

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

General Operating Permit

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the United States Clean Water Act, 33 USC 1251 et seq.,

Permit No. MO-G010xxx

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein. The final effluent limitations shall become effective upon issuance and remain in effect until such time this permit is no longer effective. Discharges shall be controlled, limited and monitored by the permittee as specified in this permit:

FACILITY DESCRIPTION

Concentrated Animal Feeding Operation (CAFO) -

Process wastes are collected and reused as fertilizer by spreading onto agricultural fields at agricultural rates in accordance with this permit. There is no-discharge except as allowed in accordance with the effluent limitation guidelines contained within this permit.

This permit authorizes only process wastewater, including storm water, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 640.013 and 621.250 RSMo.

A copy of this permit must be kept by the permittee at the site of the permitted activity.

February 24, 2011
Effective Date


Kip A. Stetzler, Acting Director, Department of Natural Resources

February 23, 2013
Expiration Date


John Madras, Director, Water Protection Program

APPLICABILITY

1. This permit provides coverage under the National Pollutant Discharge Elimination System (NPDES) regulations found in 40 CFR Part 122 & 412 along with coverage under the Missouri Clean Water Law and regulations found in 10 CSR 20-Chapter 6 for point source related discharges at Concentrated Animal Feeding Operations (CAFOs) in the State of Missouri. Missouri Class II and smaller size animal feeding operations that would not otherwise be required to have a permit, may also voluntarily obtain coverage under this permit.
2. CAFOs that may be covered by this general permit are those that have a design capacity of less than 7,000 animal units. Once an operation obtains coverage under this permit, the requirements set forth herein apply with respect to all livestock and poultry production facilities that are within the CAFO production area and all manure, litter and process wastewater generated by those animals or the production of those animals, regardless of the type of animal.
3. In accordance with 10 CSR 20-6.300, CAFOs must have developed and implemented a Nutrient Management Plan (NMP) that meets the requirements of 10 CSR 20-6.300(3)(G)1 & 6.300(5) upon the effective date of coverage of this permit.
4. The CAFOs authorization under this permit is only for discharges that occur after permit coverage is granted, any discharges that occur prior to permit coverage may be subject to enforcement action.
5. If at any time the owner or operator of the operation should desire to apply for an individual NPDES permit, the owner or operator may do so.
6. If at any time, the agency determines that an individual NPDES permit is necessary to ensure protection of the waters of the state the agency may require the CAFO to apply for one.
7. Continuation of this permit - When this permit expires, the terms and conditions of this permit will be continued automatically pending issuance of a new permit if the permittee has submitted a timely and sufficient application for a new permit under this rule and the department is unable, through no fault of the permittee, to issue a new permit before the expiration date of the previous permit. Permits continued under this paragraph will remain fully effective and enforceable.
8. This permit applies only to requirements under the Missouri Clean Water Law and the Federal Clean Water Act and their implemented regulations and does not apply to other environmental laws and regulations.
9. This permit does not supersede nor remove liability for compliance with county and other local ordinances.

EXEMPTIONS

1. A construction and operating permit is not required for Class II Animal Feeding Operations (AFOs) unless the operation has a direct discharge to waters of the state, or discharges by way of a man-made conveyance, or is otherwise required to have a permit under 10 CSR 20-6.300 or 40 CFR 122.23.
2. In accordance with 10 CSR 20-6.300(2)(B)3-4, construction permits are not required for the construction 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 with an impermeable floor.

GENERAL REQUIREMENTS

1. Definitions are as listed in the “*Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard*” and in State Regulations under 10 CSR 20 Chapters 2 and Chapter 6.300.
2. This permit authorizes operation of the CAFO waste management system as described in Attachment A “Detailed Operation Description” along with the permit application and associated engineering plans. This permit authorizes the CAFO to operate at an animal unit level not to exceed the designated facility Class size (i.e. Class IC or IB) as listed in the Detailed Operating Description. When determining the appropriate classification, the department will average the weekly facility wide inventory on a rolling 12 month average (i.e., the animal unit operating level will be determined using a “rolling 12 month average” of the “weekly facility-wide average inventory”). The rolling 12 month average shall at no time exceed the upper threshold limit of the CAFO’s designated facility class size. The CAFO may change animal numbers and weights within its respective class size, however, such changes must not adversely impact the storage and handling capacities of the waste management system.
3. All wastewater systems and major system modifications shall be constructed in accordance with a construction permit unless specifically exempted by the department. As allowed in state regulations under 10 CSR 20-6.300 (2)(B), certain minor modifications and piping changes are exempted from the requirement for a construction permit. Minor modifications would include small sections of buried pipelines, normal repair or replacement of existing wastewater lines, installation of manholes, wet wells, and any other minor change that does not significantly impact the normal operation of the waste management system and does not encroach upon the CAFO’s buffer setback distance.
4. Mortalities must not be disposed of in any liquid manure or process wastewater system that is not specifically designed to treat animal mortalities. Animals shall be disposed of in a manner to prevent contamination of waters of the state or creation of a public health hazard.
5. TERMINATION OF PERMIT:

