STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE 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.	MO-0118460
Owner:	Murphy-Brown of Missouri LLC d/b/a Smithfield Hog Production
Address:	17999 US Highway 65, Princeton, MO 64673
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Smithfield Hog Production, Homan Farm
Address:	5652 State Highway Z, King City, MO 64463
Legal Description:	See pages 2-5
Latitude/Longitude:	See pages 2-5
Receiving Stream:	See pages 2-5
First Classified Stream and ID:	See pages 2-5
USGS Basin & Sub-watershed No:	See pages 2-5

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

Operation of this facility shall not cause a violation of water quality standards.

FACILITY DESCRIPTION

Permitted Features #001 - #010, #014, #023 - Class IA Concentrated Animal Feeding Operation SIC #0213
No-discharge of process waste.
Ten anaerobic lagoons with secondary containment structures. Advanced Nitrification De-nitrification system and water re-use system. Wastewater is land applied. No-discharge domestic wastewater lagoon, wastewater is land applied.
Design flow is 91,089,663 per year. (0.25 mgd)
Design number of animals is 32,000 animal units of swine over 55 pounds.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

June 1, 2017
Effective Date

Steven Feeler, Acting Director, Division of Environmental Quality

December 31, 2021
Expiration Date

David J Lamb, Acting Director, Water Protection Program

FACILITY DESCRIPTION (continued)

This swine finishing facility consists of ten complexes designated as Farms #17-26. Each complex is made up of eight confinement buildings with shallow concrete pits, an anaerobic lagoon and a secondary containment. Manure from the confinement buildings is either scraped or flushed using recycle flush water into an anaerobic lagoon.

Advanced Nitrification/Denitrification (A.N.D.) Waste Water Treatment System: The system is comprised of an equalization basin, an anoxic basin with artificial liner, an aerated basin with artificial liner, a biosolids storage basin, and an irrigation storage pond.

Permitted Feature #001 – Farm #17 eight confinement buildings with an anaerobic lagoon.
Legal Description: SE ¼, SW ¼, Sec. 30, T61N, R30W, Gentry County
UTM Coordinate: X=387147; Y=4434777
Receiving Water: Tributary to Campbell Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,370,910 gallons per year
Design storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 6.0 feet below overflow level

Permitted Feature #002 – Farm #18 eight confinement buildings with an anaerobic lagoon.
Legal Description: NE ¼, SW ¼, Sec. 30, T61N, R30W, Gentry County
UTM Coordinate: X=386890; Y=4435163
Receiving Water: Tributary to Campbell Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,409,965 gallons per year
Design storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 6.0 feet below overflow level

Permitted Feature #003 – Farm #19 eight confinement buildings with an anaerobic lagoon.
Legal Description: NE ¼, SE ¼, Sec. 30, T61N, R30W, Gentry County
UTM Coordinate: X=387611; Y=4435051
Receiving Water: Tributary to Campbell Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,469,460 gallons per year
Design Storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 6.1 feet below overflow level

Permitted Feature #004 – Farm #20 eight confinement buildings with an anaerobic lagoon.
Legal Description: SW ¼, NW ¼, Sec. 29, T61N, R30W, Gentry County
UTM Coordinate: X=388133; Y=4435376
Receiving Water: Tributary to Campbell Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,409,965 gallons per year
Design Storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 6.0 feet below overflow level

Permitted Feature #005 – Farm #21 eight confinement buildings with an anaerobic lagoon.
Legal Description: NE ¼, SW ¼, Sec. 29, T61N, R30W, Gentry County
UTM Coordinate: X=388590; Y=4435058
Receiving Water: Tributary to Campbell Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,518,370 gallons per year
Design Storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 5.5 feet below overflow level

Permitted Feature #006 – Farm #22 eight confinement buildings with an anaerobic lagoon.
Legal Description: NW ¼, NE ¼, Sec. 29, T61N, R30W, Gentry County
UTM Coordinate: X=388948; Y=4435920
Receiving Water: Tributary to Jolly Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,357,770 gallons per year
Design storage: 365 days
Upper Operating Level: one foot below overflow level

Permitted Feature #007 – Farm #23 eight confinement buildings with an anaerobic lagoon.
Legal Description: SW ¼, SW ¼, Sec. 20, T61N, R30W, Gentry County
UTM Coordinate: X=388173; Y=4436338
Receiving Water: Tributary to Jolly Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,262,140 gallons per year
Design storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 5.6 feet below overflow level

Permitted Feature #008 – Farm #24 eight confinement buildings with anaerobic lagoon and secondary containment.
Legal Description: NE ¼, NE ¼, Sec. 30, T61N, R30W, Gentry County
UTM Coordinate: X=387949; Y=4436002
Receiving Water: Tributary to Jolly Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,410,695 gallons per year
Design Storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 6.3 feet below overflow level

Permitted Feature #009 – Farm #25 eight confinement buildings with anaerobic lagoon and secondary containment.
Legal Description: SW ¼, SE ¼, Sec. 19, T61N, R30W, Gentry County
UTM Coordinate: X=387558; Y=4436469
Receiving Water: Tributary to Jolly Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,357,770 gallons per year
Design storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 6.6 feet below overflow level

Permitted Feature #010 – Farm #26 eight confinement buildings with anaerobic lagoon and secondary containment.
Legal Description: NW ¼, SE ¼, Sec. 19, T61N, R30W, Gentry County
UTM Coordinate: X=387582; Y=4436829
Receiving Water: Tributary to Jolly Creek
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No: 10280101-0803
Design Waste Volume: 8,410,695 gallons per year
Design Storage: 365 days
Upper Operating Level: one foot below overflow level
Lower Operating Level: 6.6 feet below overflow level

Permitted Feature #013 – Deleted - Fresh Water Lake Monitoring

Permitted Feature #014 – Water Reuse System at Farm #26
Legal Description: NE ¼, SW ¼, Sec. 19, T61N, R30W, Gentry County
UTM Coordinate: X=387216; Y=4436565
Receiving Water: Tributary to Campbell Creek
First Classified Stream and ID: Campbell Creek (C) (0491)
USGS Basin & Sub-watershed No: 10280101-0803
The treatment system will treat anaerobic lagoon effluent to supplement livestock watering. The system is comprised of:

