

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 Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No: MOG010000

Owner:
Address:

Continuing Authority:

Facility Name:
Facility Address:

Legal Description:
UTM Coordinates:

Receiving Stream:
First Classified Stream and ID:
USGS Basin & Sub-watershed No:

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein.

FACILITY DESCRIPTION

All Outfalls - Concentrated Animal Feeding Operation (CAFO) - SIC #0211, 0212, #0213, #0214, ##0241, #0251, #0252, #0253, #0254, #0259, or #0272.

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.

CAFO Class Size:

Animal Units and Animal Type:

This permit authorizes only 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 RSMo Section 644.051.6 and 621.250, 10 CSR 20-6.020, and 10 CSR 20-1.020.

Effective Date

Ed Galbraith, Director, Division of Environmental Quality

Expiration Date

David Lamb, Acting Director, Water Protection Program

Permittee Feature #001:

Legal Description:

UTM Coordinate: X = Y =

Receiving Water:

First Classified Stream and ID:

USGS Basin & Sub-Watershed No:

Storage Structure Type(s) and Design Storage Period (days):

General Description:

DRAFT

APPLICABILITY

1. This permit provides coverage under the National Pollutant Discharge Elimination System (NPDES) regulations found in portions of 40 CFR Part 122 & 412 that apply to Concentrated Animal Feeding Operations (CAFOs), along with coverage under the Missouri Clean Water Law and regulations found in 10 CSR 20-Chapter 6 and 10 CSR 20-Chapter 8 for point source related discharges at CAFOs in the State of Missouri.
2. CAFOs that may be covered by this general permit are Class I CAFOs and Class II Animal Feeding Operations (AFO) that are defined as a CAFO or required by an enforcement action to be permitted. . Once an operation obtains coverage under this permit, the requirements set forth herein apply with respect to all manure, litter, process wastewater, and mortality by-products generated within the CAFO production area.
3. This general permit only allows the use of EPA's narrative rate approach as described in 40 CFR 122.42(e)(5)(ii) for calculating land application rates for manure, litter, process wastewater, and mortality by-products. To meet this requirement the nutrient management (NMP) plan must be written and implemented in accordance with the terms of the Nutrient Management Technical Standard (NMTS).
4. The CAFOs authorization under this permit is only for allowable 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 a MOGS10000 state no discharge permit or site specific permit, the owner or operator may do so. If applying for the state no discharge permit the CAFO must demonstrate the ability to meet the no discharge requirement. This requirement can be met by showing compliance with design requirements in 10 CSR 20-8.300, compliance with previous permits, or other acceptable documentation.
6. If at any time the department determines that a site specific 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 complete renewal application 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.
10. Construction of an earthen storage basin requires a construction permit. All wastewater systems and major system modifications shall be designed and constructed in accordance with 10 CSR 208.300, but do not require a construction permit.

GENERAL REQUIREMENTS

1. DEFINITIONS

Definitions are as listed in the "Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard" and in State Regulations in 10 CSR 20-2, 6.300, and 8.300.

2. AUTHORIZATION

This permit authorizes operation of the CAFO waste management system as described in the "Facility Description", permit application and associated engineering plans. The CAFO is allowed to operate at an animal unit level not to exceed its respective Class size (i.e. Class IC or IB) as listed in the "Facility Description". When determining the appropriate classification a rolling 12 month average will be used. The rolling 12 month average shall at no time exceed the upper threshold limit of the CAFO's designated 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 or violate the effluent limitations of this permit.

3. 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.

4. 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;
- b. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- c. controls any pollutant not limited in the permit.
- d. 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.
- e. 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 when applicable.

5. PERMIT RENEWAL

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than 30 days prior to the permit's expiration date.

STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I Standard Conditions dated August 1, 2014, and is hereby incorporated as though fully set forth herein.

STANDARD REQUIREMENTS

1. DISCHARGES

The permittee is authorized to discharge process wastewater and stormwater in accordance with the effluent limitations in this permit and 40 CFR 412. 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.

