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States' Nutrient Management Plans Statutes & Regulations: *Missouri*



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States' Nutrient Management Plans Statutes & Regulations:
Missouri

MO Rev Stat § 640.710
MO Rev Stat § 644.026
10 MO Code of State Regs 20-6.300

*The statutes and Constitution are current through the 2018 regular and special legislative sessions.
The statutes are subject to changes by the Missouri Revisor of Statutes.*

MO Rev Stat § 640.710. Department to regulate facilities – rules – setback – exemption.

1. The department shall promulgate rules regulating the establishment, permitting, design, construction, operation and management of class I facilities. The department shall have the authority and jurisdiction to regulate the establishment, permitting, design, construction, operation and management of any class I facility. Such rules may require monitoring wells on a site-specific basis when, in the determination of the division of geology and land survey, class IA concentrated animal feeding operation lagoons are located in hydrologically sensitive areas where the quality of groundwater may be compromised. Such rules and regulations shall be designed to afford a prudent degree of environmental protection while accommodating modern agricultural practices.

2. Except as provided in subsections 3 and 4 of this section, the department shall require at least but not more than the following buffer distances between the nearest confinement building or lagoon and any public building or occupied residence, except a residence which is owned by the concentrated animal feeding operation or a residence from which a written agreement for operation is obtained:

(1) For concentrated animal feeding operations with at least one thousand animal units, one thousand feet;

(2) For concentrated animal feeding operations with between three thousand and six thousand nine hundred ninety-nine animal units inclusive, two thousand feet; and



(3) For concentrated animal feeding operations of seven thousand or more animal units, three thousand feet.

3. All concentrated animal feeding operations in existence as of June 25, 1996, shall be exempt from the buffer distances prescribed in subsection 2 of this section. Such distances shall not apply to concentrated animal feeding operations which have received a written agreement which has been signed by all affected property owners within the buffer distance.

4. The department may, upon review of the information contained in the site plan including, but not limited to, the prevailing winds, topography and other local environmental factors, authorize a distance which is less than the distance prescribed in subsection 2 of this section. The department's recommendation shall be sent to the governing body of the county in which such site is proposed. The department's authorized buffer distance shall become effective unless the county governing body rejects the department's recommendation by a majority vote at the next meeting of the governing body after the recommendation is received.

5. Nothing in this section shall be construed as restricting local controls.

MO Rev Stat § 644.026. Powers and duties of commission – rules, procedure.

1. The commission shall:

(1) Exercise general supervision of the administration and enforcement of sections 644.006 to 644.141 and all rules and regulations and orders promulgated thereunder;

(2) Develop comprehensive plans and programs for the prevention, control and abatement of new or existing pollution of the waters of the state;

(3) Advise, consult, and cooperate with other agencies of the state, the federal government, other states and interstate agencies, and with affected groups, political subdivisions and industries in furtherance of the purposes of sections 644.006 to 644.141;

(4) Accept gifts, contributions, donations, loans and grants from the federal government and from other sources, public or private, for carrying out any of its functions, which funds shall not be expended for other than the purposes for which provided;

(5) Encourage, participate in, or conduct studies, investigations, and research and demonstrations relating to water pollution and causes, prevention, control and abatement thereof as it may deem



advisable and necessary for the discharge of its duties pursuant to sections 644.006 to 644.141;

(6) Collect and disseminate information relating to water pollution and the prevention, control and abatement thereof;

(7) After holding public hearings, identify waters of the state and prescribe water quality standards for them, giving due recognition to variations, if any, and the characteristics of different waters of the state which may be deemed by the commission to be relevant insofar as possible pursuant to any federal water pollution control act. These shall be reevaluated and modified as required by any federal water pollution control act;

(8) Adopt, amend, promulgate, or repeal after due notice and hearing rules and regulations to enforce, implement, and effectuate the powers and duties of sections 644.006 to 644.141 and any required of this state by any federal water pollution control act, and as the commission may deem necessary to prevent, control and abate existing or potential pollution. In addition to opportunities to submit written statements or provide testimony at public hearings in support of or in opposition to proposed rulemakings as required by section 536.021, any person who submits written comments or oral testimony on a proposed rule shall, at any public meeting to vote on an order of rulemaking or other commission policy, have the opportunity to respond to the proposed order of rulemaking or department of natural resources' response to comments to the extent that such response is limited to issues raised in oral or written comments made during the public notice comment period or public hearing on the proposed rule;

(9) Issue, modify or revoke orders prohibiting or abating discharges of water contaminants into the waters of the state or adopting other remedial measures to prevent, control or abate pollution;

(10) Administer state and federal grants and loans to municipalities and political subdivisions for the planning and construction of sewage treatment works;

(11) Hold such hearings, issue such notices of hearings and subpoenas requiring the attendance of such witnesses and the production of such evidence, administer such oaths, and take such testimony as the commission deems necessary or as required by any federal water pollution control act. Any of these powers may be exercised on



behalf of the commission by any members thereof or a hearing officer designated by it;

(12) Require the prior submission of plans and specifications, or other data including the quantity and types of water contaminants, and inspect the construction of treatment facilities and sewer systems or any part thereof in connection with the issuance of such permits or approval as are required by sections 644.006 to 644.141, except that manholes and polyvinyl chloride (PVC) pipe used for gravity sewers and with a diameter no greater than twenty-seven inches shall not be required to be tested for leakage;

