

**AN ORDINANCE ESTABLISHING HEALTH REGULATIONS FOR CONCENTRATED
ANIMAL FEEDING OPERATIONS; PROVIDING STANDARDS FOR THE
PERMITTING OF CONCENTRATED ANIMAL FEEDING OPERATIONS;
PROVIDING DEFINITIONS; PROVIDING AN EFFECTIVE DATE; AND PROVIDING
FOR SEVERABILITY**

Section 1. Definitions. Unless the context clearly indicates to the contrary, words used in the present tense include the future tense and words used in the plural include the singular.

For purposes of this Ordinance, the following words, terms and phrases shall have the following meanings unless otherwise indicated:

1.1 Anaerobic Lagoon. A lagoon in which the degradation of organic matter is conducted without the availability of free molecular oxygen.

1.2 Animal Unit ("AU"). A unit of measurement to compare various animal types at a concentrated animal feeding operation. One (1) animal unit shall equal the following: (i) 1.0 beef cow, feeder, cow/calf pair, veal calf, or dairy heifer; (ii) 0.5 horse; (iii) 0.7 dairy cow; (iv) 2.5 swine weighing 55 pounds or more; (v) 10 swine weighing less than 55 pounds; (vi) 10 sheep, lambs, or meat or dairy goats; (vii) 30 laying hens, pullets or broilers with a wet handling system; (viii) 82 laying hens without a wet handling system; (ix) 125 broiler chickens and pullets, or turkey poults in brood phase, without a wet handling system; (x) 55 turkeys; or (xi) an equivalent animal unit. The total animal units at each operating location shall be determined by adding the animal units for each animal type.

1.3 Animal Unit Equivalent. An equivalent animal type and weight that has a similar amount of manure produced as one of the animal unit categories set forth in the definition of Animal Unit in paragraph 1.2, which shall also apply to other animal types which are not specifically listed.

1.4 Animal Waste. Any animal excrement, animal carcass, feed waste, animal water waste, or any other waste associated with animals.

1.5 Animal Waste Water. Any of the following: animal excreta; process wastewater; any liquid which comes into contact with any manure, litter, bedding or other raw material or intermediate or final material or product used in or resulting from the production of animals or products directly or indirectly used in the operation of a CAFO; any spillage or overflow from animal watering systems; any liquid used in washing, cleaning or flushing pens, barns, or manure pits; any liquid used in washing or spraying to clean animals; or any liquid used for dust control on the premises of a CAFO.

1.6 Application. The injection of animal waste or animal waste water into the land at a minimum depth of four (4) inches.

1.7 Aquifer. An underground, porous, water-bearing geological formation composed of a layer of permeable rock, sand or gravel that provides a groundwater reservoir.

1.8 AWMFH. The *Agricultural Waste Management Field Handbook* published by the Soils Conservation Service of the United States Department of Agriculture and dated April 1992, and revised through July 1996, Chapters 1 through 17.

1.9 Center Pivot Irrigation. An automated irrigation system consisting of a sprinkler line rotating about a pivot point at one end and supported by a number of self-propelled towers in which the water is supplied at the pivot point and flows outward through the line supplying the individual outs.

1.10 Class IA CAFO. See Section 2.1 of this Ordinance.

1.11 Class IB CAFO. See Section 2.2 of this Ordinance.

1.12 Class IC CAFO. See Section 2.3 of this Ordinance.

1.13 Class II CAFO. See Section 2.4 of this Ordinance.

1.14 Common Ownership. Ownership by the same person, corporation, firm, entity, partnership, limited liability company, limited partnership, or unincorporated association, or ownership by different corporations, firms, partnerships, entities, limited liability company, limited partnership, or unincorporated associations, in which a stockholder, partner, associate, or a member of his or her family owns an interest in each corporation, firm, partnership, entity, limited liability company, limited partnership, or unincorporated association.

1.15 Concentrated Animal Feeding Operation ("CAFO"). All land, and/or lot, facility, structure, parcel, or operating location in which animals have been, are or will be stabled or confined and fed or maintained for a total of forty-five (45) days or more in any twelve (12) month period and a ground cover of vegetation is not sustained over at least fifty percent (50%) of the animal confinement area. A "concentrated animal feeding operation" shall not include any land, lot, facility, structure, parcel, operating location, yard, corral or other area which does not meet the numerical threshold for animal units as set forth in the classification system in Section 2 of this Ordinance. For purposes of this definition, Concentrated Animal Feeding Operation means and refers collectively to an animal production facility which includes at least one Confinement Area, or Livestock Lagoon, or Pits and a Plant Filter Area. Two or more confinement areas under common ownership are considered, for purposes of this Ordinance, to be a single CAFO if they adjoin each other and use a common area or waste management system. The purposes of this subsection, the use of common equipment or machinery shall not be considered a "common area or waste management system."

1.16 Confinement Area. Any land, lot, facility, structure, yard, feedlot, or corral or other area, whether enclosed with a roof or fence, or unenclosed, in which livestock animals are confined in close quarters for the purpose of fattening, feeding, growing, raising, or birthing such livestock for final shipment to market or slaughter or for the production of food products. A Confinement Area includes any land area in which at least one-hundred fifty (150) animal units are confined on not more than one (1) acre of land. A Confinement Area does not include

unenclosed pasture areas which are used for the raising of crops or other vegetation upon which livestock are allowed to graze or feed. A Confinement Area includes the buildings or structures, including any feedlot, corral, barn, or other enclosure in which animals are partially or entirely confined, but does not include contiguous land used as plant filter area over which liquid waste is applied and/or other areas upon which grass or crops are used for waste disposal, landscaping, or land upon which crops or other vegetation are raised independent from the animal feeding operations.

1.17 Construction Permit. A construction permit or letter of approval required of a CAFO by the Missouri Department of Natural Resources pursuant to the Missouri Clean Water Law.