2. CAFO PRODUCTION AREA REQUIREMENTS

Requirements applicable to all CAFO production area(s):

- a. There shall be no discharge of manure, litter, process wastewater, or mortality by-products into waters of the state from within the production area except as provided in subsection d. below.
- b. 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 (PUB2422) entitled "Wet Weather Management Practices for CAFOs." This guide was designed specifically to help minimize or eliminate water quality impacts from CAFOs during extreme wet weather periods. The chronic weather determination will be based upon an evaluation of the 1 in 10 year return rainfall frequency over a 10-day, 90-day, 180-day, and 365-day operating period. The permittee shall notify the appropriate Regional Office as soon as practicable but no less than 24 hours in advance of implementing the Department's "Wet Weather Management Practices for CAFOs" during a chronic weather event.
- c. Stockpiling of uncovered solid manure within the production area, without runoff collection, is not allowed.
- d. 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;

STANDARD REQUIREMENTS (continued)

- (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;
 - (f) 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 weather event that exceeds the Catastrophic Storm or the Chronic Weather event requirement. 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 Department.
- (4) All discharges of process wastewater to waters of the state or a release that crosses property boundaries 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.(f.) for additional requirements.
- (5) If a discharge occurs monitor the discharge at the point immediately prior to entering the receiving stream or at the property boundary, whichever occurs first.
- (6) The permittee shall notify the Water Protection Program as soon as practicable but no less than 24 hours in advance of implementing the Department's "Wet Weather Management Practices for CAFOs" during a chronic weather event.
- (7) All open storage impoundments shall maintain a visual reference gauge showing the depth of liquids in the structure, the lower operating level, and the upper operating level.
- (8) 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 earthen basin 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 Catastrophic Storm or Chronic Weather Event occurs.
- (9) Storage Safety Volume:
When a Chronic or Catastrophic design storm event occurs, the "safety volume" may be used to contain storm water until conditions are suitable for land application. The required safety volume shall be maintained between the overflow level and the upper operating level.

3. CAFO LAND APPLICATION AREAS

The Land Application Area is 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, process wastewater, or mortality by-products from the production area is or may be applied.

Requirements applicable to all CAFO land application area(s):

- a. There shall be no discharge of manure, litter, process wastewater, or mortality by-products to surface waters of the state or that crosses property boundaries from a CAFO from a stockpile or as a result of a land application of manure, litter, process wastewater, or mortality-by-products to land application areas under the operational control of the CAFO, except where it is an agricultural storm water discharge. When manure, litter, process wastewater, or mortality by-products has been land applied in accordance with this permit, the Nutrient Management Plan (NMP), and the *Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard (NMTS)*, a precipitation related discharge of manure, litter, process wastewater, or mortality-by-products from land areas under the operational control of the CAFO is considered to be an agricultural storm water discharge.
- b. All land application area(s), as defined in 10 CSR 20-6.300, must be included in the CAFO's nutrient management plan. When the permittee applies dry process wastes or process wastewater to agricultural lands that are not owned, rented, leased or otherwise under the operational control of the CAFO owner or operator, the permittee shall do so in accordance with Section 4 below.
- c. Temporary stockpiling of solid manure within the land application areas shall be in accordance with 10 CSR 20-8.300(10)B. No location shall be used for stockpiling for more than two weeks unless the stockpile is covered.
- d. Land application may occur during nighttime hours provided staff is present to monitor the irrigation system during irrigation periods. If an automated system is in place to send notification in the event of equipment malfunctions staff is not required to be present. The irrigation system shall be inspected once per night for equipment malfunctions and runoff even if an

STANDARD REQUIREMENTS (continued)

automated system is utilized. Nighttime application includes the period between one half hour before sunset and one half hour after sunrise.

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

In cases where CAFO-generated manure, litter, process wastewater, or mortality by-products is sold, given away, or applied on land not under the operational 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 the current nutrient analysis of the manure, litter, and/or process wastewater;
- d. These records must be retained on-site, for a period of five (5) years.