- Aeration Basin 439,464 gallons (58,752 cubic feet) artificial liner
- Settling Basin 39,733 gallons (5,312 cubic feet) artificial liner
- Nutrient Reduction Basin 4,075,000 gallons (544,838 cubic feet) earthen liner
- Algae Removal Basin 91,420 gallons (12,222 cubic feet) earthen liner
- Water Storage Basin 4,929,440 gallons (659,016 cubic feet) earthen liner
- Slow Sand Filtration – single pass
- Continuous Cleaned Rapid Sand Filtration
- Disinfection – ozone system, sodium hypochloride system, ultraviolet system

Precipitation falling on new basins will be recycled to the swine and will not increase design flow

Permitted Feature #015 – Deleted - Stream Monitoring

Permitted Feature #016 – Deleted - Stream Monitoring

Permitted Feature #017 – Deleted - Stream Monitoring

Permitted Feature #018 – Deleted - Stream Monitoring

Permitted Feature #019 – Deleted - Stream Monitoring

Permitted Feature #020 – Deleted - Stream Monitoring

Permitted Feature #021 – Deleted - Stream Monitoring

Permitted Feature #022 – Deleted - Storm Water

Permitted Feature #023 – "AND" Nitrogen Reduction Wastewater Facility
Legal Description: NW ¼, NE ¼, Sec. 30, T61N, R30W, Gentry County
UTM Coordinate: X=387431; Y=4435991
Receiving Water: Tributary to Campbell Creek (U)
First Classified Stream and ID: 8-20-13 MUDD V1.0 (C) 3960
USGS Basin & Sub-watershed No: 10280101-0803
Equalization basin
Upper Operating Level: 2.0 feet below top of berm
Lower Operating Level: 19.5 feet below top of berm
Design Berm Runoff & Surface R-E: 605,972 gallons per year
Anoxic basin
Basin Operating Level (constant): 2.0 feet below top of berm
Design Berm Runoff & Surface R-E: 191,773 gallons per year
Aerated basin
Basin Operating Level (constant): 2.0 feet below spillway
Design Berm Runoff & Surface R-E: 473,843 gallons per year
Biosolids storage basin
Basin Operating Level (constant): 2.0 feet below spillway
Design Berm Runoff & Surface R-E: 1,407,244 gallons per year
Irrigation storage basin
Upper Operating Level: 2.0 foot below spillway
Lower Operating Level: 12.0 feet below spillway
Design Berm Runoff & Surface R-E: 4,433,091 gallons per year

Total Design Berm Runoff & Surface Rainfall-Evaporation for Nitrogen Reduction Facility: 7,111,923 gallons per year

Permitted Feature #SM1 – Deleted - Stream Monitoring

Permitted Feature #SM2 – Deleted - Stream Monitoring

A. STANDARD CONDITIONS

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

B. GENERAL CONDITIONS

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 Special Condition #2 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. Reporting of Non-Detects:

   a. An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
   b. The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non-Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
   c. The permittee shall report the "Non-Detect" result using the less than sign and the minimum detection limit (e.g. <10).
   d. Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
   e. See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
   f. When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the "<MDL" shall be reported as indicated in item (C).

3. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

4. Definitions

   Definitions are as listed in the "Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard" and in State Regulations in 10 CSR 20 Chapter 2, Chapter 6.300, Chapter 8.300, and Chapter 14.

5. Construction Permit Requirements

   a. A construction permit is required for any point source that proposes to construct an earthen storage structure to hold, convey, contain, store or treat domestic, agricultural, or industrial process wastewater.
   b. Any point source system designed to hold, convey, contain, store or treat domestic, agricultural or industrial process waste shall be designed by a professional engineer registered in Missouri in accordance with 10 CSR 20-8.300 and constructed according to the design plans.

6. Reopener Clause

   This permit may be reopened and modified, or alternatively revoked and reissued, to:
   a. Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
      (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
      (2) controls any pollutant not limited in the permit.

b. Incorporate new or modified State of Missouri Statutes or Regulations.
c. Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
d. Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

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

C. SPECIAL CONDITIONS

1. Effluent Limitations

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

2. CAFO Production Area Requirements

Requirements applicable to all CAFO production area(s) as defined in 10 CSR 20-6.300:

a. There shall be no discharge of manure, litter, or process wastewater into waters of the state from production area point sources except as provided in subsection e. 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." 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. Manure, litter or wastewater management activities occurring outside the production area but upon land controlled by the permittee shall be addressed in the permittee's Nutrient Management Plan (NMP). Activities that should be addressed include, but are not limited to, 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. As necessary, the NMP shall identify controls, measures or BMPs to manage stormwater runoff and meet applicable water quality standards. This paragraph applies only to activities on land that is under the control of the CAFO owner or operator, whether it is owned, rented, or leased.
d. Stockpiling of uncovered dry process waste within the production area without runoff collection is not allowed.
e. 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 storm event that exceeds the design storm event(s). Only that portion of storm water flow, which exceeds the design storm event(s) may be discharged. Process wastewater discharge is not allowed by pumping, siphoning, cutting of berms, or by any other method, except as authorized herein, unless prior approval is obtained from the department.
    (4) 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.
    (5) 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.
    (6) 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 the FACILITY DESCRIPTION, so that adequate storage capacity is available for use during adverse weather periods when conditions are not suitable for proper land application. The lower operating level shall be used as an operational guideline; however, under normal operating conditions the level should not be lower than two feet above the lagoon floor.
(b) The liquid level in the storage structure should be lowered on a routine schedule based on the design storage period and Nutrient Management Plan. Typically this should be accomplished prior to expected seasonal wet and winter climate periods.
(c) The upper operating level for uncovered storage structures is one foot below the emergency overflow level unless specified otherwise in the FACILITY DESCRIPTION.
(d) The operation shall be managed so that the level of liquids in the storage structure does not exceed the upper operating level except when a 25-year, 24-hour storm or a 1 in 10-year chronic storm occurs.