(13) Issue, continue in effect, revoke, modify or deny, under such conditions as it may prescribe, to prevent, control or abate pollution or any violations of sections 644.006 to 644.141 or any federal water pollution control act, permits for the discharge of water contaminants into the waters of this state, and for the installation, modification or operation of treatment facilities, sewer systems or any parts thereof. Such permit conditions, in addition to all other requirements of this subdivision, shall ensure compliance with all effluent regulations or limitations, water quality related effluent limitations, national standards of performance and toxic and pretreatment effluent standards, and all requirements and time schedules thereunder as established by sections 644.006 to 644.141 and any federal water pollution control act; however, no permit shall be required of any person for any emission into publicly owned treatment facilities or into publicly owned sewer systems tributary to publicly owned treatment works;

(14) Establish permits by rule. Such permits shall only be available for those facilities or classes of facilities that control potential water contaminants that pose a reduced threat to public health or the environment and that are in compliance with commission water quality standards rules, effluent rules or rules establishing permits by rule. Such permits by rule shall have the same legal standing as other permits issued pursuant to this chapter. Nothing in this section shall prohibit the commission from requiring a site-specific permit or a general permit for individual facilities;

(15) Require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities and systems;

(16) Exercise all incidental powers necessary to carry out the purposes of sections 644.006 to 644.141, assure that the state of



Missouri complies with any federal water pollution control act, retains maximum control thereunder and receives all desired federal grants, aid and benefits;

(17) Establish effluent and pretreatment and toxic material control regulations to further the purposes of sections 644.006 to 644.141 and as required to ensure compliance with all effluent limitations, water quality-related effluent limitations, national standards of performance and toxic and pretreatment effluent standards, and all requirements and any time schedules thereunder, as established by any federal water pollution control act for point sources in this state, and where necessary to prevent violation of water quality standards of this state;

(18) Prohibit all discharges of radiological, chemical, or biological warfare agent or high-level radioactive waste into waters of this state;

(19) Require that all publicly owned treatment works or facilities which receive or have received grants or loans from the state or the federal government for construction or improvement make all charges required by sections 644.006 to 644.141 or any federal water pollution control act for use and recovery of capital costs, and the operating authority for such works or facility is hereby authorized to make any such charges;

(20) Represent the state of Missouri in all matters pertaining to interstate water pollution including the negotiation of interstate compacts or agreements;

(21) Develop such facts and make such investigations as are consistent with the purposes of sections 644.006 to 644.141, and, in connection therewith, to enter or authorize any representative of the commission to enter at all reasonable times and upon reasonable notice in or upon any private or public property for any purpose required by any federal water pollution control act or sections 644.006 to 644.141 for the purpose of developing rules, regulations, limitations, standards, or permit conditions, or inspecting or investigating any records required to be kept by sections 644.006 to 644.141 or any permit issued pursuant to sections 644.006 to 644.141, any condition which the commission or director has probable cause to believe to be a water contaminant source or the site of any suspected violation of sections 644.006 to 644.141, regulations, standards, or limitations, or permits issued pursuant to sections 644.006 to 644.141. The results of any such investigation shall be reduced to writing, and shall be furnished to the owner or operator of the property. No person shall refuse entry or access, requested for the purposes of inspection pursuant to this subdivision, to an



authorized representative in carrying out the inspection. A suitably restricted search warrant, upon a showing of probable cause in writing and upon oath, shall be issued by any judge or associate circuit judge having jurisdiction to any representative for the purpose of enabling him or her to make such inspection. Information obtained pursuant to this section shall be available to the public unless it constitutes trade secrets or confidential information, other than effluent data, of the person from whom it is obtained, except when disclosure is required pursuant to any federal water pollution control act;

(22) Retain, employ, provide for, and compensate, within appropriations available therefor, such consultants, assistants, deputies, clerks and other employees on a full- or part-time basis as may be necessary to carry out the provisions of sections 644.006 to 644.141 and prescribe the times at which they shall be appointed and their powers and duties;

(23) Secure necessary scientific, technical, administrative and operation services, including laboratory facilities, by contract or otherwise, with any educational institution, experiment station, or any board, department, or other agency of any political subdivision of the state or the federal government;

(24) Require persons owning or engaged in operations which do or could discharge water contaminants, or introduce water contaminants or pollutants of a quality and quantity to be established by the commission, into any publicly owned treatment works or facility, to provide and maintain any facilities and conduct any tests and monitoring necessary to establish and maintain records and to file reports containing information relating to measures to prevent, lessen or render any discharge less harmful or relating to rate, period, composition, temperature, and quality and quantity of the effluent, and any other information required by any federal water pollution control act or the director, and to make them public, except as provided in subdivision (21) of this section. The commission shall develop and adopt such procedures for inspection, investigation, testing, sampling, monitoring and entry respecting water contaminant and point sources as may be required for approval of such a program pursuant to any federal water pollution control act;

(25) Take any action necessary to implement continuing planning processes and areawide waste treatment management as established pursuant to any federal water pollution control act or sections 644.006 to 644.141;



(26) Exercise general supervision of the department as the sole designated state agency with authority to administer the federal Clean Water Act in the state of Missouri, which shall include authority to approve any stream or wetland mitigation used in connection with any Section 401 water quality certification.

2. No rule or portion of a rule promulgated pursuant to this chapter shall become effective unless it has been promulgated pursuant to chapter 536.

