (i.e., the part of the property where the animal facility is constructed).

"Freeboard" means additional capacity in a storage/treatment structure designed to provide a safety margin of storage in the event that a rainfall occurs when the structure is full. The design storm is normally a twenty-five (25) year storm of twenty-four (24) hours duration.

"Groundwater" means water below the land surface in the saturated zone.

"Inactive Facility" means an animal facility that is not considered in production, but the facility and/or lagoon(s)/waste pond(s) have not been properly closed out. The owner/operator/permittee will continue to pay the annual fees throughout the inactive period of the permit, will be required to maintain the facility and/or lagoon(s)/waste storage pond(s), and will be inspected by the Department on a routine basis.

"Integrator" or "Integrating company" means any entity or person(s) who contracts with agricultural animal producers to grow animals to be supplied to this person(s) at the time of removal from the animal growing houses or facilities and exercises substantial operational control over an animal facility, along with the owner/operator of the facility. Substantial operational control includes, but is not limited to, the following: directs the activities of persons working at the animal facility either through a contract, direct supervision, or on-site participation; owns the animals; or specifies how the animals are grown, fed, or medicated. This

definition does not include independent producers that contract with other independent producers to accomplish a portion of the animal growing process under contract.

“Intermittent stream” means a stream that generally has a defined natural watercourse, which does not flow year-round but flows beyond periods of rainfall or snowmelt.

“Lagoon” means an impoundment used in conjunction with an animal facility, the primary function of which is to store or stabilize, or both, manure, organic wastes, wastewater, and contaminated runoff.

“Land application” means the spraying or spreading of manure or other animal by-products onto the land surface; the injection of manure below the land surface into the root zone; or the incorporation of manure into the soil so that the manure can either condition the soil or fertilize crops or vegetation grown in the soil.

“Land Applier” means any person who accepts or purchases manure or other animal by-products from agricultural facilities for use as a fertilizer or soil enhancer on land either owned, leased, or managed by the land applier.

“Large Animal Facility” means an animal facility (excluding swine facilities) that has a capacity for more than 500,000 pounds and less than 1,000,000 pounds of normal production animal live weight at any one time.

“Large Swine Facility” means a swine facility with a capacity for greater than 500,000 pounds and less than 1,000,000 pounds of normal production animal live weight at any one time.

“Liquid manure” means manure that by its nature, or after being diluted with water, can be pumped easily and is removed, either intermittently or continuously, from an animal lagoon, manure storage pond, or treated effluent from other types of animal manure treatment systems.

“Manure” means the fecal and urinary excretion of livestock and poultry. This material may also contain bedding, spilled feed, water, or soil. It may also include wastes not associated with livestock excreta, such as milking center washwater, contaminated milk, hair, feathers, or other debris. Manure may be described in different categories as related to solids and moisture content, such as dry manure and liquid manure.

“Manure storage pond” means a structure used for impounding or storing manure, wastewater, and contaminated runoff as a component of an agricultural manure management system. Manure is stored for a specified period of time, one (1) year or not less than ninety (90) calendar days, and then the pond is emptied. This definition does not include tanks or other similar vessels.

“Manure utilization area” means land on which animal manure (including swine manure) is spread as a fertilizer and is synonymous with land application site or land application area

“Mass Burial Site” means an area of land approved by the Department designated to be a mass burial site for excessive mortality.

“NRCS” means the Natural Resources Conservation Service of the United States Department of Agriculture.

“NRCS-CPS” means the Natural Resources Conservation Service’s Conservation Practice Standards as given in the USDA-NRCS, SC Handbook of Conservation Practices.

“Normal production animal live weight at any one time” means the maximum number of animals at the facility at any one time multiplied by the average animal live weight of those animals.

“Notice of Intent (NOI)” means a document provided by the Department used by an applicant to notify the surrounding property owners of the applicant’s intent to construct a permitted animal facility.

“Nuisance” means a condition causing annoyance or danger to a limited number of persons or to the general public as determined by the Department.

“Operator” means the person(s) who manage(s) a permitted animal facility and may be CAMM certified.

“Outstanding Recreational or Ecological Resource Waters (ORW)” means waters which are of exceptional recreational, ecological importance, or of unusual value. Such waters may include, but are not limited to: waters in national or state parks or wildlife refuges; waters supporting threatened or endangered species; waters under the National Wild and Scenic Rivers Act or South Carolina Scenic Rivers Act; waters known to be significant nursery areas for commercially important species or known to contain significant commercial or public shellfish resources; or waters used for or having significant value for scientific research and study.

“Owner” means the proprietor of any facility of activity subject to this regulation.

“Pasture” means land on which animals feed directly on feed crops including, but not limited to, legumes, grasses, grain stubble, or stover.

“Permit” means any license, certificate, registration, variance, or other approval issued by or required by the Department or any of its divisions, pursuant to any statute or regulation.

“Permit Extension” means a one (1)-year extension with justification that must be applied for in writing ten (10) calendar days prior to the permit expiration date.

“Permit Modification” means a minor or moderate change to a facility’s permit that is considered, as determined by the Department, to not change the general operations of the permitted site but is necessary to continue the regulated operation of the facility. Permit Modifications are not required to be Public Noticed.

“Permittee” means any person authorized to conduct any activity or business pursuant to a valid permit issued by or filed with the Department.

“Permitting Decision” means any decision by the Department to issue, modify, deny, or withdraw the permit.

“Person” means any individual, public or private corporation, political subdivision, association, partnership, corporation, municipality, state or federal agency, industry, co-partnership, firm, trust, estate, any other legal entity whatsoever, or an agent or employee thereof.

“Plant Available Nitrogen (PAN)” means the quantity of nitrogen made available during the growing season after fertilizing materials are applied. A certain amount of the nitrogen is immobilized, and the remaining nitrogen is available to the plant.

“Potable water well” means any well designed and/or constructed to produce potable water for consumption by humans or animals.

“Producer” means a person who grows or confines animals; a person responsible for the manure produced at an animal facility; a person processing manure; and/or a person responsible for the land application of manure.

“Production” means a facility that meets the permit requirements based on 30,000 pounds of Normal Production Animal Live Weight.

“Professional Engineer” or “Engineer” means a person who, by reason of his or her special knowledge of the mathematical and physical sciences and the principles and methods of engineering analysis and design, acquired by professional education and practical experience, is qualified to practice engineering, all as attested by his or her legal registration as a professional engineer in South Carolina.

“Public Hearing” means a proceeding, properly noticed in accordance with applicable state and federal laws, during which comments are received and testimony is taken to establish a record of concern prior to an administrative action by the Department.

“Public Notice” means the notice of an application or of proposed agency action published in accordance with applicable statutes and regulations.

“Range land” means open land with indigenous vegetation.

“Ranged Animal Facility” means the size of the range area is sufficient to allow for the natural degradation or utilization of the manure with no adverse impact to the environment. Ranged facilities shall also maintain adequate vegetative buffers between the animal range and the adjacent property lines and/or Waters of the State to mitigate runoff from reaching adjacent property and/or Waters of the State.

“Replacement in Kind” means construction of the same size or less of animal growing barn(s), and the same number or less of animal live weight, at the same location as the barn(s) being replaced.

“Residence” means a permanent inhabited dwelling, any existing church, school, hospital, or any other structure which is routinely occupied by the same person or persons more than twelve (12) hours per day or by the same person or persons under the age of eighteen (18) for more than two (2) hours per day, except those owned by the applicant.

“Rolling Average” means the laboratory results from the most recent analysis averaged with the previous manure analysis for a particular form of manure. The rolling average analysis sequence should be restarted after any major modification or changes to the lagoon/waste storage pond.

“Routinely” means a regular course of procedure.

“Runoff” means rainwater or other liquid that drains overland on any part of a land surface and runs off of the land surface.

“Seasonal High Water Table” means the surface between the zone of saturation and the zone of aeration, where the pore water pressure is equal to atmospheric pressure, and which exhibits the shallowest average water depth in relation to the surface during the wettest season.

“Small Animal Facility” means an animal facility (other than swine) that has a capacity for 500,000 pounds of normal production animal live weight or less at any one time.

“Small Swine Facility” means a swine facility with a capacity for 500,000 pounds of normal production animal live weight or less at any one time.

“Source Water Protection Area” means an area either above and/or below ground that is the source of water for a public drinking water system via a surface water intake or a water supply well that is designated by the State for increased protection.

“South Carolina National Heritage Corridor” means a National Heritage Area, federally designated in 1996, spanning seventeen (17) counties and 320 miles across South Carolina, and committed to promoting and preserving the cultural, natural, and historic resources of South Carolina.

“State” means South Carolina.

“Surface Water Runoff” means the flow of water that occurs when excess stormwater, meltwater, or other sources flows over the Earth’s surface.

“Swine” means a domesticated animal belonging to the porcine species.

“Swine by-product” means a secondary or incidental product of swine production that may include bedding, spilled feed, water or soil, hair, dead swine, or other debris. This definition may also refer to dead swine or swine manure compost.

“Swine facility” means an agricultural facility where swine are confined and fed or maintained for a total of forty-five (45) calendar days or more in a twelve (12)-month period and crops, vegetative, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. Structures used for the storage of swine manure from swine in the operation are also part of the swine facility. Two or more swine facilities under common ownership or management are considered a single swine facility if they are adjacent or utilize a common system for swine manure treatment and/or storage. For any new or expanding swine facility, the combined normal production of all swine facilities owned by the producer, and of all swine facilities owned by corporations having a common majority shareholder in common with the producer, within 25 miles of the new or expanding facility shall be used to determine the normal production of the new or expanding facility. For example, when a new facility has a proposed capacity of 300,000 pounds of normal production and the producer owns two (2) other swine facilities within 25 miles of the new or expanding swine facility and the normal production of each facility is 400,000 pounds, the proposed swine facility’s normal production is 1,100,000 (300,000 + 400,000 + 400,000) pounds.

“Swine manure” means swine excreta or other commonly associated organic animal manures including, but not limited to, bedding, litter, feed losses, or water mixed with the manure.

“Vector” means a carrier that is capable of transmitting a pathogen from one organism to another including, but not limited to, flies and other insects, rodents, birds, and vermin.

“Waiver” means a document recording the deferral of a right, claim, or privilege.

“Waste Storage Pond” means an earthen waste impoundment that temporarily stores organic wastes such as manure and wastewater.

"Wastewater" means any water that, during the confinement of animals or the handling, storage, or treatment of manure, dead animals, and litter, comes into contact with the animals, manure, litter, or spilled feed. Wastewater includes, but is not limited to, wash waters, contaminated milk, and storm water (except storm water runoff from land application areas where the application of manure has been properly applied) that comes into contact with manure.

"Watershed" means a drainage area contributing to a river, lake, or stream.

"Waters of the State" means lakes, bays, sounds, ponds, impounding reservoirs, springs, artesian wells, rivers, perennial and navigable streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State, and all other bodies of water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially within or bordering the State or within its jurisdiction. This definition does not include ephemeral or intermittent streams. This definition includes wetlands as defined in this section.

"Wetlands" means lands that have a predominance of hydric soil, are inundated or saturated by water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions, and, under normal circumstances, do support a prevalence of hydrophytic vegetation. Normal circumstances refer to the soil and hydrologic conditions that are normally present without regard to whether the vegetation has been removed. Wetlands shall be identified through the confirmation of the three wetlands criteria: hydric soil, hydrology, and hydrophytic vegetation. All three criteria shall be met for an area to be identified as wetlands. Wetlands generally include swamps, marshes, and bogs.

"X-Large Animal Facility" means an animal facility (excluding swine) with 1,000,000 pounds or more of normal production animal live weight at any one time.

"X-Large Swine Facility" means a swine facility with 1,000,000 pounds or more of normal production animal live weight at any one time.

PART 100
SWINE FACILITIES

100.10. Purpose, Applicability, Inactive Facilities, and Facilities Permitted Prior to the Effective Date of the Regulation.

A. Purpose.

1. To establish standards for the growing or confining of swine, processing of swine manure and other swine by-products, and land application of swine manure and other swine by-products in such a manner as to protect the environment, and the health and welfare of citizens of the State from pollutants generated by this process.

2. To establish standards, which consist of general requirements, constituent limits, management practices, and operational standards, for the utilization of swine manure and other swine by-products generated at swine facilities. Standards included in this part are for swine manure and other swine by-products applied to the land.

3. To establish standards for the frequency of monitoring and record keeping requirements for producers who operate swine facilities.

4. To establish standards for the proper operation and maintenance of swine facilities.

5. To establish criteria for swine facilities' and manure utilization areas' location as they relate to protection of the environment and public health. The location of swine facilities and manure utilization areas as they relate to zoning in an area is not covered in this regulation. Local county or municipal governments may have zoning requirements and this regulation neither interferes with nor restricts such zoning requirements. Permit applicants should contact local municipal and county authorities to determine any local requirements that may be applicable.

B. Applicability.

1. This part applies to:

a. All new swine facilities;

b. All expansions of existing swine facilities;

c. New manure utilization areas for existing swine facilities;

d. All inactive facilities; and

e. All facilities and lagoon closures.

2. This part applies to all swine manure and other swine by-products applied to the land.

3. This part applies to all land where swine manure and other swine by-products are applied.

C. Inactive Facilities.

1. If a swine facility is inactive for two (2) years or less, a producer may resume operations of the facility under the same conditions by which it was previously permitted by notifying the Department in writing that the facility is being operated again.

2. For swine facilities that have been inactive for more than two (2) years but less than five (5) years, the Department shall review the existing permit and modify its operating conditions as necessary prior to the facility being placed back into operation.

3. For swine facilities that have been inactive for more than five (5) years, the producer shall properly close out any lagoon, treatment system, or manure storage pond associated with the facility. The closeout shall be accomplished in accordance with R.61-82, Proper Closeout of Wastewater Treatment Facilities. The permittee shall submit a closeout plan that meets at a minimum NRCS-CPS within a time frame prescribed by the Department. Additional time may be granted by the Department to comply with the closeout requirement or to allow a producer to apply for a new permit under this regulation, as appropriate.

4. If a swine facility is inactive for more than five (5) years, the permit is considered expired and the producer shall apply for a new permit. All requirements under this regulation shall be met before the facility can resume operations.

5. During the closeout of the facilities and/or lagoons/waste storage ponds, annual fees are required to be paid until proper closeout is certified and approved.

D. Facilities Permitted Prior to the Effective Date of the Regulation.

1. All existing swine facilities with permits issued by the Department before July 1, 1996, do not need to apply for a permit as they are deemed permitted swine facilities unless they have been inactive for more than two (2) years or expand operations. These facilities shall meet the following sections of Part 100: Section 100.20 (Permits and Compliance Period); Section 100.90 items A, G, and N-T (General Requirements for Lagoons, Treatment Systems, and Manure Storage Ponds); Section 100.100 (Manure Utilization Area Requirements); Section 100.110.G.-J. (Spray Application System Requirements); Section 100.120 A, C, and D (Frequency of Monitoring for Swine Manure); Section 100.130 A, B, C items 2-3 (Dead Swine Disposal Requirements); Section 100.140 A, C-J (Other Requirements); Section 100.150 B-G (Odor Control Requirements); Section 100.160 B-D (Vector Control Requirements); Section 100.170 (Record Keeping); Section 100.180 (Reporting); Section 100.190 A-F (Training Requirements); and Section 100.200 (Violations). The capacity of a deemed permitted facility is the maximum capacity of the existing lagoon, treatment system, or manure storage pond as determined using swine lagoon, treatment system, or manure storage pond capacity design standards of the United States Department of Agriculture's Natural Resource Conservation Service.

2. All existing swine facilities with permits issued by the Department between July 1, 1996, and the effective date of this regulation do not need to apply for a new permit if they hold a valid permit from the Department, unless they have been inactive for more than two (2) years. These facilities shall meet all the requirements of this regulation.

3. All existing swine facilities that were constructed and placed into operation prior to July 1, 1996, but have never received an agricultural permit from the Department, shall apply for a permit from the Department. These facilities shall meet all the requirements of this regulation, as the Department determines appropriate. The Department shall review the site and make a determination on a case-by-case basis on which requirements are applicable.

4. An existing facility may be required to submit for approval an updated Animal Facility Management Plan on a case-by-case basis by the Department. The Department shall notify the permittee in writing of this requirement. The permittee has six (6) months or an agreed upon time frame from the date of notification to submit an updated Animal Facility Management Plan. Failure to submit the updated plan within this time frame is a violation of the South Carolina Pollution Control Act and this regulation, and may result in permit revocation.

5. Both the setbacks and other requirements for manure utilization areas shall be met when a new manure utilization area (MUA) is added by the owner of any swine facility regardless of when the facility was permitted.

6. If an existing facility regulated under Part 200 of this regulation proposes to convert to a swine facility, it shall be considered a new swine facility under this regulation. Converted facilities shall be permitted as new swine facilities and meet all criteria for new swine facilities before they begin operation as a swine facility.

7. If an existing swine facility proposes to expand operations or increase the number of permitted swine such that it falls into a new size classification, the facility shall be considered a new swine facility in that size classification under this regulation. The facility shall meet all the requirements for the new classification.

100.20. Permits and Compliance Period.

A. Permit Requirement. Swine manure and other swine by-products from a new or expanded swine facility can only be generated, handled, stored, treated, processed, or land applied in the State in accordance with a permit issued by the Department under the provisions of this part. Existing producers that are required by the Department to update their Animal Facility Management Plan shall meet the requirements of this part to the extent practical as determined by the Department.

B. Permits issued under this regulation are no-discharge permits.

C. The requirements in this part shall be implemented through a permit issued to any producer who operates a swine facility where swine manure and other swine by-products are generated, handled, treated, stored, processed, or land applied.

D. The requirements under this part may be addressed in permits issued to producers who only land apply swine manure and other swine by-products.

E. Notification Requirements. The permittee shall notify the Department in writing and receive written Departmental approval, except as otherwise noted, prior to any change in operations at a permitted facility, including, but not limited to, the following:

1. Change in ownership and control of the facility. The Department has thirty (30) calendar days from the receipt of a complete and accurate notification of transfer of ownership to either: request additional information regarding the transfer or the new owner; deny the transfer; or approve the transfer. If the Department does not act within thirty (30) calendar days, the transfer is automatically approved. If additional information is requested by the Department in a timely manner, the Department shall act on this additional information, when it is received, within the same time period as the initial notification.

2. Increase in the permitted number of swine.

3. Increase in the normal production animal live weight of the existing permitted swine facility.

4. Addition of manure utilization areas.

5. Change in swine manure and other swine by-products treatment, handling, storage, processing, or utilization.

6. Change in method of dead swine disposal.

F. Permit modifications for items 100.20.E.3 and 100.20.E.5 for facilities regulated under this part, which shall result in expansions, shall adhere to the requirements of this part and other applicable statutes, regulations, or guidelines.

G. Permit modification for items 100.20.E.2-3 which result in an expansion may be required to obtain new written waivers or agreements for reduction of setbacks from adjoining property owners (if applicable).

100.30. Exclusions.

The following do not require permits from this part unless specifically required by the Department under Section 100.30.G.

A. Existing swine facilities that are deemed permitted under Section 100.10.D.1. are excluded from applying for a new permit unless an expansion is proposed, new manure utilization areas are added, or as required by the Department. New manure utilization areas added to an existing facility shall meet the appropriate requirements in this part. However, deemed permitted facilities shall meet the requirements of this regulation as outlined in Section 100.10.D (Purpose, Applicability, Inactive Facilities, and Facilities Permitted Prior to the Effective Date of the Regulation).

B. Except as given in Section 100.30.G, swine facilities that do not have a lagoon, manure storage pond, or liquid manure treatment system, having 10,000 pounds or less of normal production animal live weight at any one time, are excluded from obtaining a permit from the Department. However, these facilities shall have and implement an Animal Facility Management Plan for their facility that meets the requirements of this regulation.

C. Except as given in Section 100.30.G, swine facilities that do not have a lagoon, manure storage pond, or liquid manure treatment system, having more than 10,000 pounds of normal production animal live weight at any one time and less than 30,000 pounds of normal production animal live weight at any one time, are excluded from obtaining a permit from the Department. However, these facilities shall submit an Animal Facility Management Plan to the Department and implement an Animal Facility Management Plan for their facility that meets the requirements of this regulation.

D. Except as given in Section 100.30.G, ranged swine facilities where the size of the range area is sufficient to allow for natural degradation or utilization of the swine manure with no adverse impact to the environment are excluded from obtaining a permit from the Department. Ranged facilities shall also maintain adequate vegetative buffers between the swine range and Waters of the State.

E. Except as given in Section 100.30.G, swine facilities that are not classified as swine for commercial purposes are excluded from obtaining a permit from the Department.

F. Except as given in Section 100.30.G, swine facilities that hold valid permits issued by the Department are not required to obtain a new permit if they decide to replace in kind any of the swine growing houses.

G. Swine facilities exempted under Sections 100.30.A, B, C, D, E, and F may be required by the Department to obtain a permit. The Department shall visit the site before requiring any of these facilities to obtain a permit.

100.40. Relationship to Other Regulations.

The following regulations are referenced throughout this part and may apply to facilities covered under this regulation.

A. Applications, application fees, and the time schedules governing the review of applications, and annual operating fees are addressed in R.61-30, Environmental Protection Fees.

B. The proper closeout of wastewater treatment facilities are addressed in R.61-82, Proper Closeout of Wastewater Treatment Facilities. This includes swine lagoons and manure storage ponds.

C. Setbacks and construction specifications for potable water wells and monitoring wells shall be in accordance with R.61-71, Well Standards.

D. Permits for air emissions from incinerators are addressed in R.61-62, Air Pollution Control Regulations and Standards.

E. Disposal of swine lagoon sludge in a municipal solid waste landfill unit is addressed in R.61-107.19, Solid Waste Management: Solid Waste Landfills and Structural Fill.

F. Disposal of swine manure with domestic or industrial sludge is addressed in R.61-9, Water Pollution Control Permits, and permitted under R.61-9.

G. Laboratory certification is addressed in R.61-81, State Environmental Laboratory Certification Program.

H. Water Classifications and Standards are addressed in R.61-68.

100.50. Permit Application Procedures (Animal Facility Management Plan Submission Requirements).

A. Preliminary Site Evaluations. The Department shall perform a preliminary evaluation of the proposed site at the request of the applicant. Written requests for a preliminary site inspection shall be made using a form provided by the Department. The Department shall not schedule a preliminary site inspection until all required information specified in the form has been submitted to the Department. This evaluation should be performed prior to preparation of the Animal Facility Management Plan. Once the preliminary site inspection is performed, the Department shall issue an approval or disapproval letter for the proposed site.

B. A producer who proposes to build a new swine facility or expand an existing swine facility shall make application for a permit under this part using an application form provided by the Department. The following information shall be included in the application package.

1. A completed and accurate application form.

2. An Animal Facility Management Plan prepared by qualified Natural Resources Conservation Service (NRCS) personnel or a S.C. registered professional engineer (PE). Other qualified individuals, such as certified soil scientists or S.C. registered professional geologists (PG), may prepare the land application component of an Animal Facility Management Plan. The Animal Facility Management Plan shall, at a minimum, contain:

a. Facility name, address, telephone numbers, email address (if applicable), county, and National Pollutant Discharge Elimination System Permit or other permit number (if applicable);

b. Facility location description and the zoning or land use restrictions in this area (this information is available from the county);

c. Applicant’s name, address, email, and telephone number (if different from above);

d. Operator’s name and CAMM number;

e. Facility capacity;

i. Number of swine;

ii. Pounds of normal production animal live weight at any one time;

iii. Amount in gallons of swine manure generated per year;

iv. Description of swine manure storage and storage capacity of lagoon, treatment system, or manure storage pond (if applicable); and

v. Description of swine manure and other swine by-products treatment (if any).

f. Concentration of constituents in swine manure including, but not limited to, the constituents given below:

i. Nutrients.

(a) Nitrate. (Only needed for aerobic treatment systems)

(b) Ammonium-Nitrogen.

(c) Total Kjeldahl Nitrogen (TKN).

(d) Organic Nitrogen (Organic Nitrogen = TKN - Ammonium Nitrogen)

(e) P_2O_5

(f) K_2O (potash).

ii. Constituents.

(a) Copper.

(b) Zinc.

iii. Name, address, S.C. lab certification number, and telephone number of the laboratory conducting the analyses.

iv. For new swine facilities, swine manure analysis information does not have to be initially submitted as the Department shall use swine manure analysis from similar sites or published data (such as: Clemson University, American Society of Agricultural Engineers, Midwest Planning Service Document, NRCS Technical Guide or equivalent) in the review of the application. Analysis of the actual swine manure generated shall be submitted to the Department six (6) months after a new swine facility starts operation or prior to the first application of swine manure to a manure utilization area, whichever occurs first. If this analysis is significantly different from the estimated analysis used in the permitting decision, the Department may require a permit modification as necessary to address the situation. Analysis shall be conducted by Clemson University Extension Service or a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

g. Swine manure and other swine by-products handling and application information shall be included as follows:

i. A crop management plan which includes the time of year of the swine manure and other swine by-products application and how it relates to crop type, crop planting, and harvesting schedule (if applicable) for all manure utilization areas;

ii. Name, address, email, and telephone number of the producer(s) that will land apply the swine manure and other swine by-products if different from the permittee;

iii. Type of equipment used to transport and/or spread the swine manure and other swine by- products (if applicable); and

iv. For spray application systems, plans and specifications with supporting details and design calculations for the spray application system.

h. Facility and manure utilization area information shall be included (as appropriate):

i. Name, address, and tax map number of landowner and location of manure utilization area(s);

ii. List previous calendar years that swine manure and/or dry manure and other swine by-products were applied and application amounts, where available;

iii. Facility and manure utilization area location(s) on maps drawn to approximate scale including:

(a) Topography (7.5' minutes or equivalent) and drainage characteristics (including ditches);

(b) Adjacent land usage (within 1/4 mile of property line minimum) and location of inhabited dwellings and public places showing property lines and tax map number;

(c) All known water supply wells on the applicant's property and within 500 feet of the facility's footprint of construction or within 200 feet of any manure utilization areas;

(d) Adjacent surface water bodies (including ephemeral and intermittent streams);

(e) Swine manure utilization area boundaries and buffer zones;

(f) right-of-ways (Utilities, roads, etc.);

(g) Soil types as given by soil tests or soil maps, a description of soil types, and boring locations (as applicable);

(h) Recorded plats, surveys, or other acceptable maps that include property boundaries; and

(i) Information showing the 100-year and 500-year floodplain as determined by FEMA.

iv. For manure utilization areas not owned by the permit applicant, a signed agreement between the permit applicant and the landowner acceptable to the Department detailing the liability for the land application. The agreement shall include, at a minimum, the following:

(a) Producer's name, farm name, farm address, CAMM number, and county in which the farm is located;

(b) Landowner's name, address, email, phone number;

(c) Location (map with road names, tax map numbers, and county identified) of the land to receive manure application;

(d) Field acreage, acreage less setbacks, and crops grown;

(e) Name of manure hauler;

(f) Name of manure applier;

(g) A statement that land is not included in any other management plans and manure or compost from another farm is not being applied on this land; and any manure utilization areas that are included in multiple Animal Facility Management Plans, identify the names of all facilities that include this manure utilization area in their plan; and

(h) A signed statement which informs the landowner that he is responsible for spreading and utilizing this manure in accordance with the requirements of the Department and this regulation.