1.18 County Health Permit. Written authorization issued by the County Commission to erect, construct, develop, use, occupy, expand, modify or operate a CAFO.

1.19 Dilution Water. Wash water, overflow from waterers, precipitation minus evaporation from a lagoon surface, and other water added to a Lagoon which has not previously come into contact with manure or other waste materials.

1.20 Dry Handling Waste. Manure, including urine or feces, litter, bedding or feed waste from animal feeding operations.

1.21 Dry Litter. A waste management system where the animals are confined on a floor that is covered with wood chips, rice hulls or similar materials and the resulting litter/manure mixture has a least fifty percent (50%) dry matter and is not exposed to precipitation or storm water runoff during storage.

1.22 Filter Strip. A permanent vegetated strip designed to retard surface water runoff and to remove sediment, nutrients, and other contaminants from surface runoff.

1.23 Land. Any land owned or leased by the CAFO to comply with the requirements of paragraph 4.6 of this Ordinance.

1.24 Land Application. The removal of wastewater and waste solids from a facility for the storage or retention of animal waste and distribution to, or incorporation into, the soil. Land Application includes the injection, spraying or spreading of animal waste or animal wastewater onto a plant filter area.

1.25 Lease. A written contract for the exclusive use of real property, which contract specifically grants unto the lessee the right to apply animal waste and animal wastewater to the leased premises.

1.26 Liner. A continuous layer of soil, manmade materials or both beneath and on the sides of a lagoon or other waste disposal area which controls and minimizes the downward or lateral escape of animal waste.

1.27 Livestock. Cattle, sheep, swine, poultry, and other animals or fowl which are being produced primarily for use as food or food products for human consumption.

1.28 Livestock Lagoon or Lagoon or Pit. An excavated, diked, or walled area or earthen structure designed for the biological stabilization, treatment and/or storage of liquid wastes generated by a CAFO. A Lagoon does not include a fully enclosed storage tank constructed of concrete or metal and designed for the storage of manure.

1.29 Nutrient Application Levels. The levels of nutrients applied to the Plant Filter Area.

1.30 Manual 115. Missouri Approach to Animal Waste Management, Planning and Design Guidelines. (Manual 115 published by the University of Missouri-Columbia Extension Division and Missouri Department of Natural Resources, 1999).

1.31 Manual 121. Design Guidelines for Animal Waste Management for Concentrated Animal Feeding Operations. (Manual 121 published by the Missouri Department of Natural Resources, Water Pollution Control Program, Section Edition, July 1989).

1.32 Nutrient Application Levels. The levels of nutrients applied to the plant filter area.

1.33 Occupied Dwelling. Any residence or any church, school, business, adult care home, medical care facility, child care facility, library, community center, public building or public use area, office building, licensed food establishment or lodging establishment which has been in use or occupied at any time during the twelve month period immediately prior to the date upon which an application for a County Health Permit is submitted pursuant to this Ordinance.

1.34 Operating Permit. An operating permit and/or letter of approval required of a CAFO by the Missouri Department of Natural Resources pursuant to the Missouri Clean Water Law.

1.35 Owner. Any person who owns, either individually and/or with any other persons, any of the following interests in the real property upon which a CAFO is situated: (1) fee simple title or a derivative thereof; (2) a leasehold interest; (3) any interest in any entity which holds fee simple title or a derivative thereof; or (4) any interest in any entity which has a leasehold interest.

1.36 Person. Includes natural persons as well as corporations, partnerships, associations, limited partnerships, limited liability companies, and any other business or charitable entity, including a natural person who has supervisory authority over the operation of a CAFO, whether or not such person is an owner of the CAFO, and a natural person who applies animal waste or animal wastewater originating from the CAFO.

1.37 Plant Filter Area. Land with vegetative cover used or reserved for the application and/or infiltration of liquid wastes from a livestock lagoon or pits.

1.38 Populated Area. Any circular area inscribed by a radius of one thousand four hundred forty-two (1,442) feet and a circumference of nine thousand fifty-nine (9,059) feet that is not located on CAFO property (such area including not more than approximately one hundred fifty (150) acres), and which has at least ten (10) occupied dwellings located within the area. See Figure 1.

Figure 1.

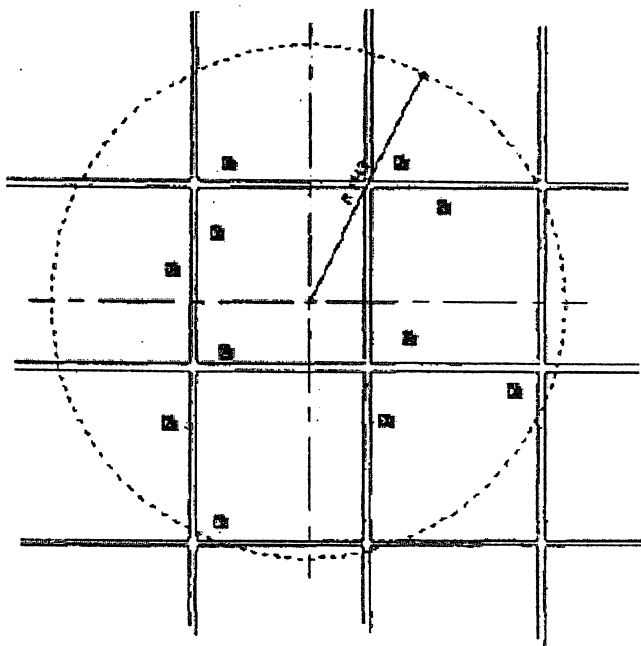


Figure 1: Populated Area Example (11 units, 1442' radius, 150 acres)

1.39 Process Waterway. Any wastewater as defined in 10 CSR 20-6.300(1)(B).15

1.40 Public Use Area. Any of the following: (1) a park or recreation area operated by the County or a municipal or state governmental agency; (2) a school; or (3) a cemetery.