10 MO Code of State Regs 20-6.300. Concentrated Animal Feeding Operations.

(1) Definitions.

(A) Definitions as set forth in 10 CSR 20-2.010 and 10 CSR 208.300 shall apply to the terms when used in this rule unless otherwise defined in subsection (B) below.

(B) Other applicable definitions are incorporated as follows:

1. Animal-Domestic animals, fowls, or other types of livestock except for aquatic animals;

2. Animal unit-A unit of measurement to compare various animal types at an animal feeding operation. One (1) animal unit equals the following: 1.0 beef cow or feeder, cow/calf pair, veal calf, or dairy heifer; 0.5 horse; 0.7 mature dairy cow; 2.5 swine weighing over 55 pounds; 10 swine weighing less than 55 pounds; 10 sheep, lamb, or meat and dairy goats; 30 chicken laying hens or broilers with a wet handling system; 82 chicken laying hens without a wet handling system; 55 turkeys in grow-out phase; 125 chicken broilers, chicken pullets, or turkey poults in brood phase without a wet handling system;

3. Animal unit equivalent-Any unique animal type, not listed, that has a similar manure characteristic as one (1) of the listed animal unit categories. The department shall make the determination of an animal unit equivalent based upon manure characteristics that include manure volume and nutrient concentration;

4. Animal feeding operation (AFO)-A lot, building, or complex at an operating location where animals are stabled or confined and fed or maintained for a total of forty-five (45) days or more in any twelve- (12-) month period, and crops, vegetation, forage growth, or post-harvest residues cannot be sustained over at least fifty percent (50%) of the animal confinement area within the normal crop growing season;



5. Catastrophic storm event-A precipitation event of twenty-four- (24-) hour duration that exceeds the twenty-five-(25-) year, twenty-four- (24-) hour storm event as defined by the most recent publication of the National Weather Service Climate Atlas;

6. Chronic weather event-The chronic weather event will be based upon an evaluation of the ten (10) year return rainfall frequency over a ten- (10-) day, ninety- (90-) day, one hundred eighty- (180-) day, and three hundred sixty-five- (365-) day operating period. It is preferred the University of Missouri's Missouri Climate Center will determine, within a reasonable time frame, when a chronic weather event is occurring for any given county in the state;

7. Class I and Class II operation-An AFO or CAFO's class size is based on the operating level in animal units of an individual animal type at one (1) operating location. Once a CAFO becomes a Class I operation, the animal units of all confined animals at the operating location are summed to determine whether the operation is Class IA, IB, or IC. Operations that are smaller than the Class II category are considered unclassified. The class categories, sorted by animal type, are presented in the following chart:

1 Animal Unit =

1.0	Beef cow, feeder, veal calf, cow/calf pair, and dairy heifer	10	Sheep, lambs, and meat and dairy goats
0.5	Horses	30	Chicken laying hens, pullets, and broilers with a wet handling system
0.7	Mature Dairy Cows	55	Turkeys in a grow-out phase
2.5	Swine weighing over 55 pounds	82	Chicken laying hens without a wet handling system
10	Swine weighing under 55 pounds	125	Chicken broilers and pullets, and turkey poults in brood phase, all without a wet handling system
5	Ducks with a wet handling system		
300	Ducks without a wet handling system		



Animal Class Category

Animal Class Category	Class IA 7,000 AUs*	Class IB 3,000 to 6,999 AUs*	Class IC 1,000 to 2,999 AUs*	Class II 300 to 999 AUs*
Beef cows, feeder cattle, veal calves, cow/calf pairs, and dairy heifers	7,000	3,000 to 6,999	1,000 to 2,999	300 to 999
Horses	3,500	1,500 to 3,499	500 to 1,499	150 to 499
Mature Dairy Cows	4,900	2,100 to 4,800	700 to 2,099	200 to 699
Swine weighing over 55 pounds	17,500	7,500 to 17,499	2,500 to 7,499	750 to 2,499
Swine weighing under 55 pounds	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Sheep, lambs, and meat and dairy goats	70,000	30,000 to 209,000	30,000 to 89,999	9,000 to 29,000
Chicken laying hens, pullets, and broilers with a wet handling system	210,000	90,000 to 209,999	30,000 to 89,999	9,000 to 29,000
Chicken laying hens without a wet handling system	574,000	246,000 to 573,000	82,000 to 245,999	24,500 to 81,999
Turkeys in grow-out phase	385,000	165,000 to 384,999	55,000 to 164,999	16,500 to 54,999
Chicken broilers and pullets, and turkey poults in brood phase, all without a wet handling system	875,000	375,000 to 874,999	125,000 to 374,999	37,500 to 124,999
Ducks without a wet handling system	210,000	90,000 to 209,999	30,000 to 89,999	10,000 to 29,999
Ducks with a wet handling system	35,000	15,000 to 34,999	5,000 to 14,999	1,500 to 4,999

* Animal Units

8. Concentrated animal feeding operation (CAFO)–An AFO that meets one (1) of the following criteria:

A. Class I operation;

B. Class II operation where either one (1) of the following conditions are met:



(I) Pollutants are discharged into waters of the state through a manmade ditch, flush system, or other similar manmade device; or

(II) Pollutants are discharged directly into waters of the state which originate outside of and pass over, across, or through the production area or otherwise come into contact with the animals confined in the operation; or

