

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

www.dnr.mo.gov

**AUG 19 2016**

Murphy- Brown LLC of Missouri  
17999 US Hwy 665  
Princeton, MO 64673

Dear Permittee:

Missouri State Operating Permit number MOG010124 issued on May 3, 2013 is hereby modified as per the enclosed. This modification is to address the addition of a gilt development barn. There are no other changes to the permit. The enclosed permit is for your official record.

Please read your permit and enclosed Standard Conditions. They contain important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements.

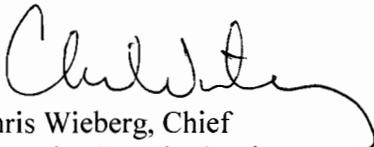
This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to satisfy the permit requirements, an appointment can be set up by contacting your local regional office at (816) 251-0700. These visits are called Compliance Assistance Visits and focus on explaining the requirements to the permit holder.

This permit is both your federal discharge permit and your new state operating permit and replaces all previous state operating permits for this facility. In all future correspondence regarding this facility, please refer to your state operating permit number and facility name as shown on page one of the permit.

If you have any questions concerning this permit, please do not hesitate to contact Mr. Gorden Wray by mail at Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176 or by phone at (573) 751-1398.

Sincerely,

WATER PROTECTION PROGRAM



Chris Wieberg, Chief  
Operating Permits Section

CW/gwk

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: MOG010124

Owner:  
Address: 17999 US Hwy 65  
Princeton, MO 64673

Operating Authority:  
Murphy-Brown of Missouri LLC  
Rt.2 Box 300D  
Princeton, MO 64673

Facility Name: Murphy-Brown, Sharp Sow Farm  
Facility Address: 24869 Nickel Avenue  
GALLATIN, MO 64640

Legal Description: SW 1/4, SW 1/4, Sec. 03, T59N, R27W, Daviess County  
UTM Coordinates: 420677.000/4422389.000  
Receiving Stream: Tributary to Grand River (U)  
First Classified Stream - ID#: Grand R. (P) 430.00  
USGS# and Sub Watershed#: 10280101 - 1205

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 SIC #0213

All Outfalls - 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 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.

August 18, 2016

Issue Date

February 23, 2018

Expiration Date

Sara Parker Pauley, Director  
Department of Natural Resources

John Madras  
Director, Water Protection Program

## **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 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 manure, litter, process wastewater, and mortality by-products generated within the CAFO production area. 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.
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, 10 CSR 20-6.300(5) and the Nutrient Management Technical Standard (NMTS), upon the effective date of coverage of this permit.
4. 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 plan must be written and implemented in accordance with the terms of the Nutrient Management Technical Standard (NMTS).
5. 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.
6. If at any time the owner or operator of the operation should desire to apply for a state (no-discharge) permit or site specific permit, the owner or operator may do so.
7. 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.
8. 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 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.
9. 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.
10. This permit does not supersede nor remove liability for compliance with county and other local ordinances.
11. All wastewater systems and major system modifications shall be constructed in accordance with 10 CSR 20-6.300, 8.300, and a construction permit unless specifically exempted by the Department.

## **GENERAL REQUIREMENTS**

### 1. DEFINITIONS:

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

- a. Discharge - The causing or permitting of one or more water contaminants to enter waters of the state. A CAFO is said to discharge when it is designed, constructed, operated, or maintained such that a discharge of process waste to surface waters of the state will occur.
- b. Process wastewater – Water which carries or contains manure, including manure commingled with litter, compost, or other animal production waste materials used in the operation of the CAFO. Also includes water directly used in the operation of the CAFO for any or all of the following: spillage or overflow from confined animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; and water resulting from the washing, or spray cooling of confined animals.
- c. Production Area - The non-vegetated portions of an operation where manure, litter, or process wastewater from the AFO is generated, stored, and/or managed. The production area includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes, but is not limited to, open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes, but is not limited to, lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes, but is not limited to, feed and silage silos, pads, and bunkers. The waste containment area includes, but is not limited to, settling basins and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing operation and any area used in the storage, treatment, or disposal of animal mortalities.
- d. Waters of the State – All rivers, streams, lakes and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the State which are not entirely confined and located completely upon lands owned, leased or otherwise controlled by a single person or by two or more persons jointly as tenants in common.
- e. Additional definitions are listed in the “Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard and in 10 CSR 20 Chapter 2, Chapter 6.300, and Chapter 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 waste management system includes all structures and equipment used to collect, store or transfer manure, litter, process wastewater or mortality by-products, from the time of initial collection through land application. This permit authorizes the CAFO 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.