1.41 Registered Engineer. An individual registered as an engineer in the state of Missouri.

1.42 Setback. The distance from the CAFO facility to the nearest occupied dwelling not on CAFO property, as measured in a straight line from the occupied dwelling to the nearest CAFO confinement area, confinement building, confinement lot, other animal confinement area, lagoon or other waste handling facility.

1.43 Shallow Aquifer. A saturated permeable geologic unit that can transmit significant quantities of water under ordinary hydraulic gradients.

1.44 Slope. The vertical drop divided by the horizontal distance of a land area multiplied by one hundred (100) and expressed as a percentage.

1.42 Waste Management System. Includes all flush, recycle, storage, digestion, pumping, irrigation, waste spreading, and solids handling facilities, equipment, machinery, sewers, piping, valves, land, tanks, basins, lagoons and any other device, method and process for beneficial use of animal waste and/or process wastewater.

1.43 Wet Handling System. The handling of manure that contains less than fifty percent (50%) dry matter or has free draining liquids. Wet handling includes the storage of dry manure or dry litter so that it is exposed to rainfall or stormwater runoff.

Section 2. Classification of Concentrated Animal Feeding Operations.

2.1 A Class IA CAFO is one that has a capacity of at least seven thousand (7,000) AU.

2.2 A Class IB CAFO is one that has a capacity between three thousand (3,000) and six thousand, nine hundred ninety-nine (6,999) AU, inclusive.

2.3 A Class IC CAFO is one that has a capacity between one thousand (1,000) and two thousand nine hundred ninety-nine (2,999) AU, inclusive.

2.4 A Class II CAFO is one that has a capacity of at least two hundred (200) but less than one thousand (1,000) AU.

Section 3. Permit Requirement for All CAFOs.

3.1 Application – Generally. No CAFO shall be erected, constructed, developed, used, operated, occupied, expanded to a different classification of CAFO or otherwise established in the County until a County Health Permit has been issued by the Cedar County Commission. To apply for a County Health Permit, the applicant for the proposed CAFO shall submit to the County Commission all of the application materials submitted to the Department of Natural Resources (“DNR”) (if applicable), a completed application containing information as required by the County Commission, and an application fee as established pursuant to Section 9 of this Ordinance. If the CAFO is issued an Operating Permit and if the proposed CAFO meets the requirements of this Ordinance, then the County Commission shall also issue a County Health Permit. If the proposed CAFO is not subject to regulation by DNR, then to apply for a County Health Permit, the proposed CAFO shall submit a completed application containing information as required by the County Commission as set forth in paragraph 3.2, below; an application fee as established by the County Commission pursuant to Section 9 of this Ordinance, and such other information as required by this Ordinance. In such case, if the County Commission determines that the proposed CAFO complies in every respect with the terms and conditions of this Ordinance, then the County Commission shall issue a County Health Permit.

3.2 Application Requirements. An application for a County Health Permit shall be submitted to the County Commission for approval in a form required by the County Commission, which shall require, at a minimum, the following:

3.2.1 Name, address, and telephone number of the owner, operator or registered agent of the proposed CAFO;

3.2.2 Name, address, and telephone number of the owner of the land on which the proposed CAFO facility will be located, if different from the owner or operator of the proposed CAFO facility;

3.2.3 If the owner or operator of the proposed CAFO facility is different than the owner of the real estate on which the proposed CAFO facility is to be located, a copy of the lease agreement or other document executed evidencing a right to use and possess the real estate for the purposes described;

3.2.4 The number of animal units anticipated at the proposed CAFO facility;

3.2.5 The location and number of acres of the proposed CAFO facility;

3.2.6 The general layout of the CAFO facility showing the location of the CAFO facility, confinement building, confinement lot, or other animal confinement area, or livestock lagoon or pit. In addition, the County may request the GPS coordinate locations for all corners of the CAFO facility location;

3.2.7 The legal description of the real estate on which the proposed CAFO facility is to be located;

3.2.8 Upon request, a high resolution overhead or aerial map or survey identifying the proposed location of the proposed CAFO facility, which shall identify all property lines and all occupied dwellings and populated areas located within the setback requirements described in this Ordinance;

3.2.9 The proposed method and location of animal waste disposal, including a waste handling plan and/or nutrient management plan;

3.2.10 All of the application materials submitted to DNR for an Operating Permit, if applicable; or, if the proposed CAFO facility is not required to submit application materials to DNR, all of the application materials that would otherwise have to be submitted to DNR if the proposed CAFO facility were required to submit application materials to DNR;

3.2.11 Evidence of financial security as required by Section 6 of this Ordinance;
and

3.2.12 Any other relevant information which may be required by the County Commission in order to make a determination on issuance of a County Health Permit based on the requirements in this Ordinance.

An application for a County Health Permit shall not be considered complete unless and until the information required by this Ordinance is submitted to the County Commission. The County Commission shall have no obligation to review an application until this requirement is satisfied.

3.2 Public Hearing. At least one (1) public hearing shall be held by the County Commission prior to approving any County Health Permit. Such public hearing may be continued from time to time and additional hearings may be held.

3.3 Renewal. Once a CAFO has received a County Health Permit, the CAFO shall apply for a renewal of said permit every five (5) years from the date of issuance. All applications for renewal permits shall be submitted, along with the applicable renewal fee, at least thirty (30) days prior to the anniversary date of the issuance of the initial County Health Permit. If the County Commission determines that the CAFO has complied in all respects with the permit previously issued, then the County Commission shall issue the renewal permit. Otherwise, the County Commission shall not issue a renewal permit and the CAFO shall immediately cease operation.