3. Groundwater monitoring well details and proposed groundwater monitoring program (if applicable).

4. The Animal Facility Management Plan shall contain an odor abatement plan for the swine facility, lagoon, treatment system, manure storage pond, and manure utilization areas. For more specific details, see Section 100.150 (Odor Control Requirements).

5. A Vector Abatement Plan shall be included for the swine facility, lagoon, treatment system, manure storage pond, and manure utilization areas. For more specific details, see Section 100.160 (Vector Control Requirements).

6. The Dead Swine Disposal Plan shall include written details for the handling and disposal of dead swine. Plans should include method of disposal, any construction specifications necessary, and management practices. See Section 100.130 (Dead Swine Disposal Requirements) for more detailed information.

7. A Soil Monitoring Plan shall be developed for all manure utilization areas. See Section 100.100 (Manure Utilization Area Requirements) for more detailed information.

8. Plans and specifications for all other manure treatment or storage structures, such as holding tanks or manure storage sheds.

9. All "Notice of Intent to Build or Expand a Swine Facility" forms as provided by the Department and a tax map (or equivalent) to scale showing all neighboring property owners and identifying which property has inhabited dwellings that are required to be notified. See Section 100.60 (Public Notice Requirements) for more detailed information.

10. An Emergency Plan. The emergency plan shall, at a minimum, contain a list of entities or agencies the producer shall contact in the event of lagoon, treatment system, or manure storage pond breach, mass animal mortality, fire, flood, or other similar type problem. For facilities in the coastal areas of the State, the emergency plan shall address actions to be taken by a producer during hurricane season (such as providing additional freeboard during that time) and when advance warning is given on any extreme weather condition.

11. All waivers as specified in Section 100.80 (Facility, Lagoon, Treatment System, and Manure Storage Pond Siting Requirements), if applicable.

12. Application fee and the first year's operating fee as established by R.61-30.

C. The Department may request an applicant to provide any additional information deemed necessary to complete or correct deficiencies in the swine facility permit application prior to processing the application or issuing, modifying, or denying a permit.

D. Applicants shall submit all required information in a format acceptable to the Department.

E. An application package for a permit is complete when the Department receives all of the required information which has been completed to its satisfaction. Incomplete submittal packages may be returned to the applicant by the Department.

F. Application packages for permit modifications must contain the information applicable to the requested modification or any additional information the Department deems necessary.

100.60. Public Notice Requirements.

A. Small Swine Facilities.

1. For persons seeking to construct a new small swine facility, the applicant shall:

a. Notify all adjoining property owners and people residing on property within 1/4 mile (1,320 feet) of the proposed location of the facility (footprint of construction and manure storage pond) of the applicant's intent to build a swine facility.

b. Notify the parties listed in A.1.a. of this section using an NOI form provided by the Department. The NOI shall advise the adjoining property owners that they may send comments on the proposed animal facility directly to the Department.

2. For persons seeking to construct a new small swine facility or expand an established small swine facility, the Department shall post a Public Notice of application received, for fifteen (15) business days, on the Department's website. The Department may also post up to four (4) notices, in the four (4) cardinal directions around the perimeter of the property or in close proximity to the property, in visible locations as determined by the Department.

3. For small swine facilities, the Department shall review all comments received. If the Department receives twenty (20) or more letters from different people living in a 2-mile radius of the proposed facility requesting a meeting or the Department determines significant comment exists, a meeting shall be held to discuss and seek resolution to the concerns prior to a permit decision being made. All persons who have submitted written comments shall be invited in writing to the meeting. First Class US mail service, email, or hand delivery to the address of the interested party shall be used by the Department for the meeting invitation. However, if the Department determines that the number of persons who submitted written comments is significant, the Department shall publish a notice of the public meeting in a local newspaper of general circulation instead of notifying each individual by First Class mail. In addition, the Department shall notify all group leaders and petition organizers in writing or email. Agreement of the parties is not required for the Department to make a permit decision.

B. Large Swine Facilities.

1. For persons seeking to construct a new large swine facility or expand an established large swine facility, the applicant shall:

a. Notify all adjoining property owners and people residing on property within 1/4 mile (1,320 feet) of the proposed location of the facility (footprint of construction and manure storage pond) of the applicant's intent to build a swine facility.

b. Notify the parties listed in B.1.a. of this section using an NOI form provided by the Department. The NOI shall advise the adjoining property owners that they may send comments on the proposed animal facility directly to the Department.

2. For persons seeking to construct a new large swine facility or expand an established large swine facility, the Department shall:

a. Post a Public Notice of application received, for fifteen (15) business days, on the Department's website. The Department may also post up to four (4) notices, in the four (4) cardinal directions around the perimeter of the property or in close proximity to the property, in visible locations as determined by the Department;

b. Notify the appropriate county commission;

c. Notify the appropriate water supply district (owners or operators of any potable surface water treatment plant located downstream from the proposed swine facility that could reasonably be expected to be adversely impacted if a significant problem arose); and

d. Notify any person who asked to be notified.

3. First Class US mail service, email, or hand delivery to the address of a person to be notified shall be used by the Department for the notifications in Section 100.60.B.2.b-d. If the Department determines that members of the same group or organization have submitted comments or a petition, the Department shall only notify all groups, organization leaders, and petition organizers in writing or email. The Department shall ask these leaders and organizers to notify their groups or any concerned citizens who signed the petitions.

4. The notice shall contain instructions for public review and comment to the Department on the proposed construction and operation of the swine facility. The notice shall allow for a minimum fifteen (15) business-day comment period.

5. If the Department receives twenty (20) or more letters or emails from different people living in a 2-mile radius of the proposed facility requesting a public meeting or the Department determines there is significant public interest, the Department shall conduct a public meeting and shall provide notice of the public meeting in accordance with the notice requirements provided for in Section 100.60.B.2.a-d. The initial public notice and meeting notice can be combined into one (1) notice.

C. Additional requirements for X-large swine facilities.

1. For persons seeking to construct a new X-large swine facility or expand an established X-large swine facility, the applicant shall notify all property owners and person(s) residing on property within one mile (5,280 feet) of the proposed location of the X-large swine facility (footprint of construction and manure storage pond) by certified mail. The notification must include the following information:

a. Name and address of the person proposing to construct an X-large swine facility;

b. The type of swine facility, the design capacity, and a description of the proposed swine manure management system;

c. The name and address of the preparer of the Animal Facility Management Plan;

d. The address of the local Natural Resources Conservation Service (NRCS) office; and

e. A statement, approved by the Department, informing the adjoining property owners and property owners within 1 mile of the proposed facility, that they may submit written comments or questions to the Department.

2. The applicant shall conduct a minimum of one public meeting to present to the public the proposed project, its purpose, design, and environmental impacts. The applicant shall provide at least thirty (30) calendar days notice of the meeting date and time by advertisement in a local newspaper of general circulation in the area of the proposed facility. The public meeting notice can be combined into one (1) notice in combination with the notice run by the Department. However, the applicant must provide information concerning the date, time, and location of the public meeting at the time of application. The minutes of the public meeting, proof of advertisement, and opinions derived from the meeting must be submitted to the Department.

3. The Department shall conduct a public meeting and shall provide notice of the public meeting in accordance with the notice requirements provided for in Section 100.60.B.2.a-d. The initial public notice and meeting notice can be combined into one (1) notice. The Department shall provide at least thirty (30) calendar days notice of the meeting.

D. For properties that have multiple owners or properties that are in an estate with multiple heirs, the applicant shall send an NOI to construct an animal facility by certified mail to each individual. This notice shall serve as notice to these multiple property owners of the applicant's intent to build a swine facility.

E. When comments are received by email, the Department shall acknowledge receipt of the comment by email. These comments shall be handled in the same manner as written comments received by postal mail.

F. The Department shall consider all relevant comments received in determining a final permit decision.

G. The Department shall send notice of the permit decision to issue or deny the permit to the applicant, all persons who commented in writing to the Department, and all persons who attended the public meeting, if held. First Class US mail service, email, or hand delivery to the address of a person to be notified shall be used by the Department for the decision notification. However, if the Department determines that members of the same group or organization have submitted comments or a petition, the Department shall only notify all group leaders and petition organizers in writing or email. The Department shall ask these leaders and organizers to notify members of their groups or any concerned citizens who signed the petitions.

H. For permit issuances, the Department shall publish a notice of issuance of a permit to construct or expand a swine facility on the Department's website.

I. For permit denials, the Department shall give the permit applicant a written explanation which outlines the specific reasons for the permit denial.

J. For permit denials, the Department may publish a notice of decision on the Department's website.

K. The Department shall include, at a minimum, the following information in the public notices: the name and location of the facility, a description of the operation and the method of manure and other swine by-products handling, instructions on how to appeal the Department's decision, the time frame for filing an appeal, the date of the decision, and the date upon which the permit becomes effective.

100.70. Permit Decision Making Process.

A. No permit shall be issued before the Department receives a complete application package.

B. The agricultural program of the Department is not involved in local zoning and land use planning. Local government(s) may have more stringent requirements for agricultural animal facilities. The permittee is responsible for contacting the appropriate local government(s) to ensure that the proposed facility meets all the local requirements.

C. After the Department has received a complete application package, a technical review shall be conducted by the Department. The Department may request any additional information or clarification from the applicant or the preparer of the Animal Facility Management Plan to help with the determination on whether a permit should be issued or denied. If a permit application package meets all applicable requirements of this part, a permit may be issued.

D. A preliminary site inspection shall be made by the Department before a complete application package is received by the Department.

E. The Department shall consider the cumulative impacts including, but not limited to, impacts from evaporation; storm water; and other potential and actual point and nonpoint sources of pollution runoff; levels of nutrients or other elements in the soils and nearby waterways; groundwater or aquifer contamination; pathogens or other elements; and the pollution assimilative capacity of the receiving waterbody. These cumulative impacts will be considered prior to permitting new or expanded swine facilities. Alternative manure and other swine by-products treatment and utilization methods may be required in watersheds which are nutrient-sensitive waters, or impaired by pathogens.

F. The Department shall act on all permits to prevent, as far as reasonably possible considering relevant standards under state and federal laws, an increase in pollution of the waters and air of the State from any new or enlarged sources.

G. The Department also shall act on all permits so as to prevent degradation of water quality due to the cumulative and secondary effects of permit decisions. Cumulative and secondary effects are impacts attributable to the collective effects of a number of swine facilities in a defined area and include the effects of additional projects similar to the requested permit proposed on sites in the vicinity. All permit decisions shall ensure that the swine facility and manure treatment and utilization alternative with the least adverse impact on the environment will be utilized. To accomplish this, new and expanding facilities, except X-large swine facilities, shall use the best available technology economically achievable for the handling, storage, processing, treatment, and utilization of manure. New and expanding X-large swine facilities shall use the best available technology for the handling, storage, processing, treatment, and utilization of manure. Cumulative and secondary effects shall include, but are not limited to, runoff from land application of swine manure and a swine facility; evaporation and atmospheric deposition of elements; ground-water or aquifer contamination; the buildup of elements in the soil; and other potential and actual point and nonpoint sources of pollution in the vicinity.

H. The setback limits given in Part 100 are siting requirements. The Department shall evaluate the following factors to determine if any special conditions are necessary:

1. Latitude and Longitude;

2. Down-wind receptors; and

3. Nutrient Management Plan.

I. When a permit is issued it shall contain an issue date, an effective date, and, when applicable, a construction expiration date. The effective date shall be at least fifteen (15) calendar days after the issue date to allow for any appeals. If a timely appeal is not received, the permit shall be effective on the effective date.

J. The swine facility, lagoon, treatment system, or manure storage pond can be built only when the permit is effective. The facility cannot be placed into operation until the Department grants a written Approval to Operate (ATO).

K. To receive an ATO, the producer shall have the preparer of the Animal Facility Management Plan submit in writing, to the Department, the following information:

1. Certification that the construction of the structural components (such as the facility footprint, the lagoon, treatment system and/or manure storage pond) has been completed in accordance with the approved Animal Facility Management Plan and the requirements of this regulation;

2. Certification that no portion of the facility has been constructed in the 100-year floodplain;

3. Certification for containment of structural failures, if applicable; and

4. Certification for lagoon or manure storage pond lining, if applicable.

L. The Department shall conduct a final inspection before granting approval to a producer to begin operations.

M. The Department shall grant written approval for the producer to begin operations after it has received the information in 100.70.K and the satisfactory results of a final inspection.

N. Swine Facility Permit Construction Expiration and Extensions.

1. Construction permits issued by the Department for agricultural animal facilities shall be given two (2) years from the effective date of the permit to start construction and three (3) years from the effective date of the permit to complete construction.

2. If the proposed construction as outlined in the permit is not started prior to the construction start expiration date, the construction permit is invalid unless an extension in accordance with this regulation is granted.

3. If construction is not completed and the facility is not placed into operation prior to the construction completion expiration date, the construction permit is invalid unless an extension in accordance with this regulation is granted.

4. If only a portion of the permitted facility (animal growing houses and associated manure treatment and/or storage structures are completely constructed, but not all houses originally permitted were

constructed) is completed prior to the construction completion expiration date, the construction for the remainder of the permit may be utilized within the permit life. The permittee shall obtain Departmental approval prior to utilizing the permit in this manner. The Department may require that the permittee submit additional information or update the Animal Facility Management Plan prior to approval.

5. Extensions of the construction permit start and completion dates may be granted by the Department. The permittee shall submit a written request explaining the delay and detailing any changes to the proposed construction. This request shall be received no later than the expiration date that the permittee proposes to extend. The maximum extension period shall not exceed one (1) year. There shall be no more than two (2), one (1)-year extension periods per permit to construct, granted.

O. Permits issued under this regulation for all swine facilities shall be renewed at least every seven (7) years.

P. An expired permit (final expiration date for renewal) issued under this part continues in effect until a new permit is effective if the permittee submits a complete application, to the satisfaction of the Department, at least one hundred eighty (180) calendar days before the existing permit expires. The Department may grant permission to submit an application later than the deadline for submission stated above, but no later than the permit expiration date. If the facility has been closed for any two (2) consecutive years since the last permit was issued, the provision for the expiring permit remaining in effect does not apply since the permit is no longer valid. Permittees shall notify the Department in writing within thirty (30) calendar days before going out of business.

Q. Permit renewal applications shall meet all the requirements of this regulation as the Department determines appropriate. The Department shall review the site and make a determination on a case-by-case basis on which requirements are applicable.

R. No permit will be issued to an applicant who contracts with an integrator or integrating company unless the permit is in accordance with the approved cumulative environmental and public health impact assessment plan as required in part 500.20 (Submittal Requirements) of this regulation.

100.80. Swine Facility, Lagoon, Treatment System, and Manure Storage Pond Siting Requirements.

A. Siting Requirements applicable to all small swine facilities and the lagoons, treatment systems, and/or manure storage ponds associated with them.

1. The minimum separation distance between a swine facility (not including a lagoon, treatment system, manure storage pond, or manure utilization area) and a potable water well (excluding the applicant's well) is 200 feet. The minimum separation distance between a swine facility (not including a lagoon, treatment system, manure storage pond, or manure utilization area) and a potable water well owned by the applicant is 50 feet (as required by R.61-71).

2. The minimum separation distance between a lagoon, treatment system, or a manure storage pond and a public or private human drinking water well (excluding the applicant's well) is 500 feet. The minimum separation distance between a lagoon, treatment system, or manure storage pond and a potable water well owned by the applicant is 100 feet.

3. Except for site drainage, the minimum separation distance required between a ditch or swale, which drains directly into Waters of the State (including ephemeral and intermittent streams) and a swine facility, swine lagoon, treatment system, or manure storage pond is 100 feet.

4. The minimum separation distance required between a swine facility, lagoon, treatment system, or manure storage pond and ephemeral or intermittent streams is 100 feet.

5. The minimum separation distance required between a small swine facility (not including the lagoon, treatment system, or manure storage pond) and Waters of the State (excluding ephemeral and intermittent streams) is 100 feet.

6. The minimum separation distance required between a small swine lagoon, treatment system, or manure storage pond and Waters of the State (excluding ephemeral and intermittent streams) is 500 feet.

7. If the Waters of the State (not including ephemeral and intermittent streams) are designated Outstanding Resource Waters, Critical Habitat Waters of federally endangered species, or Shellfish Harvesting Waters, the minimum separation distance required between a small swine lagoon, treatment system, or a manure storage pond and Waters of the State (not including ephemeral and intermittent streams) is 1,320 feet (1/4 mile).

8. For small swine facilities the separation distance required between a swine growing area (pens or barns not including range areas) and the lot line of real property owned by another person is 400 feet and 1,000 feet from the nearest residence.

9. For small swine facilities the separation distance required between a lagoon, treatment system, or manure storage pond and the lot line of real property owned by another person is 600 feet and 1,000 feet from the nearest residence.

10. The distances in items 8 and 9 above can be reduced by written consent of the adjoining property owner, unless a swine facility is located on the adjacent property or within 1,000 feet of the property line. Written consent is not needed when the Department reduces the distances under the requirements of Part 300.

B. Siting Requirements applicable to all large swine facilities, and the lagoons, treatment systems, and manure storage ponds associated with the facility.

1. The minimum separation distance between a large swine facility (not including a lagoon, treatment system, manure storage pond, or manure utilization area) and a potable water well (excluding the applicant's well) is 200 feet. The minimum separation distance between a swine facility (not including a lagoon, treatment system, manure storage pond, or manure utilization area) and a potable water well owned by the applicant is 50 feet (as required by R.61-71).

2. The minimum separation distance between a lagoon, treatment system, or a manure storage pond, and a public or private human drinking water well (excluding the applicant's well) is 500 feet. The minimum separation distance between a lagoon, treatment system, or manure storage pond and a potable water well owned by the applicant is 100 feet.

3. Except for site drainage, the minimum separation distance required between a ditch or swale, which drains directly into Waters of the State (including ephemeral and intermittent streams) and a swine facility, swine lagoon, treatment system, or manure storage pond associated with a large swine facility is 100 feet.

4. The minimum separation distance required between a large swine facility, lagoon, treatment system, or manure storage pond, associated with the facility and ephemeral or intermittent streams is 200 feet.

5. The minimum separation distance required between a large swine facility (not including the lagoon, treatment system, or manure storage pond) and Waters of the State (including ephemeral and intermittent streams) is 200 feet.

6. The minimum separation distance required between a large swine lagoon, treatment system, or manure storage pond and Waters of the State (not including ephemeral and intermittent streams) is 1,320 feet (1/4 mile). If the Waters of the State (not including ephemeral and intermittent streams) are designated Outstanding Resource Waters, Critical Habitat Waters of federally endangered species, or Shellfish Harvesting Waters, the minimum separation distance required between a lagoon, treatment system, or manure storage pond and Waters of the State (not including ephemeral and intermittent streams) is 2,640 feet (½ mile). A minimum 100-foot wide vegetative water quality buffer of plants and trees is required to be installed and maintained on the site between the facility and any down slope Waters of the State. Sites with existing vegetation may qualify to utilize the existing vegetation for a buffer, if the vegetation is deemed sufficient. For new facilities constructed in areas where natural vegetation is not present, the Department shall evaluate these sites on a case-by-case basis to determine the amount of vegetative buffer that shall be planted. However, each site shall be required at a minimum to provide a vegetative buffer that meets the current NRCS standards.

7. The minimum separation distance required between a large swine facility (growing area, pens or barns not including range areas) and real property owned by another person is 1,000 feet.

8. For large swine facilities, the minimum separation distance required between a lagoon, treatment system, or a manure storage pond and real property owned by another person is 1,250 feet.

9. The minimum separation distance required between large swine facilities is 2 miles.

10. A separation distance to adjacent land as provided in items 7 and 8 above does not apply to a swine facility, lagoon, treatment system, or manure storage pond which is constructed or expanded, if the titleholder of adjoining land to the concentrated swine operation executes a written waiver with the title holder of the land where the swine facility is established or proposed to be located, under terms and conditions that the parties negotiate. The written waiver becomes effective only upon the recording of the waiver in the office of the Register of Deeds of the county in which the benefited land is located. The filed waiver precludes enforcement of 100.80.B.7 and 8 as it relates to the swine facility and to real property owned by another person. The permittee shall submit a copy of the document with the recording stamp to the Department. The separation distances shall not be reduced or waived if a swine facility is located on the adjacent property or within 1,000 feet of the property line.

C. Siting requirements applicable to X-large swine facilities and the lagoons, treatment systems, and manure storage ponds associated with the facility are as follows:

1. The minimum separation distance required between an X-large swine facility and Waters of the State (including ephemeral and intermittent streams) is 2,640 feet (½ mile).

2. The minimum separation distance required between an X-large swine lagoon, treatment system, or manure storage pond and Waters of the State (including ephemeral and intermittent streams) is 2,640 feet (½ mile). If the Waters of the State (not including ephemeral and intermittent streams) are designated Outstanding Resource Waters, Critical Habitat Waters of federally endangered species, or Shellfish Harvesting Waters, the minimum separation distance required between a lagoon, treatment system, or manure storage pond and Waters of the State (not including ephemeral and intermittent streams) is 3,960 feet (3/4 mile). A minimum 100-foot wide vegetative water quality buffer of plants and trees is required to be installed and maintained on the site between the facility and any down slope Waters of the State. Sites

with existing vegetation may qualify to utilize the existing vegetation for a buffer, if the vegetation is deemed sufficient. For new facilities constructed in areas where natural vegetation is not present, the Department shall evaluate these sites on a case-by-case basis to determine the amount of vegetative buffer that shall be planted. However, each site shall be required, at a minimum, to provide a vegetative buffer that meets the current NRCS standards.

3. The minimum separation distance required between an X-large swine facility (including the lagoon, treatment system, and manure storage pond) and real property owned by another person or a residence (excluding the applicant's residence) is 1,750 feet.

4. The minimum separation distance between an X-large swine facility (including a lagoon, treatment system, or manure storage pond) and a potable water well (excluding the applicant's well) is 1,750 feet. The minimum separation distance between a swine facility (including a lagoon, treatment system, or manure storage pond) and a potable water well owned by the applicant is 100 feet (as required by R.61-71).

5. The minimum separation distance required between X-large swine facilities is 25 miles.

D. A new swine facility or an expansion of an established swine facility may not be located in the 100-year floodplain.

E. Water (a pond) that is completely surrounded by land owned by the permit applicant and has no connection to other water is excluded from the setback requirements outlined in this part.

F. All lagoon and manure storage pond setbacks contained in this part shall be measured from the outside toe of the dike.

G. Setback limits given in this part are minimum siting requirements, except those not labeled as minimum requirements, which are absolutes. On a case-by-case basis the Department may require additional separation distances to the minimum setbacks applicable to swine facilities. See Section 100.70.H. for specific criteria evaluated for determining if greater setbacks should be required.

100.90. General Requirements for Swine Manure Lagoons, Treatment Systems, and Swine Manure Storage Ponds.

A. The lagoon, treatment system, or manure storage pond shall be designed by a professional engineer or an NRCS engineer and the construction shall be certified by the design engineer or professional engineer licensed in S.C. It is a violation of this regulation and the South Carolina Pollution Control Act for the owner or operator of the facility to make modifications or physical changes to the lagoon, treatment system, or manure storage pond without the prior approval of the Department and supervision of NRCS or a professional engineer. Plans and specifications for lagoon, treatment system, or manure storage pond modifications shall be designed and certified by NRCS or a professional engineer and submitted to the Department for approval prior to the modification.

B. Swine manure lagoons and manure storage ponds shall be designed at a minimum to NRCS-CPS. The lagoon or manure storage pond shall be designed to provide a minimum storage capacity for manure, wastewater, normal precipitation less evaporation, normal runoff, and residual solids accumulation for the twenty-five (25) year - twenty-four (24) hour storm event (precipitation and associated runoff) and at least one and one half (1 ½) feet of freeboard. New X-large swine facilities shall be designed to provide storage capacity for all the above-mentioned items, including the fifty (50) year - twenty-four (24) hour storm event (precipitation and associated runoff) and at least 2 feet of freeboard.

C. All lagoons and storage ponds constructed or expanded after the date of this regulation shall be provided with a geomembrane liner, designed with an initial specific discharge rate of less than 0.0156 feet/day in order to protect groundwater quality. Lagoons and manure storage ponds at X-large swine facilities within delineated source water protection areas or vulnerable recharge areas, as determined by the Department, shall be lined with a geomembrane liner such that the vertical hydraulic conductivity does not exceed 5 x 10^{-7} cm/sec. Geomembrane liners, at a minimum, shall meet NRCS-CPS. For existing lagoons or manure storage ponds lined using only soils with low permeability rates (e.g., clay), the Department shall require appropriate documentation to demonstrate that the computed soil permeability of the liner is sufficient to prevent seepage greater than the initial specific discharge rate. Appropriate certification shall be provided by the preparer of the Animal Facility Management Plan that the NRCS-CPS for lining lagoons and/or manure storage ponds with soils have been met.

D. Lagoons and manure storage ponds at swine facilities shall not exceed one million cubic feet of total volume, unless the lagoon or manure storage pond implements a design to control the discharge from a failed lagoon, treatment system, or manure storage pond so that it never enters Waters of the State.