### 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.

## **GENERAL REQUIREMENTS**

### 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:
  - (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 Best Management Practices (BMP) 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 BMP 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.

## **SPECIAL REQUIREMENTS AND STANDARD CONDITIONS**

### 1. DISCHARGES:

The permittee is authorized to discharge process wastewater and storm water 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.
- c. Stockpiling of uncovered solid manure within the production area, without runoff collection, is not allowed.

**SPECIAL REQUIREMENTS AND STANDARD CONDITIONS**

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;
  - (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.

### **SPECIAL REQUIREMENTS AND STANDARD CONDITIONS**

#### **3. 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, process wastewater, or mortality by-products from the production area is or may be applied.

Requirements applicable to all 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 as a result of the land application of manure, litter, process wastewater, or mortality-by-products to land application areas under the direct 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 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 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. Runoff from a stockpile shall not cause a violation of water quality standards.

#### **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 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 the current nutrient analysis of the manure, litter, and/or process wastewater;
- d. Provide the recipient with a copy of the NMTS; and
- e. 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. Operations shall first receive approval from the Department before burying significant numbers of unexpected mortalities and shall conduct the burial in accordance with the Missouri Department of Agriculture requirements. Rendering, composting, incineration, or landfilling, in accordance with Chapter 269.020 RSMo., shall be considered acceptable options and do not require prior approval.

## **SPECIAL REQUIREMENTS AND STANDARD CONDITIONS**

### 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, or mortality by-products 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 to ensure that applied wastewater does not run off the fields where applied.
- f. Monitor for drifting from spray irrigation.
- g. Hourly inspections of aboveground irrigation pipelines when in use.

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.
- 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 gpm = 1.0 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.

**SPECIAL REQUIREMENTS AND STANDARD CONDITIONS**

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 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, 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 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 statement indicating whether the current Nutrient Management Plan was developed or approved by a certified nutrient management planner.
- g. 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.
- h. 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.

**SPECIAL REQUIREMENTS AND STANDARD CONDITIONS**

10. NUTRIENT MANAGEMENT PLAN:

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. The plan also includes annual reports and updates submitted to the Department. This plan must comply with the requirements found within the NMTS (See # 13 below). The plan must, at a minimum, address the following areas.

- a. Ensures adequate storage of manure, litter, process wastewater, or mortality by-products 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. 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 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.
- d. Prevents direct contact of confined animals with waters of the state.
- e. 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.
- 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, or mortality by-products 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.

The permittee is responsible for all land application area(s) that are owned, rented, leased, or otherwise directly controlled by the permittee. All land application area(s), 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. The addition of land application area(s) that are not already included in a current NMP for another operation must follow permit modification procedures prior to land application 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.

**SPECIAL REQUIREMENTS AND STANDARD CONDITIONS**

12. ATTACHMENT A - SITE SPECIFIC TERMS AND CONDITIONS:

The permittee shall comply with Attachment A “*Site Specific Permit Terms and Conditions*”. Attachment A has been created based on the facilities site specific NMP as submitted and approved by the Department. The completed attachment contains permit terms that are an enforceable component of this permit and are hereby incorporated as though fully set forth herein.

13. 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/>.

14. 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.

15. 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.

16. DESIGN PARAMETER:

The facility’s design flow in the Facility Description is an estimated parameter that is used to help predict nutrient generation and storage periods. The design flow is 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. The design flow is based on the time period when the flows are generated at the production site and not when flows are land applied. Permittee may exceed the design flow when precipitation in any 365 day period exceeds the one-in-ten year annual precipitation amount. Any proposed increases may require a permit modification prior to the proposed change. Portions of the design flow may be stored and carried over into the following year for land application, as necessary.

