

Workgroup Draft of Amendment to 10 CSR 20-6.300; Concentrated Animal Feeding Operations (CAFO)

Please note that this is a working draft document!

Background - The U.S. Environmental Protection Agency (EPA) finalized revisions to the National Pollutant Discharge Elimination System (NPDES) Permit Regulations and Effluent Limitation Guidelines for Concentrated Animal Feeding Operations (CAFOs) in December 2008. The 2008 EPA rule action was in direct response to the Second Circuit Court of Appeals decision in *Waterkeeper Alliance et al. v. EPA* (2nd Cir. 2005). In this decision, the 2nd Circuit Court vacated and remanded several important provisions of the EPA 2003 CAFO final rule. Most notable, the court found that EPA's 2003 provision regarding the "duty to apply" for a permit, which EPA had based solely on a CAFOs potential to discharge was invalid. The federal Clean Water Act only subjects actual discharges to permitting requirements rather than just potential discharges.

EPA's 2008 final rule contains provisions and standards that are more stringent than Missouri's current regulations. EPA requires that deficient areas in state rules be updated in order to maintain state delegation for the NPDES program.

In order to align state regulation with federal regulation and to provide clarification to existing state CAFO rules, Missouri is proposing to make certain changes and adopt certain provisions of the 2008 EPA final rule. Listed below are five areas that have been identified for revision in Missouri's rules and may be proposed for this rulemaking:

1. Revisions to regulatory definitions within the state CAFO rule, including animal thresholds.
2. Revision of rule language to mirror EPA's procedure of how to "designate" smaller Animal Feeding Operations (AFO) as a CAFO.
3. Clarification and revision of the "duty to apply" requirement for permits at CAFOs. This includes the addition of a State No-Discharge permit which will address the EPA No-Discharge Certification.
4. Updates on the regulatory process with which EPA has developed for issuing CAFO NPDES general permits.
5. Revision of the Effluent Limitation Guidelines (ELG) for CAFOs, including EPA's revised "New Source Performance Standards" for Swine, Poultry, and Veal.

10 CSR 20-6.300 Concentrated Animal Feeding Operations

(1) Definitions.

(A) Definitions as set forth in 10 CSR 20-2.010 shall apply to the terms in this rule unless otherwise defined in (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 animal unit equals the following: 1.0 beef cow or beef feeder, cow/calf pair, veal calf, and 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 & dairy goats; 30 chicken laying hens or broilers with a wet handling system; 82 chicken laying hens without a wet handling system; 55 turkeys within grow-out phase; 125 chicken broilers, chicken pullets, or turkey poults within 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 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. 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;

5. Chronic weather event—is a series of wet weather events and conditions that preclude preferred land application and dewatering practices at properly maintained wastewater storage structures. The Chronic Weather Event will be based upon an evaluation of the 1 in 10 year return rainfall frequency over a 10-day, 120-day, and 365-day operating period. The University of Missouri's Missouri Climate Center will determine when a chronic weather event is occurring for any given county in the state;

6. Class I and Class II operation—An AFO or CAFO's class size is based on the operating level in animal units at one operating location. When determining whether an AFO or CAFO is a Class I or Class II size operation, all animal units within an individual animal species are summed together. 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:

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1 Animal Unit =

1.0	Beef cows, feeders, veal calve & cow/calf pairs	10	Sheep, lamb, meat & dairy goats
0.5	Horse	30	Chicken laying hens & broilers with a wet handling system
0.7	Mature dairy cow	55	Turkeys – Growout phase only
2.5	Swine weighing over 55 lbs.	82	Chicken laying hens without a wet handling system
10	Swine weighing less than 55 lbs.	125	Chicken Broiler & Pullets, Turkeys in Brood Phase without wet handling system