If activities covered by this permit have ceased, and the operation has been closed in accordance with the regulations and this permit, the permittee shall request termination of this permit. The permittee shall submit Form H, Termination of a General Permit.

6. REOPENER CLAUSE:

This permit may be reopened and modified, or alternatively revoked and reissued, to:

- a. Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
- b. Incorporate new or modified State of Missouri Statutes or Regulations.
- c. Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri’s Water Quality Standards.
- d. Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri’s list of waters of the state not fully achieving the state’s water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge process wastewater and stormwater in accordance with the effluent limitations in this permit. The effluent limitations shall become effective upon issuance and remain in effect until such time this permit is no longer effective. Such discharges shall be managed, controlled, limited and monitored by the permittee as specified below.

1. CAFO PRODUCTION AREA:

a. Requirements applicable to all CAFO production area(s):

The *Production Area* is that part of an operation which includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. Also included is any area used in the storage or treatment of animal mortalities or material containing mortality products.

There shall be no discharge of manure, litter, or process wastewater into waters of the state from discrete point sources within the production area except as provided in subsection b. below.

A chronic weather event is a series of wet weather 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 by the department to specifically help minimize or eliminate water quality impacts from CAFOs during extreme wet weather periods. The 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.

When necessary or required by the department, the NMP shall be reviewed and updated to include controls, measures or BMPs to properly manage stormwater runoff at the operation. This paragraph applies 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.

b. Additional Requirements for Uncovered Liquid Storage Structures:

Whenever a precipitation related event causes an overflow of manure, litter, or process wastewater; pollutants may be discharged through the emergency spillway of the lagoon or uncovered storage structure provided:

- (1) The storage structure is properly designed, constructed, operated and maintained to contain all manure, litter, process wastewater plus the runoff and direct precipitation from the 25-year, 24-hour design storm event for the location of the CAFO.

- (2) The design storage volume is adequate to contain all manure, litter, and process wastewater accumulated during the storage period including the following:
 - (a) The volume of manure, litter, process wastewater, and other wastes accumulated during the storage period;
 - (b) 1 in 10 year 365 day annual rainfall minus evaporation during the storage period;
 - (c) 1 in 10 year 365 day normal runoff during the storage period;
 - (d) The direct precipitation from the 25-year, 24-hour storm;
 - (e) The runoff from the 25-year, 24-hour storm event;
 - (g) A minimum treatment volume for treatment lagoons.
- (3) Discharge is allowed via overflow through the emergency spillway of the lagoon or uncovered storage structure when caused by a storm event that exceeds the design storm event(s). Only that portion of storm water flow, which exceeds the design storm event(s) may be discharged. Process wastewater discharge is not allowed by pumping, siphoning, cutting of berms, or by any other method, except as authorized herein, unless prior approval is obtained from the agency.
- (4) All discharges of process wastewater to waters of the state shall be reported to the Department as soon as practicable but no later than 24 hours after the permittee becomes aware of the discharge. See Section 7.(h.) for additional requirements.
- (5) Upper and Lower Storage Operating Levels:
 - (a) During normal weather conditions, the liquid level in the storage structure shall be maintained below the upper operating level, as identified in Attachment A-Detailed Operation Description, so that adequate storage capacity is available for use during adverse weather periods when conditions are not suitable for proper land application. The lower operating level shall be used as an operational guideline; however, under normal operating conditions the level should not be lower than two feet above the lagoon floor.
 - (b) The liquid level in the storage structure should be lowered on a routine schedule based on the design storage period and Nutrient Management Plan. Typically this should be accomplished prior to expected seasonal wet and winter climate periods.
 - (c) The upper operating level for uncovered storage structures is one foot below the emergency overflow level unless specified otherwise in Attachment A -Detailed Operation Description.
 - (d) The operation shall be managed so that the level of liquids in the storage structure does not exceed the upper operating level except when a 25-year, 24-hour storm or a 1 in 10-year chronic storm occurs.
- (6) Storage Safety Volume:
 - (a) When a chronic or catastrophic design storm event occurs, the "safety volume" may be used to contain stormwater until conditions are suitable for land application.
 - (b) The required safety volume shall be maintained between the overflow level and the upper operating level.