C. An unclassified operation that is designated as a CAFO in accordance with subsection (2)(D) of this rule;

9. Critical watersheds-defined as the following:

A. Watersheds for public drinking water lakes (L1 lakes defined in 10 CSR 20-7.031 and identified in Table G);

B. Watersheds located upstream away from the dam from all drinking water intake structures on lakes including the watershed of Table Rock Lake;

C. Areas in the watershed and within five (5) miles upstream of any stream or river drinking water intake structure, other than those intake structures on the Missouri and Mississippi Rivers; and

D. Watersheds of the Current (headwaters to Northern Ripley County Line), Eleven Point (headwaters to Hwy. 142), and Jacks Fork (headwaters to mouth) Rivers;

10. Discharge-A CAFO is said to discharge when it is designed, constructed, operated, or maintained such that a discharge of process waste to surface waters of the state will occur. A CAFO that discharges could include one (1) that continuously discharges process wastewater to surface waters of the state, as well as one that may only have an intermittent and sporadic discharge. Discharges of agricultural storm water is a nonpoint source and therefore not included within this definition;

11. Dry process waste-A process waste mixture which may include manure, litter, or compost (including bedding, compost, mortality by-products, or other raw materials which is commingled with manure) and has less than seventy-five percent (75%) moisture content and does not contain any free draining liquids;



12. Flush system-Any animal waste moving or removing system utilizing the force of periodic liquid flushing as the primary mechanism for removing manure from animal containment buildings, as opposed to a primarily mechanical or automatic device. This definition does not include confinement buildings that utilize deep or shallow underfloor pits with pull plug devices;

13. Land application area-Agricultural land which is under the operational control of the CAFO owner or operator, whether it is owned, rented, or leased, to which manure, litter, or process wastewater from the production area is or may be applied;

14. Multi-year phosphorus application-Phosphorus applied to a field in excess of the crop needs for that year. When multi-year phosphorus applications are followed, no additional manure, litter, or process wastewater is applied to the same land in subsequent years until the applied phosphorus has been removed from the field via harvest and crop removal or until subsequent soil testing allows for nitrogen-based rates;

15. No-discharge operation-A CAFO is considered no-discharge if the operation is designed, constructed, operated, and maintained in a manner such that the CAFO will not discharge to waters of the state. A discharge of agricultural storm water is a nonpoint source and therefore not included within this definition;

16. Occupied residence-A residential dwelling which is inhabited at least fifty percent (50%) of the year;

17. Operating location-For purposes of determining CAFO classification, an operating location includes all contiguous lands owned, operated, or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common or noncontiguous lands if they use a common area for the land application of wastes. State and county roads are not considered property boundaries for purposes of this rule. Two (2) or more animal feeding operations under a common ownership are considered to be a single animal feeding operation if they adjoin each other or if they use a common area for the land application of wastes;

18. Overflow-The discharge of process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or stormwater can be contained by the structure;



19. Process wastewater–Water which carries or contains manure, including manure commingled with litter, compost, or other animal production waste materials used in the operation of the CAFO. Also includes water directly or indirectly used in the operation of the CAFO for any or all of the following: spillage or overflow from confined animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; and water resulting from the washing, or spray cooling of confined animals. Process wastewater also includes any water which comes into contact with any raw materials, products, or by-products feed, milk, eggs, or bedding;

20. Production area–The non-vegetated portions of an operation where manure, litter, or process wastewater from the AFO is generated, stored, and/or managed. The production area includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes, but is not limited to, open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes, but is not limited to, lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes, but is not limited to, feed and silage, silos, pads, and bunkers, and bedding materials. The waste containment area includes, but is not limited to, settling basins and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing operation and any area used in the storage, treatment, or disposal of animal mortalities;

21. Public building–A building open to and used routinely by the public for public purposes;

22. Vegetated buffer–A narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters;



23. Waste management system-Includes all structures and equipment, used to collect, store, transfer, or treat manure, litter, and/or process waste water. A waste management system will be considered in operation when animals are placed in confinement; and

24. Wet handling system-Wet handling system is the handling of process wastewater that contains more than seventy five percent (75%) moisture content or has free draining liquids. A wet handling system includes, but is not limited to, lagoons, pits, tanks, all gravity outfall lines, recycle pump stations, recycle force mains, and appurtenances.

(2) Applicability and Application for Coverage.

(A) Scope of Rule. This rule applies solely to manure, litter, and/or process wastewater management systems at concentrated animal feeding operations (CAFOs). CAFOs are point sources and are subject to both state and federal National Pollutant Discharge Elimination System (NPDES) regulations in accordance with sections 640.710 and 644.026, RSMo.

(B) Permit Coverage Required-Any CAFO owner or operator shall obtain one (1) of the operating permits listed below prior to operating a waste management system at a concentrated animal feeding operation unless otherwise exempted under subsection (2)(E) of this rule:

1. NPDES general or site-specific operating permits-Owners or operators of Class I CAFOs that discharge and Class II AFOs that are defined or designated as a CAFO, must obtain an NPDES operating permit. Class I CAFOs that do not discharge may also apply for coverage under an NPDES operating permit;
2. State no-discharge operating permit-Owners or operators of Class I CAFOs that do not discharge and do not apply for coverage under an NPDES operating permit shall obtain and maintain coverage under a state no-discharge operating permit.

(C) CAFO Designation at Class II Size AFOs.