5. MORTALITY MANAGEMENT

- a. 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. Class I operations may not use burial as their primary mortality management method to dispose of routine mortalities.
- b. There shall be no-discharge from dead animal collection areas or holding areas (dumpsters, holding tanks, stockpiles within livestock production buildings, refrigeration units, etc.).
- c. In the event of significant numbers of unexpected mortalities (i.e. mass mortalities), operations shall first receive approval of proposed burial sites from the departments' Missouri Geological Survey prior to burial. Approval of burial sites can be obtained prior to a mass mortality event by contacting the Missouri Geological Survey. Rendering, composting, incineration, or landfilling, are acceptable options and do not require prior approval from the department. The Missouri Department of Agriculture also has statutes regarding the disposal of dead animals in Chapter 269.020 RSMo.

6. INSPECTIONS

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

- a. 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.
- b. Weekly inspections of all BMPs, including storm water diversion devices, runoff diversion structures, and devices that channel contaminated storm water to the process wastewater storage and divert storm water runoff away from the production area.
- c. Weekly inspections of the manure, litter, process wastewater, impoundments. The inspection will note the level in liquid impoundments as indicated by the depth marker.
- d. Periodically conduct leak inspections on equipment used for land application.
- e. Monitoring of the perimeter of the application fields where runoff is likely to occur to ensure that applied wastewater does not run off the fields where applied.
- f. Monitor for drifting from spray irrigation. If drift from spray irrigation of wastewater is observed crossing property boundaries, the irrigation equipment shall be moved or the irrigation stopped until conditions are more favorable.
- g. Hourly inspections of aboveground irrigation pipelines when in use.
- h. Any deficiencies found as a result of inspections shall be documented and corrected as soon as practicable.

7. RECORD KEEPING FOR PRODUCTION AREA

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 and shall be made available to the Department upon request:

- a. A copy of permits, permit applications, and a current copy of the CAFO's NMP.
- b. The visual inspections required in Special Requirement and Standard Condition #6 shall be recorded once per week.
- c. Weekly records 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.
- 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.

STANDARD REQUIREMENTS (continued)

- e. Records of mortalities management and practices used by the operation to verify compliance with Special Requirement and Standard Condition #5.
- f. Records of the date, time, location, duration, estimated volume and corrective actions taken for any discharge of manure, litter, process wastewater, or mortality by-products to surface waters of state or release that crosses property boundaries. Monitor a discharge at the point immediately prior to entering the receiving stream or a release at the property boundary. 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; $450 \text{ gpm} = 1.0 \text{ CFS}$. Other similar means of estimating may be used.
- g. For open liquid manure storages only, record the inches of precipitation received daily near the production site. CAFOs may use nearby weather reporting station data to satisfy this requirement.

8. RECORD KEEPING FOR LAND APPLICATION AREA

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 and shall be made available to the Department upon request:

- a. Expected crop yields;
- b. The date(s) and rates of manure, litter, mortality by-product, or process wastewater applications per 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, mortality-by-products, process wastewater, and soil;
- e. Results from manure, litter, mortality-by-products, and 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, mortality-by-products, and process wastewater;
- h. Total amount of nitrogen and phosphorus actually applied during each application to each field, including documentation of calculations for the total amount applied;
- i. The method used to apply the manure, litter, mortality-by-products, or process wastewater;
- j. Date(s) of manure application equipment inspection.
- k. Additional record keeping requirements are found in the NMTS that document implementation of appropriate NMP protocols.

9. REPORTING REQUIREMENTS

An annual report for Class IC and IB operations shall be submitted by the 15th day of February for the previous calendar year (Class IA see Special Requirement 5). 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, process wastewater, or mortality by-products generated in the previous twelve months.
- c. The estimated amount of manure, litter, process wastewater, or mortality by-products 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 the operational control of the operation that were used for land application of manure, litter, process wastewater, or mortality by-products in the previous twelve months.
- f. A 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. Report as no discharge if a discharge did not occur.
- g. A statement indicating whether the current Nutrient Management Plan was developed or approved by a certified nutrient management planner.
- h. The date, time, property boundary, location, duration, and estimated volume of any process wastewater discharges to surface waters of the state or that crossed property boundaries. Report as no-discharge, if there was no discharge during the monitoring period.
- i. The crops planted and actual yields, nutrient analysis results and the amount applied for each unique source of manure, litter, and process wastewater applied to the land application area(s), and the results of any soil testing from the previous twelve months.