# CAFO NPDES Permit Attachment A

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## Site Specific Permit Terms and Conditions For Concentrated Animal Feeding Operations General Permit

**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:

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; i.e. "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:

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 Dry Process waste volume (tons/yr.):

Design Storage Period; i.e. "days of storage" (days):

**Additional Operational Narrative Description:** *(note: this space will provide a summary of the operation and*



**CAFO NPDES Permit  
Attachment B  
Narrative Rate Permit Terms and Conditions**

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**Nutrient Management Technical  
Standard**

**Missouri Department of Natural Resources  
Concentrated Animal Feeding Operation  
NPDES Master General Permit Factsheet  
MO-G010000**

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 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 .

**General Comments:**

The revised state CAFO regulation 10 CSR 20-6.300 and a new CAFO Manure Storage Design Regulation 10 CSR 20-8.300 became effective April 30, 2012. These regulations incorporate revisions in the 2008 EPA CAFO rule. EPA and state regulations require all Class I CAFOs that discharge to seek coverage under a NPDES permit. The rule also allows a CAFO to certify as a No-Discharge operation, then the CAFO is not required to seek coverage under a NPDES permit. New state regulation requires all Class I CAFOs that do not discharge and that do not apply for a NPDES permit, to obtain and maintain coverage under the State No-Discharge Permit.

Unlike the current NPDES permit, this permit requires a public notice period for the permit and terms contained in a facility's Nutrient Management Plan (NMP). EPA rules require that portions of the CAFOs site specific NMP be included as terms of the permit to ensure compliance with the NMP. This new NPDES permit has been revised to incorporate the 2008 EPA and 2012 state regulation changes. This permit will be issued for a 5 year period.

The 2008 EPA regulation also changed the animal numbers for poultry based on the type of manure handling system. Due to this change there are approximately 65 poultry operations that were Class IC but are now Class II. Class II and smaller CAFOs are not required to be permitted and can request termination of their current permit.

Class I and Class II operation size is based upon the operating level in animal units of an individual animal type at one operating location. Once a CAFO becomes a Class I operation the animal units of all confined animals at the operating location will be added together to determine whether the operation is Class IA, IB or IC.

Missouri has approximately 500 CAFOs covered under the current CAFO Master General Permit, which will expire on February 23, 2013. It is expected that approximately 20- 25% of permitted CAFOs will apply for the NPDES permit. The renewal application will allow the owner/operator of each CAFO to decide which permit they want to apply for or Class II operations can request termination of their permit.

## **Part I - Facility Information**

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

Facility Type: Industrial

Facility SIC Code(s): 0211, 0213, 0214, 0241, 0251, 0252, 0253, 0272

### **Facility Description**

No Discharge of Process Waste –

Design flow (animals):       gallons per year (#### mgd)

Design number of animals is                               (#### animal units)

## **Part III - 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 1<sup>st</sup> classified receiving stream's beneficial water uses are to be maintained in accordance with 10 CSR 20-7.031(3).

## **Part IV - Rationale and Derivation of Effluent Limitations & Permit Conditions**

### **Permit Applicability**

This general permit covers Concentrated Animal Feeding Operations (CAFOs) subject to federal regulation 40 CFR 122 & 412 and state regulations 10 CSR 20-6.300, 10 CSR 20-8.300, and the Missouri Clean Water Law. CAFOs that may be covered by this general permit are Class I CAFOs that have a design capacity of less than 7,000 animal units. While, to date, the Department has not allowed Class IA CAFOs (greater than 7,000 animal units ) to be covered under the general permit, the Department is committed to evaluating the circumstances and appropriateness of including them in the future into a general permit. This may be accomplished by either amending this permit at a later date or alternatively developing a separate general permit for this class size of CAFOs in the future. For a facility to receive coverage under this 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 approval prior to coverage under the general permit.

Regulations require CAFOs develop and implement a Nutrient Management Plan (NMP) upon issuance of the permit. CAFOs applying for this permit will be required to submit the NMP to the Department if it has been revised since the last renewal in 2011. This permit also requires the NMP be developed using the EPA's narrative approach for calculating application rates. The NMP must comply with the requirement in the Nutrient Management Technical Standards (NMTS).

In accordance with this permit, Concentrated Animal Feeding Operation (CAFO) are required to collect and manage process wastes and reuse them as fertilizer by spreading onto agricultural fields at appropriate agricultural rates. The permit requires the CAFO to operate and maintain the production area and land application areas in a manner such that they do not discharge to surface waters of the state or have a release that crosses property boundaries. Discharges due to chronic weather events and catastrophic storms are allowed.