2. CAFO LAND APPLICATION AREAS:

The *Land Application Area* is agricultural land which is under the 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.

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 direct 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 this permit, 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.

All land application area(s), as defined in 10 CSR 20-6.300, must be included in the facility's nutrient management plan. When the permittee applies process wastes or wastewater to agricultural lands that are not owned, rented, leased or otherwise under the control of the CAFO owner or operator, the permittee shall do so in accordance with Section 4 below.

3. WATER QUALITY STANDARDS:

Any discharges to waters of the state, including those discharges allowed for within this permit, shall not cause a violation of the state water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.

General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- a. Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- b. Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- c. Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- d. Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- e. There shall be no significant human health hazard from incidental contact with the water;
- f. There shall be no acute toxicity to livestock or wildlife watering;
- g. Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- h. Waters shall be free from scrap tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

4. TRANSFER OF MANURE, LITTER, AND PROCESS WASTEWATER TO OTHER PERSONS:

In cases where CAFO-generated manure, litter, or process wastewater is sold, given away, or applied on land not under the direct control of the CAFO, the permittee must comply with the following conditions:

- a. Maintain records showing the date and amount of manure, litter, and/or process wastewater that leaves the permitted operation;
- b. Record the name and address of the recipient (The recipient is the broker or end user, not merely the truck driver);
- c. Provide the recipient(s) with representative information on the nutrient content of the manure, litter, and/or process wastewater; and
- d. These records must be retained on-site, for a period of five (5) years;
- e. Provide the recipient with a copy of the NMTS.

5. INSPECTIONS:

The following minimum visual inspections shall be conducted by the CAFO operator.

- 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 inspections must be conducted 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.
- d. Periodic inspections on equipment used for land application of manure or process wastewater.
- e. Any deficiencies found as a result of inspections shall be documented and corrected as soon as practicable.

6. RECORD KEEPING:

The following records shall be maintained on-site by the CAFO operator for a period of five (5) years from the date they are created:

- a. A copy of this permit including a current copy of the facility's Nutrient Management Plan and documentation of changes/modifications made to the Nutrient Management Plan.
- b. The visual inspections required in Section 5. *Inspections* above shall be logged/recorded once per week. This includes a once per week record of the depth of process wastewater in the liquid impoundments as indicated by the depth marker. Report the liquid level as feet below the emergency overflow level.
- c. 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.
- d. Records of mortalities management used by the operation.
- e. Records of the date, time, location, duration and estimated volume of any emergency or unauthorized process wastewater overflow that reaches waters of the state. Record only when a process wastewater discharge occurs to waters of the state. Monitor the discharge at the point immediately prior to entering the receiving stream or at the property boundary, whichever occurs first. Report flow as cubic feet per second (CFS) based on an instantaneous estimate of the flow at the time of sampling. $CFS = \text{flow width in feet} \times \text{flow depth in feet} \times \text{flow velocity in feet per second}$. Estimates of stream channel width and depth may be used and flow velocity can be measured by timing how many feet a floating object moves within a one-second interval. Small flows may also be estimated based on gallons per minute (GPM) measurement using a container and stop watch; 450 gpm = 1.0 CFS. Other similar means of estimating may also be used.
- f. Additional record keeping requirements are found in Attachment B, "Nutrient Management Technical Standard" that document implementation of appropriate Nutrient Management Plan protocols.
- g. For open liquid manure storages only, record the inches of precipitation received daily near the production site. CAFO's may use nearby weather reporting station data to satisfy this requirement.

7. REPORTING REQUIREMENTS:

An annual report shall be submitted by the 15th day of February for the previous calendar year. The first report is due on the next annual report date after permit issuance including partial report periods. Annual Report forms, supplied by the Department, or other equivalent forms, may be used. The report shall include:

- a. The number and type of animals confined at the operation.
- b. The estimated amount of manure, litter, and process wastewater generated in the previous twelve months.
- c. The estimated amount of manure, litter, and process wastewater transferred to other persons in the previous twelve months.