E. Large swine facilities are prohibited from utilizing open anaerobic lagoons or manure storage ponds. These facilities shall utilize best available technology that is economically achievable for the manure handling, treatment, storage, and utilization.

F. X-Large swine facilities are prohibited from utilizing open lagoons or manure storage ponds. These facilities shall utilize best available technology for the manure handling, treatment, storage, and utilization. Lagoons and manure storage ponds utilized at X-large swine facilities shall be designed with airtight covers. Air pollution control devices utilizing the Best Available Technology shall be installed on all lagoon cover vents and openings to remove ammonia, hydrogen sulfide, methane, formaldehyde, and any other organic and inorganic air pollutants, which may be required by the Department. Such air pollution control devices shall meet all the requirements of the Department and appropriate air quality permits shall be obtained. "Best Available Technology" means, for the air emissions purpose of this regulation, the rate of emissions which reflects the most stringent emissions limitations required by any State regulation or permit, existing at the time the application is made, for all pollutants emitted from this source category; or, the most stringent emissions limit achieved in actual practice, whichever is more stringent.

G. If seepage results in either an adverse impact to groundwater or a significant adverse trend in groundwater quality occurs, as determined by the Department, the lagoon or manure storage pond shall be repaired at the owner's or operator's expense. Assessment and/or additional monitoring (more wells, additional constituents, and/or increased sampling frequency) may be required by the Department to determine the extent of the seepage. The repairs and/or assessment shall be completed in accordance with an implementation schedule approved by the Department. The Department may require groundwater corrective action.

H. Manure and other swine by-products shall not be placed directly in or allowed to come into contact with groundwater and/or surface water. The minimum separation distance between the lowest point of the lagoon and/or manure storage pond and the seasonal high water table beneath the lagoon and/or manure storage pond is 2 feet. If a geomembrane liner is installed, then the minimum separation distance is 1 foot from the seasonal high water table. Designs that include controlled drainage for water table adjustment shall be evaluated by the Department on a case-by-case basis, and may include additional monitoring and groundwater control requirements. If a design is proposed for water table adjustment, the design shall not impact wetlands. Groundwater monitoring wells may be required to be installed and monitored at a frequency as given in the permit for the facility in situations where a liner is used to allow the lowest point of a lagoon to be less than 2 feet to the seasonal high water table.

I. Owners of lagoons and manure storage ponds at large and X-large swine facilities shall be required to install at least one (1) up-gradient and two (2) down-gradient monitoring wells at a depth which the Department considers appropriate around the lagoon or series of lagoons in order to monitor groundwater quality. For small swine facilities, the Department may require monitoring wells upon Department review of the submittal package.

J. A groundwater monitoring plan shall be submitted with the permit application to the Department. All applicable State certification requirements regarding well installation, laboratory analyses, and report preparation shall be met. Groundwater monitoring wells shall be sampled at least once annually by qualified personnel, at the expense of the permittee. Monitoring wells at X-large swine facilities must be sampled at least quarterly, unless more frequent sampling is specified in the permit. The results shall be submitted to the Department in accordance with the specified permit requirements. Groundwater monitoring results shall be maintained by the producer for eight (8) years. The Department may conduct routine and random visits to the swine facility to sample the monitoring wells.

K. The monitoring wells shall be properly installed and sampled prior to use of the lagoon or manure storage pond. All monitoring wells shall be sampled in accordance with the parameters identified in the permit such that a background concentration level can be established.

L. Before the construction of a lagoon and/or a manure storage pond, the owner or operator shall remove all under-drains that exist from previous agricultural operations that are under the lagoon or manure storage pond and/or within 25 feet of the outside toe of the proposed lagoon or manure storage pond dike. This requirement does not include under-drains that are approved as a part of a design that includes controlled drainage for water table adjustment.

M. Lagoons and manure storage ponds at X-large swine facilities shall install automated lagoon level monitoring devices.

N. Proper water levels in lagoons and manure storage ponds, as per plans and specifications, shall be maintained at all times by the permittee. The Department may require specific lagoon or manure storage pond volume requirements in permits. An approved marker shall be installed to measure waste levels.

O. If a lagoon, treatment system, or manure storage pond, or all of these, breaches or fails, the owner or operator of the swine facility shall immediately notify the Department, the appropriate local government officials, and the owners or operators of any potable surface water treatment plant located downstream from the swine facility that could reasonably be expected to be adversely impacted.

P. Lagoons, treatment systems, and manure storage ponds shall be completely enclosed with an acceptable fence, unless a fence waiver is obtained from the Department.

Q. Lagoons and manure storage ponds shall have at least four (4) warning signs posted in the four (4) cardinal directions around the perimeter of the structure. These signs must read, “Warning - Deep and Polluted Water”.

R. Vegetation on the dikes and around the lagoon or manure storage pond should be kept below a maximum height of 18 inches. Trees or deeply rooted plants shall be prevented from growing on the dikes or within 25 feet of the outside toe of the dikes of the lagoon, treatment systems, or manure storage pond. Existing trees on the dikes shall be evaluated by NRCS staff or a dam engineer licensed in South Carolina to determine if they should be removed or remain.

S. Livestock or other animals that could cause erosion or damage to the dikes of the lagoon or manure storage pond shall not be allowed to enter the lagoon or manure storage pond, or graze on the dike or within 25 feet of the outside toe of the dike.

T. The Department shall require existing facilities, regardless of size, with a history of manure handling, treatment, and disposal problems related to a lagoon, to phase out the existing lagoon and incorporate new technology.

100.100. Manure Utilization Area Requirements.

A. Application Rates. The Department shall approve an Animal Facility Management Plan that establishes an application rate for each manure utilization area based on the agronomic application rate of the specific crop(s) being grown. Other factors considered are the manure and other swine by-products' impact on the environment, animals, and people living in the vicinity. The application rate shall also be based on the limiting constituent (either a nutrient or other constituent as given in item 100.100.B). In developing annual constituent loading rates and cumulative constituent loading rates, the Department shall consider:

1. Soil type;

2. Type of vegetation growing in land-applied area;

3. Proximity to 100-year floodplain;

4. Location in watershed;

5. Nutrient sensitivity of receiving land and waters;

6. Soil nutrient testing in conjunction with soil productivity information;

7. Nutrient, copper, zinc, and constituent content of the manure and other swine by-products being applied;

8. State Approved Source Water Protection Area;

9. Proximity to other point and nonpoint sources;

10. Slope of land (anything over ten percent (10%) must use runoff best management practices, runoff controls, or conservation features as per NRCS);

11. Distance to water table or groundwater aquifer;

12. Timing of manure application to coincide with vegetative cover growth cycle;

13. Timing of harvest of vegetative cover;

14. Hydraulic loading limitations;

15. Soil assimilative capacity;

16. Type of vegetative cover and its nutrient uptake ability;

17. Method of land application; and

18. Aquifer vulnerability.

B. Constituent Limits for Land Application of Swine manure and other swine by-products.

1. The Department may establish constituent limits in permits on a case-by-case basis on swine manure and other swine by-products to be land applied. Swine manure and other swine by-products containing only the standard constituents at normal concentrations as given by commonly accepted reference sources, such as Clemson University, American Society of Agricultural Engineers, Midwest Planning Service Document, or NRCS, can be land applied at or below agronomic rates without any specific constituent limits in a permit. When the swine manure or other swine by-products analysis indicates there are levels of copper, or other constituents of concern, the Department shall establish constituent limits in permits for each constituent of concern to ensure the water quality standards of R.61-68 are maintained. For these cases, the producer shall comply with the following criteria:

a. Constituent Limits. If swine manure and other swine by-products subject to a constituent limit is applied to land, either:

i. the cumulative loading rate for each constituent shall not exceed the rates in Table 1 of Section 100.100; or

ii. the concentration of each constituent in the swine manure and other swine by-products shall not exceed the concentrations in Table 2 of Section 100.100.

b. Constituent concentrations and loading rates - swine manure.

i. Cumulative constituent loading rates.

TABLE 1 OF SECTION 100.100 - CUMULATIVE CONSTITUENT LOADING RATES			
Cumulative Constituent Loading Rate			
Constituent	(kilograms per hectare)	(pounds per acre)	
Copper	1500	1339	
Zinc	2800	2499	

ii. Constituent concentrations.

TABLE 2 OF SECTION 100.100 - CONSTITUENT CONCENTRATIONS	
Monthly Average Concentrations	
Constituent	Dry weight basis (milligrams per kilogram)
Copper	1500
Zinc	2800

iii. Annual constituent loading rates.

TABLE 3 OF SECTION 100.100 - ANNUAL CONSTITUENT LOADING RATES			
Annual Constituent Loading Rate			
	(kilograms per hectare per 365-day period)	(pounds per acre per 365-day period)	
Constituent			
Copper	75	67	
Zinc	140	125	

c. Additional constituent limits may be required, from the application information or subsequent monitoring in a permit thereafter, but such needs shall be assessed on an individual project basis.

d. Swine manure and other swine by-products shall not be applied subject to the cumulative constituent loading rates in Table 1 of Section 100.100.B.1 to land if any of the rates in Table 1 of Section 100.100.B.1 have been reached unless the constituent is removed from the manure and other swine by-products.

e. Swine manure and other swine by-products shall not be applied to land during a 365-day period after the annual application rate in Table 3 of Section 100.100.B.1 has been reached.

f. If swine manure and other swine by-products subject to the cumulative constituent loading rates in Table 1 of Section 100.100.B.1 have not been applied to the site, then the cumulative rates apply.

g. If swine manure and other swine by-products subject to the cumulative constituent loading rates in Table 1 of Section 100.100.B.1 have been applied to the site and the cumulative amount of each constituent is known, the cumulative amount of each constituent applied to the site shall be used to determine the additional amount of each constituent that can be applied to the site in accordance with Section 100.100.B.1.a.i (cumulative loading rate shall not exceed the cumulative constituent loading rate).

h. Manure application shall not exceed the agronomic rate of application for plant available nitrogen (PAN) for the intended crop(s) on an annual basis. For those years that fertilizer is land applied, manure in combination with the fertilizer shall not exceed the agronomic rate of nutrient utilization of the intended crop(s).

2. Any producer who confines swine shall ensure that the applicable requirements in this part are met when the swine manure and other swine by-products are applied to the land.

3. Swine manure and other swine by-products shall not be applied to land that is saturated from recent precipitation, flooded, frozen, or snow-covered. Swine manure and other swine by-products shall not be applied during inclement weather or when a significant rain event is forecasted to occur within forty-eight (48) hours, unless approved by the Department in an emergency situation.

4. Swine manure and other swine by-products shall not be placed directly in groundwater.

5. All land application equipment, (e.g. Spreader, injection) when used once or more per year, shall be calibrated at least annually by the person land applying. A permit may require more frequent calibrations to ensure proper application rates. The two (2) most recent calibration records should be retained by the producer and made available for Department review upon request. If the land application equipment has not been used in over a year, the equipment shall be calibrated prior to use.

6. Swine manure and other swine by-products shall not be applied to the land except in accordance with the requirements in this part.

7. A producer who supplies swine manure and other swine by-products to another person for land application shall provide the person who will land apply the manure and other swine by-products with the concentration of plant available nitrogen, phosphorus, potassium, and the concentration of all other constituents listed in the permit. The producer shall also supply the person who will land apply the manure with a copy of the crop management plan included in their Animal Facility Management Plan.

8. Swine manure and other swine by-products shall not be applied to or discharged onto a land surface when the vertical separation between the ground surface and the seasonal high water table is less than 1.5 feet at the time of application, unless approved by the Department on a case-by-case basis. For special cases, no land application can occur when the vertical separation from the ground surface to the water table is less than 1.5 feet at the time of application unless a situation is deemed an emergency with departmental concurrence.

9. Soil sampling (usually 6-8 inch depth) shall be conducted for each field prior to manure application to determine the appropriate application rate. Each field should be sampled at least once per year. If manure application frequency shall be less than once per year, then at least one (1) soil sample shall be taken prior to returning to that field for land application. All new manure utilization areas shall be evaluated using the NRCS-CPS to determine the suitability for application and the limiting nutrient (nitrogen or phosphorus). However, fields that are high in phosphorus may also be required to incorporate additional runoff control or soil conservation features as directed by the Department.

10. Soil sampling to a depth of 18 inches may be required by the Department within forty-five (45) calendar days after each application of swine manure, but no more than two (2) times per year if the application frequency is more than twice per year. This sampling shall be performed for at least three (3) years after the initial application on at least one (1) representative manure utilization area for each crop grown to verify the estimated calculated swine manure application rates for the utilization areas. The date of manure application and the date of sampling shall be carefully recorded. The sampling shall be conducted at depths of 0 to 6 inches, 6 to 12 inches, and 12 to 18 inches with nitrates and phosphorus being analyzed.

11. The results of the pre-application and post-application sampling shall be used by the crop farmer to adjust as necessary, the amount of swine manure to be applied to a manure utilization area to meet the agronomic application rate for the crop(s) to be grown. These results shall be submitted to the Department at the time of application for permit renewal.

12. Additional soil sampling to greater depths may be required by the Department on a case-by-case basis to ensure there is no potential for groundwater contamination.

13. The permittee shall obtain the following information needed to comply with the requirements in this part:

a. A manure transfer contract shall be developed for the producer to use with any person who is accepting manure in quantities greater than 12 tons per recipient per year. The contract should contain, at a minimum, the following information:

i. Name, address, county and telephone number of the person who is purchasing or accepting animal manure and other animal by-products;

ii. Manure nutrient composition (pounds per ton of plant available nitrogen, phosphorus, and potassium) to be filled in or provided by the producer. This information shall be obtained from the manure analysis results and the producer shall provide this information on the manure transfer contract.

iii. Land application field information;

iv. Physical description (acreage, crop, soil type);

v. Soil test results (phosphorus, zinc, and copper in pounds/acre); and

vi. Recommended application rates (nitrogen, phosphorus, and potassium in pounds/acre as reported on a soil test).

b. Attach a copy of a soils map, topographic map, county tax map, plat, FSA map, or a site plan sketch that includes the following information:

i. Manure application area with setbacks outlined;

ii. Known water supply wells within 100 feet of the property line;

iii. Adjacent surface waters, including ditches, streams, creeks, and ponds; and

iv. Identification of roads and highways to indicate location.

c. Description of application equipment and name of person to land apply manure;

d. Signed agreement that informs the landowner that he or she is responsible and liable for land applying the animal manure and other animal by-products in accordance with this regulation; and

e. A copy of the land application requirements shall be provided to the recipient of the manure.

14. All persons who routinely accept manure from a producer, in quantities greater than 12 tons per recipient per year, shall be listed in the approved Animal Facility Management Plan. The Animal Facility Management Plan shall include the appropriate manure utilization area information for the sites routinely used by other persons. The producer shall inform the applier of their responsibility and have a signed manure transfer contract to properly manage the land application of manure to prevent discharge of pollutants to Waters of the State (including ephemeral and intermittent streams). The person accepting the manure may be required by the Department to have an Animal Facility Management Plan and a permit for his or her manure utilization areas.

15. All persons who accept manure from a producer, in quantities less than 12 tons per recipient per year are responsible for land applying the manure in accordance with these requirements and must have a signed agreement with the producer explaining their responsibility to comply with this regulation. The Department may require the persons(s) land applying the manure to correct any problems that result from the application of manure.

16. Swine manure shall not be applied to cropland more than thirty (30) calendar days before planting or during dormant periods for perennial species, unless otherwise approved by the Department in an emergency situation.

17. When the Department receives nuisance complaints on a land application site, the Department may restrict land application of animal manure on this site completely or during certain time periods.

18. The Department may require manure to be disked in immediately.

19. Manure (solid or liquid) shall only be applied when weather and soil conditions are favorable and when prevailing winds are blowing away from nearby dwellings. Animal manure should not be applied to land when the soil is saturated, flooded, during rain events, or when a significant rain event is forecasted to occur within forty-eight (48) hours, unless otherwise approved by the Department in an emergency situation.

20. Manure shall not be spread in the floodplain if there is danger of a major runoff event, unless the manure is incorporated during application or immediately after application.

21. If the manure is stockpiled outside, the manure shall be stored on a concrete pad or other approved pad (such as plastic or clay lined) and covered on a daily basis (unless otherwise specified in the permit) with an acceptable cover to prevent odors, vector attraction, and runoff. The cover should be vented properly with screen wire to let the gases escape. The edges of the cover should be properly anchored.

22. If a producer, who contracts to transfer the swine manure and other swine by-products produced at his or her facility, changes brokers, he or she must submit notification and a new broker contract for approval to the Department.

23. The body of vehicles transporting manure shall be wholly enclosed and, while in transit, be kept covered with a canvas cover provided with eyelets and rope tie-downs, or any other approved method that shall prevent blowing or spillage of loose material or liquids. Should any spillage occur during the transportation of the manure, the owner/operator shall take immediate steps to clean up the manure.

C. Setbacks for manure utilization areas (MUA) for small, large, and X-large swine facilities.

1. Siting Requirements applicable to all manure utilization areas associated with all swine facilities.

a. The minimum separation distance required between a manure utilization area and a residence is 300 feet. If there are no residences within 300 feet of the manure utilization area, manure can be applied up to the property line. The 300-foot setback may be waived with the consent of the owner of the residence. If the application method is injection or immediate (same day) incorporation, manure may be applied up to the property line. The setbacks are imposed at the time of application. The Department may impose these setbacks on previously approved sites to address problems on a case-by-case basis.

b. The minimum separation distance required between a manure utilization area and Waters of the State (not including ephemeral and intermittent streams), ditches, and swales that drain directly into Waters of the State (not including ephemeral and intermittent streams) is 100 feet.

c. The minimum separation distance required between a manure utilization area and ephemeral and intermittent streams is 100 feet when spray application is the application method, 75 feet when incorporation is the application method, and 50 feet when injection is the application method. When incorporation is accomplished within twenty-four (24) hours of the initial application, the distance can be reduced to 50 feet.

d. The minimum separation distance required between a manure utilization area and ditches and swales that drain directly into ephemeral and intermittent streams is 50 feet.

e. The minimum separation distance required between a manure utilization area and a potable drinking water well is 200 feet.

2. Water (pond) that is completely surrounded by land owned by the applicant and has no connection to surface water is excluded from the setback requirements outlined in this part.

3. The Department may establish in permits additional application buffer setbacks for property boundaries, roadways, residential developments, dwellings, water wells, drainage ways, and surface water (including ephemeral and intermittent streams) as deemed necessary to protect public health and the environment. Factors taken into consideration in the establishment of additional setbacks would be swine manure application method, adjacent land usage, public access, aerosols, runoff prevention, adjacent groundwater usage, aquifer vulnerability, and potential for vectors and odors.

D. The Department may establish additional permitting restrictions based upon soil and groundwater conditions to ensure protection of the groundwater and surface Waters of the State (including ephemeral and intermittent streams). Criteria may include, but is not limited to, soil permeability, clay content, depth to bedrock, rock outcroppings, aquifer vulnerability, proximity to State Approved Source Water Protection Area, and depth to the seasonal high groundwater table.

E. The Department may establish permit conditions to require that swine manure and other swine by-products application rates remain consistent with the lime and fertilizer requirements for the cover, feed, food, and fiber crops based on Southeastern land grant universities' published lime and fertilizer recommendations (such as the Lime and Fertilizer Recommendations, Clemson Extension Services).

F. Groundwater Monitoring for Manure Utilization Areas.

1. For X-large swine facilities, at least one (1) up-gradient and two (2) down-gradient groundwater monitoring wells shall be installed for each drainage basin intersected by the manure utilization areas. The location, design, and construction specifications for the monitoring wells shall be submitted in the application package. The information shall be reviewed and approved by the Department prior to permit issuance. The permit will contain specific requirements for sampling the groundwater monitoring wells, including the frequency and parameters for sampling.

2. For small and large swine facilities, the Department may require groundwater monitoring at manure utilization areas as appropriate.

3. The Department may establish minimum requirements in permits for soil and/or groundwater monitoring for manure utilization areas. Factors taken into consideration in the establishment of soil and groundwater monitoring shall include groundwater depth, operation flexibility, application frequency, type of swine manure and other swine by-products, size of manure utilization area, aquifer vulnerability, proximity to a State Approved Source Water Protection Area, and loading rate.

a. The Department may establish pre-application and post-application site monitoring requirements in permits for limiting nutrients or limiting constituents as determined by the Department.

b. The Department may establish permit conditions, which require the permittee to reduce, modify, or eliminate the swine manure and other swine by-products applications based on the results of this monitoring data.

c. The Department may modify, revoke and reissue, or revoke a permit based on the monitoring

data.

G. The Department may require periodic monitoring of any wet weather ditches or perennial streams which are in close proximity to any manure utilization areas.

100.110. Spray Application System Requirements.

A. Spray application of swine manure using irrigation equipment. This includes all methods of surface spray application, including, but not limited to, fixed gun application, traveling or mobile gun application, or center pivot application.

B. New X-large swine facilities are prohibited from utilizing spray application systems for manure application. Manure must be incorporated into the manure utilization fields using subsurface injection at a depth of not less than 6 inches.

C. Manure utilization area slopes shall not exceed ten percent (10%) unless approved by the Department. The Department may require that slopes be less than ten percent (10%) based on site conditions.

D. Swine manure distribution systems shall be designed so that the distribution pattern optimizes uniform application.

E. Hydraulic Application Rates.

1. Application rates shall normally be based on the agronomic rate for the crop to be grown at the manure utilization area. As determined by soil conditions, the hydraulic application rate may be reduced below the agronomic rate to ensure no surface ponding, runoff, or excessive nutrient migration to the groundwater occurs.

2. The hydraulic application rate may be limited based on constituent loading including any constituent required for monitoring under this regulation.

F. Swine manure and other swine by-products shall not be applied when the vertical separation between the ground surface and the seasonal high water table is less than 1.5 feet at the time of application, unless approved by the Department on a case-by-case basis. For special cases, no land application can occur when the vertical separation from the ground surface to the water table is less than 1.5 feet at the time of application unless a situation is deemed an emergency with Departmental concurrence.

G. Conservation measures, such as terracing, strip cropping, etc., may be required in specific areas determined by the Department as necessary to prevent potential surface runoff from entering or leaving the manure utilization areas. The Department may consider alternate methods of runoff controls that may be proposed by the applicant, such as berms.

H. For swine facilities, a system for monitoring the quality of groundwater may also be required for the proposed manure utilization areas. The location of all the monitoring wells shall be approved by the Department. The number of wells, constituents to be monitored, and the frequency of monitoring shall be determined on a case-by-case basis based upon the site conditions such as type of soils, depth of water table, aquifer vulnerability, proximity to State Approved Source Water Protection Area, etc.

I. If an adverse trend in groundwater quality is identified, further assessment and/or corrective action may be required. This may include an alteration to the permitted application rate or a cessation of manure application in the impacted area.

J. Spray application systems shall be designed and operated in such a manner to prevent drift of liquid manure onto adjacent property.

100.120. Frequency of Monitoring for Swine Manure.

A. The producer and/or integrator shall be responsible for having representative samples based on Clemson University Extension Service recommendations of the swine manure collected and analyzed at least once per year and when the feed composition significantly changes. The constituents to be monitored shall be given in the permit. The analyses shall be used to determine the amount of swine manure to be land applied. In order to ensure that the permitted application rate (normally the agronomic rate) is met, the application amount shall be determined using a rolling average of the previous analyses. The Department shall establish minimum requirements for the proper method of sampling and analyzing of swine manure. Facilities with permits that do not specify which constituents to monitor shall monitor for ammonium-nitrogen, Total Kjeldahl Nitrogen (TKN), organic nitrogen (organic nitrogen = TKN - ammonium nitrogen), P_2O_5, and K_2O.

B. The Department may require nitrogen, potassium, phosphorus, the constituents listed in Table 1 and Table 2 of Section 100.100 (Manure Utilization Area Requirements), and any other constituent contained in a permit to be monitored prior to each application.

C. Permittees do not have to analyze for any constituent they can demonstrate, to the satisfaction of the Department, is not present in their swine manure.

D. All monitoring shall be done in accordance with collection procedures in Standard Methods for Analysis of Water and Wastewater or other Department guidelines. Analysis shall be conducted by Clemson University Extension Service or a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

100.130. Dead Swine Disposal Requirements.

A. Dead swine disposal shall be done as specified in the approved Animal Facility Management Plan. The Dead Swine Disposal Plan shall include the following:

1. Primary Method for the handling and disposal of normal mortality on the farm.

2. Alternate Method for the handling and disposal of excessive mortality at the facility. The normal method of disposal may not be sufficient to handle an excessive mortality situation. Each producer shall have a Department-approved emergency or alternate method to dispose of excessive mortality. Excessive mortality burial sites shall be preapproved by the Department prior to utilization.

B. Burial.

1. Burial pits may be utilized for emergency conditions, as determined by the Department, when the primary method of disposal is not sufficient to handle excessive mortality.

2. Burial pits shall not be located in the 100-year floodplain.

3. Soil type shall be evaluated for leaching potential.

4. Burial pits shall not be located or utilized on sites that are in areas that may adversely impact surface or groundwater quality or further impact impaired water bodies.

5. The bottom of the burial pit may not be within 2 feet of the seasonal high groundwater table.

6. No burial site shall be allowed to flood with surface water.

7. Swine placed in a burial site shall be covered daily with sufficient cover (6 inches per day minimum) to prohibit exhumation by feral animals.

8. When full, the burial site shall be properly capped (minimum 2 feet) and grassed to prohibit erosion.

9. Proposed burial pit sites shall be approved by the Department. The Department may conduct a geologic review of the proposed site prior to approval.

10. The Department may require any new or existing producers to utilize another method of dead swine disposal if burial is not managed according to the Dead Swine Disposal Plan or repeated violations of these burial requirements occur or adverse impact to surface or groundwater is determined to exist.

11. The Department may require groundwater monitoring for dead animal burial pits on a case-by-case basis. The Department shall consider all of the facts including, but not limited to, the following: depth to the seasonal high water table; aquifer vulnerability; proximity to a State Approved Source Water Protection Area; groundwater use in the area; distance to adjacent surface waters; number of dead animals buried; and frequency of burial in the area.