(7) Storage Safety Volume:
(a) When a chronic or catastrophic design storm event occurs, the "safety volume" may be used to contain the stormwater until conditions are suitable for land application.
(b) The required safety volume shall be maintained between the overflow level and the upper operating level.

3. CAFO Land Application Areas

These requirements are applicable to all land application areas as defined in 10 CSR 20-6.300:

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, 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 the CAFOs 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 application is considered to be an agricultural storm water discharge.
b. The permittee is responsible for all land application areas. All land application areas must be included in the CAFO's nutrient management plan before any land application of manure, litter or process wastewater can occur. When manure litter or process wastewater generated by the permitted CAFO is sold, given away, or applied to agricultural lands that do not meet the land application area definition, the permittee shall comply with the requirement of Special Condition #6.
c. Temporary stockpiling of dry process waste 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.
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 in not required to be present. The irrigation system shall be inspected once per night for equipment malfunctions and runoff even if an automated system is utilized. Nighttime application includes the period between one half hour before sunset and one half hour after sunrise..

4. Nutrient Management Technical Standard

The permittee shall follow Attachment A - *Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard* (NMTS), except where otherwise stipulated in this permit. The NMTS, dated March 4, 2009, is hereby incorporated as though fully set forth herein.

5. Nutrient Management Plan

a. In accordance with 10 CSR 20-6.300(3)(G), the permittee shall implement a Nutrient Management Plan (NMP) that at a minimum addresses the following.
(1) Ensures adequate storage of manure, litter and process wastewater, 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.
(4) Prevents direct contact of confined animals with waters of the state.
(5) Ensures that chemicals and other contaminants handled on site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
(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, 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.

6. Transfer of Manure, Litter, and Process Wastewater

In cases where manure, litter, or process wastewater generated by the permitted CAFO is sold, given away, or applied on lands that do not meet the land application area definition, the permittee shall comply with the following conditions:

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

7. 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 has statutes for the disposal of dead animals in Chapter 269.020 RSMo.

8. Inspections

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

a. 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. 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.
b. Daily inspections must be conducted of water lines including wastewater, drinking water, and cooling water lines that can be visually observed within the production area. The inspection of the drinking water and cooling water lines shall be limited to the lines that possess the ability to leak or drain to wastewater storage structures or may come in contact with any process waste.
c. Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the process wastewater storage.
d. Weekly inspections of the manure, litter, and process wastewater impoundments. The inspection will note the level in liquid impoundments as indicated by the depth marker.
e. Quarterly inspections, prior to use, of equipment used for land application of manure or process wastewater.
f. Inspections during land application as follows:
(1) Monitor the perimeter of the application fields to insure that applied wastewater does not run off the fields where applied.
(2) Monitor for drifting of spray during spray irrigation.
(3) Hourly inspections of aboveground irrigation pipelines when in use.
(4) Twice daily inspections of pressurized underground lines including one inspection that should be completed immediately following startup.

Any deficiencies found as a result of inspections shall be documented and corrected as soon as practicable.

9. Record Keeping

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

a. A copy of this permit including a current copy of the facility's Nutrient Management Plan and documentation of changes/modifications made to the Nutrient Management Plan.
b. The daily and weekly visual inspections required in Special Condition #8, shall be recorded once per week. This includes the depth of the process wastewater in liquid impoundments as indicated by the depth marker. Report the liquid level as feet below the emergency overflow level.
c. Records documenting any actions taken to correct deficiencies. Deficiencies not corrected within thirty (30) days shall be accompanied by an explanation of the factors preventing immediate correction.
d. Records of mortalities management used by the operation.
e. Records of the date, time, location, duration and estimated volume of any emergency or unauthorized process waste overflow from a lagoon or any spill exceeding 1000 gallons. Report flow as cubic feet per second (CFS) based on an instantaneous estimate of the flow at the time of sampling. CFS = flow width in feet x flow depth in feet x flow velocity in feet per second. Estimates of stream channel width and depth may be used and flow velocity can be measured by timing how many feet a floating object moves within a one-second interval. Small flows may also be estimated based on gallons per minute (GPM) measurement using a container and stop watch; 450 gpm = 1.0 CFS. Other similar means of estimating may also be used.
f. Additional record keeping requirements are found in the NMTS that document implementation of appropriate Nutrient Management Plan protocols. In addition to the requirements found in the Nutrient Management Technical Standard, the CAFO shall also test and record the potassium levels in the soils while testing nitrogen and phosphorus.
g. The inches of precipitation received at the production site with an uncovered liquid impoundment, recorded daily and reported for daily amounts, monthly totals, and cumulative total.

10. Reporting Requirements

a. Any wastewater discharge into 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 start of the discharge.
b. 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 Condition 11.
c. 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.
d. 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.
e. An 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. The report shall include:
   (1) The number and type of animals confined at the operation.
   (2) The estimated amount of manure, litter, and process wastewater generated in the previous twelve months.
   (3) The estimated amount of manure, litter, and process wastewater transferred to other persons in the previous twelve months.
   (4) The total number of acres for land application covered by the Nutrient Management Plan.
   (5) The total number of acres under control of the operation that were used for land application of manure, litter and process wastewater in the previous twelve months.
   (6) A summary of all manure, litter, and process wastewater discharges from the production area that have occurred in the previous twelve months, including date, time, and approximate volume. Report as no-discharge, if a discharge did not occur during the monitoring period.
   (7) A statement indicating whether the current Nutrient Management Plan was developed or approved by a certified nutrient management planner.
   (8) The crops planted and expected yields, the amount and nutrient content of the manure, litter, and process wastewater applied to the land application area(s) and the results of any soil testing from the previous twelve months.
   (9) The daily and weekly records of the wastewater depth in the liquid impoundments as required in Special Condition #8d.
   (10) The actual operation numbers compared to the permitted design parameters described in Special Condition #12.
   (11) All monitoring results from an emergency or unauthorized discharge as required in General Condition #1.

h. The reports shall include a cover sheet with an original signature of a company representative. The reports may be printed or, saved as .pdf files or locked spreadsheets on compact disc (CDs) and shall be submitted to the Kansas City Regional Office and the Water Protection Program, Industrial Permits Unit.