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, feeders, veal calfs & cow/calf pairs	7,000	3,000 to 6,999	1,000 to 2,999	300 to 999
Horse	3,500	1,500 to 3,499	500 to 1,499	150 to 499
Mature dairy cow	4,900	2,100 to 4,899	700 to 2,099	200 to 699
Swine weighing over 55 lbs.	17,500	7,500 to 17,499	2,500 to 7,499	750 to 2,499
Swine weighing under 55 lbs.	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Sheep, lamb, meat & dairy goat	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Chicken laying hens & broilers with a wet handling system	210,000	90,000 to 209,999	30,000 to 89,999	9,000 to 29,999
Chicken laying hens without a wet handling system	574,000	246,000 to 573,999	82,000 to 245,999	24,600 to 81,999
Turkeys – Growout phase only	385,000	165,000 to 384,999	55,000 to 164,999	16,500 to 54,999
Chicken Broiler & Pullets, Turkeys in Brood Phase without wet handling system	875,000	375,000 to 874,999	125,000 to 374,999	37,500 to 124,999

* Animal Units (AUs)

7. Animal Feeding Operation (AFO) - A lot or facility at an operating location where animals are stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and, crops, vegetation, forage growth, or post-harvest residues cannot be sustained over at least fifty percent (50%) of the lot or facility within the normal crop growing season;
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 of the following conditions are met:
 - i) Pollutants are discharged directly into water of the state through a man-made ditch, flush system, or other similar man-made device; or
 - ii) Pollutants are discharged directly into water of the state which originate outside of and pass over, across, or through the facility 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 or Propose to Discharge - A CAFO is said to “propose to discharge” when it is designed, constructed, operated, or maintained such that a discharge of process wastewater will occur. Propose to discharge does not include CAFOs that simply have the “potential to discharge”. A CAFO that “discharges” could include both those that continuously discharge process wastewater to waters of the state, as well as those that may only have intermittent and sporadic discharges. Discharges of agricultural stormwater are a non-point 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, 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—A animal waste moving or removing system utilizing liquid flushing as the primary moving and removal force from animal containment buildings, as opposed to a primarily mechanical or automatic device;
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 stormwater is a non-point 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 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 storm water can be contained by the structure;
19. Process wastewater— Water which carries or contains manure, litter, compost or other animal waste materials commingled with these products. Also includes water directly used in the operation of the CAFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; water resulting from the washing, or spray cooling of animals including dust control;
20. Production area—The non-vegetated portions of an operation were 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. 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. 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. 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 NPDES regulation in accordance with RSMo 640 & 644 and 40 CFR 122.23.
- (B) Permit Coverage Required - Any CAFO owner or operator that proposes the construction, modification, expansion and/or operation of a manure, litter, and/or process wastewater management system at a Concentrated Animal Feeding Operation shall obtain one or more of the following permits listed below unless otherwise exempted under section (2)(E) of this rule.
 1. Construction Permit – All existing or proposed Class I CAFOs must obtain a construction permit prior to the initial construction, installation, modification, or expansion of a manure, litter, or process wastewater management system.
 2. NPDES Permit – Owners or operators of Class I CAFOs that discharge or propose to discharge must obtain an NPDES permit before any discharge occurs. Class I CAFOs that do not discharge or propose to discharge may also elect coverage under a NPDES permit.

3. State No-Discharge Permit – Owners or operators of Class I CAFOs that do not intend to discharge or propose to discharge and do not obtain coverage under an NPDES permit, shall obtain and maintain coverage under a State No-Discharge Permit. Compliance with a State No-Discharge permit will provide a CAFO “No-Discharge Certification” in accordance with 40 CFR 122.23(i)&(j) July 1, 2009, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954. Please see section (4)(B) of this rule for more requirements related to Certification.
- (C) Voluntary Permit Coverage - Any owner or operator of a Class II or smaller AFO, which is not otherwise designated as a CAFO, may on their own behalf elect to be covered under one of the above three permits. Any person making such an election will be subject to all terms and conditions of the permit unless and until permit coverage is terminated.
- (D) 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 facility and pass over, across, or through the facility, or otherwise come into direct contact with the animals confined in the operation
- (E) Exemptions.
1. Small scale pilot projects or demonstration projects for beneficial use may receive construction permit exemption by written approval from the department. An operating permit application shall be submitted at least ninety (90) days prior to end of the demonstration period if the facility intends to continue it's operation.
 2. Construction permits are not required for the construction or alteration of mortality composters, or other storage buildings for dry process waste when the compost operation or dry process waste storage is located within a roofed building and the storage floor complies with the requirements in 10 CSR 20-8.300.
 3. Construction permits are not required for minor piping changes and other modifications. Minor modifications include, but are not limited to, small sections of buried wastewater lines, normal repair or replacement of existing wastewater lines, installation of manholes, wet wells, and other minor changes that do not significantly impact the normal operation of the waste management system
 4. In accordance with 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), 10 CSR 20-6.300(7).
 5. Permits are not required for nonpoint source discharges, agricultural storm water 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 storm water 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.
 6. If a construction permit is waived by the department, or for some other reason not required, the information necessary to issue a construction permit may be required with the application for the operating permit.