C. Incinerators.

1. For facilities proposing an incinerator for dead swine disposal, either a permit for the air emissions shall be obtained from the Department's Bureau of Air Quality before the incinerator can be built or the following criteria shall be met in order to qualify for an exemption from an air permit:

a. The emission of particulate matter shall be less than 1 pound per hour at the maximum rated capacity.

b. The incinerator shall be a package incinerator that meets the requirements from the Department's Bureau of Air Quality; and

c. The incinerator shall not exceed an opacity limit of ten percent (10%).

2. Incinerators used for dead swine disposal shall be properly operated and maintained. Operation shall be as specified in the owner's manual provided with the incinerator. The owner's manual shall be kept on site and made available to Department personnel upon request.

3. The use of the incinerator to dispose of waste oil, hazardous waste, or any other waste chemical is prohibited. The use of the incinerator shall be limited to dead swine disposal only unless otherwise approved by the Department's Bureau of Air Quality.

D. Composters used for dead swine disposal shall be designed by a professional engineer or an NRCS representative and operated in accordance with the approved Animal Facility Management Plan. Packaged composters shall be approved on a case-by-case basis.

E. Disposal of dead swine in a municipal solid waste landfill shall be in accordance with R.61- 107.19.

F. Disposal of swine carcasses or body parts into manure lagoons, treatment systems, storage ponds, Waters of the State, ephemeral and intermittent streams, ditches, and swales is prohibited.

G. Disposal of animal carcasses or body parts by rendering shall be approved by the Department and include a signed contract with the rendering company.

H. Other methods of dead animal disposal that are not addressed in this regulation may be proposed in the Dead Animal Disposal Plan.

100.140. Other Requirements.

A. There shall be no discharge of pollutants from the operation into surface Waters of the State (including ephemeral and intermittent streams). There shall be no discharge of pollutants into groundwater, which could cause groundwater quality not to comply with the groundwater standards established in R.61-68.

B. On a case-by-case basis, the Department may impose additional or more stringent requirements for the management, handling, treatment, storage, or utilization of swine manure and other swine by-products.

C. The following cases shall be evaluated for additional or more stringent requirements:

1. Source water protection. Facilities and manure utilization areas located within a State-approved source water protection area.

2. 303(d) Impaired Water Bodies List. Facilities and manure utilization areas located upstream of an impaired waterbody.

3. Proximity to Outstanding Resource Waters, trout waters, shellfish waters, or potential to adversely affect a federally listed endangered or threatened species, its habitat, or a proposed or designated critical habitat.

4. Aquifer Vulnerability Area is an area where groundwater recharge may affect an aquifer.

D. If an adverse impact to the Waters of the State, including ephemeral and intermittent streams, or groundwater from swine manure and other swine by-products handling, storage, treatment, or utilization practices are documented, through monitoring levels exceeding the standards set forth in R.61-68 or a significant adverse trend occurs, the Department may require the producer responsible for the swine manure and other swine by-products to conduct an investigation to determine the extent of impact. The Department may require the producer to remediate the water to within acceptable levels as set forth in R.61-68.

E. No manure may be released from a swine manure lagoon, treatment system, or storage pond or the premises of a swine facility to Waters of the State, including ephemeral and intermittent streams.

F. Swine medical waste cannot be disposed into swine lagoons, treatment systems, or manure storage ponds, or land applied with swine manure and other swine by-products.

G. In the event of a discharge from a swine lagoon, treatment system, or manure storage pond, the permittee is required to notify the Department immediately, within twenty-four (24) hours of the discharge.

H. When the Department determines that a nuisance exists at a swine facility, the permittee shall take action to correct the nuisance to the degree and within the time frame designated by the Department.

I. Permittees shall maintain all-weather access roads to their facilities at all times.

100.150. Odor Control Requirements.

A. The Animal Facility Management Plan shall contain an odor abatement plan for the swine facility, lagoon, treatment system, manure storage pond, and manure utilization areas. The plan shall consist of the following:

1. Operation and maintenance practices which are used to eliminate or minimize undesirable odor levels in the form of a Best Management Plan for Odor Control;

2. Use of treatment processes for the reduction of undesirable odor levels;

3. Additional setbacks from property lines beyond the minimum setbacks given in this part;

4. Other methods as may be appropriate; or

5. Any combination of these methods.

B. Producers shall utilize Best Management Practices normally associated with the proper operation and maintenance of a swine facility, lagoon, treatment system, manure storage pond, and any manure utilization area to ensure an undesirable level of odor does not exist.

C. No producer may cause, allow, or permit emission into the ambient air of any substance or combination of substances in quantities that an undesirable level of odor is determined to result unless preventive measures of the type set out below are taken to abate or control the emission to the satisfaction of the Department. When an odor problem comes to the attention of the Department through field surveillance or specific complaints, the Department shall determine if the odor is undesirable.

D. If the Department determines an undesirable level of odor exists, the Department may require these abatement or control practices, including, but not limited to, the following:

1. Remove or dispose of odorous materials;

2. Methods in handling and storage of odorous materials that minimize emissions;

a. Dry to a moisture content of fifty percent (50%) or less;

b. Solids separation from liquid manure, and composting of solids;

c. Use disinfection to kill microorganisms present in manure;

d. Aerate manure;

e. Anaerobic digestion in a sealed vessel;

f. Compost solid manure and other swine by-products;

g. Utilize odor control additives.

3. Prescribed standards in the maintenance of premises to reduce odorous emissions;

a. Filtration (biofilters or other filter used to remove dust and odor) of ventilation air;

b. Keep animals clean and separate from manure;

c. Adjust number of animals confined in the pens or paddocks in accordance with Clemson University Animal Space Guidelines;

d. Frequent removal of manure from animal houses;

e. Add a layer of water in the shallow pits after the manure is removed;

f. Feeding areas should be kept dry, and waste feed accumulation should be minimized;

g. Maintain feedlot surfaces in a dry condition (twenty-five to forty percent (25 to 40% moisture content), with effective dust control;

h. Proper maintenance of the dead swine disposal system;

i. Cover or reduce the surface area of manure and other swine by-products storage. (Vents shall be provided for release of pressure created by manure gases if completely sealed covers are used);

j. Plant trees around or downwind of the manure and other swine by-products storage and treatment facilities (trees shall not be planted within 25 feet of the toe of the dike);

k. Incorporate manure and other swine by-products immediately after land application; and

l. Select appropriate times for land application.

4. Best Available Technology to reduce odorous emissions.

E. Nothing in this section prohibits an individual or group of persons from bringing a complaint against a swine facility, including problems at lagoons, treatment systems, manure storage ponds, and manure utilization areas.

F. If the permittee fails to control or abate the odor problems at a swine facility, lagoon, treatment system, manure storage pond, and any manure utilization area to the satisfaction and within a time frame determined by the Department, the permit may be revoked. If the permittee fails to control or abate the odor problems at land application sites, approval for land application of manure on the manure utilization area in question may be revoked. Additional land may be required to be added to the Animal Facility Management Plan, if necessary, to provide a sufficient amount of land for manure utilization.

100.160. Vector Control Requirements.

A. The Vector Abatement Plan shall, at a minimum, consist of the following:

1. Best management practices used at the swine facility, lagoon, treatment system, manure storage pond, and manure utilization areas to ensure there is no accumulation of organic or inorganic materials to

the extent and in such a manner as to create a harborage for rodents or other vectors that may be dangerous to public health.

2. A list of specific actions to be taken by the producer if vectors are identified as a problem at the swine facility, lagoon, treatment system, manure storage pond, or any manure utilization area. These actions should be listed for each vector problem, e.g., actions to be taken for fly problems, actions to be taken for rodent problems, etc.

B. No producer may cause, allow, or permit vectors to breed or accumulate in quantities that result in a nuisance level, as determined by the Department.

C. For an existing facility, if the Department determines a vector problem exists, the Department may require these abatement or control practices, including, but not limited to, the following:

1. Remove and properly dispose of vector infested materials;

2. Methods in handling and storage of materials that minimize vector attraction;

a. Remove spilled or spoiled feed from the house as soon as practicably possible, not to exceed forty-eight (48) hours, unless otherwise approved by the Department;

b. Remove and properly dispose of dead animals as soon as practicably possible, not to exceed twenty-four (24) hours, unless otherwise approved by the Department;

c. Increase the frequency of manure removal from animal houses;

d. Prevent solids buildup in the pit storage or on the floors or walkways;

e. Remove excess manure packs along walls and curtains;

f. Compost solid manure and other swine by-products;

g. Appropriate use of vector control chemicals, poisons, or insecticides (take caution to prevent insecticide resistance problems);

h. Utilize traps, or electrically charged devices;

i. Utilize biological agents;

j. Utilize Integrated Pest Management; and

k. Incorporate manure and other swine by-products immediately (within twenty-four (24) hours) after land application.

3. Prescribed standards in the maintenance of premises to reduce vector attraction;

a. Remove standing water that may be a breeding area for vectors;

b. Keep animals clean or separated from manure;

c. Keep facility clean and free from trash or debris;

d. Properly utilize and service bait stations;

e. Keep feeding areas dry, and minimize waste feed accumulation;

f. Keep grass and weeds mowed around the facility and manure storage or treatment areas;

g. Maintain the dead swine disposal system;

h. Cover or reduce the surface area of manure and other swine by-products storage. (Vents shall be provided for release of pressure created by manure gases if completely sealed covers are used);

i. Properly store feed and feed supplements;

j. Conduct a weekly vector monitoring program;

k. Be aware of insecticide resistance problems, and rotate use of different insecticides;

l. Prevent and repair leaks in waterers, water troughs or cups; and

m. Ensure proper grading and drainage around the buildings to prevent rain water from entering the buildings or ponding around the buildings.

4. Utilize the best available control technology to reduce vector attraction and breeding.

100.170. Record Keeping.

A. A copy of the approved Animal Facility Management Plan, including approved updates, and a copy of the permit(s) issued to the producer shall be retained by the permittee for as long as the swine facility is in operation.

B. All application information submitted to the Department shall be retained by the permittee for eight (8) years. However, if the facility was permitted prior to June 26, 1998, and the permittee has previously discarded these documents since there was no requirement to maintain records at that time, this requirement shall not apply.

C. Records shall be developed for each manure utilization area. These records shall be kept for eight (8) years. The records shall include the following:

1. For each time swine manure and other swine by-products are applied to the site, the amount of swine manure and other swine by-products applied (in gallons per acre or pounds per acre, as appropriate), the date and time of the application, and the location of the application;

2. All sampling results for swine manure that is land applied;

3. All soil monitoring results;

4. All groundwater monitoring results, if applicable; and

5. Crops grown.

D. Records for the facility to include the following on a monthly basis:

1. Animal count and the normal production animal live weight; and

2. Mortality count and method of disposal.

E. Records for lagoon, treatment system, or manure storage pond operations to include the following:

1. Monthly water levels of the lagoon, treatment system, and manure storage pond; and

2. Groundwater monitoring results, if applicable.

F. All records retained by the producer shall be kept at either the facility, an appropriate business office, or other location as approved by the Department.

G. All records retained by the producer shall be made available to the Department during normal business hours for review and copying, upon request by the Department.

100.180. Reporting.

A. All large and X-large swine operations shall submit, on a form approved by the Department, the following on an annual basis or more frequently if required by a permit or regulation:

1. All manure sampling results for the last year, if applicable, and the latest rolling average concentration for the land limiting constituent;

2. All soil monitoring results, if applicable;

3. All groundwater monitoring results, if applicable;

4. Calculated application rates for all manure utilization areas; and

5. The adjusted application rates, if applicable, based on the most recent swine manure sampling, soil samples, and crop yields. The application rate change could also be due to a change in field use, crop grown, or other factors.

B. The Department may require small swine facilities to submit annual reports on a case-by-case basis.

C. The Department may establish permit conditions to require a swine facility to complete and submit a comprehensive report every five (5) years. The Department shall review this report to confirm that the permitted nutrient application rates have not been exceeded. Based on the results of the review, additional soil and/or groundwater monitoring requirements, permit modification, and/or corrective action may be required.

100.190. Training Requirements.

A. An owner/operator of a new or existing swine facility, lagoon, manure storage pond, or manure utilization area shall complete a training program on the operation of swine manure management created by Clemson University, i.e. (CAMM).

B. Owners/Operators of new and existing swine facilities shall be required to pass a test and become certified as a part of the training program created by Clemson University.

C. The certification shall be completed by owners/operators of new facilities prior to start-up of operations.

D. The certification shall be completed by owners/operators of existing facilities within two (2) years of the effective date of this regulation. The certification program shall be completed by owners/operators involved in a transfer of ownership within one (1) year of the transfer of ownership approval.

E. The certification shall be maintained as long as the facility remains in operation.

F. Failure to obtain the certification as provided in this Section shall be deemed a violation of this regulation.

G. Additional Training and Certification Requirements for X-Large Swine Facilities:

1. The Department shall classify all manure treatment systems serving X-large swine facilities, giving due regard to size, types of work, character, and volume of manure to be treated, and the use and nature of the land resources receiving the manure.

2. Manure treatment systems may be classified in a group higher than indicated at the discretion of the Department by reason of the following:

a. Incorporation in the treatment system of complex features which cause the treatment system to be more difficult to operate than usual; or

b. A waste stream that is unusually difficult to treat; or

c. Conditions of flow; or

d. Use of the receiving lands requiring an unusually high degree of system operation control; or

e. Combinations of such conditions or circumstances.

3. The classifications for biological treatment systems are based on the following groups:

a. Group I - B. All agricultural manure treatment systems which include one (1) or more of the following units: primary settling, chlorination, sludge removal, Imhoff tanks, sand filters, sludge drying beds, land spraying, grinding, screening, oxidation, and stabilization ponds.

b. Group II - B. All agricultural manure treatment systems which include one (1) or more of the units listed in Group I-B and, in addition, one (1) or more of the following units: sludge digestion, aerated lagoon, and sludge thickeners.

c. Group III - B. All agricultural manure treatment systems which include one (1) or more of the units listed in Groups I-B and II-B and, in addition, one (1) or more of the following: trickling filters, secondary settling, chemical treatment, vacuum filters, sludge elutriation, sludge incinerator, wet oxidation process, contact aeration, and activated sludge (either conventional, modified, or high rate processes).

d. Group IV - B. All agricultural manure treatment systems which include one (1) or more of the units listed in Groups I-B, II-B, and III-B and, in addition, treat manure having a raw five (5)-day biochemical oxygen demand of 5,000 pounds per day or more.

4. The classifications for physical chemical manure treatment systems are based on the following groups:

a. Group I-P/C. All agricultural manure treatment systems which include one (1) or more of the following units: primary settling, equalization, pH control, and oil skimming.

b. Group II-P/C. All agricultural manure treatment systems which include one (1) or more of the units listed in Group I-P/C and, in addition, one (1) or more of the following units: sludge storage, dissolved air flotation, and clarification.

c. Group III-P/C. All agricultural manure treatment systems which include one (1) or more of the units listed in Groups I-P/C and II-P/C and, in addition, one (1) or more of the following: oxidation/reduction reactions, cyanide destruction, metals precipitation, sludge dewatering, and air stripping.

d. Group IV-P/C. All agricultural manure treatment systems which include one (1) or more of the units listed in Groups I-P/C, II-P/C, and III-P/C and, in addition, one (1) or more of the following: membrane technology, ion exchange, tertiary chemicals, and electrochemistry.

5. It shall be unlawful for any person or corporation to operate an agricultural manure treatment system at an X-large swine facility unless the operator-in-charge holds a valid certificate of registration issued by the Board of Certification of Environmental Systems Operators in a grade corresponding to the classification of the agricultural manure treatment system supervised by him or her.

100.200. Violations.

A. Persons who violate this regulation or any permit issued under this regulation are subject to the penalties in Sections 48-1-320 (Criminal Penalties) and 48-1-330 (Civil Penalties) of the South Carolina Pollution Control Act.

B. X-Large swine facilities shall be assessed automatic penalties (up to $10,000 per day per violation) for the following violations:

1. Lagoon, treatment system, or manure storage pond breach, or loss of containment that is not the direct result of an Act of God.

2. Manure Utilization Area runoff due to improper manure application methods.

3. Discharge to groundwater on site causing groundwater to exceed any water quality standard established in R.61-68.

C. Second occurrence of any of the violations outlined in 100.200.B. at an X-large swine facility shall result in immediate revocation of the permit and the automatic assessment of appropriate penalties.

D. Immediate cessation of manure application will also be enforced on sites where groundwater quality is adversely affected.

E. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required by the Department to be maintained as a condition in a permit, or who alters or falsifies the results obtained by such devices or methods, shall be deemed to have violated a permit condition and shall be subject to the penalties provided for pursuant to Sections 48-1-320 and 48-1-330 of the S.C. Code of Regulations.

PART 200
ANIMAL FACILITIES (OTHER THAN SWINE)

200.10. Purpose, Applicability, Inactive Facilities, and Facilities Permitted Prior to the Effective Date of the Regulation.

A. Purpose.

1. To establish standards for the growing or confining of animals, processing of animal manure and other animal by-products, and land application of animal manure and other animal by-products in such a manner as to protect the environment, and the health and welfare of citizens of the State from pollutants generated by this process.

2. To establish standards, which consist of general requirements, constituent limits, management practices, and operational standards, for the utilization of animal manure and other animal by-products generated at animal facilities. Standards included in this part are for animal manure and other animal by-products applied to the land.

3. To establish standards for the frequency of monitoring and record keeping requirements for producers who operate animal facilities.

4. To establish standards for the proper operation and maintenance of animal facilities.

5. To establish criteria for animal facilities' and manure utilization areas' location as they relate to protection of the environment and public health. The location of animal facilities and manure utilization areas as they relate to zoning in an area is not covered in this regulation. Local county or municipal governments may have zoning requirements and this regulation neither interferes with nor restricts such zoning requirements. Permit applicants should contact local municipal and county authorities to determine any local requirements that may be applicable.

B. Applicability.

1. This part applies to:

a. All new animal facilities;

b. All expansions of existing animal facilities;

c. New manure utilization areas for existing animal facilities;

d. All inactive facilities; and

e. All facilities and lagoon closures.

2. This part applies to all animal manure and other animal by-products applied to the land.

3. This part applies to all land where animal manure and other animal by-products are applied.

C. Inactive Facilities.

1. If an animal facility is inactive for two (2) years or less, a producer may resume operations of the facility under the same conditions by which it was previously permitted by notifying the Department in writing that the facility is being operated again.

2. For animal facilities that have been inactive for more than two (2) years but less than five (5) years, the Department shall review the existing permit and modify its operating conditions as necessary prior to the facility being placed back into operation.

3. For all other than swine animal facilities that have been inactive for five (5) or more years, the producer shall properly close out any lagoon, treatment system, or manure storage pond associated with the facility. The closeout shall be accomplished in accordance with R.61-82. The permittee shall submit a closeout plan that meets, at a minimum, NRCS-CPS within a time frame prescribed by the Department. Additional time may be granted by the Department to comply with the closeout requirement or to allow the producer to apply for a new permit under this regulation, as appropriate.

4. If an animal facility is inactive for more than five (5) years, the permit is considered expired and the producer shall apply for a new permit and all requirements of this regulation shall be met before the facility can resume operations.

5. During the closeout of the facilities and/or lagoons/waste storage ponds, annual fees are required until proper closeout is certified and approved.

D. Facilities Permitted Prior to the Effective Date of the Regulation.

1. All existing animal facilities with permits issued by the Department before June 26, 1998, do not need to apply for a new permit as they are deemed permitted (deemed permitted animal facilities) unless they have been inactive for more than two (2) years or expand operations. These facilities shall meet the following sections of Part 200: Section 200.20 (Permits and Compliance Period); Section 200.90.A, D, and J-O (General Requirements for Animal Manure Lagoons, Treatment Systems, and Animal Manure Storage Ponds); Section 200.100. (Manure Utilization Area Requirements); Section 200.110.H-I (Spray Application System Requirements); Section 200.120.A, C-D (Frequency of Monitoring for Animal Manure); Section 200.130.A, B, and C.2.-3. (Dead Animal Disposal Requirements); Section 200.140.A, C-I (Other Requirements); Section 200.150.B-F (Odor Control Requirements); Section 200.160.B-D (Vector Control Requirements); Section 200.170 (Record Keeping); Section 200.180 (Reporting); Section 200.190 (Training Requirements); and Section 200.200 (Violations). The capacity of a deemed permitted facility that does not have a lagoon is the number of animals and normal production animal live weight permitted by the Department prior to the effective date of this regulation. For deemed permitted facilities with lagoons, the capacity is the maximum capacity of the existing animal manure lagoon, treatment system, and animal manure storage pond as determined using the appropriate animal manure lagoon, treatment system, and animal manure storage pond capacity design criteria of the United States Department of Agriculture’s Natural Resource Conservation Service.

2. All existing animal facilities with permits issued by the Department between June 26, 1998, and the effective date of this regulation do not need to apply for a new permit if they hold a valid permit from the Department, unless they have been inactive for more than two (2) years. These facilities shall meet all the requirements of this regulation.

3. All existing animal facilities that were constructed and placed into operation prior to June 26, 1998, but have never received an agricultural permit from the Department, shall apply for a permit from the Department. This facility shall meet all the requirements of this regulation as the Department determines appropriate. The Department shall review the site and make a determination on a case-by-case basis on which requirements are applicable.

4. An existing animal facility may be required to submit an updated Animal Facility Management Plan on a case-by-case basis by the Department. The Department shall notify the permittee in writing of this requirement. The permittee has six (6) months or an agreed upon time frame from the date of notification to submit an updated Animal Facility Management Plan. Failure to submit the updated plan within this time frame is a violation of the South Carolina Pollution Control Act and this regulation, and may result in permit revocation.

5. Both the setbacks and other requirements for manure utilization areas shall be met when a new manure utilization (MUA) area is added by the owner of any animal facility regardless of when the facility was permitted.

6. If an existing animal facility regulated under this part proposes to convert to a swine facility, it shall be considered a new swine facility under this regulation. Converted facilities shall be permitted as new swine facilities and meet all criteria for new swine facilities before they begin operation as a swine facility.

200.20. Permits and Compliance Period.

A. Permit Requirement. Animal manure and other animal by-products from a new or expanded animal facility can only be generated, handled, stored, treated, processed, or land applied in the State in accordance with a permit issued by the Department under the provisions of this part. Existing producers that are required by the Department to update their Animal Facility Management Plan shall meet the requirements of this part to the extent practical as determined by the Department.

B. Permits issued under this regulation are no-discharge permits.

C. The requirements in this part shall be implemented through a permit issued to any producer who operates an animal facility where animal manure and other animal by-products are generated, handled, treated, stored, processed, or land applied.

D. The requirements under this part may be addressed in permits issued to producers who only land apply animal manure and other animal by-products.

E. Notification Requirements. The permittee shall notify the Department in writing and receive written Departmental approval, except as otherwise noted, prior to any change in operations at a permitted facility, including, but not limited to, the following:

1. Change in ownership and control of the facility. The Department has thirty (30) calendar days from the receipt of a complete and accurate notification of transfer of ownership to either: request additional information regarding the transfer or the new owner; deny the transfer; or approve the transfer of ownership. If the Department does not act within thirty (30) calendar days, the transfer is automatically approved. If additional information is requested by the Department in a timely manner, the Department shall act on this additional information, when it is received, within the same time period as the initial notification.

2. Increase in the permitted number of animals.

3. Addition of manure utilization areas.

4. Change in animal manure and other animal by-products treatment, handling, storage, processing, or utilization.

5. Change in method of dead animal disposal.

F. Permit modifications for items 200.20.E.2 and 200.20.E.4 for facilities regulated under this part, which will result in expansions, shall adhere to the requirements of this part and other applicable statutes, regulations, or guidelines.

G. Permit modification for item 200.20.E.2 which result in an expansion may be required to obtain new written waivers or agreement for reduction of setbacks from adjoining property owners (if applicable).

200.30. Exclusions.

The following do not require permits from this part unless specifically required by the Department under item 200.30.G.

A. Existing animal facilities that are deemed permitted under Section 200.10.D.1 are excluded from applying for a new permit unless an expansion is proposed, new manure utilization areas are added, or as required by the Department. However, deemed permitted facilities shall meet the requirements of this regulation as outlined in Section 200.10.D (Purpose, Applicability, Inactive Facilities, and Facilities Permitted Prior to the Effective Date of the Regulation).

B. Except as given in Section 200.30.G, animal facilities with only ranged animals, and no lagoon, treatment system, or manure storage pond is associated with the facility, are excluded from obtaining a permit from the Department. The range area shall be of sufficient size to allow for natural degradation or utilization of the animal manure with no adverse impact to the environment. Ranged facilities shall also maintain adequate vegetative buffers between the animal range and Waters of the State.

C. Except as given in Section 200.30.G, animal facilities, which do not have a lagoon, manure storage pond, or liquid manure treatment system, having 10,000 pounds or less of normal production animal live weight at any one time are excluded from obtaining a permit from the Department. However, these facilities shall have and implement an Animal Facility Management Plan for their facility that meets the requirements of this regulation.

D. Except as given in Section 200.30.G, animal facilities, which do not have a lagoon, manure storage pond, or liquid manure treatment system, having more than 10,000 pounds of normal production animal live weight at any one time and having less than 30,000 pounds of normal production animal live weight at any one time are excluded from obtaining a permit from the Department. However, these facilities shall submit an Animal Facility Management Plan to the Department and implement an Animal Facility Management Plan for their facility that meets the requirements of this regulation.

E. Except as given in Section 200.30.G, animal facilities that are not classified as commercial facilities are excluded from obtaining a permit from the Department.

F. Except as given in Section 200.30.G, animal facilities that hold valid permits issued by the Department are not required to obtain a new permit if they decide to replace in kind any of the animal growing houses.

G. Animal facilities exempted under Sections 200.30.A, B, C, D, E, and F may be required by the Department to obtain a permit. The Department shall visit the site before requiring any of these facilities to obtain a permit.

200.40. Relationship to Other Regulations.

The following regulations are referenced throughout this part and may apply to facilities covered under this regulation.

A. Application and annual operating fees are addressed in R.61-30, Environmental Protection Fees.

B. The proper closeouts of wastewater treatment facilities are addressed in R.61-82, Proper Closeout of Wastewater Treatment Facilities. This includes animal lagoons and manure storage ponds.