- d. The total number of acres for land application covered by the Nutrient Management Plan.
- e. The 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 months.
- f. A statement indicating whether the current Nutrient Management Plan was developed or approved by a certified nutrient management planner.
- g. The crops planted and expected yields, the amount and nutrient content of the manure, litter, and process wastewater applied to the land application area(s) and the results of any soil testing from the previous twelve months.
- h. The date, time, location, duration and estimated volume of any emergency or unauthorized process wastewater discharges to waters of the state. Report as no-discharge, if a discharge did not occur during the monitoring period. Also note that any wastewater discharge into waters of the state shall be reported to the Department as soon as practicable but no later than 24 hours after the permittee becomes aware of the discharge.

8. NUTRIENT MANAGEMENT PLAN:

In accordance with 10 CSR 20-6.300(3)(G), the permittee shall implement a Nutrient Management Plan. This plan must comply with the requirements found within the Nutrient Management Technical Standard (See # 11 below). The plan must, at a minimum, address the following areas.

- a. Ensures adequate storage of manure, litter and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities.
- b. Ensures proper management of mortalities.
- c. Ensures that clean water is diverted from the production area.
- d. Prevents direct contact of confined animals with waters of the state.
- e. Ensures 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. Identifies 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. Identifies protocols for appropriate testing of manure, litter, process wastewater, and soil.
- h. Establishes 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.
- i. Identifies specific records that will be maintained.

9. GROUNDWATER MONITORING PLAN:

When groundwater monitoring is required by the Department, the permittee shall prepare and fully implement a department approved "groundwater monitoring plan". An approved groundwater monitoring program may be required around the perimeter of a manure storage site and/or land application areas to facilitate groundwater monitoring. The necessity of a groundwater monitoring program which may include monitoring wells and/or lysimeters will be determined by the Water Protection Program and the Division of Geology and Land Survey on a case-by-case basis and be based on the potential to contaminate a drinking water aquifer due to soil permeability, bedrock, distance to aquifer, etc. Where the Department has deemed groundwater monitoring necessary, a geohydrological site characterization will be required prior to the design of the groundwater monitoring program.

10. ATTACHMENT A “DETAILED OPERATING DESCRIPTION”:

The design parameters listed within Attachment A – “*Detailed Operation Description*” are operational guidelines, unless otherwise stipulated within this permit. Any substantial increases or decreases must be reported to the department annually in the permittee’s annual report. The facilities design flow and total solids generated are estimated parameters used to help predict nutrient generation and storage periods. These parameters are based on the maximum annual flows including storm water flows during the one-in-ten year return frequency for annual or 365 day rainfall minus evaporation. Portions of the design flow and generated solids may be stored and carried over into the following year for land application, as necessary.

11. ATTACHMENT B - NUTRIENT MANAGEMENT TECHNICAL STANDARD:

The permittee and the permittee’s Nutrient Management Plan, shall follow Attachment B - “*Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard*”, dated March 4, 2009, which is hereby incorporated as though fully set forth herein.

12. STANDARD NPDES PERMIT TERMS AND CONDITIONS:

In addition to the permit terms and conditions, this permit is also subject to the attached Missouri “*Standard NPDES permit terms and conditions, Part I*” dated February October 1, 1980 and hereby incorporated as though fully set forth herein.

13. CLOSURE OF WASTE STORAGE STRUCTURES:

CAFOs that plan to close a lagoon or other liquid waste storage structure shall submit for department review and approval a closure plan that complies with the following minimum closure requirements:

- a. Lagoons and waste storage structures shall be closed by removal and land application of wastewater and sludge.
- b. The removed wastewater and sludge shall be transferred or land applied in accordance with the terms of this permit.
- c. After removal and proper land application of wastewater and sludge, the earthen basins may be demolished by removing the berms, grading, and revegetating of the site; or the basin may be left in place for future use as a farm pond or similar uses when water quality monitoring shows such uses are attainable.