1. The department may designate an AFO as a concentrated animal feeding operation upon determining that it is a significant contributor of pollutants to waters of the state. In making such designation, the department shall consider the following factors:



- A. The size of the AFO and the amount of wastes reaching waters of the state;
- B. The location of the AFO relative to waters of the state;
- C. The means of conveyance of animal wastes and process waste into waters of the state;
- D. The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes manure and process waste into waters of the state; and
- E. Other relevant factors.

2. No AFO shall be designated under this section unless the department has conducted an on-site inspection of the operation and determined that the operation should and could be regulated as a concentrated animal feeding operation. In addition, no AFO with number of animals below a Class II size operation may be designated as a CAFO unless-

- A. Pollutants are discharged into waters of the state through a manmade ditch, flushing system, or other similar manmade device; or
- B. Pollutants are discharged directly into the waters of the state which originate outside of the AFO and pass over, across, or through the AFO, or otherwise come into direct contact with the animals confined in the operation.

(D) Exemptions.

- 1. In accordance with section 640.758, RSMo, livestock markets and auctions are exempt from the provisions of 10 CSR 20-6.300(3)(B)-(C), 10 CSR 20-6.300(3)(H), and 10 CSR 20-6.300(7).
- 2. Permits are not required for nonpoint source discharges, agricultural stormwater discharges, and return flows from irrigated agriculture. A precipitation related discharge of manure, litter, or process wastewater from land application areas under the control of a CAFO is considered an agricultural stormwater discharge when manure, litter, or process wastewater is applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater.



(E) Operating Permit Applications. This section describes the application process and requirements for CAFO operating permits. A separate application for each operating location must be submitted to the department.

1. The department will not examine the adequacy or efficiency of the structural, mechanical, or electrical components of the waste management systems, only adherence to rules and regulations. The issuance of permits will not include approval of such features.

2. The application shall include at a minimum the following documents:

A. Title page of engineering report or similar document sealed by a professional engineer including name of the operation, date the report was prepared, name and address of firm preparing the report, seal and signature of the engineer, and a statement indicating the project was designed in accordance with 10 CSR 20-8.300;

B. Narrative project summary. This shall describe the existing and any proposed modifications to operating conditions including the number of confinement buildings or areas, the total design capacity in animal units and actual animal numbers for each type of animal, and an explanation of the existing and/or proposed modifications to the waste management system;

C. Include the amount of manure generated annually, storage volume, and days of storage of all manure storage structures, including mortality composter;

D. A recent aerial or topographic map showing the extent of the production area including;

(I) All existing and proposed confinement buildings, open lots, manure storage structures;

(II) Surface waters and areas subject to a one hundred (100) year flood event within or adjacent to the production area; and

(III) Production area setback distances in accordance with 10 CSR 20-8.300(5)(B);

E. Nutrient Management Plan-



(I) NPDES permit - applications shall include the operations' nutrient management plan; or

(II) State no-discharge permit - applications for a new permit shall include the operations' nutrient management plan;

F. Applications for Class I CAFOs shall also include:

(I) An aerial or topographic map that meets the requirement of 10 CSR 20-6.300(3)(C) 4.;

(II) Proof of neighbor notice to all parties listed in 10 CSR 20-6.300(3)(C) 2.

3. When an application is submitted incomplete or any of the required permit documents are deficient, or if additional information is needed including, but not limited to, engineering design plans, the department will act in one (1) of the following ways:

A. The department may return the entire permit application back to the applicant for re-submittal; or

B. The applicant and/or the applicant's engineer will be notified of the deficiency and will be provided time to address department comments and submit corrections. Processing of the application may be placed on hold until the applicant has corrected identified deficiencies.

4. Applicants who fail to correct deficiencies and/or fail to satisfy all department comments after two (2) certified department comment letters shall have the application returned as incomplete and the permit fee(s) shall be forfeited. The department will grant reasonable time extensions when the applicant requests additional time to respond to department comments, however, such requests must be in writing and must occur within the time frame set by the department.

5. When the department has received all documents and information necessary for a properly completed operating permit application, including appropriate permit fees, the department will, review the application and said documents for compliance with this regulation and 10 CSR 20-8.300 and, if met, act in one (1) of the following ways:



A. For an operation seeking coverage under the state no-discharge general operating permit the department will issue the state no-discharge general operating permit; or

B. For an operation seeking coverage under the NPDES operating permit the department will post for fifteen (15) days on the department's webpage a notice of the pending CAFO NPDES permit. The notice will include an announcement of the opportunity for public review and comment on the CAFO's nutrient management plan and draft NPDES permit. The department will consider all comments before issuing the operating permit.

(3) Operating Permit Requirements. These requirements apply to all operating permits unless otherwise specified.

(A) General Requirements.

1. All operating permits required by this rule shall be issued in accordance with applicable provisions of 10 CSR 206.010, 10 CSR 20-6.011, 10 CSR 20-6.020, and 10 CSR 20-8.300. When the state regulations referenced within these rules are found to be incompatible with the requirements of 10 CSR 206.300, the provisions of 10 CSR 20-6.300 will take precedence.

2. In addition to the state requirements found in this rule, all CAFO NPDES permits shall be issued in compliance with applicable federal regulation as set forth in 40 CFR 122.42(e), and 40 CFR 412, Subpart A through Subpart D, July 30, 2012, incorporated by reference, without any later amendments or additions, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954.