C. Setbacks and construction specifications for potable water wells and monitoring wells shall be in accordance with R.61-71, Well Standards.

D. Permits for air emissions from incinerators are addressed in R.61-62, Air Pollution Control Regulations and Standards.

E. Disposal of animal manure in a municipal solid waste landfill unit is addressed in R.61-107.19, Solid Waste Management: Solid Waste Landfills and Structural Fill.

F. Disposal of animal manure with domestic or industrial sludge is addressed in R.61-9, Water Pollution Control Permits, and permitted under R.61-9.

G. Laboratory certification is addressed in R.61-81, State Environmental Laboratory Certification Program.

H. Water Classifications and Standards are addressed in R.61-68.

200.50. Permit Application Procedures (Animal Facility Management Plan Submission Requirements).

A. Preliminary Site Evaluations. The Department shall perform a preliminary evaluation of the proposed site at the request of the applicant. Written requests for a preliminary site inspection shall be made using a form provided by the Department. The Department shall not schedule a preliminary site inspection until all required information specified in the form has been submitted to the Department. This evaluation should be performed prior to preparation of the Animal Facility Management Plan. Once the preliminary site inspection is performed, the Department shall issue an approval or disapproval letter for the proposed site.

B. A producer who proposes to build a new animal facility or expand an existing animal facility shall make application for a permit under this part using an application form provided by the Department. The following information shall be included in the application package.

1. A completed and accurate application form.

2. An Animal Facility Management Plan prepared by qualified Natural Resources Conservation Service (NRCS) personnel or a S.C. registered professional engineer (PE). Other qualified individuals, such as certified soil scientists or S.C. registered professional geologists (PG), may prepare the land application

component of an Animal Facility Management Plan. The Animal Facility Management Plan shall, at a minimum, contain:

a. Facility name, address, telephone numbers, email address (if applicable), county, and National Pollutant Discharge Elimination System Permit or other permit number (if applicable);

b. Facility location description and the zoning or land use restrictions in this area (this information is available from the county);

c. Applicant's name, address, email, and telephone number (if different from above);

d. Operator's name and CAMM number (if available)

e. Facility capacity;

i. Number and type of animals;

ii. Pounds of normal production animal live weight at any one time;

iii. Amount of animal manure and other animal by-products generated per year (gallons for liquid animal manure and pounds for dry animal manure);

iv. Amount in tons of any scraped or separated solid animal manure and other animal by-products generated per year (if applicable);

v. Description of animal manure and other animal by-products storage and storage capacity of lagoon, treatment system, or manure storage pond (if applicable); and

vi. Description of animal manure and other animal by-products treatment (if any).

f. Concentration of constituents in liquid animal manure including, but not limited to, the constituents given below:

i. Nutrients.

(a) Nitrate (only needed for aerobic systems).

(b) Ammonium-Nitrogen.

(c) Total Kjeldahl Nitrogen (TKN).

(d) Organic-Nitrogen (TKN - Ammonium-Nitrogen).

(e) P_2O_5.

(f) K_2O (potash).

ii. Constituents.

(a) Arsenic.

(b) Copper.

(c) Zinc.

iii. Name, address, S.C. lab certification number, and telephone number of the laboratory conducting the analyses.

iv. For new animal facilities, liquid animal manure analysis information does not have to be submitted as the Department shall use manure analyses from similar sites or published data (such as: Clemson University, American Society of Agricultural Engineers, Midwest Planning Service Document, NRCS Technical Guide or equivalent) in review of the application. Analysis of the actual animal manure generated shall be submitted to the Department twelve (12) months after a new animal facility starts operation or prior to the first application of animal manure to a manure utilization area, whichever occurs first. If this analysis is significantly different from the estimated analysis used in the permitting decision, the Department may require a permit modification as necessary to address the situation. Analysis shall be conducted by a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

g. Concentration of constituents in dry animal manure including, but not limited to, the following:

i. Nutrients (on a dry weight basis).

(a) Total Kjeldahl Nitrogen (mg/kg).

(b) Total inorganic nitrogen (mg/kg).

(c) Total ammonia nitrogen (mg/kg) and Total nitrate, nitrogen (mg/kg).

(d) P_2O_5 (mg/kg).

(e) K_2O (mg/kg).

(f) Calcium Carbonate equivalency (if animal manure is alkaline stabilized).

ii. Constituents (on a dry weight basis).

(a) Arsenic (mg/kg).

(b) Copper (mg/kg).

(c) Zinc (mg/kg).

iii. Name, address, S.C. lab certification number, and telephone number of the laboratory conducting the analyses.

iv. For new animal facilities, dry animal manure analysis information does not have to be submitted as the Department shall use manure analyses from similar sites or published data (such as: Clemson University, American Society of Agricultural Engineers, Midwest Planning Service Document, NRCS Technical Guide or equivalent) in review of the application. Analysis of the actual dry animal manure generated shall be submitted to the Department twelve (12) months after a new animal facility starts operation or prior to the first application of animal manure to a manure utilization area, whichever occurs

first. If this analysis is significantly different from the estimated analysis used in the permitting decision, the Department may require a permit modification as necessary to address the situation. Analysis shall be conducted by a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

h. Animal manure and other animal by-products handling and application information shall be included as follows:

i. A crop management plan which includes the time of year of the animal manure application and how it relates to crop type, crop planting, and harvesting schedule (if applicable) for all manure utilization areas;

ii. Name, address, and telephone number of the producer(s) that will land apply the animal manure and other animal by-products if different from the permittee;

iii. Type of equipment used to transport and/or spread the animal manure and other animal by-products (if applicable); and

iv. For spray application systems, plans and specifications with supporting details and design calculations for the spray application system.

i. Facility and manure utilization area information shall be included (as appropriate):

i. Name, address, and tax map number of landowner and location of manure utilization area(s);

ii. List previous calendar years that animal manure and other animal by-products were applied and application amounts, where available;

iii. Facility and manure utilization area location(s) on maps drawn to approximate scale including:

(a) Topography (7.5' or equivalent) and drainage characteristics (including ditches);

(b) Adjacent land usage (within 1/4 mile of property line minimum) and location of inhabited dwellings and public places showing property lines and tax map number;

(c) All known water supply wells on the applicant's property and within 200 feet of the facility's property line or within 200 feet of any manure utilization areas;

(d) Adjacent surface water bodies (including ephemeral and intermittent streams);

(e) Animal manure utilization area boundaries and buffer zones;

(f) right-of-ways (Utilities, roads, etc.);

(g) Soil types as given by soil tests or soils maps, a description of soil types, and boring locations (if applicable);

(h) Recorded plats, surveys, or other acceptable maps that include property boundaries; and

(i) Information showing the 100-year and 500-year floodplain (as determined by FEMA).

iv. For manure utilization areas not owned by the permit applicant, a signed agreement between the permit applicant and the landowner acceptable to the Department detailing the liability for the land application. The agreement shall include, at a minimum, the following:

(a) Producer's name, farm name, farm address, CAMM number, and county in which the farm is located;

(b) Landowner's name, address, phone number;

(c) Location (map with road names, tax map numbers, and county identified) of the land to receive manure application;

(d) Field acreage, acreage less setbacks, and crops grown;

(e) Name of manure hauler;

(f) Name of manure applier;

(g) A statement that land is not included in any other management plans and manure or compost from another farm is not being applied on this land; and any manure utilization areas that are included in multiple Animal Facility Management Plans, identify the names of all facilities that include this manure utilization area in their plan; and

(h) A signed statement which informs the landowner that he or she is responsible for spreading and utilizing this manure in accordance with the requirements of the Department and this regulation.

3. Groundwater monitoring well details and proposed groundwater monitoring program (if applicable).

4. The Animal Facility Management Plan shall contain an odor abatement plan for the animal facility, lagoon, treatment system, manure storage pond, and manure utilization areas. For more specific details, see Section 200.150 (Odor Control Requirements).

5. A Vector Abatement Plan shall be included for the animal facility, lagoon, treatment system, manure storage pond, and manure utilization areas. For more specific details see Section 200.160 (Vector Control Requirements).

6. The Dead Animal Disposal Plan shall include written details for the handling and disposal of dead animals. Plans should detail method of disposal, any construction specifications necessary, and management practices. See Section 200.130 (Dead Animal Disposal Requirements) for specific requirements on dead animal disposal.

7. A Soil Monitoring Plan shall be developed for all manure utilization areas. See Section 200.100 (Manure Utilization Area Requirements) for more detailed information.

8. Plans and specifications for all other manure treatment or storage structures, such as holding tanks or manure storage sheds.

9. All "Notice of Intent to Build or Expand an Animal Facility" forms provided by the Department and a tax map (or equivalent) to scale showing all neighboring property owners and identifying which property has inhabited dwellings. See Section 200.60 (Public Notice Requirements) for more detailed information.

10. An Emergency Plan. The emergency plan should, at a minimum, contain a list of entities or agencies the producer shall contact in the event of lagoon, treatment system, or manure storage pond breach, mass animal mortality, fire, flood, or other similar type problem. For facilities in the coastal areas of the state, the emergency plan should address actions to be taken by a producer during hurricane season (such as providing additional freeboard during that time) and when advance warning is given on any extreme weather condition.

11. All waivers as specified in Section 200.80 (Facility, Lagoon, Treatment System, and Manure Storage Pond Siting Requirements), if applicable.

12. Application fee and first year's operating fee as established by R.61-30.

C. The Department may request an applicant to provide any additional information deemed necessary to complete or correct deficiencies in the animal facility permit application prior to processing the application or issuing, modifying, or denying a permit.

D. Applicants shall submit all required information in a format acceptable to the Department.

E. An application package for a permit is complete when the Department receives all of the required information which has been completed to its satisfaction. Incomplete submittal packages may be returned to the applicant by the Department.

F. Application packages for permit modifications only need to contain the information applicable to the requested modification or any additional information the Department deems necessary.

200.60. Public Notice Requirements.

A. For new animal facilities, the applicant shall notify all property owners within 1,320 feet of the proposed location of the facility (footprint of construction) of the applicant's intent to build an animal facility. The applicant shall use a notice of intent form provided by the Department. The Department shall post the Public Notice of application received on the Department's website for fifteen (15) business days. The Department may also post up to four (4) notices, in the four (4) cardinal directions around the perimeter of the property or in close proximity to the property, in locations visible to the public within the public right-of-ways determined by the Department. The notice of intent on the Department's website shall advise adjoining property owners that they can send comments on the proposed animal facility directly to the Department.

B. For properties that have multiple owners or properties that are in an estate with multiple heirs, the Department, shall publish a notice of intent to construct an animal facility on the Department's website. This notice on the Department's website shall serve as notice to these multiple property owners of the producer's intent to build an animal facility.

C. For existing animal facilities seeking to expand their current operations, the Department shall post the Public Notice of application received on the Department's website for fifteen (15) business days. The Department may also post up to four (4) notices in the four (4) cardinal directions around the perimeter of the property or in close proximity to the property, in locations visible to the public right-of-way or as determined by the Department.

D. The Department shall review all comments received. If the Department receives twenty (20) or more letters from different "Affected Persons" requesting a meeting or the Department determines significant comment exists, a meeting shall be held to discuss and seek resolution to the concerns prior to a permit

decision being made. All persons who have submitted written comments shall be invited in writing to the meeting. First Class US mail service, email, or hand delivery to the address of a person to be notified shall be used by the Department for the meeting invitation. However, if the Department determines that the number of persons who submitted written comments is significant, the Department shall publish a notice of the public meeting on the Department's website instead of notifying each individual by First Class mail or email. In addition, the Department shall notify all group leaders and petition organizers in writing. Agreement of the parties is not required for the Department to make a permit decision.

E. When comments are received by email, the Department shall acknowledge receipt of the comment by email. These comments shall be handled in the same manner as written comments received by postal mail.

F. The Department shall consider all relevant comments received in determining a permit decision.

G. The Department shall give notice of the permit decision to issue or deny the permit to the applicant, all persons who commented in writing to the Department, and all persons who attended the meeting, if held. First Class US mail service or email shall be used by the Department for the notice of decision. However, if the Department determines that members of the same group or organization have submitted comments or a petition, the Department shall only notify all group leaders and petition organizers in writing. The Department shall ask these leaders and organizers to notify their groups or any concerned citizens who signed the petitions.

H. For permit issuances, the Department shall publish a notice of issuance of a permit to construct or expand an animal facility on the Department's website.

I. For permit denials, the Department shall give the permit applicant a written explanation, which outlines the specific reasons for the permit denial.

J. For permit denials, the Department shall publish a notice of decision on the Department's website.

K. The Department shall include, at a minimum, the following information in the public notices on permit decisions: the name and location of the facility; a description of the operation and the method of manure handling; instructions on how to appeal the Department's decision; the time frame for filing an appeal; the date of the decision; and the date upon which the permit becomes effective.

200.70. Permit Decision Making Process.

A. No permit shall be issued before the Department receives a complete application package.

B. The agricultural program of the Department is not involved in local zoning and land use planning. Local government(s) may have more stringent requirements for agricultural animal facilities. The permittee is responsible for contacting the appropriate local government(s) to ensure that the proposed facility meets all the local requirements.

C. After the Department has received a complete application package, a technical review shall be conducted by the Department. The Department may request any additional information or clarification from the applicant or the preparer of the Animal Facility Management Plan to help with the determination on whether a permit should be issued or denied. If a permit application package meets all applicable requirements of this part, a permit may be issued.

D. A preliminary site inspection shall be made by the Department before a complete application package is received by the Department.

E. The Department shall act on all permits to prevent, so far as reasonably possible considering relevant standards under state and federal laws, an increase in pollution of the waters and air of the State from any new or enlarged sources.

F. The setback limits given in Part 200 are siting requirements. The Department shall evaluate the following factors to determine if any special conditions are necessary:

1. Latitude and Longitude;

2. Down-wind receptors; and

3. Nutrient Management Plan.

G. When a permit is issued, it shall contain an issue date, an effective date, and, when applicable, a construction expiration date. The effective date shall be at least fifteen (15) calendar days after the issue date to allow for any appeals. If a timely appeal is not received, the permit shall be effective on the effective date.

H. An expired permit (final expiration date for renewal) issued under this part continues in effect until a new permit is effective if the permittee submits a complete application, to the satisfaction of the Department, at least one hundred eighty (180) calendar days before the existing permit expires. The Department may grant permission to submit an application later than the deadline for submission stated above, but no later than the permit expiration date. If the facility has been closed for any two (2) consecutive years since the last permit was issued, the provision for the expiring permit remaining in effect does not apply since the permit is no longer valid. Permittees shall notify the Department in writing within thirty (30) calendar days of when they go out of business.

I. The animal facility, lagoon, treatment system, or manure storage pond can be built only when the permit is effective. The facility cannot be placed into operation until the Department has issued a written Approval to Operate (ATO).

J. To receive an ATO, the producer shall have the preparer of the Animal Facility Management Plan submit to the Department written certification that the construction has been completed in accordance with the approved Animal Facility Management Plan and the requirements of this regulation.

K. The Department shall conduct a final inspection before granting an ATO to a producer to begin operations.

L. The Department shall grant written approval for the producer to begin operations after it has received the certification statement in 200.70.J and the results of the final inspection are satisfactory.

M. Animal Facility Construction Permit Expiration and Extensions.

1. Construction permits issued by the Department for agricultural animal facilities shall be given two (2) years from the effective date of the permit to start construction and three (3) years from the effective date of the permit to complete construction.

2. If the proposed construction as outlined in the permit is not started prior to the construction start expiration date, the construction permit is invalid unless an extension in accordance with this regulation is granted.

3. If construction is not completed and the facility is not placed into operation prior to the construction completion expiration date, the construction permit is invalid unless an extension in accordance with this regulation is granted.

4. If a portion of the permitted facility (some of the animal growing houses are completely constructed, but not all houses originally permitted were constructed) is completed prior to the construction completion expiration date, the construction for the remainder of the permit may be utilized within the permit life. The permittee shall obtain Departmental approval prior to utilizing the permit in this manner. The Department may require that the permittee submit additional information or update the Animal Facility Management Plan prior to approval.

5. Extensions of the permit construction start and completion expiration dates may be granted by the Department. The permittee shall submit a written request explaining the delay and detailing any changes to the proposed construction. This request shall be received not later than the expiration date that the permittee proposes to extend. The maximum extension period shall not exceed one (1) year. There shall be no more than two (2), one (1)-year extension periods per permit to construct, granted.

200.80. Animal Facility, Lagoon, Treatment Systems, and Manure Storage Pond Siting Requirements.

A. Siting requirements applicable to all animal facilities.

1. The minimum separation distance between an animal facility (animal growing areas, houses, pens or barns, not including range areas or manure utilization areas) and a public or private drinking water well (excluding the applicant's well) is 200 feet. The minimum separation distance between an animal facility and a potable water well owned by the applicant is 50 feet (as required by R.61-71).

2. The minimum separation distance between an animal facility and Waters of the State (including ephemeral and intermittent streams) located down slope from the facility is 100 feet.

3. Except for site drainage, the minimum separation distance required between an animal facility and a ditch or swale located down slope from the facility is 50 feet.

4. A new animal facility or an expansion of an established animal facility shall not be located in the 100-year floodplain.

5. The separation distance required between a small animal facility or growing areas (pens or barns not including range areas) and the lot line of real property owned by another person is 200 feet and 1,000 feet from the nearest residence.

6. The separation distance required between large or X-large animal facilities or growing areas (pens or barns not including range areas) and the lot line of real property owned by another person is 400 feet and 1,000 feet from the nearest residence.

B. Siting requirements applicable to all animal lagoons, treatment systems, and manure storage ponds.

1. The minimum separation distance between a lagoon, treatment system, or manure storage pond and a public or private drinking water well (excluding the applicant's well) is 200 feet. The minimum separation distance between an animal lagoon, treatment system, or manure storage pond and a potable water well owned by the applicant is 100 feet.

2. Except for site drainage, the minimum separation distance required between an animal lagoon, treatment system, or manure storage pond and a ditch or swale located down slope from the facility is 50 feet.

3. The minimum separation distance required between an animal lagoon, treatment system, or manure storage pond and Waters of the State (including ephemeral and intermittent streams) located down slope from the facility is 100 feet. If the Waters of the State are designated Outstanding Resource Waters, Critical Habitat Waters of federally endangered species, or Shellfish Harvesting Waters, the minimum separation distance required between a lagoon, treatment system, or manure storage pond and Waters of the State is 500 feet.

4. A new animal lagoon, treatment system, or manure storage pond or an expansion of an established animal lagoon, treatment system, or manure storage pond shall not be located in the 100-year floodplain.

5. The separation distance required between a small animal facility lagoon, treatment system, or manure storage pond and real property owned by another person is 300 feet or 1,000 feet from the nearest residence.

6. The separation distance required between a large animal facility lagoon, treatment system, or manure storage pond and real property owned by another person is 500 feet and 1,000 feet from the nearest residence.

7. The separation distance required between an X-large animal facility lagoon, treatment system, or manure storage pond and real property owned by another person is 600 feet and 1,320 feet from the nearest residence.

C. Siting requirements applicable to all dry animal manure and other animal by-products treatment or storage facilities (including, but not limited to, stacking sheds, burial sites, incinerators, manure, and dead animal composters).

1. The minimum separation distance between a dry animal manure and other animal by-products treatment or storage facility and a public or private drinking water well (excluding the applicant's well) is 100 feet. The minimum separation distance between a dry animal manure and other animal by-products treatment or storage facility and a potable water well owned by the applicant is 50 feet.

2. Except for site drainage, the minimum separation distance required between a dry animal manure and other animal by-products treatment or storage facility and a ditch or swale located down slope from the facility is 50 feet.

3. The minimum separation distance between a dry animal manure and other animal by-products treatment or storage facility and Waters of the State including ephemeral and intermittent streams located down slope from the facility is 100 feet.

4. A new dry animal manure and other animal by-products treatment or storage facility or an expansion of an established dry animal manure and other animal by-products treatment or storage facility shall not be located in the 100-year floodplain.

5. The separation distance required between a dry animal manure and other animal by-products treatment or storage facility operated at an animal growing facility and the lot line of real property and a residence owned by another person shall be equivalent to the setback required for the animal growing areas or houses.

6. The minimum separation distance required between a dry animal manure and other animal by-products treatment or storage facility operated by a manure broker and the lot line of real property owned by another person is 200 feet and 1,000 feet to the nearest residence.

D. Water (a pond) that is completely surrounded by land owned by the permit applicant and has no connection to surface water is excluded from the setback requirements outlined in this part.

E. All lagoon and manure storage pond setbacks contained in this part shall be measured from the outside toe of the dike.

F. The separation distances for property lines given in Section 200.80.A, B, and C above can be waived or reduced by written consent of the adjoining property owner. Written consent is not needed when the Department reduces the distances under the requirements of Part 300.

200.90. General Requirements for Animal Manure Lagoons, Treatment Systems, and Animal Manure Storage Ponds.

A. The lagoon, treatment system, or manure storage pond shall be designed by a professional engineer or an NRCS engineer and the construction shall be certified by the design engineer or professional engineer licensed in S.C. It is a violation of these regulations and the South Carolina Pollution Control Act for the owner or operator of the facility to make modifications or physical changes to the lagoon, treatment system, or manure storage pond without the prior approval of the Department and supervision of NRCS or a professional engineer. Plans and specifications for lagoon, treatment system, or manure storage pond modifications shall be designed and certified by NRCS or a professional engineer and submitted to the Department for approval prior to the modification.

B. Animal manure lagoons and manure storage ponds shall be designed, at a minimum, to NRCS-CPS. The lagoon or manure storage pond shall be designed to provide a minimum storage for manure, wastewater, normal precipitation less evaporation, normal runoff, residual solids accumulation, capacity for the fifty (50) year-twenty-four (24) hour storm event (precipitation and associated runoff) and at least 2 feet of freeboard.

C. All lagoons and storage ponds shall be provided with a liner, designed with an initial specific discharge rate of less than 0.0156 feet/day, in order to protect groundwater quality. When lagoons or manure storage ponds are lined only using soils with low permeability rates (e.g., clay), the Department shall require appropriate documentation to demonstrate that the computed soil permeability rates of the liner are sufficiently low or certification from the preparer of the Animal Facility Management Plan that the NRCS design standards for lining lagoons and/or manure storage ponds with soils have been met. When geomembrane liners are utilized, they shall be designed, at a minimum, to meet NRCS-CPS.

D. If seepage results in either an adverse impact to groundwater or a significant adverse trend in groundwater quality occurs as determined by the Department, the lagoon or manure storage pond shall be repaired at the owner's or operator's expense. Assessment and/or additional monitoring (more wells, additional constituents, and/or increased sampling frequency) may be required by the Department to further assess the extent of the seepage. The repairs and/or assessment shall be completed in accordance with an implementation schedule approved by the Department. The Department may require groundwater corrective action.

E. Manure shall not be placed directly in or allowed to come into contact with groundwater and/or surface water. The minimum separation distance between the lowest point of the lagoon or manure storage pond

and the seasonal high water table beneath the lagoon or manure storage pond is 2 feet. If a geomembrane liner is installed, the minimum separation distance is 1 foot from the seasonal high water table. Designs that include controlled drainage for water table adjustment shall be evaluated by the Department on a case-by-case basis, and may include additional monitoring and groundwater control requirements. If a design is proposed for water table adjustment, the design shall not impact wetlands.

F. Monitoring wells may be required by the Department on a case-by-case basis upon Department review of the submittal package.

G. A groundwater monitoring plan shall be submitted with the permit application to the Department. All applicable State certification requirements regarding well installation, laboratory analyses, and report preparation shall be met. Each groundwater monitoring well installed shall be permitted and shall be sampled at least once annually by qualified personnel at the expense of the permittee. The results shall be submitted to the Department in accordance with the specified permit requirements. Groundwater Sampling results shall be maintained by the producer for eight (8) years. The Department may conduct routine and random visits to the animal facility to sample the monitoring wells.

H. Prior to operation of the lagoon or manure storage pond, all monitoring wells shall be sampled in accordance with the parameters identified in the permit such that a background concentration level can be established.

I. Before the construction of a lagoon and/or a manure storage pond, the owner or operator shall remove all under-drains that exist from previous agricultural operations that are under the lagoon or manure storage pond and/or within 25 feet of the outside toe of the proposed lagoon or manure storage pond dike. This requirement does not include under-drains that are approved as a part of designs that include controlled drainage for water table adjustment.

J. Proper water levels in lagoons and manure storage ponds, as per plans and specifications, shall be maintained at all times by the permittee. The Department may require specific lagoon or manure storage pond volume requirements in permits. An approved marker shall be installed to measure water levels.

K. If a lagoon, treatment system, or manure storage pond, all of these, breaches or fails, the owner or operator of the animal facility shall immediately notify the Department, the appropriate local government officials, and the owners or operators of any potable surface water treatment plant located downstream from the animal facility that could reasonably be expected to be adversely impacted.

L. Lagoons, treatment systems, and manure storage ponds shall be completely enclosed with an acceptable fence, unless a fence waiver is obtained from the Department.

M. Lagoons and manure storage ponds shall have at least four (4) warning signs posted in the four (4) cardinal directions around the perimeter of the structure. These signs must read, “Warning - Deep and Polluted Water”.

N. Vegetation on the dikes and around the lagoon, treatment system, or manure storage pond should be kept below a maximum height of 18 inches. Trees or deeply rooted plants shall be prevented from growing on the dikes or within 25 feet of the outside toe of the dikes of the lagoon, treatment system, or manure storage pond. Existing trees on the dikes shall be evaluated by NRCS staff or a dam engineer licensed in South Carolina to determine if they should be removed or remain.

O. Livestock or other animals that could cause erosion or damage to the dikes of the lagoon, treatment system, or manure storage pond shall not be allowed to enter the lagoon, treatment system, or manure storage pond, or graze on the dike or within 25 feet of the outside toe of the dike.

P. The Department shall require existing facilities, regardless of size, with a history of manure handling, treatment, and disposal problems related to a lagoon, to phase out the existing lagoon and incorporate new technology.