3.4 Violation – No County Health Permit. It shall be a violation of this Ordinance and unlawful for any person not exempt from this Ordinance to operate a CAFO without first obtaining a County Health Permit from the County Commission.

3.5 Violation – Exceeding Permitted AU. It shall be a violation of this Ordinance and unlawful for any person not exempt from this Ordinance to operate a CAFO with a number of AU in excess of the classification number specified in the permit issued by the County Commission.

3.6 Violation – Application of Waste/Wastewater. It shall be a violation of this Ordinance and unlawful for any person not exempt from this Ordinance to apply animal waste or animal wastewater in a manner inconsistent with the requirements of this Ordinance.

Section 4. Rules Applicable to All CAFOs. The County Commission shall not issue a County Health Permit unless and until the County Commission has rendered findings of fact and conclusions of law that the proposed CAFO complies in all respects with the standards and criteria established in this Ordinance. If the proposed CAFO does not comply in any respect with the standards and criteria established in this Ordinance, the application for a County Health Permit shall be denied.

4.1 Generally. The proposed CAFO shall be in compliance with the provisions of this Ordinance.

4.2 Design. All Confinement Areas, Livestock Lagoons or Pits shall be designed in such a manner so as to avoid the degradation of the quality of surface or subsurface waters, water courses or other bodies of water.

4.3 Determinations by State. Any determination made by the State of Missouri with respect to the CAFO regarding an environmental standard shall be accepted by the County.

4.4 Soils Determination. The applicant shall demonstrate that the soils on the premises, including a soil-plant filter area, is suitable for and compatible with the proposed Confinement Area operations with respect to the location of any Livestock Lagoon or Pits, and the application of any liquid, slurry or solid animal waste onto or into the soil on the premises. Further, no animal waste from a Livestock Lagoon or Pit shall be applied when soils are water saturated, frozen, or covered with snow, or when other soil conditions would result in waste runoff.

4.5 Compliance with Other Requirements. The applicant shall demonstrate that all Confinement Areas, feedlots, Livestock Lagoons or Pits shall at all times be operated in compliance with any required local, state or federal permits, licenses or other approvals, and in compliance with all applicable state and local laws and regulations.

4.6 Land Area Requirements. The applicant shall own or lease one (1) acre of Land for each four (4) AU of capacity for wet handling systems, or eight (8) AU of capacity for a dry waste handling system, as specified in the County Health Permit. Fifty percent (50%) of the Land must be in a contiguous tract for all wet handling systems. Any affluent transported to other Land must be transported in a sealed container. The Nutrient Application Levels for the CAFO shall comply with Appendix A, which is attached hereto and incorporated herein by reference.

4.7 Nutrient Management Plan. A comprehensive Nutrient Management Plan shall be provided by the applicant for the land receiving any affluent in the County from a permitted facility.

4.8 Slope Requirements. Animal waste and Animal Waste Water may be applied to land with a slope of fourteen percent (14%) or less, provided all DNR requirements are met.

4.9 Injection/Knifing. Animal Waste Water injected or knifed into the soil shall not be applied within one thousand (1,000) feet of an Occupied Dwelling which existed prior to the date the CAFO received the County Health Permit. Dry animal waste shall not be applied within five hundred (500) feet of an Occupied Dwelling which existed prior to the date the CAFO received the County Health Permit. This provision shall not apply to Occupied Dwellings owned by the CAFO. The applicant, with the agreement of the owner of an Occupied Dwelling may apply for a variance from this requirement as part of the application for a County Health Permit.

4.10 Application Near Water Elements. Animal Waste and Animal Waste Water shall not be applied within one thousand (1,000) feet of any sinkhole, well, spring, or other water supply, or within one hundred (100) feet from any stream (including intermittent streams) or

strip pits. This rule shall not apply to waste lagoons or ponds on the CAFO property, but shall apply to all other wells, water supplies, streams, strip pits, lakes, springs, and sinkholes on the CAFO property.

4.11 Manure Storage Systems. No County Health Permit shall be issued for a livestock and/or poultry manure storage system or other system of manure storage that is of the like and similar nature that prevents Confinement Area runoff unless such manure storage system is in compliance with all DNR regulations for the control of waste from Confinement Areas, livestock feedlots, poultry lots and other animal lots and said manure storage system has obtained a permit from DNR, if necessary, for the pollution control devices to be installed. Manure storage systems shall be located at least two thousand (2,000) feet from an existing Occupied Dwelling that is not located on the CAFO property.

4.12 Waste Disposal.

4.12.1 Design of the waste lagoons shall comply, at a minimum, with ANSI/ASAE EP403.2 (August 1993), published by the American Society of Agricultural Engineers, provided, however, that where a different standard is prescribed by this Ordinance, the provisions of this Ordinance shall govern. Center pivot irrigation shall not be permitted as a method of applying animal wastewater into the soil.

4.12.2 Dilution water shall be provided at a rate of not less than four (4) times the annual amount of excreted manure. No animal waste shall be discharged into the lagoon until it has first been filled to not less than fifty percent (50%) of its design volume with fresh water which has not previously come into contact with animal waste. The water in the lagoon shall at all times maintain a pH level of not less than 6.7. A minimum of two (2) feet of freeboard shall be maintained between the crest of any spillway or outflow device and the top of the lagoon embankment.

4.12.3 A covered storage basin or covered manure storage structure may be used instead of a waste lagoon.

4.12.4 The lagoon system and land application shall comply with the minimum requirements of 10 CSR 20-8 (March 11, 1979), provided, however, that if any requirement therein conflicts with any requirement of this Ordinance, the provisions of this Ordinance shall apply.

4.13 Water Quality.

4.13.1 All CAFOs shall be designed in such a manner as to avoid the unlawful degradation of the quality of surface or subsurface waters, watercourses or other bodies of water as defined in Chapter 7 of Division 20 of the Code of State Regulations.