3. Permits shall allow the CAFO to operate at a level of animal units not to exceed its respective class size (i.e., Class IC or IB). When determining the appropriate classification, a rolling twelve- (12-) month average method will be used. The rolling twelve- (12-) month average shall at no time exceed the upper threshold limit of the CAFO's designated class size. CAFOs may change animal numbers and weights within its respective class size; however, such changes must not subsequently violate applicable effluent limitations found in section (4) of this rule or adversely impact the storage and handling capacities



of the waste management system and may be subject to other appropriate conditions or limitations. If a Class I CAFO has reduced animal numbers and is operating as a Class II or smaller AFO, the operation may request termination of their operating permit. The rolling twelve- (12-) month average for the last twelve (12) months shall be submitted with the termination request. The department will then conduct an inspection to determine if the permit can be terminated. If the operation increases animal numbers to the Class I operating size, the owner or operator of the CAFO shall apply for an operating permit.

4. Permits shall require the CAFO operator to provide the recipient of any manure, litter, or process wastewater transfer, a current manure nutrient analysis.

5. Mortalities must not be disposed of in any liquid manure or process wastewater system, unless specifically designed to handle them. Mortalities must be handled in such a way as to prevent the discharge of pollutants to surface waters and prevent the creation of a public health hazard.

(B) Buffer Distances. Buffer distances shall be in accordance with section 640.710, RSMo unless exempted below:

1. When a CAFO proposes an expansion or modification but does not increase to a larger classification size, the buffer distance requirements shall be applicable only to the proposed confinement buildings and wastewater storage structures unless exempted by paragraph 2. of this subsection. Neighbor notice requirements of subsection (C) of this section shall apply to all existing and proposed confinement buildings and wastewater storage structures. If the proposed expansion or modification results in an increase to a larger classification size, the buffer distance and neighbor notice requirement of the larger classification size will apply to all existing and proposed confinement buildings and wastewater storage structures unless exempted by paragraph 4. of this subsection.

2. A concentrated animal feeding operation and any future modification or expansion of a CAFO is exempt from buffer distance requirements, but not neighbor notice requirements, when it meets all of the following criteria:



A. The CAFO was in existence prior to June 25, 1996; and

B. The CAFO does not expand to a larger classification size.

3. When existing animal feeding operations or concentrated animal feeding operations expand to a larger class size, the buffer distances shall not apply to the portion of the operation in existence as of June 25, 1996.

4. Buffer distances are not applicable to residences owned by the concentrated animal feeding operation or a residence from which a written agreement for operation is obtained from the owner of that residence. When shorter buffer distances are proposed by the operation and allowed by the department, the written agreement for a shorter buffer distance shall be recorded with the county recorder and filed in the chain of title for the property of the land owner agreeing to the shorter buffer distance.

(C) Neighbor Notice Requirements. Neighbor notice shall be conducted in accordance with section 640.715, RSMo.

1. Acceptable forms of proof for submittal that neighbor notice was sent include copies of mail delivery confirmation receipts, return receipts, or other similar documentation.

2. All concentrated animal feeding operations shall submit, as part of the operating permit application, an aerial or topographic map of the production area. The maps shall show the operation layout, buffer distances, property lines, and property owners within one and one-half (1 1/2) times the buffer distance.

3. The neighbor notice will expire if an operating permit application has not been received by the department within twelve (12) months of initiating the neighbor notice requirements.

(D) Inspections.

1. Permits shall require the following minimum visual inspections at the production area:

A. Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the process wastewater storage;

B. Daily inspection of water lines, including wastewater, drinking water, and cooling water lines



that can be visually observed within the production area. The inspection of the drinking water and cooling water lines shall be limited to the lines that possess the ability to leak or drain to wastewater storage structures or may come in contact with any process waste;

C. Weekly inspections of the manure, litter, and process wastewater impoundments. The inspection will note the level in liquid impoundments as indicated by the depth marker; and

D. Once per day when in use conduct leak inspections on equipment used for land application of manure or process wastewater.

2. Permits shall require the following minimum visual inspections at the land application area:

A. Monitoring of the perimeter of the application fields once per day during land application to ensure that applied wastewater does not run off the fields where applied;

B. Monitor for drifting from spray irrigation; and

C. Hourly inspections of aboveground irrigation pipelines when in use.

3. Permits shall require that any deficiencies found as a result of inspections be corrected as soon as possible.

(E) Record Keeping. This section pertains to all CAFO operating permits. All records required by this section shall be made available to the department upon request.

1. Permits shall require that the permittee maintain the following records for the production area for a period of five (5) years from the date they are created:

A. A copy of construction and operating permits, permit applications, and the nutrient management plan;

B. A once-per-week record documenting the daily visual inspections performed as required in 10 CSR 20-6.300(3)(D) above;



C. Weekly records of the depth of the manure and process wastewater in the liquid impoundments as indicated by the depth marker;

D. Records documenting any actions taken to correct deficiencies. Deficiencies not corrected within thirty (30) days shall be accompanied by an explanation of the factors preventing immediate correction;

E. Records of mortalities management and practices used by the operation which verify compliance with 10 CSR 20-6.300(3)(A) 5. above;

F. Records of the date, time, and estimated volume of any overflow; and

G. Records of the date, recipient name and address, and approximate amount of manure, litter, or process wastewater transferred to another person.