11. Secondary Containment Structures

The following requirements are applicable to secondary containments that may capture process wastewater;

a. 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.
b. 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.
c. 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.
d. 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.
e. 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 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.
f. 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.

12. Design Parameters

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.

13. Domestic sludge shall be removed as needed and land applied in accordance with 40 CFR 503 sludge standards for septage and University of Missouri Water Quality Guide publication #WQ422.

14. Underground tile inlets for field terraces or subsurface field drainage tiles shall be shown on the site maps for all land application sites.

15. Operating Capacity

This permit authorizes operation of the CAFO waste management system as described in the "FACILITY DESCRIPTION" along with the permit application and associated engineering plans. The Facility Description lists a total design capacity in animal units. The CAFOs animal unit operating level at any given time shall be based on a "rolling 12 month average". The rolling 12 month average is determined by averaging the weekly facility wide inventory for the last 12 months. The CAFO may change animal numbers and weights, and the rolling 12 month average may exceed the total design capacity in the Facility Description but shall not subsequently violate applicable effluent limitations in 10 CSR 20-6.300(4) or adversely impact the storage and handling capacities of the waste management system. If the waste management system is adversely impacted by increased animal units or animal weight, the facility shall increase storage capacity, increase land application, or reduce the animal unit operating level.

16. Sample Collection, Preservation and Testing Methods

Testing shall be in accordance with the most current version of *Standard Methods for the Examination of Waters and Wastewaters* or other approved methods listed in 10 CSR 20-7.015(9)(A).

17. 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 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 when water quality monitoring shows such uses are attainable.

18. Terms of the Nutrient Management Plan

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 of the NMP after the effective date of this permit that result in significant changes to the terms of the NMP as outlined in 40 CFR 122.23 require a modification of the permit prior to implementing those revisions.

TERMS OF THE NUTRIENT MANAGEMENT PLAN

Field Name	Legal Description	Spreadable Acres	P Loss Risk	N or P Based Application	Crop #1		Crop #2		Crop #3		Crop #4		Crop #5	
					Crop	Yield Goal	Crop	Yield Goal	Crop	Yield Goal	Crop	Yield Goal	Crop	Yield Goal
1	Sec. 24 Twn. 61N Rng. 31W	10.50	Very Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
2	Sec. 25 / 19, 30 Twn. 61N / 61N Rng. 30W /31W	50.62	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
3	Sec. 30 Twn. 61N Rng. 30W	17.43	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
4	Sec. 19 Twn. 61N Rng. 30W	24.62	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
5	Sec. 19 Twn. 61N Rng. 30W	3.33	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
6	Sec. 19, 30 Twn. 61N Rng. 30W	19.12	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
7	Sec. 30 Twn. 61N Rng. 30W	8.55	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
9	Sec. 30 Twn. 61N Rng. 30W	54.34	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
10	Sec. 30 Twn. 61N Rng. 30W	10.67	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
11	Sec. 30 Twn. 61N Rng. 30W	26.96	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
13	Sec. 30 Twn. 61N Rng. 30W	24.16	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
14	Sec. 30 Twn. 61N Rng. 30W	44.16	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
16	Sec. 30 Twn. 61N Rng. 30W	17.80	Very Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
17	Sec. 30 Twn. 61N Rng. 30W	10.55	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
18	Sec. 30 Twn. 61N Rng. 30W	10.89	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
20	Sec. 19 Twn. 61N Rng. 30W	53.40	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
21	Sec. 20 Twn. 61N Rng. 30W	41.19	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a

TERMS OF THE NUTRIENT MANAGEMENT PLAN

Field Name	Legal Description	Spreadable Acres	P Loss Risk	N or P Based Application	Crop #1		Crop #2		Crop #3		Crop #4		Crop #5	
					Crop	Yield Goal	Crop	Yield Goal	Crop	Yield Goal	Crop	Yield Goal	Crop	Yield Goal
22	Sec. 20 Twn. 61N Rng. 30W	86.12	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
23	Sec. 19 Twn. 61N Rng. 30W	59.13	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
24	Sec. 20 Twn. 61N Rng. 30W	31.69	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
25	Sec. 20 Twn. 61N Rng. 30W	4.10	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
26	Sec. 20 Twn. 61N Rng. 30W	8.43	Very Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
27	Sec. 20 Twn. 61N Rng. 30W	46.04	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
28	Sec. 29 Twn. 61N Rng. 30W	55.88	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
29	Sec. 29 Twn. 61N Rng. 30W	12.00	Very Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
30	Sec. 29 Twn. 61N Rng. 30W	42.63	Very Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
31	Sec. 29 Twn. 61N Rng. 30W	35.70	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
32	Sec. 29 Twn. 61N Rng. 30W	33.67	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
34	Sec. 29 Twn. 61N Rng. 30W	25.89	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
35	Sec. 29 Twn. 61N Rng. 30W	21.94	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
36	Sec. 29 Twn. 61N Rng. 30W	10.66	Very Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
37	Sec. 20 Twn. 61N Rng. 30W	59.31	Medium	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
38	Sec. 20 Twn. 61N Rng. 30W	31.25	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
39	Sec. 17 Twn. 61N Rng. 30W	20.18	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
40	Sec. 29 Twn. 61N Rng. 30W	7.12	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
41	Sec. 19 Twn. 61N Rng. 30W	8.16	Very Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
42	Sec. 19 Twn. 61N Rng. 30W	7.70	Low	N	Mixed Grasses	4 T./a	Brome	4 T./a	Fescue	4 T./a	Orchard Grass	4 T./a	Clover	4 T./a
43	Sec. 29 Twn. 61N Rng. 30W	21.40	Low	N	Corn	170 Bu./a	Soybeans	50 Bu./a	Wheat	70 Bu./a	Oats	70 Bu./a	Alfalfa	4 T./a

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0118460
SMITHFIELD HOG PRODUCTION, HOMAN FARM

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 Industrial Land Application

Part I – Facility Information

Facility Type: No-discharge Concentrated Animal Feeding Operation/land application– SIC #0213

Facility Description:
This swine finishing facility consists of ten complexes designated as Farms #17-26. Each complex is made up of eight confinement buildings with shallow concrete pits, an anaerobic lagoon and a secondary containment. Manure from the confinement buildings is either scraped or flushed using recycle flush water into an anaerobic lagoon. Domestic wastes from production office are flushed to a domestic waste lagoon.