CAFO GENERAL PERMIT

Attachment A

Detailed Operation Description For Concentrated Animal Feeding Operations

Operation Name:

Permit Number:

CAFO Class Size:

Total Number and Type of Animals:

Total Animal Units:

Total Design Flow - Liquid Systems only (gpd):

Total Solids Generated (tons/year):

- Production Area -

CAFO Feature #001:

Feature Description: *No-Discharge Lagoon*

Legal Description:

UTM Coordinate: X = Y =

Receiving Water:

First Classified Stream and ID:

USGS Basin & Sub-Watershed No:

Number and Type of Animals:

Animal Units:

Storage Structure Type:

Design Storage structure size (at the overflow level) -

 Surface Area (sq. ft.):

 Total Depth (ft.):

 Total Storage Capacity (gal.):

Storage structure operating levels (measured in feet below emergency spillway) -

 Upper operating level (ft):

 Lower operating level (ft):

Production area draining into storage basin (acres):

Design Storage Period; ie "days of storage" (days):

Design Wastewater Volume per Year (gal/yr.):

Design Dry Process waste volume (tons/yr.):

Design Storm Volume Storage; 25 yr-24 hr storm (gal.) -

CAFO Feature #002:

Feature Description: *No Discharge Poultry Barn*

Legal Description:

UTM Coordinate: X = Y = (G)

Receiving Water:

First Classified Stream and ID:

USGS Basin & Sub-Watershed No:

Number and Type of Animals:

Animal Units:

Storage Structure Type:

Design Dry Process waste volume (tons/yr.):

Design Storage Period; ie "days of storage" (days):

Additional Operational Narrative Description:

(note: this space will provide a summary of the operation and any other special circumstances.)

**CAFO GENERAL PERMIT
Attachment B**

**Concentrated Animal Feeding
Operation (CAFO)**

**Nutrient Management Technical
Standard**

**Missouri Department of Natural Resources
Concentrated Animal Feeding Operation
NPDES Master General Permit Factsheet**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Missouri Department of Natural Resources (department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

A Factsheet gives pertinent information regarding the applicable regulations, rational for the development of the NPDES Missouri State Operating Permit (operating permit), and the public participation process for operating permit listed below.

A Factsheet is not an enforceable part of an operating permit.

This Fact Sheet is for a Major , Minor , Industrial Facility ; Variance ; Master General Permit ; and/or permit with widespread public interest .

Facility Information

The following facility information shall appear on the coverage document issued to a General Permit Covered Facility.

NPDES #:
Facility Name:
Facility Address:
Owner's Name:
Owner's Address:

Facility Region: ***Factsheet for a Master General Permit Template only***
Facility County:
Facility Type:
Facility SIC Code(s):

General Comments:

This is a renewal of the Master General Permit for Class IB and smaller CAFOs located in Missouri. This permit will be issued for a 2 year period only. The department is in the process of updating state regulations to reflect the recent 2008 EPA CAFO rule, however the revised state rule is not expected to be completed until later in 2011 or 2012. The 2 year permit will ensure that CAFOs maintain NPDES coverage while the department promulgates and implements revised CAFO rules. Missouri has around 530 CAFOs currently covered under a general CAFO permit. The current general permit will expire on February 23, 2011. A permit renewal application form was mailed in July 2010 to ensure timely renewal of permits.

**Concentrated Animal Feeding Operation
NPDES Master General Permit Factsheet
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By regulation, CAFOs are required to have developed and implemented a “Nutrient Management Plan” (NMP) prior to permit renewal. The permit requires the CAFO to submit the NMP to the department prior to the expiration of the current permit. If a CAFO fails to submit a NMP by February 23, 2011, the CAFO will be notified and likely placed on a written compliance schedule.

In accordance with this permit, Concentrated Animal Feeding Operation (CAFO) are required to collect process wastes and reuse them as fertilizer by spreading onto agricultural fields at appropriate agricultural rates. The permit requires the CAFO to operate the production site and land application area without discharge of process wastes except as otherwise allowed in accordance with the effluent limitation guidelines contained within the permit.

Production Area Requirements:

This permit will authorize the operation of a CAFO no-discharge waste management system as it is described in the Attachment A “Detailed Operation Description”. Attachment A will be completed by the department prior to approving coverage for an individual operation and will contain site specific details about the site. This permit will authorize the CAFO to operate at an animal unit level not to exceed the designated facility Class size (i.e. Class IC or IB) as listed in the Detailed Operating Description. This permit is only an operating permit, and does not authorize the construction or expansion of a CAFO’s waste management system. All CAFO wastewater systems and major system modifications must be constructed in accordance with a construction permit unless specifically exempted by the department.