(F) Construction and Operating Permit Applications – This section describes the application process and requirements for CAFO construction and general operating permits.

- 1) An application for a construction permit shall include the permit application documents required within the CAFO Design Rule at 10 CSR 20-8.300. The construction application shall also include the application for an operating permit along with all applicable permit fees. The department may require other information as necessary to determine compliance with the Missouri Clean Water Law and these regulations.
- 2) An operating permit application for a facility that did not previously have a construction permit or Letter of Approval (LOA) shall include the permit application documents required within the CAFO Design Rule at 10 CSR 20-8.300. The operating permit application shall include both a construction and operating permit fee as the department will conduct an as-built review of the construction and engineering documents.
- 3) All construction permit applications shall require engineering documents along with a professional engineer's seal affixed to such documents in accordance with 10 CSR 20-8.300.
- 4) The department will not examine the adequacy or efficiency of the structural or mechanical components of the waste management systems. The issuance of permits will not include approval of such features.
- 5) An application for a construction permit should be submitted to the department at least one hundred eighty (180) days in advance of the date on which the proposed construction will begin. A separate application for each operating location must be submitted to the department.
- 6) When an application is submitted largely incomplete of its primary components, the department may return the entire permit application back to the applicant for re-submittal. When an application is submitted sufficiently complete, but is otherwise deficient, the applicant and the applicant's engineer will be notified of the deficiency and will be provided adequate time to address department comments and submit corrections. Processing of the application may be placed on hold until the applicant has corrected all deficiencies.
- 7) 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 construction and operating permit fees 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 prior to the department returning the application as incomplete.
- 8) When the department has received all documents and information necessary for a properly completed construction permit application, including appropriate permit fees, the department will, upon completion of the review and approval of said documents, act in one of the following ways:
 - A. For a facility seeking coverage under the State No-Discharge Permit the department will issue both the construction and the State No-Discharge Operating permit concurrently;
 - B. For a facility seeking coverage under the NPDES permit the department will post for 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 a CAFO's nutrient management plan and draft NPDES permit. The public may request, in writing, a 15 day extension to the public notice period for a permit, when necessary. The department will post the public notice of a pending CAFO NPDES permit and consider all comments before issuing the construction and operating permit. The construction and NPDES operating permit will be issued concurrently. A public notice will not be required prior to the issuance of a construction permit for a manure or wastewater pipeline or land application system.
- 9) Construction permits shall expire one (1) year from the date of issuance unless the permittee applies for an extension. The department shall extend construction permits only one time for a period not to exceed the originally issued effective period. An applicant requesting extension shall show that there have been no substantial changes in the original project. Extension requests should be received thirty (30) days prior to permit expiration.
- 10) When a construction permit is issued for a project for which the construction period is known in advance to require longer than one (1) year from the date of issuance, the department may issue a permit allowing a period of time greater than one (1) year upon the applicant showing that the period of time is necessary and that no substantial changes in the project will be made without first

notifying the department. If there are substantial changes, the department may require the applicant to apply for a new construction permit.

- 11) Upon completion of construction and prior to the expiration date of the construction permit, the owner or operator for which a construction permit was issued shall submit in writing the engineering certification of the newly constructed systems. Engineering certification will document that the project was completed in accordance with approved plans and specifications. If changes were made during construction, as-built drawings of said changes shall be submitted with the certification in accordance with 10 CSR 20-8.300.

(3) Permit Requirements.