Advanced Nitrification/Denitrification (A.N.D.) Waste Water Treatment System: The system is comprised of an equalization basin, an anoxic basin with artificial liner, an aerated basin with artificial liner, a biosolids storage basin, and an irrigation storage pond.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?
- ✓ No.

Application Date: 07/07/2016
Expiration Date: 12/31/2016

PERMITTED FEATURE(S) TABLE:

PERMITTED FEATURE	TREATMENT LEVEL	EFFLUENT TYPE
#001-#010, #014,#023	Land Application	Animal wastewater

Facility Performance History:
This facility was last inspected on September 16, 2015, and was found to be in in compliance.

Secondary Containment Structures:
State statutes and regulations require production sites with flush systems to have secondary containments for the production area. The secondary containment structures collect accidental spills as well as stormwater. Any wastewater captured in secondary containment as a result of accidents or spill must be pumped into a lagoon or land applied. Stormwater that comes into contact with manure, litter, feed, or silage either prior to or after entering a secondary containment is considered process wastewater. Stormwater captured in secondary containment may be released. No monitoring of stormwater release is required but shall not violate water quality standards.

While the department recommends continued use of secondary containments after the flush system has been replaced or is no longer used, those secondary containments may be removed without department approval. If one acre or more is disturbed during removal a land disturbance permit is required. The permittee may request a permit modification to remove the secondary containments from the permit. As long as the secondary containments are in place, their operational requirements in the permit will remain in effect.

Nutrient Management:
The 2008 EPA CAFO regulation requires portions of the operations NMP be incorporated into the permit as terms of the NMP. These terms of the NMP are shown in Special Condition 18. In addition, any revisions to the operation NMP must be submitted to the department for review. If any of the proposed revisions result in significant changes to the terms of the NMP the permit must be modified prior to implementing the revisions.

Part II – Operator Certification Requirements

- ✓ This facility is required to have a certified operator.

Operators or supervisors of CAFO waste management systems shall be certified in accordance with 10 CSR 20-14.010. This facility currently requires a CAFO supervisor with an A Certification Level or a CAFO operator with a B Certification Level.

Operator's Name: Bradly D. Allen
Certification Number: 11244
Certification Level: CAFO A

The listing of the operator above only signifies that staff drafting this operating permit have reviewed appropriate Department records and determined that the name listed on the operating permit application has the correct and applicable Certification Level.

Part III – Receiving Stream Information

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses to be maintained, are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(4)].

RECEIVING STREAM(S) TABLE:

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC**
Tributary to Campbell Creek	N/A	N/A	General Criteria	0.1-0.5 mi.	10280101-0803
Tributary to Jolly Creek	N/A	N/A	General Criteria	0.25-0.25 mi.	
8-20-13 MUDD V1.0	C	3960	AQL, IRR, LWW, SCR, WBCB, HHP		

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW). ** - Hydrologic Unit Code

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 operating 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.

- ✓ Not Applicable; 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.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:
As per [10 CSR 20-6.010(3)(B)], …An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

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.

COMPLIANCE AND ENFORCEMENT:
Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

- ✓ Not Applicable; The permittee/facility is not currently under Water Protection Program enforcement action.

NUTRIENT MANAGEMENT AND LAND APPLICATION
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

SCHEDULE OF COMPLIANCE (SOC):
Per 644.051.4 RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. A SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section

502(17) of the Clean Water Act, and 40 CFR §122.2. For new effluent limitations, the permit includes interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR § 122.47(a)(1) and 10 CSR 20-7.031(10), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, a SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit that was not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance to Permit Writers in developing SOCs, and attain a greater level of consistency, on October 25, 2012 the department issued a policy on development of SOCs. This policy provides guidance to Permit Writers on the standard time frames for schedules for common activities, and guidance on factors that may modify the length of the schedule such as an affordability analysis.

- ✓ Not Applicable; This permit does not contain a SOC.

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.

VARIANCE:
As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

- ✓ Not Applicable; This operating permit is not drafted under premises of a petition for variance.

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.

303(d) List:
Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

- ✓ Not applicable. Big Muddy Creek and was listed on the 1998 Missouri 303(d) List for sediment and Hickory Creek was listed on the 2008 Missouri 303(d) List for unknown pollutants. Both were removed from the 303(d) List when a TMDL was approved. This facility is not considered to be a source of the above listed pollutants or considered to contribute to the impairment of Big Muddy Creek or Hickory Creek

Total Maximum Daily Load (TMDL):
A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation.

- ✓ Applicable. Big Muddy Creek is associated with the 2006 EPA Approved TMDL for sediment. Hickory Creek is associated with the 2010 EPA Approved TMDL for unknown pollutant.

Part V – Permit Limits Determination

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 the permit does not allow manure, litter, or process wastewater to be discharged from the facility.

(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 from the facility.

(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 from the facility.+

(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 from the facility.

(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 from the facility.

(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 from the facility.

(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 from the facility.

(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.

All Permitted Features and Land Application Areas – Emergency Discharge

There are no effluent limits associated with any of the Permitted Features or land application areas for the no-discharge facility. However, the following is required for an emergency discharge. Monitoring requirement only based on best professional judgment.