When determining the appropriate CAFO classification, the department will average the weekly facility wide inventory on a rolling 12 month average (i.e., the animal unit operating level will be determined using a “rolling 12 month average” of the “weekly facility-wide average inventory”). The rolling 12 month average should at no time exceed the upper threshold limit of the CAFO’s designated facility class size. While the department will utilize the 12 month rolling average, the permit does not require the permittee to maintain a rolling 12 month average of weekly inventories within their records, though this may be a useful record keeping exercise for a CAFO that is operating in and around a threshold boundary. The purpose of this is to set the protocol that the department will follow when determining the classification of a CAFO. Please note that this will only be used to determine the classification of a Class I CAFO (ie IA, IB, or IC). It will not be used to determine whether a facility is an AFO or CAFO (ie class II or Class I) as those criteria are already included in state and federal regulation.

This permit will apply to production facilities within the production area. The production area at a CAFO is that part of an operation which includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. This also includes any area used in the storage or treatment of animal mortalities or material containing mortality products. This area will not include cattle or calves or corral facilities at the owner’s farm when the corralled cattle are predominately raised on pasture, even if they are corralled multiple times per year for routine weaning periods or for veterinarian care and upkeep.

The permit requires that CAFOs operate the production area without discharging to Waters of the State. This requires each CAFO to have an adequately sized and operated storage structure in place to collect and all hold process waste until it can be land applied as fertilizer. CAFOs are not allowed to discharge process wastes by pumping, siphoning, piping, or channeling wastewater to Waters of the State. The only time that a discharge is allowed at a CAFO is when it is caused by a chronic or catastrophic storm event that exceeds the design storm criteria.

Chronic Weather:

A chronic weather event is a series of wet weather conditions that can delay planting, harvesting, and prevent land application and dewatering practices at CAFO wastewater storage structures. When wastewater storage structures are in danger of an overflow due to a chronic weather event, CAFO owners are required to 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. This includes the following the department's guidance on "Wet Weather Management Practices for CAFOs". The practices within this guidance have been developed to help minimize or eliminate water quality impacts from CAFOs during extreme weather periods. The department relies on the assistance of the University of Missouri's "Missouri Climate Center" to help determine when a chronic weather event is occurring for a given county in the state. 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.

The Missouri Climate Center has cordially agreed to collaborate with the department on determining when weather events are triggered. While this activity is not a primary function of the Climate Center, it is believed based on our prior experience that they will respond in time to ensure that this permit provision can be implemented effectively. The statement "chronic weather event is occurring" means that the actual cumulative rainfall total for the design time period (ex, 10 day, 120, 365 days, etc) that is being evaluated has and/or is exceeding the design chronic rainfall amount. Once a Chronic Weather Event has been triggered, this wet weather provision will allow a permittee to follow the wet weather practices to prevent a storage structure from overflowing. In practice, if a permittee has a storage structure that is in danger of overflowing, the permittee would be allowed the time to lower the liquid level in the structure, in accordance with wet weather practices, to a level that removes the short-term or seasonal risk of an overflow. The appropriate "liquid level reduction" would be a value based on site specific conditions, and therefore, permittees will be expected to exercise good judgment in determining the volume to remove along with the amount of time this will take.

Nutrient Management Requirements:

Proper management and utilization of farm generated manure nutrients at a CAFO is a key factor to its protection of water quality. State regulations pertaining to nutrient management at CAFOs have significantly changed since the last permit cycle. In particular, the requirements pertaining to development of application rates, including soil test phosphorus limitations, have become more prescriptive. The following are additions and/or changes that have been made to this permit which are direct result from recent updates in the state regulation.

This permit has been updated to reflect new nutrient management requirements. Most notably, new permit conditions have been included that require the CAFO to develop and implement a site-specific Nutrient Management Plan (NMP) that complies with specific criteria. CAFOs are required to development and implement a NMP upon issuance of the permit. In addition to the NMP, this permit also sets forth requirements, conditions and Best Management Practices (BMPs) for CAFOs. The permit requires CAFOs to complete a phosphorus risk assessment on the land application fields that they own or control. This assessment will identify fields that have a high susceptibility to phosphorus loss and will place application rate restrictions on high risk fields. This protocol will provide a predictable and systematic approach to phosphorus management at CAFOs and on their agricultural lands.