STANDARD REQUIREMENTS (continued)

10. NUTRIENT MANAGEMENT PLAN:

- a. In accordance with 10 CSR 20-6.300(3)(G)1, the permittee shall develop, implement, and maintain a current NMP. A portion of a CAFOs NMP includes the engineering design and construction related documents within a CAFO's construction and operating permit application and annual reports. This plan must comply with the requirements found within the NMTS (See # 14 below). The NMP must, at a minimum, address the following areas.
 - (1) Ensures adequate storage of manure, litter, process wastewater, or mortality by-products including procedures to ensure proper operation and maintenance of the storage facilities.
 - (2) Ensures proper management of mortalities.
 - (3) Ensures that clean water is diverted from the production area. This shall include as necessary, controls, measures, or BMPs to properly manage storm water runoff in or around the production area and land application areas that is under the operational control of the CAFO. Activities that should be addressed include, but are not limited to, winter feeding areas, stockpiling of raw materials, manure, or litter or other animal feeding related items that have the potential to contribute pollutants to waters of the state.
 - (4) Prevents direct contact of confined animals with waters of the state.
 - (5) Ensures that chemicals and other contaminants handled within animal production facilities are not disposed of in any manure, litter, process wastewater, mortality by-products, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
 - (6) 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.
 - (7) Identifies protocols for appropriate testing of manure, litter, process wastewater, or mortality by-products and soil.
 - (8) 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.
 - (9) Identifies specific records that will be maintained.
- b. The permittee shall maintain the NMP in accordance with 10 CSR 20-6.300(3)(G)2. Revisions of the NMP made after the effective date of this permit must be submitted to the department for review and approval prior to implementing those revisions.

The permittee is responsible for all "land application area(s)" as defined in 10 CSR 20-6.300, and they must be included in the facility's nutrient management plan. The addition of land application area(s) that are not already included in a current NMP and the Terms of the NMP in this permit must follow permit modification procedures prior to land application of manure, litter, or process wastewater unless otherwise approved by the Department.

11. 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 based on a recommendation by 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's Division of Geology and Land Survey has deemed groundwater monitoring necessary, a geohydrological site characterization will be required prior to the design of the groundwater monitoring program.

12. ATTACHMENT A - TERMS OF THE NMP

13. 40 CFR 122.23 requires portions of the NMP pertaining to land application protocols to be incorporated into the operating permit as Terms of the NMP. Revisions to the NMP made after the effective date of this permit that results in significant changes to the terms of the NMP as outlined in 40 CFR 122.23 will require a modification of the permit prior to implementing those revisions. The completed attachment contains permit terms that are an enforceable component of this permit and are hereby incorporated as though fully set forth herein.

14. ATTACHMENT B - NARRATIVE RATE TERMS AND CONDITIONS

The permittee 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. The NMTS is available on the Department's website at <http://dnr.mo.gov/env/wpp/cafo/>.

STANDARD REQUIREMENTS (continued)

15. CLOSURE OF WASTE STORAGE STRUCTURES

Class I CAFOs which cease operation shall continue to maintain a valid operating permit until all lagoons and waste storage structures are properly closed according to a closure plan approved by the Department. 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 all wastewater and sludge;
- b. 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
- c. 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.

16. STANDARD NPDES PERMIT TERMS AND CONDITIONS

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

SPECIAL REQUIREMENTS APPLICABLE TO CLASS IA OPERATIONS ONLY

In addition to the Standard Conditions and Standard Requirements, Class IA operations shall also comply with the following Special Requirements.