EMERGENCY DISCHARGE TABLE:

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	*			NO	*
Biochemical Oxygen Demand$_5$	mg/L	*			NO	*
Ammonia as N	mg/L	*			NO	*
pH	SU	*			NO	≥ 6
Dissolved Oxygen	mg/L	*			NO	*
Duration	hours	*			NO	*
Temperature	^{o}C	removed			YES	*
Monitoring Frequency	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.					

* - Monitoring requirement only
** - # of colonies/100mL; the Monthly Average for E. coli is a geometric mean.
*** - Parameter not established in previous state operating permit.

- **Minimum Sampling and Reporting Frequency Requirements**.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/day while discharging	Test results are due on the 28th day of the month after the cessation of the discharge
Biochemical Oxygen Demand$_5$	once/day while discharging	
Ammonia as N	once/day while discharging	
pH	once/day while discharging	
Dissolved Oxygen	once/day while discharging	
Duration	once/day while discharging	

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.

PERMIT SYNCHRONIZATION:
The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than 4 years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

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 was from February 24, 2017 to March 27, 2017. One response was received.

DATE OF FACT SHEET: APRIL 25, 2017

COMPLETED BY:
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
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STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions
Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
   b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

2. **Monitoring Requirements**.
   a. Records of monitoring information shall include:
      i. The date, exact place, and time of sampling or measurements;
      ii. The individual(s) who performed the sampling or measurements;
      iii. The date(s) analyses were performed;
      iv. The individual(s) who performed the analyses;
      v. The analytical techniques or methods used; and
      vi. The results of such analyses.
   b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.

3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

4. **Test Procedures**. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.

5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
   a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
   b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
   a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
      iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

2. **Non-compliance Reporting.**
   a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

b. The following shall be included as information which must be reported within 24 hours under this paragraph.
   i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
   ii. Any upset which exceeds any effluent limitation in the permit.
   iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.

c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.

3. **Anticipated Noncompliance**. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.

4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.

5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.

6. **Other Information**. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

7. **Discharge Monitoring Reports.**
   a. Monitoring results shall be reported at the intervals specified in the permit.
   b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
   c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.

Section C – Bypass/Upset Requirements

1. **Definitions.**
   a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
   b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
   c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. **Bypass Requirements.**
   a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.
   b. Notice.
      i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
      ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
   c. Prohibition of bypass.
      i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
         1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
         3. The permittee submitted notices as required under paragraph 2. b. of this section.
      ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. **Upset Requirements.**
   a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
   b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      ii. The permitted facility was at the time being properly operated; and
      iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
   c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
   a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
   b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri 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. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed $10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

2. **Duty to Reapply.**
   a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
   b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
   c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. **Proper Operation and Maintenance**. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

6. **Permit Actions.**
   a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
      i. Violations of any terms or conditions of this permit or the law;
      ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
      iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
      iv. Any reason set forth in the Law or Regulations.
   b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. **Permit Transfer.**
   a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
   b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
   c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.

8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
    a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

12. **Closure of Treatment Facilities.**
    a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
    b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

13. **Signatory Requirement.**
    a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
    b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
    c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

RECEIVED

JUL 07 2016

Water Protection Program

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

FORM W - CONCENTRATED ANIMAL FEEDING OPERATION (CAFO) OPERATING PERMIT APPLICATION

FOR OFFICE USE ONLY	
CHECK NUMBER:	
DATE RECEIVED 7/7/16	FEE SUBMITTED 60

Complete all applicable sections for type of permit being applied for. Instructions for completing the form are located at the end of the form. Sign, date and return the form and all requested documents along with a check for the appropriate permit fee to the Missouri Department of Natural Resources. Make a copy of this completed form and keep it with your Nutrient Management Plan.

PART 1 – PERMIT OWNERSHIP AND CONTACT INFORMATION

1.1 OPERATION NAME	CURRENT PERMIT NUMBER	COUNTY
Smithfield Hog Production, Homan Farm	MO-0118460	Gentry
PHYSICAL ADDRESS: 5652 State Highway Z	LEGAL DESCRIPTION: Sec.: 30 Twn.: 61N Rng.: 30W	TELEPHONE NUMBER WITH AREA CODE: (660) 666-2151
CITY: King City	STATE: Missouri	ZIP CODE: 64463
1.2 OWNER (PROVIDE LEGAL NAME): Murphy-Brown of Missouri LLC d/b/a Smithfield Hog Production	EMAIL ADDRESS:	
MAILING ADDRESS: 17999 US Highway 65		TELEPHONE NUMBER WITH AREA CODE: 660-748-4647
CITY: Princeton	STATE: MO	ZIP CODE: 64673
1.3 CONTINUING AUTHORITY (IF DIFFERENT THAN THE OWNER)		
MAILING ADDRESS:		TELEPHONE NUMBER WITH AREA CODE:
CITY:	STATE:	ZIP CODE:

PART 2 – PERMIT TYPE AND PERMIT ACTION

2.1 PERMIT TYPE

☑ **NPDES Site Specific Permit**
Request review of draft permit prior to public notice. ☑ **Yes**

☐ NPDES General Permit (MOG01)

☐ State No-Discharge General Permit (MOGS1)

2.2 PERMIT ACTION*

☐ New Permit ☑ **Renewal**

☐ Modification ☐ Ownership Transfer

PREVIOUS OWNERS NAME

ADRESS

CITY STATE ZIP CODE

SIGNATURE DATE

See instructions for additional requirements and documents for the request permit action.