200.100. Manure Utilization Area Requirements.

A. Application Rates. The Department shall approve an Animal Facility Management Plan that establishes an application rate for each manure utilization area based on the agronomic application rate of the specific crop(s) being grown, and the manure and other animal by-products' impact on the environment. The application rate shall be based on the limiting constituent (a nutrient or other constituent as given in item 200.100.B). In developing annual constituent loading rates and cumulative constituent loading rates, the Department shall consider:

1. Soil type;

2. Type of vegetation growing in land-applied area;

3. Proximity to 100-year floodplain;

4. Location in watershed;

5. Nutrient sensitivity of receiving land and waters;

6. Soil nutrient testing in conjunction with soil productivity information;

7. Nutrient, copper, zinc, and constituent content of the manure and other swine by-products being applied;

8. Proximity to a State Approved Source Water Protection Area;

9. Proximity to other point and nonpoint sources;

10. Slope of land (anything over ten percent (10%) must use runoff best management practices, runoff controls, or conservation features as per NRCS);

11. Distance to water table or groundwater aquifer;

12. Timing of manure application to coincide with vegetative cover growth cycle;

13. Timing of harvest of vegetative cover;

14. Hydraulic loading limitations;

15. Soil assimilative capacity;

16. Type of vegetative cover and its nutrient uptake ability;

17. Method of land application; and

18. Aquifer vulnerability.

B. Constituent Limits for Land Application of Liquid and Dry Animal manure and other animal by-products and Operational Practices for Land Application.

1. Animal manure and other animal by-products containing only the standard constituents at normal concentrations as given by commonly accepted reference sources, such as Clemson University, American Society of Agricultural Engineers, Midwest Planning Service Document, or NRCS, can be land applied at or below agronomic rates without any specific constituent limits in a permit. When the animal manure analysis indicates there are levels of arsenic, copper, zinc, or other constituents of concern, the Department shall establish constituent limits in permits for each constituent of concern to ensure the water quality standards of R.61-68 are maintained. For these cases the producer shall comply with the following criteria:

a. Constituent Limits. If animal manure and other animal by-products subject to a constituent limit is applied to land, either:

i. The cumulative loading rate for each constituent shall not exceed the cumulative constituent loading rate for the constituent in Table 1 of Section 200.100; or

ii. The concentration of each constituent in the animal manure and other animal by-products shall not exceed the concentration for the constituent in Table 2 of Section 200.100.

b. Constituent concentrations and loading rates - animal manure and other animal by-products.

i. Cumulative constituent loading rates.

TABLE 1 OF SECTION 200.100 - CUMULATIVE CONSTITUENT LOADING RATES		
Cumulative Constituent Loading Rate		
Constituent	(kilograms per hectare)	(pounds per acre)
Arsenic	41	37
Copper	1500	1339
Zinc	2800	2499

ii. Constituent concentrations.

TABLE 2 OF SECTION 200.100 - CONSTITUENT CONCENTRATIONS	
Monthly Average Concentrations	
Constituent	Dry weight basis (milligrams per kilogram)
Arsenic	41
Copper	1500
Zinc	2800

iii. Annual constituent loading rates.

TABLE 3 OF SECTION 200.100 - ANNUAL CONSTITUENT LOADING RATES		
Annual Constituent Loading Rate		
	(kilograms per hectare	(pounds per acre per
Constituent	per 365-day period)	365-day period)
Arsenic	2.0	1.8
Copper	75	67
Zinc	140	125

c. Additional constituent limits may be required, from the application information or subsequent monitoring in a permit thereafter, but such needs shall be assessed on an individual project basis.

d. Animal manure and other animal by-products shall not be applied subject to the cumulative constituent loading rates in Table 1 of Section 200.100.B.1 to land if any of the rates in Table 1 of Section 200.100.B.1 have been reached.

e. Animal manure and other animal by-products or animal lagoon sludge shall not be applied to land during a 365-day period after the annual application rate in Table 3 of Section 200.100.B.1 has been reached.

f. If animal manure and the animal by-products subject to the cumulative constituent loading rates in Table 1 of Section 200.100.B.1 have not been applied to the site, then cumulative rates apply.

g. If animal manure and other animal by-products subject to the cumulative constituent loading rates in Table 1 of Section 200.100.B.1 have been applied to the site and the cumulative amount of each constituent applied to the site in the animal manure and other animal by-products is known, the cumulative amount of each constituent applied to the site shall be used to determine the additional amount of each constituent that can be applied to the site in accordance with Section 200.100.B.1.a.i (cumulative loading rate shall not exceed the cumulative constituent loading rate).

h. Manure application shall not exceed the agronomic rate of application for plant available nitrogen (PAN) for the intended crop(s) on an annual basis. For those years that fertilizer is land applied, manures in combination with the fertilizer shall not exceed the agronomic rate of nutrient utilization of the intended crop(s).

2. Any producer who confines animals shall ensure that the applicable requirements in this part are met when the animal manure and other animal by-products are applied to the land.

3. Animal manure and other animal by-products shall not be applied to land that is saturated from recent precipitation, flooded, frozen, or snow-covered. Animal manure and other animal by-products shall not be applied during inclement weather or when a significant rain event is forecasted to occur within forty-eight (48) hours, unless approved by the Department in an emergency situation.

4. Animal manure and other animal by-products shall not be placed directly in groundwater.

5. All land application equipment, when used once or more per year, shall be calibrated at least annually by the person land applying. A permit may require more frequent calibrations to ensure proper application rates. The two (2) most recent calibration records should be retained by the producer and made

available for Department review upon request. If the land application equipment has not been used in over a year, the equipment shall be calibrated prior to use.

6. Animal manure and other animal by-products shall not be applied to the land except in accordance with the requirements in this part.

7. A producer who supplies animal manure and other animal by-products to another person for land application shall provide the person who will land apply the manure and other animal by-products with the concentration of plant available nitrogen, phosphorus, potassium, and the concentration of all other constituents listed in the permit. The producer shall also supply the person who will land apply the manure with a copy of the crop management plan included in their Animal Facility Management Plan.

8. Animal manure and other animal by-products shall not be applied to or discharged onto a land surface when the vertical separation between the ground surface and the seasonal high water table is less than 1.5 feet at the time of application unless approved by the Department. For special cases, no land application can occur when the vertical separation from the ground surface to the water table is less than 1.5 feet at the time of application unless a situation is deemed an emergency with Departmental concurrence.

9. Soil sampling (usually 6 to 8 inch depth) shall be conducted for each field prior to manure application to determine the appropriate application rate. Each field should be sampled at least once per year. If manure application frequency will be less than once per year, then at least one (1) soil sample shall be taken prior to returning to that field for land application. All new manure utilization areas shall be evaluated using the NRCS-CPS to determine the suitability for application and the limiting nutrient (nitrogen or phosphorus). However, fields that are high in phosphorus may also be required to incorporate additional runoff control or soil conservation features as directed by the Department. Additional soil sampling may be required by the Department on a case-by-case basis to ensure there is no potential for groundwater contamination.

10. Soil sampling to a depth of 18 inches may be required by the Department to be performed within forty-five (45) calendar days after each application of animal manure, but no more than two (2) times per year if the application frequency is more than twice per year. This sampling shall be performed for at least three (3) years after the initial application on at least one (1) representative manure utilization area for each crop grown to verify the estimated calculated manure application rates for the utilization areas. The date of manure application and the date of sampling shall be carefully recorded. The sampling shall be conducted at depths of 0 to 6 inches, 6 to 12 inches, and 12 to 18 inches with nitrates and phosphorus being analyzed.

11. The results of the pre-application and post-application sampling shall be used by the crop farmer to adjust as necessary, the amount of animal manure to be applied to a manure utilization area to meet the agronomic application rate for the crop(s) to be grown. These results shall be submitted to the Department at the time of application for permit renewal.

12. Additional soil sampling to greater depths may be required by the Department on a case-by-case basis to ensure there is no potential for groundwater contamination.

13. The permittee shall obtain the following information needed to comply with the requirements in this part:

a. Manure transfer contracts shall be developed for the producer to use with any person who is accepting manure in quantities greater than 12 tons per recipient per year. The contract should contain, at a minimum, the following information:

i. Name, address, county, and telephone number of the person who is purchasing or accepting animal manure and other animal by-products;

ii. Manure nutrient composition (pounds per ton of plant available nitrogen, phosphorus, and potassium to be filled in or provided by the producer. This information shall be obtained from three (3) manure analysis results and the producer shall provide this information on the manure transfer contract;

iii. Land application field information;

iv. Physical description (acreage, crop soil type);

v. Soil test results (phosphorus, zinc, and copper in pounds/acre); and

vi. Recommended application rates (nitrogen, phosphorus, and potassium in pounds/acre as reported on a soil test).

b. Attach a copy of a soils map, topographic map, county tax map, plat, FSA map, or a site plan sketch that includes the following information:

i. Manure application areas with setbacks outlined:

ii. Known water supply wells within 100 feet of property lines;

iii. Adjacent surface waters, including ditches, streams, creeks, and ponds; and

iv. Identification of roads and highways to indicate location.

c. Description of application equipment and name of person to land apply manure;

d. Signed agreement that informs the landowner that he or she is responsible and liable for land applying the animal manure and other animal by-products in accordance with this regulation; and

e. A copy of the land application requirements shall be provided to the recipient of the manure.

14. All persons who routinely accept manure from a producer, in quantities greater than 12 tons per recipient per year, shall be listed in the approved Animal Facility Management Plan. The Animal Facility Management Plan shall include the appropriate manure utilization area information for the sites routinely used by other persons. The producer shall inform the applier of their responsibility to properly manage the land application of manure to prevent discharge of pollutants to Waters of the State (including ephemeral and intermittent streams). A manure transfer contract must be signed. The person accepting the manure may be required by the Department to have an Animal Facility Management Plan and a permit for their manure utilization areas.

15. All persons who accept manure from a producer, in quantities less than 12 tons per recipient per year, are responsible for land applying the manure in accordance with this requirement and must have a signed agreement with the producer explaining their responsibility to comply with the regulation. The Department may require the person(s) land applying the manure to correct any problems that result from the application of manure.

16. Animal manure shall not be applied to cropland more than thirty (30) calendar days before planting or during dormant periods for perennial species, unless otherwise approved by the Department in an emergency situation.

17. If the Department receives complaints on a land application site, the Department may restrict land application of animal manure on this site completely or during certain time periods.

18. The Department may require manure to be disked in immediately.

19. Manure (solid or liquid) shall only be applied when weather and soil conditions are favorable and when prevailing winds are blowing away from nearby dwellings. Animal manure should not be applied to land when the soil is saturated, flooded, during rain events, or when a significant rain event is forecasted to occur within forty-eight (48) hours, unless otherwise approved by the Department in an emergency situation.

20. Manure shall not be spread in the floodplain if there is danger of a major runoff event, unless the manure is incorporated during application or immediately after application.

21. If the manure is stockpiled outside, the manure shall be stored on a concrete pad or other approved pad (such as plastic or clay lined) and covered with an acceptable cover to prevent odors, vector attraction, and runoff on a daily basis (unless otherwise specified in the permit). The cover should be properly vented with screen wire to let the gases escape. The edges of the cover should be properly anchored.

22. If a producer who contracts to transfer the animal manure and other animal by-products produced at their facility changes brokers/land appliers, he or she must submit notification and a new broker/land applier contract for approval to the Department.

23. The body of vehicles transporting manure shall be wholly enclosed and, while in transit, be kept covered with a canvas cover provided with eyelets and rope tie-downs, or any other approved method which shall prevent blowing or spillage of loose material or liquids. Should any spillage occur during the transportation of the manure, the owner/operator shall take immediate steps to clean up the manure.

C. Setbacks for manure utilization areas.

1. The minimum separation distance required between a manure utilization area and a residence is 300 feet. If there are no residences within 300 feet of the manure utilization area, manure may be applied up to the property line. The 300-foot setback is waived with the consent of the owner of the residence. If the application method is injection or immediate incorporation, manure may be applied up to the property line. The setbacks are imposed at the time of application. The Department may impose these setbacks on previously approved sites to address problems on a case-by-case basis.

2. The minimum separation distance required between a manure utilization area and Waters of the State (including ephemeral and intermittent streams) located down slope from the area is 100 feet when spray application is the application method or when the manure is spread on the ground surface, 75 feet when incorporation is the application method, and 50 feet when injection is the application method. When incorporation is accomplished within twenty-four (24) hours of the initial application, the distance can be reduced to 50 feet.

3. The minimum separation distance required between a manure utilization area and ditches and swales, located down slope from the area, that discharge to Waters of the State including ephemeral and intermittent streams is 50 feet.

4. The minimum separation distance required between a manure utilization area and a potable drinking water well is 200 feet.

5. The Department may establish, in permits, additional application buffer setbacks for property boundaries, roadways, residential developments, dwellings, water wells, drainage ways, and surface water (including ephemeral and intermittent streams) as deemed necessary to protect public health and the environment. Factors taken into consideration in the establishment of additional setbacks would be animal manure application method, adjacent land usage, public access, aerosols, runoff prevention, adjacent groundwater usage, aquifer vulnerability, and potential for vectors and odors.

6. Water (pond) that is completely surrounded by land owned by the applicant and has no connection to surface water is excluded from the setback requirements outlined in this part.

D. The Department may establish additional permitting restrictions based upon soil and groundwater conditions to ensure protection of the groundwater and surface Waters of the State (including ephemeral and intermittent streams). Criteria may include, but is not limited to, soil permeability, clay content, depth to bedrock, rock outcroppings, aquifer vulnerability, proximity to a State Approved Source Water Protection Area, and depth to the seasonal high groundwater table.

E. The Department may establish permit conditions to require that animal manure and other animal by-products application rates remain consistent with the lime and fertilizer requirements for the cover, feed, food, and fiber crops based on Southeastern land grant universities' published lime and fertilizer recommendations, such as the Lime and Fertilizer Recommendations, Clemson Extension Services.

F. The Department may establish minimum requirements in permits for soil and/or groundwater monitoring, for manure utilization areas. Factors taken into consideration in the establishment of soil and groundwater monitoring shall include groundwater depth, operation flexibility, application frequency, type of animal manure and other animal by-products, size of manure utilization area, aquifer vulnerability, proximity to a State Approved Source Water Protection Area, and loading rate.

1. The Department may establish pre-application and post-application site monitoring requirements in permits for limiting nutrients or limiting constituents as determined by the Department.

2. The Department may establish permit conditions, which require the permittee to reduce, modify, or eliminate the animal manure and other animal by-products applications based on the results of this monitoring data.

3. The Department may modify, revoke and reissue, or revoke a permit based on the monitoring data.

G. The Department may require manure to be treated for odor control (i.e., composting or lime stabilizing for dry operations) prior to land application if the manure is not incorporated into the soil at the time of land application or if odors exist or are suspected to exist at an undesirable level. Manure, which has a very undesirable level of odor before treatment, such as turkey manure, shall not normally be permitted to be land applied on land near residences without appropriate treatment for odor control.

200.110. Spray Application System Requirements.

A. Spray application of liquid animal manure using irrigation equipment. This includes all methods of surface spray application, including, but not limited to, fixed gun application, traveling or mobile gun application, or center pivot application.

B. Manure utilization area slopes shall not exceed ten percent (10%) unless approved by the Department. The Department may require that slopes be less than ten percent (10%) based on site conditions.

C. Animal manure distribution systems shall be designed so that the distribution pattern optimizes uniform application.

D. Hydraulic Application Rates.

1. Application rates shall normally be based on the agronomic rate for the crop to be grown at the manure utilization area. As determined by soil conditions, the hydraulic application rate may be reduced below the agronomic rate to ensure no surface ponding, runoff, or excessive nutrient migration to the groundwater occurs.

2. The hydraulic application rate may be limited based on constituent loading including any constituent required for monitoring under this regulation.

E. Animal manure and other animal by-products shall not be applied when the vertical separation between the ground surface and the seasonal high water table is less than 1.5 feet at the time of application, unless approved by the Department on a case-by-case basis. For special cases, no land application can occur when the vertical separation from the ground surface to the water table is less than 1.5 feet at the time of application unless a situation is deemed an emergency with Departmental concurrence.

F. Conservation measures, such as terracing, strip cropping, etc., may be required in specific areas determined by the Department as necessary to prevent potential surface runoff from entering or leaving the manure utilization areas. The Department may consider alternate methods of runoff controls that may be proposed by the applicant, such as berms.

G. For an animal facility, a system for monitoring the quality of groundwater may also be required for the proposed manure utilization areas. The location of all the monitoring wells shall be approved by the Department. The number of wells, constituents to be monitored, and the frequency of monitoring shall be determined on a case-by-case basis based upon the site conditions such as type of soils, depth of water table, aquifer vulnerability, proximity to State Approved Source Water Protection Area, etc.

H. If an adverse trend in groundwater quality is identified, further assessment and/or corrective action may be required. This may include an alteration to the permitted application rate or a cessation of manure application on the impacted area.

I. Spray application systems should be designed and operated in such a manner to prevent drift of liquid manure onto adjacent property.

200.120. Frequency of Monitoring for Animal Manure.

A. The producer and/or integrator shall be responsible for having representative samples, based on Clemson Extension Service recommendations, of the animal manure collected and analyzed at least once per year and/or when the feed composition significantly changes. The constituents to be monitored shall be given in the permit. The analyses should be used to determine the amount of animal manure to be land applied. In order to ensure that the permitted application rate (normally the agronomic rate) is met, the application amount shall be determined using a rolling average of the previous analyses. The Department shall establish minimum requirements for the proper method of sampling and analyzing of animal manure. Facilities with permits that do not specify which constituents to monitor shall monitor for

Ammonium-Nitrogen, Total Kjeldahl Nitrogen (TKN), Organic Nitrogen (Organic Nitrogen = TKN - Ammonium Nitrogen), P_2O_5, and K_2O.

B. The Department may require nitrogen, potassium, phosphorus, the constituents listed in Table 1 and Table 2 of Section 200.100, and any other constituent contained in a permit to be monitored prior to each application.

C. Permittees do not have to analyze for any constituent that they can demonstrate to the satisfaction of the Department is not present in their animal manure.

D. All monitoring shall be done in accordance with collection procedures in Standard Methods for Analysis of Water and Wastewater or other Department guidelines. Analysis shall be conducted by Clemson University Extension Service, or a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

200.130. Dead Animal Disposal Requirements.

A. Dead animal disposal shall be done as specified in the approved Animal Facility Management Plan. The Dead Animal Disposal Plan should include the following:

1. Primary Method for the handling and disposal of normal mortality at the facility.

2. Alternate Method for the handling and disposal of excessive mortality at the facility. The normal method of disposal may not be sufficient to handle an excessive mortality situation. Each producer shall have a Department-approved emergency or alternate method to dispose of excessive mortality. Excessive mortality burial sites shall be preapproved by the Department prior to utilization.

B. Burial.

1. Burial pits may be utilized for emergency conditions, as determined by the Department, when the primary method of disposal is not sufficient to handle excessive mortality.

2. Burial pits shall not be located in the 100-year floodplain.

3. Soil type shall be evaluated for leaching potential.

4. Burial pits shall not be located or utilized on sites that are in areas that may adversely impact surface or groundwater quality or further impact impaired water bodies.

5. The bottom of the burial pit may not be within 2 feet of the seasonal high groundwater table.

6. No burial site shall be allowed to flood with surface water.

7. Animals placed in a burial site shall be covered daily with sufficient cover (6 inches per day minimum) to prohibit exhumation by feral animals.

8. When full, the burial site should be properly capped (minimum 2 feet) and grassed to prohibit erosion.

9. Proposed burial pit sites shall be approved by the Department. The Department may conduct a geologic review of the proposed site prior to approval.

10. The Department may require any new or existing producer to utilize another method of dead animal disposal if burial is not managed according to the Dead Animal Disposal Plan or repeated violations of these burial requirements occur or adverse impact to surface or groundwater is determined to exist.

11. The Department may require groundwater monitoring for dead animal burial pits on a case-by-case basis. The Department shall consider all of the facts including, but not limited to, the following: depth to the seasonal high water table; aquifer vulnerability; proximity to a State Approved Source Water Protection Area; groundwater use in the area; distance to adjacent surface waters; number of dead animals buried; and frequency of burial in the area.

C. Incinerators.

1. For animal facilities proposing an incinerator for dead animal disposal, either a permit for the air emissions shall be obtained from the Department's Bureau of Air Quality before the incinerator can be built or the following criteria shall be met in order to qualify for an exemption from an air permit:

a. The emission of particulate matter shall be less than 1 pound per hour at the maximum rated capacity;

b. The incinerator shall be a package incinerator that meets the requirements from the Department's Bureau of Air Quality; and

c. The incinerator shall not exceed an opacity limit of ten percent (10%).

2. Incinerators used for dead animal disposal shall be properly operated and maintained. Operation shall be as specified in the owner's manual provided with the incinerator. The owner's manual shall be kept on site and made available to Department personnel upon request.

3. The use of the incinerator to dispose of waste oil, hazardous, or any other waste chemical is prohibited. The use of the incinerator shall be limited to dead animal disposal only unless otherwise approved by the Department's Bureau of Air Quality.

D. Composters. Composters used for dead animal disposal shall be designed by a professional engineer or an NRCS representative and operated in accordance with the approved Animal Facility Management Plan. Packaged composters shall be approved on a case-by-case basis.

E. Disposal of dead animals in a municipal solid waste landfill shall be in accordance with R.61-107.19.

F. Disposal of animal carcasses or body parts into manure lagoons, treatment systems, storage ponds, Waters of the State, ephemeral and intermittent streams, ditches, and swales is prohibited.

G. Disposal of animal carcasses or body parts by rendering shall be approved by the Department and include a signed contract with the rendering company.

H. Other methods of dead animal disposal that are not addressed in this regulation may be proposed in the Dead Animal Disposal Plan.

200.140. Other Requirements.

A. There shall be no discharge of pollutants from the operation into surface Waters of the State (including ephemeral and intermittent streams). There shall be no discharge of pollutants into groundwater, which could cause groundwater quality not to comply with the groundwater standards established in R.61-68.

B. On a case-by-case basis, the Department may impose additional or more stringent requirements for the management, handling, treatment, storage, or utilization of animal manure and other animal by-products.

C. The following cases shall be evaluated for additional or more stringent requirements:

1. Source water protection. Facilities and manure utilization areas located within a state-approved source water protection area.

2. 303(d) Impaired Water Bodies List. Facilities and manure utilization areas located upstream of an impaired waterbody.

3. Proximity to Outstanding Resource Waters, trout waters, shellfish waters, or potential to adversely affect a federally listed endangered or threatened species, its habitat, or a proposed or designated critical habitat.

4. Aquifer Vulnerability Area, an area where groundwater recharge may affect an aquifer.

D. If an adverse impact to the Waters of the State, including ephemeral and intermittent streams or groundwater, from animal manure and other animal by-products handling, storage, treatment, or utilization practices are documented, through monitoring levels exceeding the standards set forth in R.61-68, or a significant adverse trend occurs, the Department may require the producer responsible for the animal manure and other animal by-products to conduct an investigation to determine the extent of impact. The Department may require the producer to remediate the water to within acceptable levels as set forth in R.61-68.

E. No manure may be released from the premises of an animal facility to Waters of the State, including ephemeral and intermittent streams.

F. Animal medical waste cannot be disposed into animal lagoons, treatment systems, or manure storage ponds, or land applied with animal manure and other animal by-products.

G. In the event of a discharge from an animal facility or an animal lagoon, treatment system, or manure storage pond, the permittee is required to notify the Department immediately, within twenty-four (24) hours of the discharge.

H. When the Department determines that a nuisance exists at an animal facility, the permittee shall take action to correct the nuisance to the degree and within the time frame designated by the Department.

I. Permittees shall maintain all-weather access roads to their facilities at all times.

200.150. Odor Control Requirements.

A. The Animal Facility Management Plan shall contain an odor abatement plan for the animal facility, lagoon, treatment system, manure storage pond, and manure utilization areas, which shall consist of the following:

1. Operation and maintenance practices which are used to eliminate or minimize undesirable odor levels in the form of a Best Management Plan for Odor Control;

2. Use of treatment processes for the reduction of undesirable odor levels;

3. Other methods as may be appropriate; or

4. Any combination of these methods.

B. Producers shall utilize Best Management Practices normally associated with the proper operation and maintenance of an animal facility, lagoon, treatment system, manure storage pond, and any manure utilization area to ensure an undesirable level of odor does not exist.

C. No producer may cause, allow, or permit emission into the ambient air of any substance or combination of substances in quantities that an undesirable level of odor is determined to result unless preventive measures of the type set out below are taken to abate or control the emission to the satisfaction of the Department. When an odor problem comes to the attention of the Department through field surveillance or specific complaints, the Department shall determine if the odor is at an undesirable level.

D. If the Department determines an undesirable level of odor exists, the Department may require these abatement or control practices, including, but not limited to, the following:

1. Remove or dispose of odorous materials;

2. Methods in handling and storage of odorous materials that minimize emissions;

a. Dry manure to a moisture content of fifty percent (50%) or less;

b. Solids separation from liquid manure, and composting of solids;

c. Disinfection to kill microorganisms present in manure;

d. Aeration manure;

e. Composting of solid manure and other animal by-products; and/or

f. Odor control additives.

3. Prescribed standards in the maintenance of premises to reduce odorous emissions;

a. Filtration (biofilters or other filter used to remove dust and odor) of ventilation air;

b. Keep animals clean and separate from manure;

c. Adjust number of animals confined in the pens or paddocks in accordance with Clemson University Animal Space Guidelines.

d. Frequent manure removal from animal houses;

e. Feeding areas should be kept dry, and minimize waste feed accumulation;

f. Maintaining feedlot surfaces in a dry condition (twenty-five to forty percent (25 to 40%) moisture content), with effective dust control;

g. Proper maintenance of the dead animal disposal system;

h. Covering or reducing the surface area of manure and other animal by-products storage. (Vents shall be provided for the release of pressure created by manure gases if completely sealed covers are used);

i. Planting trees around or downwind of the manure and other animal by-products storage and treatment facilities (Trees shall not be planted within 25 feet of the toe of the dike.);

j. Incorporation of manure and other animal by-products immediately after land application; and/or

k. Selection of appropriate times for land application.

4. Best Available Technology to reduce odorous emissions.

E. Nothing in this section prohibits an individual or group of persons from bringing a complaint against a facility including problems at lagoons, treatment systems, manure storage ponds, and manure utilization areas.