1. **Emergency or Unauthorized Discharge.** Wastewater shall be stored and land applied during suitable conditions so that there is no discharge from the storage structures or land application sites. An emergency discharge from wastewater storage structures may only occur in accordance with Standard Requirement 2.d.3. of this permit. **Discharges for any other reason from production or land application areas shall constitute a permit violation and shall be reported in accordance with Standard Conditions, Part I, Section B.2.b.** Monitoring shall take place once per day while discharging. Test results are due on the 28th day of the following month after the cessation of the discharge. Permittee shall monitor for the following constituents:

Constituent	Units
Flow	MGD
Biochemical Oxygen Demand ₅	mg/L
Ammonia as N	mg/L
pH – Units	SU
Dissolved Oxygen	mg/L
Duration	Hours

2. If a discharge occurs monitor the discharge at the point immediately prior to entering the receiving stream or at the property boundary, whichever occurs first.
3. **Secondary Containment Structures**
 - a. The following requirements are applicable to secondary containments that may capture process wastewater;
 - b. Containment structures or earthen dams shall be maintained down gradient of all confinement buildings with a wet handling flush system to retain wastewater discharges from spills or pipeline breaks. The containment structure shall be able to collect a minimum volume equal to the maximum pumping capacity of flushing in any 24-hour period from all gravity outfall lines, recycle pump stations and recycle force mains.
 - c. Containment structures that do not serve confinement buildings with a wet handling flush system are not required, but are subject to the requirements of this section.
 - d. Any wastewater or stormwater that has been contaminated by coming into contact with manure, litter, wastewater, feed or silage captured in secondary containments shall be pumped into the lagoon or directly land applied in accordance with the NMP and the NMTS.
 - e. Stormwater captured in secondary containment structures that have not come into contact with manure, litter, feed, or silage may be released. Best Management Practices should be implemented to prevent stormwater from being contaminated.
 - f. Existing storm water flows from areas that drain potential releases from gravity outfall lines, recycle pump stations, recycle force mains and appurtenances shall not be diverted around or allowed to bypass the secondary containment structure, even

SPECIAL REQUIREMENTS APPLICABLE TO CLASS IA OPERATIONS ONLY

when the flush system is not in use, without the prior approval of the Water Protection Program. Additional storm water may be directed to the secondary containment if desired by the permittee.

- g. If the wet handling flush system has been replaced or is no longer used, a secondary containment is no longer required. The permittee may request a permit modification to remove the secondary containments from the permit. Secondary containments, whether required or not, are subject to the requirements of this section.

4. Inspections

- a. The following minimum visual inspections shall be conducted by the CAFO operator.
- b. For confinement buildings that utilize wet handling flush system, a visual inspection shall be conducted once per week of the gravity outfall lines, recycle pump stations; recycle force mains, and appurtenances for any release to secondary containment structure.
- c. A daily visual inspection shall be also be conducted of any process wastewater impoundment that serves a wet handling flush system when the liquid level is less than twelve (12) inches from the emergency spillway.
- d. Quarterly inspections, prior to use, of equipment used for land application of manure or process wastewater.
- e. Twice daily inspections of pressurized underground lines including one inspection that should be completed immediately following startup.
- f. Weekly inspections of the collection or holding areas for dead animals. Equipment and devices used for the transfer of dead animal for delivery and disposal off-site are not considered a collection or holding area, therefore, are not required to be part of the daily inspection requirement.

Records of inspections shall be kept and maintained for a period of five (5) years and made available to the department upon request.

5. Reporting Requirements

- a. Spills or leaks that are contained on the property shall also be reported to the Department within 24 hours, if the spill or leak exceeds 1,000 gallons per day. This includes leaks from sewer lines; recycle lines, flushing systems, lagoons, irrigation systems etc. Spills or leaks that are entirely contained in a secondary containment are excluded from this reporting requirement, but not recordkeeping requirements, provided there is no discharge from the secondary containment prior to the wastewater being removed in accordance with Special Requirement 1.
- b. Within seven (7) days of the date that a lagoon's level comes within four (4) inches of the upper operating level, the permittee shall notify the department with information that identifies the lagoon(s), the lagoon level in inches below the emergency spillway and actions taken to reduce the lagoon levels.
- c. The Annual Report shall be submitted by January 28 of each year for the previous growing season from October 1 through September 30 or an alternate 12 month period approved by the department;
 - (1) The daily and weekly records of the wastewater depth in the liquid impoundments as required by Standard Requirement 6c and Special Requirement 2b.
 - (2) All monitoring results from an emergence or unauthorized discharge as required by Special Requirement #.