### **General Requirements**

The CAFO is authorized to operate at an animal level not to exceed the class size designated in the permit. The CAFO may change animal numbers and weights within its permitted class size, however such changes must not adversely impact the storage and handling capacities of the waste management system. 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 (i.e. IA, IB, or IC). It will not be used to determine whether a facility is an AFO or CAFO (i.e. class II or Class I) as those criteria are already included in state and federal regulation.

### **Special Requirements and Standard Conditions**

This permit does not authorize the discharge of manure, litter, process wastewater, or mortality by-products from the production area(s) at a CAFO except when it is caused by a Chronic Wet Weather event or Catastrophic Storm as long as the lagoon or uncovered storage structure has been properly designed, constructed, operated and maintained. 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, unless prior approval is obtained from the Department.

When wastewater storage structures are in danger overflowing due to a chronic weather event, CAFO owners are required to take reasonable steps that 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. 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. 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, 90-day, 180-day and 365-day operating period.

This permit also does not authorize the discharge of manure, litter, process wastewater, or mortality by-products from the land application areas at a CAFO, except when it is an agricultural storm water discharge. Where manure, litter, process wastewater, or mortality by-products has been land applied in accordance with this permit and the facilities Nutrient Management Plan, a precipitation related discharge of manure, litter, process wastewater, or mortality by-products from land areas under the control of the CAFO is considered to be an agricultural storm water discharge.

The new 10 CSR 20-6.300 regulation prohibits the stockpiling of solid manure within the production area without runoff collection and also prohibits stockpiling of uncovered solid manure in the land application area for more than two weeks.

An annual report is required by the regulations for CAFO covered under this permit and is to be submitted to the Department by February 15 for the previous calendar year. The only change to reporting requirements is the date of soil tests used in development of the NMP has been added.

CAFOs are required to develop and implement a NMP upon issuance of the permit that complies with requirements in 10 CSR 20-6.300(3)(G)1, 10 CSR 20-6.300(5) and the NMTS. NMPs were submitted for all permitted CAFOs during the 2011 renewal and new CAFOs permitted since that time were required to submit a NMP with the construction permit application. If there have not been any revisions to the CAFOs NMP since the 2011 renewal, the NMP will not need to be resubmitted. If any revisions or updates have been made to a CAFOs NMP, the NMP will need to be submitted to the Department with the renewal application.

The 2008 EPA rule requires the permit must ensure compliance with the terms of the CAFOs site specific NMP by incorporating the terms as requirements of the permit. The terms are the information, protocols and best management practices (BMP) and other conditions in respect to land application of manure, litter, or process wastewater. The terms may also include BMP used at production area(s) for storm water runoff management. The terms of the NMP will be included in the public notice process. The NMP in its entirety will be available upon request. The terms of the NMP will be listed in Attachment A of the permit.

Another part of the EPA rule concerning the NMP is that changes made to the NMP could require a permit modification and a public notice period. Changes made to a CAFOs site specific NMP must be submitted to the Department for review, if the changes are deemed substantial, the CAFO must apply for a permit modification which would require a public notice period. Substantial changes include but are not limited to: addition of new land application areas not included in the CAFOs NMP or another CAFOs NMP, changes to the maximum field specific application rates, addition of new crops not listed in the NMP, and changes to field specific components that are likely to increase the risk of nitrogen or phosphorus transport to waters of the state.

The new state CAFO regulations require the NMP to include controls, measures, or BMPs to properly manage storm water runoff for activities in or around the production area and land application areas that are 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.

Many NMPs developed for the 2011 permit renewal did not address this, since it was not required until after development and submittal of their NMP. The Department will rely on issues identified during CAFO inspections and review of construction permits to request a facility to incorporate the requirement in the operations NMP; otherwise it will be included when the existing NMP expires and is updated. Permittees will be given ample time to update NMPs when directed to do so by the Department.

**ANTIDegradation ISSUES:**

As there shall be no-discharge of process wastewater 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 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 shall be placed on Public Notice for 15 days in accordance with 10 CSR 20-6.020(1)(B) & (C).

Not Applicable ; 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 Public Notice period for this Master General Permit from September 21, 2012 to October 22, 2012.

Date of Factsheet: November 27, 2012.