4.13.2 No lagoon, confinement area or plant filter area shall be located closer than three hundred (300) feet to a water source drawing from a bedrock formation with a sealed casing or within one hundred (100) feet of any public or private water well.

4.13.3 The provisions of subparagraph (1-4), below, shall apply only to any Class IA or Class IB CAFO and shall not apply to any CAFO existing in the effective date of this Ordinance which does not exceed the number of animal units for a Class IC CAFO. The operator shall install monitoring wells as follows:

- (1) At least one (1) monitoring well shall be installed upgradient from each confinement area and livestock lagoon, and at least one (1) monitoring well shall be installed downgradient from each confinement area and each livestock lagoon. Where a livestock lagoon receives waste from more than one (1) confinement area, one (1) upgradient monitoring well may be installed for all of the confinement areas and the livestock lagoon, and one (1) monitoring well may be installed downgradient from the confinement areas and livestock lagoons.
- (2) At least one (1) monitoring well shall be installed upgradient from each area where waste is disposed (areas designated as a soil plant filter area or where subsurface injection occurs), and at least one (1) monitoring well shall be installed downgradient from each such area.
- (3) The upgradient wells shall be used to establish a baseline for the chemical constituents set forth in subparagraph 4.13.3(4), below. The downgradient wells shall be used to monitor changes in the contaminant levels of the chemical constituents set forth in subparagraph 4.13.3(4), below, on a quarterly basis. The operator shall submit a report describing any changes in contaminant levels to the Cedar County Commission on a quarterly basis. In no event shall the pollutant concentration in water quality samples taken from the downgradient wells exceed the baseline established by the upgradient wells or the maximum contaminant levels established by the Missouri Department of Natural Resources, whichever is more restrictive. The "maximum contaminant levels established by the Missouri Department of Natural Resources" means and refers to the acute toxicity criteria as set forth in 10 CSR 20-7.031, provided, however, that the water quality standards shall not be waived as provided in subsection (2)(B)(3) of 10 CSR 20-7.031.
- (4) The following chemical constituents shall be monitored pursuant to subsection 4.13.3(3): (i) nitrate nitrogen (NO₃); (ii) nitrite nitrogen (NO₂); (iii) kjeldahl nitrogen; (iv) ammonia nitrogen; (v) total phosphorous; (vi) dissolved phosphorus; (vii) E. coli (*Escherichia coli*) or fecal coliform bacteria; (viii) pH; (ix) temperature; (x) sulfate; (xi) total dissolved solids; (xii) total organic carbon; (xiii) conductivity; (xiv) total alkalinity; (xv) chloride; (xvi) biochemical oxygen demand; (xvii) sodium.

4.13.4 No Lagoon shall be located over a shallow aquifer. Animal waste and animal wastewater shall not be applied within one thousand (1,000) feet of any sink hole, well, spring or other waste supply or one hundred (100) feet from any stream (including intermittent streams) or strip pits. This rule shall not apply to waste lagoons on the CAFO property but shall apply to all other wells, water supplies, streams, ponds, strip pits, lakes, springs and sink holes on the CAFO property.

4.13.5 FEMA Floodplain Requirements. A CAFO, including manure storage structures, confinement buildings, open lots, composting pads, or manure storage areas in the production areas shall not be operated or constructed within the 100-year flood zone (FEMA Zone A) or shall be protected from inundation or damage due to the one hundred year flood. A production area shall include the non-vegetated portions of an operation where manure, litter, or animal waste or wastewater is generated, stored, and/or managed.

4.14 Liner Systems. In order to minimize the risk of leakage from a lagoon into ground water systems, and to thereby minimize the risk to public health and safety posed by ground water contamination, no lagoon shall be constructed or operated, and no waste shall be deposited in a lagoon, unless and until a liner is installed on all surfaces on the bottom and side of the lagoon. Provisions shall also be made to construct the side walls to prevent the migration of leachate and methane gas. The liner shall consist of two (2) components:

4.14.1 An upper component that shall consist of a minimum thirty (30) mil thick geomembrane. Geomembrane components consisting of high density polyethylene (HDPE) shall be at least sixty (60) mil in thickness. The geomembrane component shall be installed in direct and uniform contact with the compacted soil component so as to minimize the migration of animal waste through the geomembrane should a break occur.

4.14.2 A lower component that shall consist of at least two (2) foot layer of compacted soil with a hydraulic conductivity of not more than 1×10^{-7} centimeters/second (2.82×10^4 feet/day). The compacted soil liner, at a minimum, shall consist of at least two (2) feet of soil constructed of six (6) to eight (8) inch lifts compacted to ninety-five percent (95%) of standard Proctor density with the moisture content between two percent (2%) and four percent (4%) above the optimum moisture content. The pad shall be protected from the adverse effects of desiccation or freeze/thaw cycles after construction, but prior to the placement of animal waste. The soils used for this purpose shall be classified under the Unified Soil Classification System as CL, CH or SC (ASTM Test D487-85).

4.15 Adequate Water Sources. No County Health Permit shall be issued or renewed for a CAFO unless the applicant demonstrates that an adequate supply of water is available for the proposed operations.

4.16 Air Quality. All confinement areas and livestock lagoons shall be designed in such a manner so as to avoid the unlawful degradation of air quality. In no event shall the

concentration of gases at the property line resulting from the operation of a livestock lagoon or confinement area exceed the following levels:

Gas	Maximum Allowable Concentration ¹	Exposure Period ²
Carbon Dioxide (CO ₂)	5000	not applicable
Ammonia (NH ₃)	5	not applicable
Hydrogen Sulfide (H ₂ S)	10	2 hours
Methane (CH ₄)	1000	not applicable
Carbon Monoxide (CO)	50	One hour

¹In parts of pure gas per million parts of atmospheric air. ²The time during which the effects of the noxious gas are felt by an adult human or a one hundred fifty (150) pound livestock.