2. Permits shall require that the permittee maintain the following records for the land application area for a period of five (5) years from the date they are created:

A. Expected crop yields;

B. The date(s) manure, litter, or process wastewater is applied to each field;

C. Weather conditions at time of application and for twenty-four (24) hours prior to and following application;

D. Test methods used to sample and analyze manure, litter, process wastewater, and soil;

E. Results from manure, litter, process wastewater, and soil sampling;

F. Explanation of the basis for determining manure application rates, as provided in the technical standards;

G. Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, or process wastewater;

H. Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;



I. The method used to apply the manure, litter, or process wastewater; and

J. Date(s) of manure application equipment inspection.

(F) Annual Reports. This section is required for NPDES operating permits only. Annual reports shall comply with the federal regulation 40 CFR 122.42(e)(4), "Annual reporting requirements for CAFOs," Jan. 8, 2018, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954, which is hereby incorporated by reference and does not include later amendments or additions.

(G) Best Management Practices (BMPs)–Each CAFO subject to 10 CSR 20-6.300, that land applies manure, litter, or process wastewater must do so in accordance with the following practices:

1. Nutrient management plan. Operating permits shall require a nutrient management plan be developed and implemented according to the requirements of 10 CSR 20-6.300(5). The plan must also incorporate the requirements of paragraph (3)(G)2. below. The CAFO must begin implementation of the plan upon the date of operating permit coverage;

2. Manure, litter, and process wastewater applied to the land application area must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard (NMTS) approved by the Clean Water Commission on March 4, 2009, in accordance with 40 CFR 123.36, as published by the Missouri Department of Natural Resources, Division of Environmental Quality, Water Protection Program, PO Box 176, Jefferson City, MO 65102-0176, which is hereby incorporated by reference into this rule without any later amendments or additions, or an alternative but equally protective standard subsequently approved by the department that includes, but is not limited to, the following:

A. Include a field-specific assessment of the potential for phosphorus transport from the field to surface waters and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters;



B. Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multiyear phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-based nutrient management, and other components, as determined appropriate by the department;

C. Require that manure be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil be analyzed a minimum of once every five (5) years for phosphorus content. The results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater;

D. Include conditions that will ensure manure, litter, and process wastewater applications are conducted in a manner that prevents surface runoff of process wastewater beyond the edge of the field. Such measures will include, but not be limited to, restricting the timing, soil conditions, and placement of manure during land application; and

E. Include appropriate land application setbacks that at a minimum require manure, litter, and process wastewater be land applied not closer than one hundred feet (100') from any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters unless the operation complies with one (1) of the following compliance alternatives:

(I) For surface and subsurface applications, a setback consisting of a thirty-five foot- (35' -) wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited; or

(II) The CAFO demonstrates that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the one hundred foot (100') setback;



3. Land application shall occur during daylight hours only. Night time applications shall only occur when the department has approved the night time land application plan.

(H) Additional Requirements for Class IA CAFOs only. Secondary containments shall be installed in accordance with section 640.730, RSMo. Inspections shall be conducted in accordance with Section 640.725, RSMo, in addition to the following:

1. Inspections shall also include the structural integrity of the collection system and containment structures along with any unauthorized discharges from the flush and wet handling systems. Records shall be maintained by the facility for a minimum of three (3) years on forms approved by the department.
2. Secondary containment structure(s) or earthen dam(s) shall be sized to contain a minimum volume equal to the maximum capacity of flushing in any twenty-four- (24-) hour period from all gravity outfall lines, recycle pump stations, and recycle force mains.
3. Class IA concentrated animal feeding operations (both new and those operations that wish to expand to Class IA size) are prohibited from the watersheds of the Current, Jacks Fork, and Eleven Point Rivers as described in 10 CSR 20-6.300(1)(B) 9.D.
4. A record of inspections when the water level is less than twelve inches (12") from the emergency spillway shall be included with the operations annual report.

(4) Design Standards and Effluent Limitations.

(A) Effluent Limitations Applicable to All Class I CAFOs.

1. New and expanding CAFOs shall be designed and constructed in accordance with 10 CSR 20-8.300.
2. Effluent limits for subsurface waters shall be in accordance with 10 CSR 20-7.015(7)(E).
3. NPDES operating permits shall also comply with effluent limitations as set forth in 40 CFR Part 412, Subpart A through Subpart D, July 30, 2012, without any later amendments or additions, as published by the Office of the Federal Register, National Archives and Records Administration,



Superintendent of Documents, Pittsburgh, PA 15250-7954, which are hereby incorporated by reference.

4. There shall be no discharge of manure, litter, or process wastewater to waters of the state from a CAFO as a result of the land application of manure, litter, or process wastewater to land application areas under the operational control of the CAFO, except where it is an agricultural storm water discharge. When manure, litter, or process wastewater has been land applied in accordance with subsection (3)(G) of this rule, a precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of the CAFO is considered to be an agricultural storm water discharge.