PART 3 – DESIGN CAPACITY FOR MANURE STORAGE AND ANIMALS OF EACH CAFO FEATURE

3.1 STORAGE STRUCTURE TYPES, AMOUNT OF STORAGE, AND AMOUNT OF MANURE GENERATED PER YEAR.

List All Manure Storage Structures at each CAFO Feature		Dry Manure Handling System		Wet Manure Handling System			
CAFO Feature	Storage Structure Type(s)	Design Dry Process Waste (tons/yr.)	Days of Storage	Total Storage Capacity (gal)	Design Wastewater per Year (gal./yr.)	Days of Storage	Design Flow MGD
001	E			8,589,153	8,370,910	365	0.0229
002	E			8,721,963	8,409,965	365	0.0230
003	E			8,720,840	8,469,460	365	0.0232
004	E			8,721,963	8,409,965	365	0.0230
005	E			8,691,294	8,518,370	365	0.0233

3.2 LIST EACH TYPE OF ANIMAL IN CONFINEMENT AND THE NUMBER OF EACH ANIMAL TYPE.

CAFO Feature	Animal Category #1	Animal Numbers	Animal Category #2	Animal Numbers	Animal Category #3	Animal Numbers
001	5	8,000				
002	5	8,000				
003	5	8,000				
004	5	8,000				
005	5	8,000				

PART 4 – OPERATIONAL INFORMATION

4.1 OPERATIONAL INFORMATION (SEE INSTRUCTIONS)
SIC Code(s) **0213** CAFO Class Size **1A**

4.2 Is this an "Export Only" operation? ☑ **No**

Completing PARTS 5 - 11 will meet the requirements of a Nutrient Management Plan (NMP) for an export only operation.

PART 5 – MANURE STORAGE

5.1 Do all manure storage structures have adequate storage, and operated and maintained as no discharge? ☑ **YES**

PART 6 – ANIMAL MORTALITY

6.1 PEMANENT METHOD OF DISPOSING OF ROUTINE ANIMAL MORTALITIES.

☑ **Rendering**

6.2 DESCRIBE METHOD OF MORTALITY HANDLING AND STORAGE THROUGH ALL PHASES TO FINAL DISPOSAL. (EXAMPLE: MORTALITIES ARE COMPOSTED WITHIN 24 HOURS OF DEATH AND FINISHED COMPOST PRODUCT IS STORED UNDER ROOF UNTIL LAND APPLIED). ALSO DESCRIBE THE TYPE OF COMPOST STRUCTURE USED, IF APPLICABLE.

Mortalities are collected and removed from buildings on a daily basis. The carcasses are removed from each farm everyday and hauled to the rendering plant. The carcasses are kept from public view. The planned method of catastrophic disposal is by rendering. In the event the nearby rendering plant would be incapable due to breakdown or excess loading another rendering plant would be used.

PART 7 – DIVERSION OF CLEAN WATER

7.1 Is clean storm water diverted from the production area? ☑ **Yes**

7.2 IF YES, DESCRIBE CONTROLS AND MEASURES USED TO DIVERT STORM WATER.

THE PRODUCTION AREAS HAVE CONTAINMENT OR EARTHEN DAMS INSTALLED AND MAINITAINED DOWN GRADIENT OF ALL CONFINEMENT BUILDINGS AND SEWER LINES, GRAVITY OUT FALL LINES, RECYCLE PUMP STATIONS AND RECYCLE FORCE MAINS IN ORDER TO COLLECT AND RETAIN WASTEWATER DISCHARGES FROM SPILLS OR PIPELINE BREAKS. LAGOON BERMS ENSURE THAT CLEAN WATER IS DIVERTED FROM THE PRODUCTION AREA.

7.3 IF NO, DESCRIBE HOW CONTAMINATED STORMWATER IS CONTAINED AND INCLUDE THE STORAGE CAPACITY OF THE CONTAINMENT IF NOT PREVIOUSLY PROVIDED.

PART 8 – PREVENT DIRECT CONTACT OF ANIMALS WITH SURFACE WATERS

8.1 Do the animals have access to waters of the state within the production area? ☑ **NO**

8.2 LIST MEASURES USED TO PREVENT CONFINED ANIMAL FORM HAVING DIRECT CONTACT WITH WATERS OF THE STATE.

THE GREEN HILLS UNIT IS A CONFINED ANIMAL FEEDING OPERATION AND THE ANIMALS AT THIS FACILITY ARE CONFINED INSIDE THE BARNS.

PART 9 – CHEMICAL HANDLING

9.1 Check the appropriate boxed below to indicate method for handling and disposal of chemicals used by the operation:

☐ Chemicals are stored, handled, and disposed of according to manufacturer labels.

☐ Chemical storage and handling areas are protected from precipitation and runoff, and any spillage is contained within these areas.

☐ Emergency procedures and equipment are in place to contain and clean up chemical spills.

☐ Equipment wash areas are designed and constructed to prevent contamination of surface waters.

☑ **No chemicals are stored or handled in the production area.**

PART 10 – MANURE ANALYSIS TESTING

10.1 LIST EACH TYPE OF MANURE SOURCE. (i. e. MANURE, LITTER, COMPOST, WASTE WATER.)

WASTEWATER

10.2 DESCRIBE PROCEDURES FOR ENSURING EACH MANURE SOURCE IS TESTED ANNUALLY.

Procedure is identified in NMP, G, 2. SOP-DEHS-0035 Sampling-Lagoons.

PART 11 – RECORD KEEPING

11.1 Are records of all inspections, manure transfers, discharges and land application maintained? ☑ **Yes**

PART 12 – SIGNATURE

NAME	TITLE
Michael Rainwater	General Manager
SIGNATURE	DATE
	7-1-16

Part 13 - Engineer Certification

House Bill (HB) 28, which became effective on August 28, 2013 contained provisions that changed construction permitting requirements. Construction permits are required for the construction of an earthen storage structure to hold, convey, contain, store, or treat domestic, agricultural, or industrial process wastewater. Construction of all other point source systems designed to hold, convey, contain, store, or treat domestic, agricultural, or industrial process waste must be designed by a professional engineer registered in Missouri in accordance with design regulations.