4.17 Soils. The applicant shall demonstrate that the soils on the premises, including any plant filter area, are suitable for and compatible with the proposed CAFO operations with respect to the location of confinement areas and livestock lagoons and the application of liquid, slurry or solid animal waste onto or into the soil on the premises.

4.17.1 No lagoon shall be constructed, operated or established unless it is designed and inspected by a registered engineer retained by the applicant.

4.17.2 Waste loads shall not exceed the agronomic rates of the plant filter areas. In order to ensure protection of ground water from nutrient contamination, the land application rates of both process wastewater and manure shall not be applied at a rate exceeding the recommended agronomic rates for the crop(s) grown on the land application site(s).

4.18 Compliance with Applicable Regulations.

4.18.1 The applicant shall demonstrate that the confinement areas and any livestock lagoon(s) shall at all times be operated in compliance with any required local, state or federal permits, licenses or other approvals and in compliance with all applicable state and local laws and regulations.

4.18.2 No Class IA, Class IB, or Class IC CAFO shall be erected, constructed, developed, used, operated, expanded, occupied or otherwise established unless the owners and any other persons responsible for operation of the waste management systems have been certified in accordance with the requirements of 10 CSR 20-14.

4.18.3 The design and operation of the waste management system shall comply in all respects with the provisions of Manual 121, Manual 115 and the AWMFH; provided, however, that if any requirement contained therein conflicts with any requirement of this Ordinance, the provisions of this Ordinance shall apply. If any requirement in Manual 121, Manual 115, or the AWMFH conflicts with one another or the requirements of the Missouri Department of Natural Resources (10 CSR 20-6.300, 20-8, 20-7.031 and 2-14), the more restrictive requirement shall govern. The applicant shall provide, as part of the applicant for a County Health Permit, all of the information required by said documents.

4.19 Minimum Land Area. The CAFO shall own, acquire or execute a lease or leases of not less than one (1) acre of land for each four (4) AU of capacity for wet handling systems or shall own or lease not less than one (1) acre for each eight (8) AU of capacity for a dry litter system. The nutrients generated by livestock within the CAFO shall not exceed the nutrient removal capabilities of the plant filter areas. Nutrient application levels for the CAFO shall comply with Appendix A hereto, which is incorporated herein by reference.

4.20 Waste Application.

4.20.1 Land application of animal wastewater shall not occur within seven hundred fifty (750) feet of an Occupied Dwelling or within one thousand (1,000) feet of a public use area which existed prior to the date the CAFO is constructed. This rule shall not apply to Occupied Dwellings owned by the CAFO. The owner of an occupied dwelling may apply for a variance from this rule as part of the application for a County Health Permit.

4.20.2 Animal waste and animal wastewater shall not be applied to land with a slope exceeding ten percent (10%) except land with a permanent vegetative cover or an approved soil conservation plan approved by the Natural Resource Conservation Service.

4.20.3 Land application shall comply with the provision of the Missouri Department of Natural Resources "Guide to Animal Feeding Operations" (January 1997), "Land Application Areas."

Section 5. Setback Requirements.

5.1 CAFO – CAFO Setback Distances. The setback distances described in paragraphs 5.1.1 – 5.1.4 shall be measured from the nearest point of one CAFO's Confinement Area or Waste Management System to the nearest point of the other CAFO's Confinement Area or Waste Management System. See Figure 2. These distances shall apply only to the application for a County Health Permit, and shall be measured only from the proposed CAFO to CAFOs in existence at the time of an application for a County Health Permit.

5.1.1 Class IA. No Class IA CAFO shall be located within one and one-half (1 ½) mile of another Class IA CAFO, or within one (1) mile of any other classification of CAFO.

5.1.2 Class IB. No Class IB CAFO shall be located within one (1) mile of any Class IA, Class IB, Class IC, or Class II CAFO.

5.1.3 Class IC. No Class IC CAFO shall be located within one (1) mile of a Class IA or Class IB CAFO, or within three-fourths (3/4) of a mile of any Class IC or Class II CAFO.

5.1.4 Class II. No Class II CAFO shall be located within one-fourth (1/4) mile of any Class IA, Class IB, Class IC or Class II CAFO.

Figure 2.

	CAFOs existing at the time of an application for a County health permit				
	(A) Setback Distances	(B) Class IA	(C) Class IB	(E) Class IC	(E) Class II
CAFO proposed in application for County Health Permit	(1) Class IA	1.5 miles	1 mile	1 mile	1 mile
	(2) Class IB	1 mile	1 mile	1 mile	1 mile
	(3) Class IC	1 mile	1 mile	$\frac{3}{4}$ mile	$\frac{3}{4}$ mile
	(4) Class II	$\frac{1}{4}$ mile	$\frac{1}{4}$ mile	$\frac{1}{4}$ mile	$\frac{1}{4}$ mile

5.2 Occupied Dwelling Setbacks. The setback distances described in paragraphs 5.2.1 – 5.2.4 shall be measured from the nearest point of the CAFO's Confinement Area or Waste Management System to the nearest point of the Occupied Dwelling. See Figure 3. These setback distances shall not apply to Occupied Dwellings owned by the CAFO or to Occupied Dwellings not in existence at the time of issuance of the County Health Permit.

5.2.1 Class IA. No Class IA CAFO shall be located within three-fourths ($\frac{3}{4}$) of a mile of an Occupied Dwelling, and this setback requirement shall increase by one-fourth ($\frac{1}{4}$) of a mile for each five hundred (500) AU (or fractional portion thereof) of capacity in excess of seven thousand (7,000) AU.

5.2.2 Class IB. No Class IB CAFO shall be located within three-fourths ($\frac{3}{4}$) of a mile of an Occupied Dwelling.