(A) General Requirements.

1. All permits required by this rule shall be issued in accordance with applicable provisions of 10 CSR 20-6.010, 10 CSR 20-6.011, 10 CSR 20-6.020 and 10 CSR 20-8.300. When the state regulations referenced within this rule are found to be incompatible with the requirements of 10 CSR 20-6.300, precedence will be given to 10 CSR 20-6.300.
2. For NPDES Permits only - 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 122.23, 122.42 and 40 CFR 412 Subpart A through Subpart D, July 1, 2009, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954. This provision does not include any subsequent amendments or additions.
3. Permits shall allow the operation of the CAFO waste management system as submitted in the permit application and associated engineering plans. Permits shall allow the CAFO to operate at an animal unit level not to exceed its respective Class size (i.e. Class II, IC, IB, or IA). CAFOs may change animal numbers and weights in accordance with this paragraph; 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.
4. Prior to the transfer of manure, litter, or process wastewater to other persons, the permittee will provide the recipient the most current 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.

1. All Class I concentrated animal feeding operations shall maintain a buffer distance between the nearest animal confinement building, feedlot pen, or waste holding basin and any existing public building or occupied residence. The public building or occupied residence will be considered existing if it is being used prior to the start of the neighbor notice requirements of subsection (B) of this section or thirty (30) days prior to construction permit application, whichever is later. Buffer distances shall be—
 - A. One thousand feet (1000') for concentrated animal feeding operations between 1,000 and 2,999 animal units (Class IC operations);
 - B. Two thousand feet (2,000') for concentrated animal feeding operations between 3,000 and 6,999 animal units (Class IB operations); and
 - C. Three thousand feet (3,000') for concentrated animal feeding operations equal to or greater than 7,000 animal units (Class IA).
2. A concentrated animal feeding operation and any future modification or expansion of a CAFO is exempt from buffer distance requirements when it meets all of the following criteria:
 - A. The CAFO was in existence prior to June 25, 1996;
 - B. The CAFO has been under continuous operating permit coverage since June 25, 1996; and
 - C. 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 setback 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 setback distances are proposed by the operation and allowed by the department, the written agreement for a shorter setback 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.
5. The department may, upon review of the information contained in the construction application, including, but not limited to, the prevailing winds, topography and other local environmental factors, authorize a buffer distance which is less than the distance prescribed in this rule. 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.

(C) Neighbor Notice Requirements for Construction Permits.

1. Prior to filing an application for a construction permit with the department for a new or an expanding Class I concentrated animal feeding operation, the following information shall be provided to all the parties listed in paragraph (3)(C)2. of this section:
 - A. The number of animals designed for the operation;
 - B. A summary of the waste handling plan and general layout of the operation;
 - C. The location and number of acres of the operation;
 - D. Name, address, and telephone number of registered agent or owner;
 - E. Notice that the department will accept written comments for a thirty (30)-day period. The thirty (30)-day notice period will begin on the day the construction permit application is received by the department;
 - F. The address of the department office receiving comments.
2. The neighbor notice shall be provided to the following:
 - A. The department's Water Pollution Control Program;
 - B. The county governing body; and
 - C. All adjoining owners of property located within one and one-half (1 1/2) times the buffer distances specified in subsection (3)(B). Distances are to be measured from the nearest animal confinement building or waste holding basin to the adjoining property line.
3. The construction permit applicant shall submit to the department proof the above notification has been sent.
4. All concentrated animal feeding operations shall submit, as part of the construction or operating permit application, an aerial and a topographic map of the production area. The map(s) shall show the operation layout, buffer distances, property lines, and property owners within one and one-half (1 1/2) times the buffer distance.
5. The neighbor notice will expire if a construction 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. Periodically 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 to insure that applied wastewater does not run off the fields where applied;
 - B. Monitor for drifting from spray irrigation;
 - C. Hourly inspections of aboveground irrigation pipelines