5. A chronic weather event is a series of wet weather events and conditions that can delay planting, harvesting, and prevent land application and dewatering practices at wastewater storage structures. When wastewater storage structures are in danger of an overflow due to a chronic weather event, CAFO owners shall take reasonable steps to lower the liquid level in the structure through land application, or other suitable means, to prevent overflow from the storage structure. Reasonable steps may include, but are not limited to, following the department's current guidance on "Wet Weather Management Practices for CAFOs." These practices shall be designed specifically to protect water quality during wet weather periods. A discharge resulting from a land application conducted during wet weather conditions is not considered an agricultural stormwater discharge and is subject to permit requirements. The department will determine, within a reasonable time frame, when a chronic weather event is occurring for any given county in Missouri. The determination will be based upon an evaluation of the one-in-ten (1- in-10) year return rainfall frequency over a ten- (10-) day, ninety- (90-) day, one hundred eighty- (180-) day, and three hundred sixty five- (365-) day operating period.

(B) Additional Limitations for State No-Discharge Operating Permits.

1. There shall be no discharge of manure, litter, or process wastewater into surface waters of the state from the production area.
2. If at any time a CAFO's waste management system is found to be discharging, the department may revoke the



CAFO's no-discharge permit and require the CAFO to seek coverage under an NPDES permit.

3. If a discharge occurs at a CAFO with a state no-discharge permit, the owner or operator must submit to the department for review and approval the following documentation: a description of the discharge, including the date, time, cause, duration, and approximate volume of the discharge, and a detailed explanation of the steps taken by the CAFO to permanently address the cause of the discharge that will ensure that a discharge from this cause does not occur in the future.

4. When a discharge occurs at a CAFO, the CAFO will be allowed to maintain coverage under the no-discharge permit when the following two (2) conditions are met:

A. The department determines that the specific cause has been appropriately corrected so that the CAFO does not discharge; and

B. The CAFO has not had two (2) discharges at a given site for the same cause in any five- (5-) year period.

5. If a CAFO has two (2) separate discharge events brought about by the same cause, the department may terminate the no-discharge permit in which case the CAFO will be required to seek coverage under a NPDES permit.

(C) Effluent Limitations Applicable to Class II and Smaller Sized AFOs. When a Class II or smaller sized AFO is designated as a CAFO by the department, the specific effluent limitations will be based upon the department's best professional judgment. The specific effluent limits shall not be more stringent than those for Class I CAFOs.

(5) Nutrient Management Plans (NMP)-In accordance with paragraph (3)(G)1. of this rule, operating permits shall require the development and implementation of a nutrient management plan. A portion of a CAFO's nutrient management plan includes the documents within a CAFO's operating permit application and annual reports. The plan must comply with the requirements found within the Nutrient Management Technical Standard which will satisfy the criteria in subsections (G), (H), and (I) below. The NMP shall be maintained according to the requirements of paragraph (3)(G)2. of this rule. For NPDES permits only, any revisions to the NMP must be submitted to the department for review with the changes from the previous version identified. Substantial changes to the terms of the NMP incorporated into the



NPDES operating will require a permit modification and a fifteen- (15-) day public notice period. The plan must, at a minimum, address the following areas:

- (A) Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;
- (B) Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;
- (C) Ensure that clean water is diverted, as appropriate, from the production area. NMPs shall include, as necessary, controls, measures, or BMPs to properly manage storm water runoff at the operation. This would apply only to activities in or around the land application or production area that is under the control of the CAFO owner or operator, whether it is owned, rented, or leased. Examples of such activities could include winter feeding areas, stockpiling of manure and raw materials, or any other regulated CAFO activity that will contribute pollutants to waters of the state;
- (D) Prevent direct contact of confined animals with waters of the state;
- (E) Ensure that chemicals and other contaminants handled within animal production facilities are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;
- (F) Identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state;
- (G) Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;
- (H) Establish protocols to land apply manure, litter, or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and
- (I) Identify specific records that will be maintained to document the implementation and management of the minimum elements described in subsections (A) through (H) of this section.



(6) Closure of Waste Storage Structures.

(A) Class I operations that cease operation, or plan to close lagoons and other waste storage structures, shall comply with 10 CSR 20-6.010 as well as the requirements in this section-

1. Other concentrated animal feeding operations that cease operation shall either close the waste storage structures in accordance with the closure requirements in subsection (6) (B) of this rule or shall continue to maintain all storage structures so that there is not a discharge to waters of the state.

(B) Closure Requirements-

1. Lagoons and waste storage structures shall be closed by removal and land application of all wastewater and sludge at agricultural rates for fertilizer not to exceed the maximum nutrient utilization of the land application site and vegetation grown and shall be applied at controlled rates so that there will be no discharge to waters of the state; and

2. After removal and proper land application of wastewater and sludge, the earthen basins may be demolished by removing the berms, grading, and establish at least seventy percent (70%) plant density over one hundred percent (100%) of the site so as to provide erosion control, or the basin may be left in place for future use as a farm pond or similar uses.

(7) Concentrated Animal Feeding Operation Indemnity Fund for Class IA CAFO.

(A) Participation in the Concentrated Animal Feeding Operating Indemnity Fund and its administration shall be in accordance with sections 640.740 through 640.747, RSMo.

(B) For facilities permitted after June 25, 1996, the annual fee shall commence on the first anniversary of the operating permit

(C) In no event shall a refund exceed the unencumbered balance in the Concentrated Animal Feeding Operation Indemnity Fund.

(D) Each payment shall identify the following: state operating permit number, payment period, and permittee's name and address. Persons who own or operate more than one (1) operation may submit one (1) check to cover all annual fees, but are responsible for submitting the appropriate information to allow proper credit for each permit file account.



(E) Annual fees are the responsibility of the permittee. Failure to receive a billing notice is not an excuse for failure to remit the fees.