5.2.3 Class IC. No Class IC CAFO shall be located within one-half ($\frac{1}{2}$) of a mile of an Occupied Dwelling.

5.2.4 Class II. No Class II CAFO shall be located within one-quarter ($\frac{1}{4}$) of a mile of an Occupied Dwelling.

Figure 3.

	Size of CAFO			
	Class IA	Class IB	Class IC	Class II
Setback Distances from Occupied Dwelling	$\frac{3}{4}$ Mile + $\frac{1}{4}$ Mile per 500 AU over 7,000 AU	$\frac{3}{4}$ Mile	$\frac{1}{2}$ Mile	$\frac{1}{4}$ Mile

5.3 Populated Areas. The setback distances from a proposed CAFO to a Populated Area described in paragraphs 5.3.1 to 5.3.4 shall be measured in a straight line from the nearest Occupied Dwelling located within the Populated Area to the nearest CAFO Confinement Area, building, lot, other animal confinement area, or waste handling facility. See Figure 4.

5.3.1 Class IA. No Class IA CAFO shall be located within one (1) mile of a Populated Area. This setback distance shall increase one-fourth (1/4) of a mile for each five hundred (500) AU (or fractional portion thereof) of authorized capacity in excess of seven thousand (7,000) AU.

5.3.2 Class IB. No Class IB CAFO shall be located within one (1) mile of a Populated Area.

5.3.3 Class IC. No Class IC CAFO shall be located within three-quarters (3/4) of a mile of a Populated Area.

5.3.4 Class II. No Class II CAFO shall be located within one-half (1/2) of a mile of a Populated Area.

Figure 4.

	Size of CAFO			
	Class IA	Class IB	Class IC	Class II
Setback Distance from Occupied Dwelling in Populated Area	1 Mile + ¼ Mile per 500 AU over 7,000 AU	1 Mile	3/4 Mile	1/2 Mile

Section 6. Financial Security and Waste Disposal Systems Removal and Cleanup

6.1 A County Health Permit shall not be issued unless adequate security has been furnished to ensure proper removal, cleanup and disposal as required in this section.

6.2 Lagoons or other waste storage structures which are no longer in use shall be closed in accordance with the requirements of 10 CSR 20-6.300(4)(B). The Owner shall also be responsible for the cost of cleaning or remediating any contamination or pollution, including any water resources, wells, or soils which become contaminated, polluted, defiled or soiled from leaks or spills from any Lagoon or other waste storage facility on the premises. The mechanisms used to demonstrate financial assurance shall ensure that the funds necessary to meet the costs of cleanup and remediation, as established herein, will be available when they are necessary. In establishing financial assurance, Owners and Operators shall choose from the following options set forth in paragraphs 6.3, 6.4, or 6.5 of this Section. The amount of the surety bond, insurance

coverage, or self-insurance deposit shall be computed based on the following schedule for closure and remediation, which amount shall be:

6.2.1 Closure. Not less than: (i) eight thousand dollars (\$8,000) per acre-foot of Lagoon storage capacity for closure of a Class IA CAFO; (ii) seven thousand dollars (\$7,000) per acre-foot of Lagoon storage capacity for closure of a Class IB CAFO; or (iii) one thousand dollars (\$1,000) per acre-foot of Lagoon storage capacity for closure of a Class IC or Class II CAFO.

6.2.2 Remediation. Not less than: (i) thirty thousand dollars (\$30,000) for a Class II CAFO; (ii) fifty thousand dollars (\$50,000) for a Class IC CAFO; (iii) one hundred thousand dollars (\$100,000) for a Class IB CAFO; or (iv) one hundred fifty thousand dollars (\$150,000), plus twenty thousand dollars (\$20,000) for each additional five hundred (500) AU over the initial seven thousand (7,000) AU for a Class IA CAFO.

6.3 Surety Bond. An applicant for a County Health Permit may demonstrate financial assurance by obtaining a payment or performance surety bond which conforms to the requirements of this Section. The bond shall be effective before the initial receipt of livestock into the facility, and a copy of the bond shall be filed with the County Treasurer and the County Commission. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal Bonds and Circular 570 of the U.S. Department of the Treasury. In addition, the bond shall: (i) be in an amount at least equal to the financial assurance amounts established under paragraph 6.2, above; (ii) provide that the surety will become liable under the bond obligations in the event the facility fails to perform as guaranteed by the bond; (iii) provide that the surety may cancel the bond only upon sending notice of cancellation by certified mail to the Owner and to the County Commission one hundred twenty (120) days in advance of the cancellation. If the surety cancels the bond, the facility shall obtain alternative financial assurance or cease operations.

6.4 Insurance. An applicant for a County Health Permit may demonstrate financial assurance by obtaining insurance which conforms to the requirements of this Section. Insurance shall be effective before the initial receipt of livestock into the facility. At a minimum, the insurer shall be authorized to transact the business of insurance in Missouri. A copy of the policy shall be filed with the County Treasurer and the County Commission. In addition, the policy of insurance shall provide: (i) all funds will be available for any on-site or off-site cleanup resulting from the operation; (ii) the policy shall guarantee that in the event environmental cleanup is necessary, the insurer will be responsible for the payment of funds to the facility or other persons authorized to conduct the cleanup in an amount equal to the face amount of the policy; (iii) the policy shall be issued for a face amount at least equal to the financial assurance amounts established under paragraph 6.2, above; (iv) the policy shall contain a provision allowing assignment of the policy to a successor facility, and said assignment may be conditional upon consent of the insurer, provided that such assignment is not unreasonably refused; (v) the policy shall provide that the insurer may not cancel, terminate or fail to renew the policy except for failure to pay the premium; the automatic renewal of the policy shall, at a minimum, provide the insurer with the option of renewal at the face amount of the expiring policy; if there is a failure to pay the premium, the insurer may cancel the policy only by sending notice of

cancellation by certified mail to the facility and to the County Commission one hundred twenty (120) days in advance of the cancellation. If the insurer cancels the policy, the facility shall obtain alternative financial assurance or cease operations. The term "face amount" shall mean the total amount the insurer is obligated to pay under the policy. Actual payment by the insurer will not change the face amount, although the insurer's future liability may be lowered by the amount of payments.