F. If the permittee fails to control or abate the odor problems at an animal facility, lagoon, treatment system, manure storage pond, and any manure utilization area to the satisfaction and within a time frame determined by the Department, the permit may be revoked. If the permittee fails to control or abate the odor problems at land application sites, approval for land application of manure on the manure utilization area in question may be revoked. Additional land may be required to be added to the Animal Facility Management Plan, if necessary, to provide a sufficient amount of land for manure utilization.

200.160. Vector Control Requirements.

A. The Vector Abatement Plan shall, at a minimum, consist of the following:

1. Best management practices used at the animal facility, lagoon, treatment system, manure storage pond, and manure utilization areas to ensure there is no accumulation of organic or inorganic materials to the extent and in such a manner as to create a harborage for rodents or other vectors that may be dangerous to public health.

2. A list of specific actions to be taken by the producer if vectors are identified as a problem at the animal facility, lagoon, treatment system, manure storage pond, or any manure utilization area. These actions should be listed for each vector problem, e.g., actions to be taken for fly problems, actions to be taken for rodent problems, etc.

B. No producer and or land applier may cause, allow, or permit vectors to breed or accumulate in quantities that result in a nuisance level, as determined by the Department.

C. For an existing facility, if the Department determines a vector problem exists, the Department may require these abatement of control practices, including, but not limited to, the following:

1. Remove and properly dispose of vector infested materials;

2. Methods in handling and storage of materials that minimize vector attraction;

a. Remove spilled or spoiled feed from the house as soon as practicably possible not to exceed forty-eight (48) hours, unless otherwise approved by the Department;

b. Remove and properly dispose of dead animals as soon as practicably possible not to exceed twenty-four (24) hours, unless otherwise approved by the Department;

c. Increase the frequency of manure removal from animal houses;

d. Prevent solids buildup in the pit storage or on the floors or walkways;

e. Remove excess manure packs along walls and curtains;

f. Compost solid manure and other animal by-products;

g. Appropriately use vector control chemicals, poisons, or insecticides (take caution to prevent insecticide resistance problems);

h. Utilize traps, or electrically charged devices;

i. Utilize biological agents;

j. Utilize Integrated Pest Management;

k. Incorporate manure and other animal by-products immediately (within twenty-four (24) hours) after land application; and/or

l. Contact Clemson Extension Service for appropriate measures to control a vector problem.

3. Prescribed standards in the maintenance of premises to reduce vector attraction;

a. Remove standing water that may be a breeding area for vectors;

b. Keep animals clean or separated from manure;

c. Keep facility clean and free from trash or debris;

d. Properly utilize and service bait stations;

e. Keep feeding areas dry, and minimize waste feed accumulation;

f. Keep grass and weeds mowed around the facility and manure storage or treatment areas;

g. Properly maintain the dead animal disposal system;

h. Cover or reduce the surface area of manure and other animal by-products storage. (Vents shall be provided for release of pressure created by manure gases if completely sealed covers are used);

i. Properly store feed and feed supplements;

j. Conduct a weekly vector monitoring program;

k. Be aware of insecticide resistance problems, and rotate use of different insecticides;

l. Prevent and repair leaks in waterers, water troughs, or cups; and/or

m. Ensure proper grading and drainage around the buildings to prevent rain water from entering the buildings or ponding around the buildings.

4. Utilize the best available control technology to reduce vector attraction and breeding.

200.170. Record Keeping.

A. A copy of the approved Animal Facility Management Plan, including approved updates, and a copy of the permit(s) issued to the producer shall be retained by the permittee for as long as the animal facility is in operation.

B. All application information submitted to the Department shall be retained by the permittee for eight (8) years. However, if the facility was permitted prior to June 26, 1998, and the permittee has previously discarded these documents since there was no requirement to maintain records at that time, this requirement shall not apply.

C. Records shall be developed for each manure utilization area. These records shall be kept for eight (8) years. The records shall include the following:

1. For each time animal manure and other animal by-products are applied to the site, the amount of animal manure and other animal by-products applied (in gallons per acre or pounds per acre, as appropriate), the date and time of application, and the location of application;

2. All sampling results for animal manure that is land applied;

3. All soil monitoring results;

4. All groundwater monitoring results, if applicable; and

5. Crops grown.

D. Records for the facility to include the following on a monthly basis:

1. Animal count and the normal production animal live weight; and

2. Mortality count and method of disposal.

E. Records for lagoon, treatment system, or manure storage pond operations to include the following:

1. Monthly water levels of the lagoon, treatment system, and manure storage pond; and

2. Groundwater monitoring results, if applicable.

F. All records retained by the producer shall be kept at either the facility, an appropriate business office, or other location as approved by the Department.

G. All records retained by the producer shall be made available to the Department during normal business hours for review and copying, upon request by the Department.

200.180. Reporting.

A. Large and X-large animal facilities are required to submit an annual report, on a form approved by the Department. The Department may establish reporting requirements in permits as it deems appropriate. These reporting requirements may include the following:

1. All manure sampling results for the last year and the latest rolling average concentration for the land limiting constituent;

2. All soil monitoring results, if applicable;

3. All groundwater monitoring results, if applicable;

4. Calculated application rates for all manure utilization areas; and

5. The adjusted application rates, if applicable, based on the most recent animal manure sampling, soil samples, and crop yield(s). The application rate change could also be due to a change in field use, crop grown, or other factors.

B. The Department may require small animal facilities to submit annual reports on a case-by-case basis.

C. The Department may establish permit conditions to require a facility to complete and submit a comprehensive report every five (5) years. The Department shall review this report to confirm that the permitted nutrient application rates have not been exceeded. Based on the results of the review, additional soil and/or groundwater monitoring requirements, permit modification, and/or corrective action may be required.

200.190. Training Requirements.

A. An owner/operator of an animal facility or manure utilization area shall attend a training program on the operation of animal manure management under the program created and operated by Clemson University.

B. Owners/Operators of new and existing animal facilities shall be required to obtain certification under the program created and operated by Clemson University.

C. The certification program shall be completed by operators of new facilities within one (1) year of the effective date of the issued permit.

D. The certification program shall be completed by owners/operators of existing facilities within one (1) year of the effective date of this regulation.

E. Certification shall be maintained as long as the facility remains in operation. All facilities must have a CAMM certified operator at all times.

F. Failure to obtain the certification as provided in this Section shall be deemed a violation of this regulation and the permit may be revoked.

G. An owner/operator of a cattle stockyard shall be exempt from attending the training program on the operation of animal manure management under the program created and operated by Clemson University (CAMM).

200.200. Violations.

A. Persons who violate this regulation or any permit issued under this regulation are subject to the penalties in Sections 48-1-320 (Criminal Penalties) and 48-1-330 (Civil Penalties) of the South Carolina Pollution Control Act.

B. Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required by the Department to be maintained as a condition in a permit, or who alters or falsifies the results obtained by such devices or methods, shall be deemed to have violated a permit condition and shall be subject to the penalties provided for pursuant to Sections 48-1-320 and 48-1-330 of the S.C. Code of Regulations.

PART 300
INNOVATIVE AND ALTERNATIVE TECHNOLOGIES

300.10. General.

A. The Department supports and encourages the use of appropriate innovative and alternative technologies.

B. When innovative or alternative technology is proposed for an agricultural facility for manure and other animal by-products handling, treatment, storage, processing, or utilization, a meeting should be held with the Department prior to the submittal of the project. The purpose of the meeting is for the applicant and the Department to go over the proposed project and the purpose and expected benefits from the use of the innovative or alternative technology.

300.20. Submittal Requirements.

A. When innovative or alternative technology is proposed for an agricultural facility for manure and other animal by-products handling, storage, treatment, processing, or utilization, the applicant shall provide to the Department the submittal information contained in Sections 100.50 or 200.50, as appropriate, and a detailed project report which explains the innovative or alternative technology and the purpose and expected benefits of the proposal.

300.30. Requirements in Lieu of Requirements Under Part 100 or Part 200 of This Regulation.

A. When the Department determines that appropriate alternative or innovative technology is being proposed, the specific requirements given in Part 100 and 200 of this regulation, which deal with the purpose or expected benefits of the technology, may not have to be met except when required by a specific

statute or the Department after review of the project. Requirements in Part 100 that apply to X-large swine facilities shall not be reduced or waived.

B. The Department shall review the project and determine the purpose or benefits of the proposed innovative or alternative technology and determine which requirements under Part 100 or 200 do not have to be met and the appropriate requirements to be used in lieu of the requirements in Part 100 or 200.

C. When an alternative or innovative technology is proposed, the review criteria shall be established on a case-by-case basis by the Department when the project is received.

D. When alternative or innovative technology is utilized at an animal facility, the setbacks given in Part 100 or 200 may be reduced by the Department as appropriate. Requirements in Part 100 that apply to large or X-large swine facilities shall not be reduced or waived.

300.40. Innovative and Alternative Treatment Technologies.

A. The following is a list of innovative or alternative technologies for agricultural facilities to consider. This list is not exhaustive. Other processes exist and new technologies are being developed.

1. Aerobic treatment systems or combination aerobic/anaerobic systems;

2. Artificial (constructed) wetlands use for treatment;

3. Use of steel tanks;

4. Use of solid separators;

5. Methane Gas Recovery Systems;

6. Composting manure solids;

7. Bioreactors;

8. Covered liquid or slurry manure storage;

9. Air Scrubbers;

10. Ozonation; and

11. Alternative Fuels.

B. At a minimum, the preparer of the agricultural Animal Facility Management Plan should consider the technologies given in 300.40.A for use at a proposed agricultural facility when the Animal Facility Management Plan is being developed.

C. When odors exist or are reasonably expected to exist at an undesirable level, the Department may require the use of appropriate innovative or alternative treatment technology to eliminate the odors or the potential for odors.

D. When the Department determines under Section 100.70.G. (Permit Decision Making Process) that there is reasonable potential for cumulative or secondary impacts due to methane gas from facilities, the

Department may require the use of methane gas recovery systems or other appropriate technology to eliminate the potential impacts.

300.50. Exceptional Quality Compost.

A. When the Department determines that the composting of solid animal manure and other animal by-products is performed in such a manner that the odor and vector attraction potential is reduced and the controlled microbial degradation of the organic manure and other animal by-products has been accomplished, this material may be considered Exceptional Quality Compost. Exceptional Quality Compost may be sold or distributed without regulation by the Department, if it meets the requirements of this part and the standards established by Penn State University. The Department shall review and approve the composter design and proposal for operation and distribution of the composted product. Composting systems shall be designed by a professional engineer or an engineer with the Natural Resources Conservation Service.

B. Composting can be subject to nuisance problems such as odors, dusts, and vector attraction. Therefore, the composting facility shall incorporate measures to control such conditions. An Odor and Vector Abatement Plan shall be developed for a composting facility.

C. Compost Product Quality Standards.

1. Product Standards are necessary to protect public and environmental health and to ensure a measure of commercial acceptability.

a. Based on EPA standards for pathogen reduction, the time/temperature conditions required are equivalent to an average of 128 degrees Fahrenheit (°F) (53 degrees Celsius (°C)) for five (5) consecutive days, 131°F (55°C) for 2.6 consecutive days, or 158°F (70°C) for thirty (30) minutes.

b. The composted product shall meet or exceed the minimum standard of mature or very mature compost as set forth in the USDA Test Methods for the Examination of Composting and Compost (TMECC) Section 05.02-G CQCC Maturity Index. A maturity rating shall be given based upon the Maturity Assessment Matrix given in this method.

c. When land applied, the compost shall adhere to requirements for constituent concentrations and loading rates as outlined in Part 100.100, Part 200.100, or Part 400.60.

2. Compost products which meet these standards and also comply with pathogen quality and vector attraction standards are considered to be of Exceptional Quality and can be used without regulatory oversight, other than the compliance of agronomic application rates based on product analysis.

3. If the Department determines that the composting system is not being operated properly or that the composted product is not of an Exceptional Quality, the composted product shall be handled in accordance with the land application requirements of Part 100, 200, or 400 (as applicable) of this regulation.

4. An operable thermometer capable of measuring temperatures within a compost pile shall be kept at the composting facility for monitoring the temperature of each compost pile or batch. A written log of the daily temperature reading should be kept for each batch of compost. Temperatures shall not be allowed to rise above 180°F (82°C), which may cause combustion in the compost pile and start a fire.

5. The composted product shall be analyzed by Clemson University or another Department approved laboratory. The composted product content information along with recommended application rates shall be

distributed with the product. The consumer shall be advised that the composted product shall be applied at an agronomic rate.

300.60. Public Notice Requirements.

When the Department permits an alternative or innovative technology, the notice on the issuance of the permit required under Sections 100.60.H. or 200.60.H. shall contain a general description of the innovative or alternative process and a summary of the expected benefits.

PART 400
MANURE BROKER/LAND APPLIER OPERATIONS

400.10. Purpose and Applicability.

A. Purpose.

1. To protect the environment and the health and welfare of citizens of the State from pollutants generated by the processing, treatment, and land application of dry animal manure and other animal by-products.

2. To establish standards, which consist of general requirements, constituent limits, management practices, and operational standards, for the use of dry animal manure and other animal by-products generated at animal facilities. Standards are included in this part for dry animal manure and other animal by-products applied to the land.

3. To establish standards for the frequency of monitoring and record keeping requirements for brokers/land appliers who operate dry animal manure and other animal by-products handling businesses.

4. To establish standards for the proper operation and maintenance of dry animal manure and other animal by-products treatment and storage facilities associated with manure brokering/land applying operations.

5. To establish criteria for dry animal manure and other animal by-products storage facilities' and manure utilization areas' locations as they relate to protection of the environment and public health. The location of dry animal manure and other animal by-products storage facilities and manure utilization areas as they relate to zoning in an area is not covered in this regulation. Local county or municipal governments may have zoning requirements and this regulation neither interferes with nor restricts such zoning requirements. Permit applicants should contact local municipal and county authorities to determine any local requirements that may be applicable.

B. Applicability.

1. This part applies to:

a. All new and renewing dry manure brokering/land applying operations;

b. All dry animal manure and other animal by-products treatment or storage facilities operated by brokers/land appliers; and

c. Permanent manure utilization areas added to a manure broker/land applier management plan.

2. This part applies to all dry animal manure and other animal by-products taken, bought, given, handled, or sold by a manure broker.

3. This part applies to all land where dry animal manure and other animal by-products bought, given, taken, handled, or sold by a manure broker/land applier is applied.

4. This part applies to out-of-state and in-state based manure brokers/land appliers who accept manure and other animal by-products from agricultural animal facilities located in the State.

5. This part applies to all manure brokers/land appliers who bring animal manure and other animal by-products from other states into South Carolina.

6. Part 200.80.C. (Dry Animal manure and other animal by-products Treatment and Storage Facility Siting Requirements) of this regulation applies to dry animal manure and other animal by-products treatment or storage facilities proposed by brokers/land appliers.

7. If a manure broker/land applier proposes to handle, process, treat, or store liquid animal manure as a part of the operation, the requirements of this part shall be met, at a minimum. However, the Department may require that the applicant meet additional requirements applicable to liquid manure that are included in Part 100 and Part 200.

400.20. Permits and Compliance Period.

A. Permit Requirement. Animal manure and other animal by-products from an animal facility with dry manure handling can only be handled, stored, treated, processed, or land applied in the State in accordance with a permit issued by the Department. The handling, storage, treatment, and final utilization of animal manure and other animal by-products from a manure broker/land applier operation shall be permitted under the provisions of this part before the broker/land applier can operate in the State.

B. Notification Requirements. The permittee shall notify the Department in writing and receive written Departmental approval, prior to any change in operational procedures in a permitted broker/land applier operation, including, but not limited to, the following:

1. Change in operations or in manure and other animal by-products treatment, storage, handling, or utilization;

2. Change in contracts routinely used in manure and other animal by-products transfers; or

3. Termination of operations.

400.30. Relationship to Other Regulations.

The following regulations are referenced throughout this part and may apply to facilities covered under this regulation.

A. Application and annual operating fees are addressed in R.61-30, Environmental Protection Fees.

B. The proper closeouts of wastewater treatment facilities are addressed in R.61-82, Proper Closeout of Wastewater Treatment Facilities. This regulation includes animal manure treatment lagoons and manure storage ponds.

C. Setbacks and construction specifications for potable water wells and monitoring wells shall be in accordance with R.61-71, Well Standards.

D. Permits for air emissions from incinerators are contained in R.61-62, Air Pollution Control Regulations and Standards.

E. Disposal of animal manure in a municipal solid waste landfill unit is addressed in R.61-107.19, Solid Waste Management: Solid Waste Landfills and Structural Fill.

F. Disposal of animal manure with domestic or industrial sludge is addressed in R.61-9, Water Pollution Control Permits, and permitted under R.61-9.

G. Laboratory certification is addressed in R.61-81, State Environmental Laboratory Certification Program.

H. Water Classifications and Standards are addressed in R.61-68.

400.40. Permit Application Procedures (Broker/Land Applier Management Plan Submission Requirements).

A. A person who proposes to operate as a broker/land applier shall submit an application for a permit under this part. The following information shall be included in the application package.

1. A completed application form provided by the Department.

2. A Broker/Land Applier Management Plan prepared by qualified Natural Resources Conservation Service personnel, an S.C. registered professional engineer, or other qualified individuals, such as certified soil scientists or S.C. registered professional geologists. The Broker/Land Applier Comprehensive Nutrient Management Plan shall, at a minimum, contain:

a. Brokering/land applying operation name, address, email, telephone number, county, and permit number (if applicable) and CAMM number (or if applicable, date of CAMM class);

b. Applicant's name, address, email, and telephone number (if different from above);

c. Broker's/land applier's name;

d. Dry Animal manure and other animal by-products Storage or Treatment Facility Information (if applicable):

i. Description of animal manure and other animal by-products storage and storage capacity;

ii. Description of animal manure and other animal by-products treatment (if any);

iii. Facility location description and the zoning or land use restrictions in this area (this information should be obtained from the county). The minimum separation distance required between a dry animal manure and other animal by-products treatment or storage facility operated by a manure broker/land applier and the lot line of real property owned by another person is 200 feet and 1,000 feet to the nearest residence. However, the Department shall evaluate each proposed site to consider increasing distances, when the amount of manure stored, treated, or processed at this facility is significant.

e. Animal manure and other animal by-products handling and application information shall be included as follows:

i. A crop management plan which includes the optimum time of year of the animal manure and other animal by-products application and how it relates to crop type, crop planting, and harvesting schedule (if applicable) for manure utilization areas in the State. This information should be used as a guide in the absence of more accurate information. The Plan Preparer may need to include this information for the different regional areas of the State, as necessary, to provide the broker/land applier with crop information for the entire State;

ii. Type of equipment used to transport and/or spread the animal manure and other animal by-products;

iii. Description of services provided by the broker/land applier (clean-out houses, transport manure and other animal by-products, drop-off only, land application, incorporation of manure and other animal by-products into field, stacking or storing manure and other animal by-products, manure and other animal by-products treatment, etc.);

iv. Example of the contract or letter of intent to buy or accept animal manure and other animal by-products between the broker/land applier and the producer who is supplying the animal manure and other animal by-products; and

v. Example of the manure transfer contract to be used for the transfer of animal manure and other animal by-products between the broker and the person(s) who is accepting or purchasing the animal manure and other animal by-products. The Department has developed a Manure transfer contract that can be used or the broker may develop his own contract as long as it contains the minimum information outlined in part 400.60.B.12.

3. The Broker/Land Applier Management Plan shall contain an odor abatement plan for the dry animal manure and other animal by-products storage or treatment facility or manure utilization areas, as appropriate.

4. A Vector Abatement Plan shall be developed for the dry animal manure and other animal by-products storage or treatment facility or land application areas (if applicable).

5. A soil monitoring plan shall be developed for all broker/land applier operations.

6. Plans and specifications for the construction and operation of all manure and other animal by-products treatment or storage structures, such as composters or manure storage sheds that are to be owned and operated by the brokering/land applying operation.

7. Adjoining property owners written agreement for reduction of setbacks for any manure storage and/or treatment facilities (if applicable).

8. Application fee and first year’s operating fee as established by R.61-30.

B. The Department may request an applicant to provide any additional information deemed necessary to complete or correct deficiencies in the broker/land applier operation permit application prior to processing the application or issuing, modifying, or denying a permit.

C. Applicants shall submit all required information in a format acceptable to the Department.

D. Incomplete submittal packages shall be returned to the applicant by the Department. An application package for a permit is complete when the Department receives all of the required information.

E. Application packages for permit modifications only need to contain the information applicable to the requested modification.

400.50. Permit Decision Making Process.

A. No permit shall be issued before the Department receives a complete application for a permit.

B. After the Department has received a complete application package, a technical review shall be conducted by the Department. The Department may request any additional information or clarification from the applicant or the preparer of the Broker/Land Applier Management Plan to help with the determination on whether a permit should be issued or denied. If a permit application package meets all applicable requirements of this part, a permit may be issued.

C. A site inspection of any proposed sites for dry animal manure and other animal by-products storage or treatment facilities shall be made by the Department before a permit decision is made.

D. For permit issuances, the Department shall publish a notice of issuance of a permit to operate a dry animal manure brokering operation on the Department's website.

E. For permit denials, the Department shall give the permit applicant a written explanation, which outlines the specific reason(s) for the permit denial.

F. When a permit is issued, it shall contain an issue date and an effective date. The effective date shall be at least fifteen (15) calendar days after the issue date to allow for any appeals. If a timely appeal is not received, the permit is effective.

G. Permits issued under this part for broker/land applier operations shall be renewed every five (5) years. However, subsequent to the issuance of a permit, if the broker/land applier operation is not in operation or production for two (2) consecutive years, the permit is no longer valid and a new permit shall be obtained. If the Broker/Land Applier does not apply for permit renewal or does not fulfill the requirements of the permit renewal, the permit is terminated. Should the broker/land applier allow his or her permit to expire and apply for a new permit within the two (2) years, the broker/land applier will be required to update the management plan before the permit is re-issued.

H. An expired broker/land applier operation permit which was issued under this part continues in effect until a new permit is effective only if the permittee submits a complete application, to the satisfaction of the Department, at least one hundred twenty (120) calendar days before the existing permit expires. The Department may grant permission to submit an application later than the deadline for submission stated above, but no later than the permit expiration date. If the facility has been closed for any two (2) consecutive years since the last permit was issued, the provision for the expiring permit remaining in effect does not apply since the permit is no longer valid. Permittees shall notify the Department in writing when they go out of business.

I. At the time of the broker/land applier's renewal application, the Department shall review the yearly Animal Waste Balance Reporting Form, for every year of the current permit. The Department may request additional documentation based on the review of the Animal Waste Balance Reporting Form. The

broker/land applier is required to add routine application sites to an updated management plan at the time of renewal. These manure utilization areas that are added to the broker management plan shall meet all the requirements for manure utilization areas included in Part 200 of this regulation.

J. The brokering/land applying operation can only be built (if a manure storage or treatment facility was included) or operated when the permit is effective. The dry animal manure and other animal by-products treatment or storage facility cannot be placed into operation until the Department grants an ATO.

K. For manure brokers/land appliers who do not have any constructed facilities associated with their operations, the Department shall issue a permit with an effective date. Once this permit is effective the broker/land applier may begin operations. No additional written approval from the Department shall be required.

L. For manure brokers/land appliers who are permitted to construct a storage or treatment facility associated with the brokering/land applying operation, approval to begin operations shall be obtained prior to operation. To receive approval to begin operations, the broker/land applier shall have the preparer of the Broker/Land Applier Management Plan submit to the Department written certification that the construction of the dry animal manure and other animal by-products treatment or storage facility has been completed in accordance with the approved Broker/Land Applier Management Plan and the requirements of this regulation.

M. The Department shall conduct a final inspection of any dry animal manure and other animal by-products treatment or storage facilities before granting approval to a broker/land applier to begin operations (if applicable).

N. The Department shall grant written approval for the broker/land applier to begin operations of the dry animal manure and other animal by-products treatment or storage facility after it has received the certification statement in 400.50.M and the results of the final inspection, if conducted, are satisfactory.

400.60. Manure Utilization Area Requirements.

A. Application Rates. The Department shall approve a Broker/Land Applier Management Plan that establishes application rates based upon the limiting constituent (a nutrient or other constituent as given in item 400.60.B). The limiting constituent shall be nitrogen, unless the soil test results exceed the limits for phosphorus. More information on maximum allowable constituent concentrations are outlined in item 400.60.B and item 400.60.C.

B. Constituent Limits for Land Application of Dry Animal manure and other animal by-products and Operational Practices for Land Application.

1. Dry animal manure and other animal by-products. When the animal manure analysis indicates there are high levels of arsenic, copper, zinc, or other constituent of concern, the producer shall comply with the following criteria:

a. Constituent Limits. If animal manure and other animal by-products subject to a constituent limit is applied to land, either:

i. The cumulative loading rate for each constituent shall not exceed the loading rate in Table 1 of Section 400.60; or

ii. The concentration of each constituent in the animal manure and other animal by-products shall not exceed the concentration in Table 2 of Section 400.60.

b. Constituent concentrations and loading rates - animal manure and other animal by-products.

i. Cumulative constituent loading rates.

TABLE 1 OF SECTION 400.60 - CUMULATIVE CONSTITUENT LOADING RATES			
Cumulative Constituent Loading Rate			
Constituent	(kilograms per hectare)	(pounds per acre)	
Arsenic	41	37	
Copper	1500	1339	
Zinc	2800	2499	

ii. Constituent concentrations.

TABLE 2 OF SECTION 400.60 - CONSTITUENT CONCENTRATIONS	
Monthly Average Concentrations	
Constituent	Dry weight basis (milligrams per kilogram)
Arsenic	41
Copper	1500
Zinc	2800

iii. Annual constituent loading rates.