Operation Name Address City	Engineer Firm Address City State Zip Code
I, Project Engineer certify that above described systems have been designed in accordance with Missouri CAFO design regulations in 10 CSR 20-8.300 PROJECT ENGINEER SIGNATURE	ENGINEER SEAL

LAND APPLICATION INFORMATION TABLE (REQUIRED FOR NPDES PERMTS ONLY)

Operation Name: **MBM, Homan Farm** Class Size: **1A** Permit #: **MO-0118460** County: **Gentry**

Field Name	Legal Description	Spreadable Acres	P Loss Risk [2]	N or P Based Application	Crop #1	Yield Goal[3]	Crop #2	Yield Goal[3]	Crop #3	Yield Goal[3]	Crop #4	Yield Goal[3]	Crop #5[1]	Yield Goal[3]
1	Sec. 24 Twn. 61N Rng. 31W	10.50	VL	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
2	Sec. 25 Twn. 61N Rng. 31W Sec. 19 & 30 Twn. 61N Rng. 30W	50.62	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
3	Sec. 30 Twn. 61N Rng. 30W	17.43	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
4	Sec. 19 Twn. 61N Rng. 30W	24.62	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
5	Sec. 19 Twn. 61N Rng. 30W	3.33	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
6	Sec. 19 & 30 Twn. 61N Rng. 30W	19.12	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
7	Sec. 30 Twn. 61N Rng. 30W	8.55	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
9	Sec. 30 Twn. 61N Rng. 30W	54.34	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
10	Sec. 30 Twn. 61N Rng. 30W	10.67	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
11	Sec. 30 Twn. 61N Rng. 30W	26.96	PI-L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
13	Sec. 30 Twn. 61N Rng. 30W	24.16	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
14	Sec. 30 Twn. 61N Rng. 30W	44.16	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
16	Sec. 30 Twn. 61N Rng. 30W	17.80	VL	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
17	Sec. 30 Twn. 61N Rng. 30W	10.551	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
18	Sec. 30 Twn. 61N Rng. 30W	10.89	PI-M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
20	Sec. 19 Twn. 61N Rng. 30W	53.40	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
21	Sec. 20 Twn. 61N Rng. 30W	41.19	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
22	Sec. 20 Twn. 61N Rng. 30W	86.12	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
23	Sec. 19 Twn. 61N Rng. 30W	59.13	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
24	Sec. 20 Twn. 61N Rng. 30W	31.69	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
25	Sec. 20 Twn. 61N Rng. 30W	4.10	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
26	Sec. 20 Twn. 61N Rng. 30W	8.43	VL	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
27	Sec. 20 Twn. 61N30W Rng.	46.04	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
28	Sec. 29 Twn. 61N Rng. 30W	55.88	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a

[1] If more than five planned or alternative crops per field continue on next line.
[2] Soil Test P Rating or P Index Rating may be used.
[3] Express yield in Bu=Bushels or T=Tons per acre.

Smithfield Hog Production, Homan Farm
Part 3, page 2

PART 3 – DESIGN CAPACITY FOR MANURE STORAGE AND ANIMALS OF EACH CAFO FEATURE

3.1 STORAGE STRUCTURE TYPES, AMOUNT OF STORAGE, AND AMOUNT OF MANURE GENERATED PER YEAR.

List All Manure Storage Structures at each CAFO Feature		Dry Manure Handling System		Wet Manure Handling System			
CAFO Feature	Storage Structure Type(s)	Design Dry Process Waste (tons/yr.)	Days of Storage	Total Storage Capacity (gal)	Design Wastewater per Year (gal./yr.)	Days of Storage	Design Flow MGD
006	E			8,638,355	8,357,770	365	0.0229
007	E			8,879,603	8,262,140	365	0.0226
008	E			8,681,497	8,410,695	365	0.0230
009	E			8,638,355	8,357,770	365	0.0229
010	E			9,058,557	8,410,695	365	0.0230

3.2 LIST EACH TYPE OF ANIMAL IN CONFINEMENT AND THE NUMBER OF EACH ANIMAL TYPE.

CAFO Feature	Animal Category #1	Animal Numbers	Animal Category #2	Animal Numbers	Animal Category #3	Animal Numbers
006	5	8,000				
007	5	8,000				
008	5	8,000				
009	5	8,000				
010	5	8,000				

Page 2 **LAND APPLICATION INFORMATION TABLE (REQUIRED FOR NPDES PERMTS ONLY)**

Operation Name: **Smithfield Hog Production, Homan Farm** Class Size: **1A** Permit #: **MO-0118460** County: **Gentry**

Field Name	Legal Description	Spreadable Acres	P Loss Risk [2]	N or P Based Application	Crop #1		Crop #2		Crop #3		Crop #4		Crop #5[1]	
					Crop	Yield Goal[3]	Crop	Yield Goal[3]	Crop	Yield Goal[3]	Crop	Yield Goal[3]	Crop	Yield Goal[3]
29	Sec. 29 Twn. 61N Rng. 30W	12.00	VL	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
30	Sec. 29 Twn. 61N Rng. 30W	42.63	VL	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
31	Sec. 29 Twn. 61N Rng. 30W	35.70	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
32	Sec. 29 Twn. 61N Rng. 30W	33.67	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
34	Sec. 29 Twn. 61N Rng. 30W	25.89	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
35	Sec. 29 Twn. 61N Rng. 30W	21.94	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
36	Sec. 29 Twn. 61N Rng. 30W	10.66	VL	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
37	Sec. 20 Twn. 61N Rng. 30W	59.31	M	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
38	Sec. 20 Twn. 61N Rng. 30W	31.25	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
39	Sec. 17 Twn. 61N Rng. 30W	20.18	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
40	Sec. 29 Twn. 61N Rng. 30W	7.12	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
41	Sec. 19 Twn. 61N Rng. 30W	8.16	VL	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
42	Sec. 19 Twn. 61N Rng. 30W	7.70	L	N	Mixed Grasses	4 t/a	Brome	4 t/a	Fescue	4 t/a	Orchard Grass	4 t/a	Clover	4 t/a
43	Sec. 29 Twn. 61N Rng. 30W	21.40	L	N	Corn	170 bu/a	Soybeans	50 bu/a	Wheat	70 bu/a	Oats	70 bu/a	Alfalfa	4 t/a

[1] If more than five planned or alternative crops per field continue on next line.
[2] Soil Test P Rating or P Index Rating may be used.
[3] Express yield in Bu=Bushels or T=Tons per acre.