MOG01XXXX
Attachment B

**Nutrient Management Technical
Standard**

DRAFT

Missouri Department of Natural Resources
FACT SHEET FOR THE PURPOSE OF RENEWAL
OF
MO-G010000
MASTER GENERAL PERMIT

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. Missouri State Operating Permits (MSOPs) 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). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

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

This Factsheet is for a Master General Permit

Part I – Facility Information

Facility Type: No-discharge Concentrated Animal Feeding Operation (CAFO)

Facility SIC Code(s): SIC #0211, 0212, #0213, #0214, ##0241, #0251, #0252, #0253, #0254, 0259, or #0272

Facility Description: 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.

Summary of Changes

- Voluntary permits for Class II and smaller AFO will no longer be issued. Class II and smaller AFO that are required to obtain permit coverage as part of an enforcement action will be issued a permit.
- Individual definitions were deleted from the permit. Previous permit contained definitions of terminology associated with CAFO. This was only a small portion of the definitions that are in the regulations that pertain to CAFOs. Permittees are encouraged to familiarize themselves with the definitions and the regulations.
- The addition of a requirement to notify the appropriate Regional Office twenty four (24) hours in advance of implementing Wet Weather Practices.
- Procedures regarding night time land applications.
- The Standard Condition of Design Parameters has been deleted. Regulations allow operations to operate at an animal number level not to exceed their permitted class size as long as it does not adversely impact the manure storage system or violate the effluent limitations of the permit. Because design flow, i.e. manure production is based on animal numbers, a change in the design flow is authorized and would no longer require a permit modification. If additional manure storage structures are added a permit modification would be required prior to using the new manure storage structure.
- Class IA CAFO have been excluded from being covered under this general permit in the past. With this renewal that exclusion is removed and Class IA CAFO will be allowed to be covered by this permit. To facilitate this, the Special Requirements section has been added to the permit. This section contains statutory and regulatory requirements specific to Class IA operations. Class IC and IB operations will not be required to comply with these Special Requirements.
- Some of the information about each permitted feature that was in Attachment A is now incorporated into the Facility Description portion of the permit. The remainder of the information will be retained on file but not part of the permit. The Terms of the NMP will be included as Attachment A.

Part II – Operator Certification Requirements

- ✓ Class IA facilities are required to have a certified operator.

Part III – Receiving Stream Information

Applicable Designations of Waters of the State:

Per Missouri Effluent Regulations (10 CSR 20-7.015), the waters of the state are divided into seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation and Discussion of Limits section. This permit applies to facilities discharging to the following water body categories:

- ✓ Missouri or Mississippi River [10 CSR 20-7.015(2)]
- ✓ Lakes or Reservoirs [10 CSR 20-7.015(3)]
- ✓ Losing Streams [10 CSR 20-7.015(4)]
Metropolitan No-Discharge Streams [10 CSR 20-7.015(5)]
- ✓ Special Streams [10 CSR 20-7.015(6)]
- ✓ Subsurface Waters [10 CSR 20-7.015(7)]
- ✓ All Other Waters [10 CSR 20-7.015(8)]

Missouri Water Quality Standards (10 CSR 20-7.031) 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 shall be maintained in accordance with 10 CSR 20-7.031(4). The effluent limitations established by this permit are intended to be protective of all streams that fall within the categories of receiving water bodies indicated above. A general permit does not take into consideration site-specific conditions.

Part IV – Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

- ✓ Not Applicable; The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

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

ANTIDegradation:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- ✓ No degradation proposed and no further review necessary. Facility did not apply for authorization to increase pollutant loading or to add additional pollutants to their discharge.

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address:

<http://extension.missouri.edu/main/DisplayCategory.aspx?C=74>, items WQ422 through WQ449.

- ✓ Not applicable; this condition is not applicable to the permittee for this facility.

NUTRIENT MANAGEMENT PLAN AND LAND APPLICATION

Land application areas as defined in 10 CSR 20-6.300 that are to receive manure application must be included in a current NMP and in the Terms of the NMP in of the CAFOs permit prior to any manure application. Any revisions to the NMP after the issuance date of the permit must be submitted to the department for review prior to implementing the revisions. If the revisions result in substantial changes to the Terms of the NMP a permit modifications is required before implementing the revisions. Substantial changes include, but are not limited to, addition of new land application areas, new crops or change in expected yields, or changes to the phosphorous loss risk assessment.