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The permit incorporates by reference the department's "Nutrient Management Technical Standards" (NMTS). This standard was developed by the department to provide a framework for the protocol(s) and method(s) that CAFOs should utilize when determining the form, source, amount, timing, and method of application on individual land application fields. The NMTS represents the department's best professional judgment regarding how to implement the specific NMP criteria G, H and I within 10 CSR 20-6.300(5)(A). The framework seeks to achieve realistic production goals while ensuring appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater while also minimizing movement of nitrogen, phosphorus, and other potential water contaminants into surface and/or ground water.

Production Site Stormwater Runoff:

In addition to the NMTS, when it is necessary or required by the department, the NMP shall also be reviewed and updated to include controls, measures or BMPs to properly manage stormwater runoff at the operation. This provision will 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. The department is not expecting NMPs to initially address the specific areas that this provision covers as existing permittee's were not previously aware of this provision until after development and submittal of their NMP. However, the department will rely on this paragraph when we find adequate reason to request a facility to address a site specific issue found onsite. This would normally be either a result of a department CAFO inspection, or during the review of a construction permit application. Permittees will be given ample time to update NMPs when directed to do so by the department.

Land Application Area requirements -

The permit requires the permittee be responsible for all land application area(s) that are owned, rented, leased, or otherwise directly controlled by the permittee. All lands that fall under the definition of "land application area" as defined in 10 CSR 20-6.300, must be included in the facility's nutrient management plan.

When the permittee proposes to include additional land application area into the facility's operation it must first add it to the facilities nutrient management plan (except when such land is already in a farm's nutrient management plan).

When the permittee sells or gives away CAFO-generated manure the permit requires the CAFO maintain certain records documenting the name of recipient, the date and amount of manure, litter, and process wastewater that leaves the permitted operation. It also requires the permittee provide the recipient with representative information on the nutrient content of the manure, litter, and/or process wastewater along with a copy of the Department's Nutrient Management Technical Standard.

Groundwater Monitoring Plan -

In the final permit, the department included a new section addressing groundwater monitoring plans. This section was included primarily to address a specific circumstance that developed at a proposed CAFO site during the public comment period. While the department may use groundwater monitoring to assess site specific concerns at sensitive CAFO sites in the future, the department historically has not found groundwater monitoring to be necessary at CAFOs in Missouri and the inclusion of this section in the permit does not constitute a change in department policy on this matter.

Receiving Stream Information

Please mark the correct designated waters of the state categories of the receiving stream.

- Missouri or Mississippi River [10 CSR 20-7.015(2)]:
- Lake or Reservoir [10 CSR 20-7.015(3)]:
- Losing [10 CSR 20-7.015(4)]:
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]:
- Special Stream [10 CSR 20-7.015(6)]:
- Subsurface Water [10 CSR 20-7.015(7)]:
- All Other Waters [10 CSR 20-7.015(8)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses are to be maintained in accordance with 10 CSR 20-7.031(3).

RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & PERMIT CONDITIONS

PERMIT APPLICABILITY:

CAFOs that may be covered by his general permit are those that have a design capacity of less than 7,000 animal units. This general permit covers Concentrated Animal Feeding Operations (CAFOs) subject to state regulations at 10 CSR 20-6.300 and NPDES permitting requirements at 40 CFR 122.23 promulgated and effective in April 2003. The issuance of this general permit will not change the category of facilities required to have a permit under state or federal regulations. No changes have been made to the existing CAFO regulations by the issuance of this general permit. For a facility to receive coverage under the general permit an owner or operator of a CAFO must submit an application for permit to the Missouri Department of Natural Resources for review and for approval prior to coverage under the general permit.

PERMIT COVERAGE

This general permit provides coverage over the production area and the land application areas at a CAFO. The *Production Area* is that part of an operation which includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The *Land Application Area* is agricultural land which is under the 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.

This permit applies only to requirements of and regulations promulgated under the Missouri Clean Water Law and Federal Clean Water Act and does not apply to other environmental laws and regulations. This permit does not recognize, supersede nor remove liability from compliance with county and other local ordinances.