TABLE 3 OF SECTION 400.60 - ANNUAL CONSTITUENT LOADING RATES			
Annual Constituent Loading Rate			
	(kilograms per hectare	(pounds per acre per	
Constituent	per 365-day period)	365-day period)	
Arsenic	2.0	1.8	
Copper	75	67	
Zinc	140	125	

c. Additional constituent limits may be required, from the application information or subsequent monitoring in a permit thereafter, but such needs shall be assessed on an individual project basis.

d. No person shall apply animal manure and other animal by-products to land if any of the loading rates in Table 1 of Section 400.60.B.1 have been reached.

e. No person shall apply animal manure and other animal by-products to land during a 365-day period after the annual application rate in Table 3 of Section 400.60.B.1 has been reached.

f. If animal manure and other animal by-products have not been applied to the site, the cumulative amount for each constituent listed in Table 2 of Section 400.60.B.1 may be applied to the site in accordance with Section 400.60.B.1.a.i (cumulative loading rate shall not exceed the cumulative constituent loading rate).

g. If animal manure and other animal by-products have been applied to the site and the cumulative amount of each constituent applied to the site in the animal manure and other animal by-products is known,

the cumulative amount of each constituent applied to the site shall be used to determine the additional amount of each constituent that can be applied to the site in accordance with Section 400.60.B.1.a.i (cumulative loading rate shall not exceed the cumulative constituent loading rate).

h. Manure application shall not exceed the agronomic rate of application for plant available nitrogen (PAN) for the intended crop(s) on an annual basis. For those years that fertilizer is land applied, manures in combination with the fertilizer shall not exceed the agronomic rate of nutrient utilization of the intended crop(s).

2. Any person who land applies animal manure and other animal by-products shall ensure that the applicable requirements in this part are met when the animal manure and other animal by-products are applied to the land.

3. If the Department receives complaints on a land application site, the Department may restrict land application of animal manure on this site completely or during certain time periods.

C. Requirements for the land application of animal manure and other animal by-products.

1. Manure (solid or liquid) shall only be applied when weather and soil conditions are favorable and when prevailing winds are blowing away from nearby dwellings. Animal manure and other animal by-products should not be applied to land when the soil is saturated, flooded, during rain events, or when a significant rain event is forecasted to occur within forty-eight (48) hours.

2. Animal manure and other animal by-products shall not be placed directly in groundwater.

3. Animal manure and other animal by-products shall not be applied to cropland more than thirty (30) calendar days before planting or during dormant periods for perennial species, unless otherwise approved by the Department in an emergency situation.

4. The land application equipment, when used once or more per year, shall be calibrated at least annually by the applicator. A permit may require more frequent calibrations to ensure proper application rates. The two (2) most recent calibration records should be retained by the broker/land applier and made available for Department review upon request. If the land application equipment has not been used in over a year, the equipment shall be calibrated prior to use.

5. If the broker chooses to offer manure analysis as a service, the manure shall be analyzed at least once per year. If the broker does not perform manure analysis, the animal producer shall provide the broker with a copy of the most recent manure analysis. Dry animal manure information (as appropriate) shall be included as follows:

a. Dry animal manure shall be analyzed for the following:

i. Nutrients (on a dry weight basis).

(a) Total Kjeldahl Nitrogen (mg/kg).

(b) Total inorganic nitrogen (mg/kg).

(c) Total ammonia nitrogen (mg/kg) and Total nitrate, nitrogen (mg/kg).

(d) P_2O_5 (mg/kg).

(e) K_2O (mg/kg).

(f) Calcium Carbonate equivalency (if animal manure is alkaline stabilized).

ii. Constituents (on a dry weight basis).

(a) Arsenic (mg/kg).

(b) Copper (mg/kg).

(c) Zinc (mg/kg).

b. Name, address, email, and telephone number of the laboratory conducting the analyses.

c. Analysis shall be conducted by Clemson University Extension Service or a laboratory certified by the Department. This laboratory shall have and maintain certification for the constituents to be analyzed.

6. Permittees do not have to analyze for any constituent that they can demonstrate, to the satisfaction of the Department, is not present in their manure.

7. No person(s) accepting or purchasing manure or other animal by-products from a manure broker shall apply animal manure and other animal by-products to the land except in accordance with the requirements in this part. The broker shall inform the recipient of their responsibility to properly manage the land application of manure to prevent discharge of pollutants to Waters of the State (including ephemeral and intermittent streams) and ditches that lead to Waters of the State.

8. An animal producer who supplies animal manure to a broker/land applier shall provide the broker/land applier with the concentration of plant available nitrogen, phosphorus, potassium, and the concentration of all other constituents listed in the permit. If the broker/land applier is providing an additional service of collecting the manure samples to be analyzed, which shall be agreed upon up-front in the manure transfer contract, the analysis shall identify the name of the farm where the manure originated.

9. Animal manure and other animal by-products shall not be applied to or discharged onto a land surface when the vertical separation between the manure and other animal by-products and the seasonal water table is less than 1.5 feet at the time of application. For special cases, no land application can occur when the vertical separation from the ground surface to the water table is less than 1.5 feet at the time of application unless a situation is deemed an emergency with departmental concurrence.

10. Soil sampling (6-8 inches depth) shall be conducted for each field prior to manure application to determine the appropriate application rate. Each field should be sampled once per year. If manure application frequency will be less than once per year, at least one (1) soil sample should be taken prior to returning to that field for land application. This sample shall not be more than one (1) year old. All new manure utilization areas shall be evaluated using the NRCS-CPS to determine the suitability for application and the limiting nutrient (nitrogen or phosphorus). This information shall be obtained from person(s) accepting dry animal manure and other animal by-products prior to the delivery or land application of animal manure and other animal by-products by the broker/land applier. Soil phosphorus shall be addressed according to NRCS-CPS in the broker management plan. However, fields that are high in phosphorus may also be required to incorporate additional runoff control or soil conservation features as directed by the Department. The Department may require additional limits on soil phosphorus in the permit conditions.

Additional soil sampling may be required by the Department on a case-by-case basis to ensure there is no potential for groundwater contamination.

11. The permittee shall obtain information needed to comply with the requirements in this part.

12. A Manure Transfer Contract shall be developed for the broker to use with any person who is accepting manure in quantities greater than 12 tons per recipient per year. The contract should contain, at a minimum, the following information:

a. Name, address, email, county, and telephone number of the person who is purchasing or accepting animal manure and other animal by-products;

b. Name, address, email, CAMM number, county, and telephone number of the broker who is selling or providing animal manure and other animal by-products;

c. Manure nutrient composition (pounds per ton of plant available nitrogen, phosphorus, and potassium) to be filled in or provided by the broker/land applier. This information shall be obtained from the manure analysis results and the broker shall provide this information on the manure transfer contract;

d. Land Application Field Information:

i. Physical Description (acreage, crop, soil type);

ii. Soil Test Results (nitrogen, phosphorus, potassium, zinc, and copper in pounds/acre); and

iii. Recommended Application Rates (nitrogen, phosphorus, and potassium in pounds per acre as reported on a soil test).

e. Attach a copy of a soils map, topographic map, county tax map, plat, FSA map, or a site plan sketch which includes the following information:

i. Manure application area with setbacks outlined;

ii. Known water supply wells within 100 feet of the property line;

iii. Adjacent surface waters, including ditches, streams, creeks, and ponds; and

iv. Identification of roads and highways to indicate location.

f. Description of application equipment and name of person to land apply manure;

g. Signed agreement that informs the land owner/applier that he is responsible and liable for land applying the animal manure and other animal by-products in accordance with this regulation; and

h. A copy of the land application requirements shall be provided to the recipient of the manure.

13. All persons who routinely accept animal manure and other animal by-products, in quantities greater than 12 tons per recipient per year, from a broker shall be listed in the approved Broker Management Plan at the time of permit renewal. The Broker Management Plan shall include the appropriate manure utilization area information for the sites routinely used by other persons. The person accepting the manure may be required by the Department to have a Management Plan and a permit for their manure utilization areas.

14. Dead animals shall be removed from animal manure and other animal by-products prior to land application. The livestock producer is responsible for removing all dead animals from the manure prior to transfer. Manure brokers/land appliers may not accept manure that contains dead animals, unless the broker/land applier plans to separate out the dead animals and handle the dead animals in accordance with a dead animal disposal plan approved by the Department.

15. If the Department receives complaints on a land application site, the Department may restrict land application of animal manure on the site completely or during certain time periods.

16. The Department may require animal manure and other animal by-products, spread on cropland, to be disked in immediately.

17. Manure (solid or liquid) shall only be applied when weather and soil conditions are favorable and when prevailing winds are blowing away from nearby dwellings. Animal manure should not be applied to land when the soil is saturated, flooded, during rain events, or when a significant rain event is forecasted to occur within forty-eight (48) hours.

18. Any animal manure and other animal by-products that contain fly larvae and fly pupae shall be disked into the ground immediately or treated with an approved and effective fly control method. If the manure utilization on a land application area creates a fly problem for the community, the owner and/or applicator shall be responsible for the control of all flies resulting from the application of the manure. Assistance in fly control and fly problem prevention can be obtained through contact with the local Clemson Extension Service Office.

19. Animal manure and other animal by-products shall not be spread in the floodplain if there is danger of a major runoff event, unless the manure is incorporated during application or immediately after application.

20. If the manure is stockpiled outside, the manure shall be stored on a concrete pad and/or other approved pad and covered with an acceptable cover to prevent odors, vectors, and runoff on a daily basis (unless otherwise stated in the permit). The cover should be properly vented with screen wire to let the gases escape. The edges of the cover should be properly anchored.

21. Manure Brokers/Land Appliers and other manure transporters shall use all sanitary precautions in the collection, storage, transportation, and spreading of animal manure and other animal by-products. The body of all vehicles transporting manure shall be wholly enclosed, or shall at all times, while in transit, be kept covered with an appropriate cover provided with eyelets and rope tie-downs, or any other approved method which shall prevent blowing or spillage of loose material or liquids. Should any spillage occur during the transportation of the animal manure and other animal by-products, the owner/operator shall take immediate steps to clean up the animal manure and other animal by-products.

D. Setbacks for manure utilization areas.

1. The minimum separation distance required between a manure utilization area and a residence is 300 feet. If there are no residences within 300 feet of the manure utilization area, manure may be utilized up to the property line. The setback may be waived with the written consent of the owner of the residence. If the application method is injection or immediate incorporation (same day), manure can be utilized up to the property line.

2. The minimum separation distance required between a manure utilization area and Waters of the State (including ephemeral and intermittent streams) is 100 feet when dry manure is spread on the ground surface, 75 feet when incorporation is the application method, and 50 feet when injection is the application method. When incorporation is accomplished within twenty-four (24) hours of the initial application, the distance can be reduced to 50 feet.

3. The minimum separation distance required between a manure utilization area and ditches and swales that discharge to Waters of the State including ephemeral and intermittent streams is 50 feet.

4. The minimum separation distance required between a manure utilization area and a potable drinking water well is 200 feet.

5. The Department may establish additional application buffer setbacks for property boundaries, roadways, residential developments, dwellings, water wells, drainage ways, and surface water (including ephemeral and intermittent streams) as deemed necessary to protect public health and the environment. Factors taken into consideration in the establishment of additional setbacks would be animal manure application method, adjacent land usage, public access, aerosols, runoff prevention, adjacent groundwater usage, and potential for vectors and odors.

E. The Department may establish additional permitting restrictions based upon soil and groundwater conditions to ensure protection of the groundwater and surface Waters of the State (including ephemeral and intermittent streams). Criteria may include, but is not limited to, soil permeability, clay content, depth to bedrock, rock outcroppings, aquifer vulnerability, proximity to a State Approved Source Water Protection Area, and depth to the seasonal high groundwater table.

F. The Department may establish permit conditions to require that animal manure and other animal by-products application rates remain consistent with the lime and fertilizer requirements for the cover, feed, food, and fiber crops based on Southeastern land grant universities' published lime and fertilizer recommendations, such as the Lime and Fertilizer Recommendations, Clemson Extension Services.

G. The Department may establish minimum requirements in permits for soil and/or groundwater monitoring, for manure utilization areas. Factors taken into consideration in the establishment of soil and groundwater monitoring shall include groundwater depth, operation flexibility, application frequency, type of animal manure and other animal by-products, size of manure utilization area, aquifer vulnerability, proximity to a State Approved Source Water Protection Area, and loading rate.

1. The Department may establish pre-application and post-application site monitoring requirements in permits for limiting nutrients or limiting constituents as determined by the Department.

2. The Department may establish permit conditions, which require the permittee to reduce, modify, or eliminate the animal manure and other animal by-products applications based on the results of this monitoring data.

3. The Department may modify, revoke and reissue, or revoke a permit based on the monitoring data.

H. The Department may require manure to be treated for odor control (i.e., composting or lime stabilizing for dry operations) prior to land application if the manure is not incorporated into the soil at the time of land application or if odors exist or are suspected to exist at an undesirable level. Manure, which has a very undesirable level of odor before treatment, such as turkey manure, shall not normally be permitted to be land applied on land near residences without appropriate treatment for odor control.

400.70. Other Requirements.

A. On a case-by-case basis, the Department may impose additional or more stringent requirements for the management, handling, treatment, storage, or utilization of animal manure and other animal by-products.

B. The following cases shall be evaluated for additional or more stringent requirements:

1. Source water protection. Facilities and manure utilization areas located within a State Approved Source Water Protection Area.

2. 303(d) Impaired Waterbodies List. Facilities and manure utilization areas located upstream of an impaired waterbody.

3. Proximity to Outstanding Resource Waters, trout waters, shellfish waters, or would adversely affect a federally listed endangered or threatened species, its habitat, or a proposed or designated critical habitat.

4. Aquifer Vulnerability Area, an area where groundwater recharge may affect an aquifer.

C. If an adverse impact to the Waters of the State, including ephemeral and intermittent streams and groundwater, from animal manure and other animal by-products handling, storage, treatment, or utilization practices are documented, through monitoring levels exceeding the standards set forth in R.61-68 or a significant adverse trend occurs, the Department may require the person responsible for the animal manure and other animal by-products to conduct an investigation to determine the extent of impact. The Department may require the person to remediate the water to within acceptable levels as set forth in R.61-68.

D. Animal manure shall not be released to Waters of the State, including ephemeral and intermittent streams.

E. Animal medical waste shall not be land applied with animal manure and other animal by-products.

F. Animal manure and other animal by-products shall not be removed by a manure broker from a quarantined farm, until that quarantine has been lifted by the State Veterinarian.

G. Animal manure and other animal by-products that are quarantined for noxious weed seed contamination shall not be removed by a manure broker unless approved by Clemson Plant Industry.

H. If the Department determines that a complaint exists, the broker/land applier shall take action to correct the nuisance to the degree and within the time frame designated by the Department.

400.80. Odor Control Requirements.

A. An odor abatement plan shall be included, which may consist of the following:

1. Operation and maintenance practices which are used to eliminate or minimize undesirable odor levels in the form of a Best Management Plan for Odor Control;

2. Use of treatment processes for the reduction of undesirable odor levels;

3. Additional setbacks from property lines beyond the minimum setbacks given in this part;

4. Other methods as may be appropriate; or

5. Any combination of these methods.

B. Person(s) who transport, treat, store, or land apply manure and other animal by-products shall utilize Best Management Practices normally associated with the proper operation and maintenance of an animal manure and other animal by-products treatment or storage facility and any manure utilization area to ensure an undesirable level of odor does not exist.

C. No person(s) who transport, treat, store, or land apply manure and other animal by-products may cause, allow, or permit emission into the ambient air of any substance or combination of substances in quantities that an undesirable level of odor is determined to result unless preventive measures of the type set out below are taken to abate or control the emission to the satisfaction of the Department. When an odor problem comes to the attention of the Department through field surveillance or specific complaints, the Department shall determine if the odor is at an undesirable level.

D. If the Department determines an undesirable level of odor exists, the Department may require these abatement or control practices, including, but not limited to, the following:

1. Remove or dispose of odorous materials;

2. Methods in handling and storage of odorous materials that minimize emissions;

a. Dry manure to a moisture content of fifty percent (50%) or less;

b. Use disinfection to kill microorganisms present in manure;

c. Aerate manure;

d. Compost solid manure and other animal by-products; and/or

e. Utilize odor control additives.

3. Prescribed standards in the maintenance of premises to reduce odorous emissions;

a. Cover or reduce the surface area of manure and other animal by-products storage. (Vents shall be provided for release of pressure created by manure gases if completely sealed covers are utilized);

b. Plant trees around or downwind of the manure and other animal by-products storage and treatment facilities;

c. Incorporate manure and other animal by-products immediately, within twenty-four (24) hours after land application;

d. Select appropriate times for land application.

4. Best available control technology to reduce odorous emissions.

E. If the permittee fails to control or abate the odor problems at a land application site to the satisfaction and within a time frame determined by the Department, the broker permit may be revoked. If the permittee fails to control or abate the odor problems at land application sites, approval for land application of manure

on the manure utilization area in question may be revoked. Additional land may be required to be added to the broker management plan, if necessary to provide a sufficient amount of land for manure utilization.

400.90. Vector Control Requirements.

A. A Vector Abatement Plan shall be developed for the dry animal manure and other animal by-products storage or treatment facility or land application areas (if applicable). The Vector Abatement Plan shall, at a minimum, consist of the following:

1. Normal management practices used at the dry animal manure and other animal by-products storage or treatment facility to ensure there is no accumulation of organic or inorganic materials to the extent and in such a manner as to create a harborage for rodents or other vectors that may be dangerous to public health.

2. A list of specific actions to be taken by the broker/land applier if vectors are identified as a problem at the dry animal manure and other animal by-products storage or treatment facility or land application site. These actions should be listed for each vector problem, e.g., actions to be taken for fly problems, actions to be taken for rodent problems, etc.

3. If the broker is not performing land application, but is only transferring the manure to a person who is accepting responsibility for handling the manure in accordance with this regulation, the person accepting the manure shall be responsible for correcting any nuisance problems resulting from the land application of manure.

B. No broker/land applier may cause, allow, or permit vectors to breed or accumulate in quantities that result in a nuisance level, as determined by the Department.

C. For an existing broker/land applier, if the Department determines a vector problem exists, the Department may require these abatement or control practices, including, but not limited to, the following:

1. Remove and properly dispose of vector infested materials;

2. Methods in handling and storage of materials that minimize vector attraction;

a. Compost solid manure;

b. Appropriately use vector control chemicals, poisons, or insecticides (take caution to prevent insecticide resistance problems);

c. Utilize traps, or electrically charged devices;

d. Utilize biological agents;

e. Utilize Integrated Pest Management; and/or

f. Incorporate manure and other animal by-products immediately, within twenty-four (24) hours after land application.

3. Prescribed standards in the maintenance of premises to reduce vector attraction;

a. Remove any standing water that may be a breeding area for vectors;

b. Keep storage and/or treatment facilities clean and free from trash or debris;

c. Properly use and service bait stations;

d. Keep grass and weeds mowed around the manure storage and/or treatment areas;

e. Cover or reduce the surface area of manure and other animal by-products storage. (Vents shall be provided for release of pressure created by manure gases if completely sealed covers are used);

f. Conduct a weekly vector monitoring program;

g. Be aware of insecticide resistance problems, and rotate use of different insecticides; and/or

h. Ensure proper grading and drainage around the buildings to prevent rain water from entering the buildings or ponding around the buildings.

4. Utilize the best available control technology to reduce vector attraction and breeding.

400.100. Record Keeping.

A. A copy of the approved Broker/Land Applier Management Plan, including approved updates, and a copy of the permit(s) issued to the broker/land applier shall be retained by the permittee for as long as the broker is in operation.

B. All application information submitted to the Department shall be retained by the permittee for eight (8) years.

C. Animal Manure Records. These records shall be kept for five (5) years. The records shall include the following:

1. Name, address, email, county, and phone number of all producers from whom the broker/land applier purchases or accepts animal manure;

2. Sampling results for the animal manure;

3. Amount (in tons) of animal manure obtained from each producer; and

4. Date of transfer.

D. All completed Manure Transfer contracts, including soil analysis results, between the broker and the person(s) purchasing or accepting animal manure, shall be kept by the broker for eight (8) years.

E. All records retained by the broker/land applier shall be kept at an appropriate business office, or other location, as approved by the Department.

F. All records retained by the broker/land applier shall be made available to the Department during normal business hours for review and copying, upon request by the Department.

400.110. Reporting.

A. The Department may establish reporting requirements in permits as it deems appropriate. These reporting requirements may include a Manure Balance Sheet, which lists the producer/farm name and amount (tons) of manure provided and a listing of all person(s) who bought or accepted animal manure and the amount (tons) accepted. Any manure that is currently in storage or treatment structures at the broker/land applier facility shall be accounted for in this report.

B. The Department may require on a case-by-case basis any of the required records, as outlined in section 400.100, to be reported on an annual basis.

400.120. Training Requirements.

A. An owner/operator of a manure brokering/land applying business shall be trained and certified on the operation of animal manure management under the poultry version of the certification program created and operated by Clemson University (CAMM). The certification shall be obtained within one (1) year of the effective date of the issued permit.

B. The certification program shall be completed by owners/operators of existing brokerage/land applier businesses within one (1) year of the effective date of this regulation or of a transfer of ownership approval.

C. Failure to obtain the certification and education as provided in this Section shall be deemed a violation of this regulation and a violation of the permit.

400.130. Violations.

Persons who violate this regulation or any permit issued under this regulation are subject to the penalties in Sections 48-1-320 (Criminal Penalties) and 48-1-330 (Civil Penalties) of the South Carolina Pollution Control Act.

PART 500
INTEGRATOR REGISTRATION PROGRAM

500.10. General.

A. The Department encourages Integrators to be involved with the permitting and compliance of their growers.

B. The Department encourages Integrators to assist growers in the disposal of dead animals and the proper utilization of animal manure.

C. Integrating companies shall inform each prospective grower that they are required by State law to obtain a permit to construct and an approval to operate from the Department, and a certification of construction from the engineering company or NRCS. The Department recommends that growers verify an exemption status from the Department prior to construction of an agricultural animal facility.

500.20. Submittal Requirements.

A. Each integrating company that contracts with animal producers that operate facilities located within the State shall submit to the Department a Request for Registration form, as provided by the Department. The Integrator shall work with the Department to identify growers that are unpermitted. The Department

may schedule an annual inspection in order to review grower lists and identify unpermitted farms. The integrator shall provide the Department any additional information needed to contact unpermitted growers contracting with their company.

B. Animal Manure Analysis Information. If the producers that contract with the integrator use the same feed rations and have dry animal manure analyses that come out to be consistently the same, they may qualify to use one (1) analysis for their individual testing requirement. However, if any of these producers utilize a different feed ration, utilize a significant amount of medications as compared to the others, or use any other inconsistent bedding materials, animal manure treatments, or vector treatments, they shall be required to run a separate and individual analysis on their animal manure. The Integrator is responsible for notifying the Department of any significant feed composition changes. This benefit shall not be available to liquid manure handling systems, since other factors specific to each site, such as rainfall, could affect the nutrient analysis of the manure.

C. If an integrating company can certify through general feed composition reports that a certain constituent, such as arsenic, is not present in their feed or medications, the producers that contract with that integrator may be exempt from testing for that constituent. The integrator shall submit a written request, along with general feed composition reports, and a list of growers who are using this feed ration. The Department shall approve this report in writing before the constituent can be removed from the analysis requirements. Each grower who is included in this exemption shall be notified in writing by the Department.

D. Swine Integrators must submit a plan addressing cumulative environmental and public health impacts of their contracted facilities with their first request for integrator certification. The plan must cover the integrator's existing contract growers and the projected three (3) year increase in the number of permitted facilities and swine. The plan must include:

1. The general area served by the integrator;

2. The number of existing swine facilities under contract;

3. The number of swine grown (broken down by facility);

4. The number of projected new facilities (broken down by facility size) with the total number of swine;

5. The integrating company's: procedures, protocols, policies, programs, required manure treatment and utilization technologies, etc. to ensure the cumulative impacts from their contracted facilities do not cause any adverse impact to the environment or public health; and

6. An assessment of the adverse environmental or public impact, if any, from the existing and proposed swine facilities under contract with the integrator.

7. The Swine Integrator must also provide to the Department any other supplemental information that may reasonably be required by the Department to assess cumulative adverse environmental or public health impacts.

8. The environmental and public health impact assessment plan must be approved by the Department before integrator certification can be granted. Once approved, the integrator may update the plan at any time. Also, the Department may require the plan be updated from time to time.

E. All permits for growers under contract with the integrator must be in accordance with the integrator's approved plan.

F. All integrators are required to submit, on an annual basis by December 31st of each year, a list of active and inactive growers that have been added and/or released from their contracts.

500.30. Certificate of Integrator Registration.

A. The Department shall issue a certificate of integrator registration to integrators or integrating companies that meet all the requirements of this part.

B. All integrators or integrating companies shall hold a valid certificate of registration to operate in the State.

C. Certificates of integrator registration issued under this part do not have any administrative procedures for public notice under this regulation.

D. The certificate of integrator registration may be modified, revoked, or reissued if the requirements of this part are not met by the integrator or integrating company.

500.40. Reporting.

A. The Department may establish reporting requirements for integrators as it deems appropriate. These reporting requirements may include the following:

1. General feed composition reports. Feed composition reports provided in accordance with this section shall be exempt from disclosure under the Freedom of Information Act; and

2. A list of any special treatments or chemicals added to the manure or manure storage structure that are required by the integrator.

500.50. Other Requirements.

A. An integrator or integrating company shall not knowingly provide animals to an animal facility that does not hold a valid agricultural permit and an approval to operate from the Department. Any existing, unexpired contracts may be fulfilled, but the integrator may not renew the contract until the facility has obtained a valid permit and approval to operate. If an integrator knowingly provides animals to an animal facility that does not hold a valid permit, the Department may require the integrator to remove the animals from the facility and be subject to Part 500.60.

B. The integrator or integrating company shall take reasonable steps to ensure that the animal facilities that are under contract with the company are certified, trained, and educated on compliance with their permit to include the following:

1. Notify growers of their responsibility to update their Animal Facility Management Plan and permit if changes are made in the operation of the farm; and

2. Provide information on technical assistance to its growers on compliance and assist the producers in selecting a corrective action.

500.60. Violations.

Persons who violate this regulation or any permit issued under this regulation are subject to the penalties in Sections 48-1-320 (Criminal Penalties) and 48-1-330 (Civil Penalties) of the South Carolina Pollution Control Act.

PART 600
SEVERABILITY

Should a section, paragraph, sentence, clause, phrase, or other part of this regulation be declared invalid for any reason, the remainder shall not be affected.