3. Permits shall require that any deficiencies found as a result of inspections be corrected as soon as possible.
- (E) Record Keeping. 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 for the facility;
 - 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;
 - 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;
 - J. Date(s) of manure application equipment inspection.
- (F) Annual Reports.
1. Permits shall require the submission of an annual report that includes:
 - A. The number and type of animals confined at the operation;
 - B. Estimated amount of total manure, litter, and process wastewater generated by the operation in the previous twelve (12) months;
 - C. Estimated amount of total manure, litter, and process wastewater transferred to other persons by the operation in the previous twelve (12) months;
 - D. Total number of acres for land application covered by the nutrient management plan;
 - E. Total number of acres under control of the operation that were used for land application of manure, litter, and process wastewater in the previous twelve (12) months;
 - F. Summary of all manure, litter, and process wastewater discharges from the production area to waters of the state that have occurred in the previous twelve (12) months, including date, time, and approximate volume;
 - G. A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner.
- (G) Best Management Practices (BMPs)—Each CAFO subject to this section that land applies manure, litter, or process wastewater must do so in accordance with the following practices:

1. Nutrient Management Plan - 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 paragraphs (3)(G)2 below. New CAFOs that apply for a construction permit after the effective date of this rule must develop and submit a nutrient management plan with the construction permit application, unless otherwise stipulated by the department. The plan must be implemented 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 CAFO Nutrient Management Technical Standard (NMTS) established by the Clean Water Commission. The Nutrient Management Technical Standard is incorporated by reference into this rule and shall be reviewed, and updated if necessary, once every five years. This standard shall include, but not be 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; and
 - B. Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multi-year 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.
 - 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.

(H) Class IA Requirements.

1. The owner or operator of any Class IA concentrated animal feeding operation with a wet handling system which also utilizes a flush system shall employ one (1) or more persons who shall visually inspect the wet handling system. Visual inspections shall be made at least every twelve (12) hours with a deviation from the twelve (12)-hour requirement not to exceed three (3) hours. The inspections shall focus on 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. Any unauthorized discharges that cross the property line of the facility, or enter the waters of the state from a Class IA concentrated animal feeding operation with a wet handling system that also utilizes a flush system, shall be reported to the department and to all adjoining property owners of the facility within twenty-four (24) hours.

3. Class IA concentrated animal feeding operation with a wet handling system which also utilizes a flush system shall receive at least one on-site inspection by the department each quarter.
4. All Class IA concentrated animal feeding operations with a wet handling system which also utilizes a flush system shall have a secondary containment structure(s) or earthen dam(s). The 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.
5. All Class IA concentrated animal feeding operations with a wet handling system which also utilizes a flush system shall have an electronic or mechanical shut-off in the event of pipe stoppage or backflow. For new facilities, the shut-off shall be included as part of the construction permit application
6. Class IA concentrated animal feeding operations (both new and those operations that wish to expand to Class IA size) are prohibited from the identified watersheds of the Current, Jacks Fork and Eleven Point Rivers (10 CSR 20-6.300(1)(B)9.D.).

(4) Design Standards & Effluent Limitations.

(A) Effluent Limitations applicable to all Class I CAFOs.

1. New and expanding CAFOs that commence construction after the effective date of 10 CSR 20-8.300 shall have manure, litter and process wastewater management systems designed and constructed in accordance with the CAFO design standard rule 10 CSR 20-8.300.
2. Effluent limits for subsurface waters shall be in accordance with 10 CSR 20-7.015(7).
3. For NPDES Permits only – CAFO’s shall comply with effluent limitations as set forth in 40 CFR Part 412, Subpart A through Subpart D, July 1, 2009, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954 and are hereby incorporated by reference. This rule does not incorporate any subsequent amendments or additions.
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 (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. The University of Missouri’s Missouri Climate Center will determine, within a reasonable timeframe, when a chronic weather event is occurring for any given county in Missouri. The Climate Center’s determination will be based upon an evaluation of the 1 in 10 year return rainfall frequency over a 10-day, 120-day, and 365-day operating period.
6. Manure, litter or process wastewater management activities occurring outside of production area systems that are not associated with land application shall be identified in the CAFO’s Nutrient Management Plan (NMP). Activities that should be identified include stockpiling of raw materials, manure, or litter or other items that have the potential to contribute pollutants to waters of the state. As necessary, the NMP shall identify controls, measures or BMPs to both manage stormwater runoff and meet applicable water quality standards. This paragraph applies only to activities on land that is under the direct operational control of the CAFO owner or operator, whether it is owned, rented, or leased.