The agronomic rate is the amount of wastewater applied to a field to supply the amount of nutrients needed to meet the fertilizer recommendation. For more information on nutrient management, soil sampling, PAN calculations, and land application best management practices, consult the following University of Missouri Extension Guides:

- G9112 Interpreting Missouri Soil Test Reports
- G9215 Soil Sampling Pastures
- G9217 Soil Sampling Hayfields and Row Crops
- EQ0215 Laboratory Analysis of Manure
- G9177 Preplant Nitrogen Test for Adjusting Corn Nitrogen Recommendations
- G9186 Calculating Plant-Available Nitrogen and Residual Nitrogen Fertilizer Value in Manure
- G9180 Phosphorus in Missouri Soils
- EQ0202 Land Application Considerations for Animal Manure
- EQ327 Calibration of Lagoon Irrigating Equipment
- G1270 Calibrating Field Sprayers

SPILL REPORTING:

Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

- ✓ Not Applicable; At this time, the permittee is not required to develop and implement a SWPPP.

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

40 CFR 122.41(M) - BYPASSES:

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from "bypassing" untreated or partially treated sewage (wastewater) beyond the headworks. A bypass is defined as an intentional diversion of waste streams from any portion of a

treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri's Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

- ✓ Not Applicable; This facility does not anticipate bypassing.

Part V – Permit Limits Determination

There are no effluent limits associated with Permitted Features or land application areas for the no-discharge facility.

General Criteria Considerations:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants which have been determined to cause, have the reasonable potential to cause, or to contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion within an applicable State water quality standard, the permit shall contain a numeric effluent limitation to protect that narrative criterion. The previous permit included the narrative criteria as specific prohibitions placed upon the discharge. These prohibitions were included in the permit absent any discussion of the discharge's reasonable potential to cause or contribute to an excursion of the criterion. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether the discharge has reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). These specific requirements are listed below followed by derivation and discussion (the lettering matches that of the rule itself, under 10 CSR 20-7.031(4)). In instances where reasonable potential exists, the permit includes numeric limitations to address the reasonable potential. In instances where reasonable potential does not exist the permit includes monitoring of the discharges potential to impact the receiving stream's narrative criteria. Finally, all of the previous permit narrative criteria prohibitions have been removed from the permit given they are addressed by numeric limits where reasonable potential exists. It should also be noted that Section 644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state that it shall be unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri that is in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission.

- (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.
 - For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because these facilities are operated as no discharged.
- (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
 - For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because the permit does not allow manure, litter, or process wastewater to be discharged.
- (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.
 - For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because the permit does not allow manure, litter, or process wastewater to be discharged.
- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
 - For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because the permit does not allow manure, litter, or process wastewater to be discharged.
- (E) There shall be no significant human health hazard from incidental contact with the water.
 - For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because the permit does not allow manure, litter, or process wastewater to be discharged.
- (F) There shall be no acute toxicity to livestock or wildlife watering.

- For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because the permit does not allow manure, litter, or process wastewater to be discharged.
- (G) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.
- For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because the permit does not allow manure, litter, or process wastewater to be discharged.
- (H) Waters shall be free from used 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.
- There are no solid waste disposal activities or any operation that has reasonable potential to cause or contribute to the materials listed above being discharged through any outfall.

Part VI – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PUBLIC NOTICE OF COVERAGE FOR AN INDIVIDUAL FACILITY:

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

- ✓ Applicable: Public Notice is required for the Terms of the NMP for issuance of coverage under this permit to individual facilities.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- ✓ The Public Notice period for this operating permit is tentatively scheduled to begin in May 2017 or is in process.

The Public Notice period for this operating permit was from DATE to DATE. Responses to the Public Notice of this operating permit warrant the modification of effluent limits and/or the terms and conditions of this permit.

The Public Notice period for this operating permit was from DATE to DATE ## were responses received.

DATE OF FACT SHEET: JUNE 5, 2017

COMPLETED BY:

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