6.5 Self-Insurance. An applicant for a County Health Permit may demonstrate financial assurance by depositing with the County Treasurer unsubordinated debentures, U.S. Government bonds or notes, or Certificates of Deposit issued by Federal or State chartered banks with a market value equal to or exceeding the sum of the financial assurance requirement established pursuant to the requirements of paragraph 6.2, above. Said financial instruments shall be held by the County Treasurer so long as the provisions of this Ordinance apply and may not otherwise be pledged by the facility. Interest payments, if any, from the financial instruments pledged as security shall be paid to the Owner.

Section 7. Variance.

Where, due to an extraordinary or exceptional situation or condition of a specific piece of property, the strict application of this Ordinance would result in peculiar and exceptional difficulties to, or an exceptional and demonstrable undue hardship upon the Owner of the property as an unreasonable deprivation of use, as distinguished from the mere grant of a privilege, the County Commission may authorize, as part of the application for a County Health Permit, a variance from the strict application so as to relieve said demonstrable difficulties or hardships, provided the relief can be granted without substantial detriment to the public good and without substantially impairing the intent, purpose and integrity of the regulations, standards and criteria established in this Ordinance.

Section 8. Application of Ordinance.

A CAFO lawfully in existence at the time of the enactment of this Ordinance shall be exempt from its terms and conditions; provided, however, that before a CAFO in existence at the time of the enactment of this Ordinance may expand or change its operations in terms of a change in CAFO classification, the CAFO shall comply with the provisions of this Ordinance in every respect and shall obtain a County Health Permit.

Section 9. Disposal of Dead Animals and After Birthing Material.

The proper disposal of dead animals and after birthing material shall be completed by the end of the next working day (excluding Sundays and holidays recognized in Chapter 9 of the Revised Statutes of Missouri), from the time of the occurrence.

Section 10. Administrative Fees.

10.1 No application for approval of a County Health Permit shall be accepted for consideration until the applicant has paid all administrative fees set forth in this Section. Fees paid shall be non-refundable, except as provided in paragraph 10.4, below.

10.2 The fee amount shall not exceed the amount necessary to recover the cost of inspection, investigation and review of the proposed application, which fee amounts are based upon the anticipated costs of review, inspection and investigation, and which fee amounts have taken into consideration the need for special investigative services, including geologic inspections, hydrologic inspections, ground water monitoring, soils evaluation, and other unique costs of a scientific or technical nature associated with processing the application. For purposes of this Ordinance, the administrative fee amounts shall be as follows:

Size of CAFO	Application Fee	Fee for Renewal of County Health Permit
Class IA	\$10,000 plus \$1.00 per AU exceeding 10,000 AU	\$500
Class IB	\$7,000	\$300
Class IC	\$3,000	\$200
Class II	\$1,000	\$100

10.3 There shall be established with the County Treasurer an escrow fund, for each application for a County Health Permit, for the purposes of reimbursing the County Commission for services rendered in connection with administration of this Ordinance. Said escrow account shall include the proceeds of project review fees established pursuant to this Section. The funds contained in said escrow account shall be used solely to reimburse the County Commission for actual costs associated with administration of this Ordinance, for actual services rendered for investigation, administration and processing of a County Health Permit, including costs associated with retaining and compensating experts on scientific and technical issues associated with the application, and costs associated with public hearings. The County Treasurer shall disburse payments based upon billings or invoices supplied by the County Commission and approved by the County Commission.

10.4 The applicant for a County Health Permit may apply to the County Commission for a credit against the fees previously paid in the event that a portion of the costs of review and processing is duplicated, pursuant to the standards of applicable case law or statutes then in effect. After the approval, conditional approval or denial of a County Health Permit, the County Treasurer shall refund to the applicant any unexpended or unencumbered balance of the escrow account established pursuant to this Section for said application.

Section 11. Violation of Ordinance.

Any person violating this Ordinance shall be subject to punishment by imprisonment or fine, as provided by law. Each day a person operates a CAFO in violation of this Ordinance, and each time a person applies animal waste or animal waste water in a manner inconsistent with the

requirements of this Ordinance, shall be considered a separate offense. The County Commission may designate a qualified individual to inspect any CAFO or Lagoon used by a CAFO which has been issued a County Health Permit and may initiate an enforcement action as provided by Section 192.300, RSMo.

Section 12. Severability.

The sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable, and if any section, paragraph, sentence, clause or phrase of this Ordinance shall be declared unconstitutional or otherwise invalid by the judgment or decree of any court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining sections, paragraphs, sentences, clauses or phrases of this Ordinance.

Section 13. Repeal of Ordinance Not to Affect Liabilities.

Whenever any part of this Ordinance shall be repealed or modified, either expressly or by implication, by a subsequent ordinance, that part of the ordinance thus repealed or modified shall continue in force and effect until the subsequent ordinance repealing or modifying the ordinance shall go into effect unless otherwise expressly provided; however, no suit, prosecution, proceeding, right, fine or penalty instituted, created, given, secured or accrued under this Ordinance previous to its repeal, shall not be affected, released, or discharged, but may be prosecuted, enjoined and recovered as fully as if this ordinance or provisions had continued in force, unless it shall be therein otherwise expressly provided.

Section 14. Effective Date.

This Ordinance shall be in full force and effect from and after its date of passage by the County Commission, except as provided herein.