DISCHARGE LIMITATIONS, MONITORING, AND TREATMENT REQUIREMENTS:

CAFO Production Area - This general permit prohibits discharges of process wastes from the production area to waters of the State. This requires each CAFO to have an adequately sized and operated storage structure in place to collect and all hold process waste until it can be land applied as fertilizer. CAFOs are not allowed to discharge process wastes by pumping, siphoning, piping, or channeling wastewater to Waters of the State. The only time that a discharge is allowed at a CAFO is when it is caused by a chronic or catastrophic storm event that exceeds the design storm criteria.

Land Application Areas - The general permit also prohibits the discharge of manure, litter, or process wastewater to a water of the state from CAFO land application areas, except when it is an agricultural storm water discharge. Where manure, litter, or process wastewater has been land applied in accordance with this permit, 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

Please reference the section on Effluent Limitations in this CAFO Permit for further details.

RATIONALE FOR DISCHARGE LIMITATIONS, MONITORING AND TREATMENT REQUIREMENTS:

Effluent parameters and limitations contained in this Missouri State Operating Permits are obtained from Technology Based Effluent Limits (TBEL), Missouri's Effluent Regulations [10 CSR 20-7.015], Missouri's Water Quality Standards [10 CSR 20-7.031], previous Missouri State Operating Permits, and from Permit Applications. When CAFOs actively operate and maintain properly designed manure and wastewater storage structures in accordance with this permit, they will prevent most, if not all overflows and discharges. Because of this, the department has established Best Management Practices (BMPs) to insure proper operation and maintenance of the production area to prevent unauthorized discharges. Because of the uncertainty that is involved in determining if runoff or overflow of process waste has led to a discharge, as well as the substantial variation of the volume and nature of the pollutants of the discharge, numeric effluent limitation guidelines to control discharges are considered infeasible. Conversely, effluent limitations in the form of BMPs are particularly suited for the regulation of CAFOs. Controlling discharges to surface water is largely associated with controlling runoff and controlling overflows from manure storage structures. Runoff from CAFOs can be highly intermittent and is usually characterized by very high flows occurring over relatively short time intervals.

Along with BMPs, proper nutrient management planning and mandated recordkeeping requirements that deal with the CAFOs manure storage structures and land application is required under this permit. These requirements will ensure that CAFOs apply manure, litter, and other process wastewaters at rates, and in a manner consistent with appropriate agricultural utilization of nutrients. Limits on the rate at which manure or litter can be applied and certain other constraints on application practices, such as setbacks, and application methods are widely demonstrated as achievable and are being imposed through this permit.

ANTIDEGRADATION ISSUES:

As there shall be no-discharge of process wastewater during dry weather conditions the terms and conditions in this draft permit will maintain and protect the designated uses of the various receiving stream(s) as well as the level of water quality necessary to protect said water uses. With proper implementation of Best Management Practices (BMPs) at both the CAFO production area(s) and land application site(s) as well as other minimum standards, protection of water quality will be provided for a particular water body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Antidegradation plans are adopted by each State to minimize adverse effects on water.

Because this permit applies only to no-discharge facilities, no degradation is proposed. Antidegradation review does not apply to facilities which cause no degradation.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); CFR §122.44(I)] requires a reissued permit to be as stringent as the previous permit with some exceptions.

- All limits in this Factsheet are at least as protective as those previously established; therefore, backsliding does not apply.

- Backsliding proposed in this Factsheet for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 § CFR 122.44.

COMPLIANCE AND ENFORCEMENT:

Action taken by the department to resolve violations of the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

Applicable ;

Not Applicable ; The permittee/facility is not under enforcement action and is considered to be in compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

PUBLIC NOTICE OF COVERAGE FOR AN INDIVIDUAL FACILITY

The need for an individual public notification process shall be determined and identified in the general permit. [10 CSR 20-6.020(1)(C)5.]

Applicable ;

Issuance of coverage to an individual facility under this Master General Permit **for the first time** shall be placed on Public Notice for 30 days in accordance with 10 CSR 20-6.020(1)(B) & (C).

Not Applicable ;

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Public Notice is not required for issuance of coverage under this Master General Permit to individual facilities for the first time.

Public Notice of the reissuance of coverage is not required unless the facility has been found to be in significant noncompliance [10 CSR 20-6.020(1)(C)4.].

PUBLIC NOTICE:

The department conducted a 45 day Public Notice period for this Master General Permit which began on July 30, 2010 and ended on September 13, 2010.

Date of Factsheet: October 14, 2010