(B) Additional Limitations for State No-Discharge permits at Class I CAFOs. State No-Discharge permits will provide a CAFO “No-Discharge Certification” in accordance with 40 CFR 122.23(i).

1. There shall be no discharge of manure, litter, or process wastewater into waters of the state from the production area. CAFOs will be considered no-discharge when the operation is designed, constructed, operated, and maintained in a manner such that the CAFO will not discharge.
2. If at any time a CAFO's waste management system is found to be "proposing to discharge", the department may revoke the CAFO's No-Discharge Permit and require the CAFO to seek coverage under a 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 conditions are met:
 - A. The department determines that the specific cause has been appropriately corrected so that the CAFO does not "discharge or propose to discharge", and
 - B. The CAFO has not had two discharges at a given site for the same specific cause in any five year period.
5. If a CAFO has two separate discharge events brought about by the very 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.
6. In accordance with 40 CFR 122.24(j), when a discharge occurs at a CAFO the CAFO will not be in violation of the requirement to seek NPDES permit coverage so long as the CAFO has operated and maintained the CAFO in compliance with the 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 but shall not be more stringent than those for Class I CAFOs.

(5) Nutrient Management Plans—Nutrient management plans required by this rule must, to the extent applicable—

- (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;
- (D) Prevent direct contact of confined animals with waters of the state;
- (E) Ensure that chemicals and other contaminants handled on-site 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) Facilities that cease operation, or plan to close lagoons and other waste storage structures, shall comply with the requirements in this section—

1. Class I concentrated animal feeding operations which cease operation shall continue to maintain a valid operating permit or until all lagoons and waste storage structures are properly closed according to a closure plan approved by the department; and
2. 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;
2. The removed wastewater and sludge shall be land applied 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
3. After removal and proper land application of wastewater and sludge, the earthen basins may be demolished by removing the berms, grading, and revegetation 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.

- (A) Class IA concentrated animal feeding operations utilizing flush systems shall pay an annual fee of ten cents (10¢) per animal unit to the department for deposit in the Concentrated Animal Feeding Operations Indemnity Fund.
- (B) The annual fee shall be based upon the animal unit permitted capacity of the facility.
- (C) The annual fee shall be collected each year for ten (10) years on the anniversary date of the operating permit. For facilities permitted after June 25, 1996, the annual fee shall commence on the first anniversary of the operating permit. The annual fee for facilities permitted prior to June 25, 1996, shall commence on the first full year anniversary of the permit following June 25, 1996.
- (D) In the event the department determines that a Class IA facility has been successfully closed by the owner or operator, all monies paid by such operations into the Concentrated Animal Feeding Operation Indemnity Fund shall be returned to the operation. In no event, however, shall this refund exceed the unencumbered balance in the Concentrated Animal Feeding Operation Indemnity Fund.
- (E) The fees referenced in section (7) shall be paid by a check or money order and made payable to the State of Missouri, Concentrated Animal Feeding Operation Indemnity Fund. In the event a check used for the payment of operating fees is returned to the department marked insufficient funds, the person forwarding the check shall be given fifteen (15) days to correct the insufficiency.
- (F) Fees shall be submitted to Department of Natural Resources, Water Pollution Control Program, Permit Section, PO Box 176, Jefferson City, MO 65102.
- (G) 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.
- (H) Annual fees are the responsibility of the permittee. Failure to receive a billing notice is not an excuse for failure to remit the fees.

AUTHORITY: sections 640.710 and 644.026, RSMo 2000. Original rule filed June 1, 1995, effective Jan. 30, 1996. Amended: Filed March 1, 1996, effective Nov. 30, 1996. Amended: Filed July 9, 1998, effective March 30, 1999. Amended: Filed May 12, 2008, effective Feb. 28, 2009.*

**Original authority: 640.710, RSMo 1996 and 644.026, RSMo 1972, amended 1973, 1987, 1993, 1995, 2000.*