

Missouri Department of

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NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

May 5, 2020

Livingston County Commission
700 Webster Street
Chillicothe, MO 64601

RE: Comments on United Hog Systems, LLC Z-8 Sow Farm Operating Permit Application

Dear Citizen:

Thank you for your comments concerning the application of Z-8 Sow Farm for a Concentrated Animal Feeding Operation (CAFO). The application is for an operating permit for the operation of a new Class IC swine CAFO. This letter contains the comments or a summary of comments received during the 30-day neighbor comment period and the Missouri Department of Natural Resources' (Department) response to comments received. Please note that the Department does not have jurisdiction to address comments regarding "nonwater quality related items" [10 CSR 20-6.020(1)(H)].

Comment: Commenters requested the Department hold a public hearing regarding this permit application.

Response: It is at the Department's discretion to determine whether to hold a public hearing. A public hearing is required by 10 CSR 20-6.020(4) only "if there is significant technical merit and concern related to the responsibilities of the Missouri Clean Water Law." The following responses fully address all technical concerns with merit that were raised by comments received during the neighbor notice related to the responsibilities of the Missouri Clean Water Law. Given the responses contained in this letter, there are no valid technical concerns related to the responsibilities of the Missouri Clean Water Law and; therefore, a hearing on this permit application will not be held.

Comment: The effects the proposed CAFO may have on groundwater levels.

Response: In Missouri, there are no statutes or regulations that limit how much water may be used. Missouri is a riparian water rights state, which means all landowners generally have a right to a reasonable use of their water resources.



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Comment: Are there any requirements for the monitoring of water quality?

Response: Missouri law and regulations do not require water quality monitoring for Class IC and Class IB CAFO facilities. As such, the permit for this facility does not require routine water quality monitoring. Furthermore, this permit does not allow any wastewater discharges and, therefore, does not necessitate discharge monitoring.

Please note, while the CAFO regulations do not require the CAFO operator conduct water quality monitoring, the Department's Water Protection Program tests, assesses, and classifies streams within Missouri. If Water Quality Standards in a given stream are not being met, the stream can be placed on the impaired waters 303(d) list. This will identify the section of the stream that is impaired and the contributing pollutant(s) to help state and federal agencies to address the water quality issues of that stream. This list can be accessed online at <http://dnr.mo.gov/cnv/wpp/waterquality/303d.htm>.

Comment: Concerns were raised about the potential for the proposed CAFO to contaminate ground and surface water.

Response: State regulations 10 CSR 20-6.300 and 10 CSR 20-8.300 require CAFOs to be designed, constructed, operated, and maintained as no discharge for the protection of groundwater and surface water. Section 644.051 RSMo., requires CAFOs to be designed by a Professional Engineer registered in Missouri in accordance with the Clean Water Commission's CAFO design regulations and constructed according to those design plans. The permit Z-8 Sow Farm applied for does not allow discharges to waters of the state for any reason. The animals must not have contact with waters of the state and the manure cannot be exposed to precipitation or stormwater without runoff containment. The proposed facility meets the regulatory setback distances to features such as streams, ponds, wetlands, and wells. The no discharge requirement is the most restrictive effluent limitation that can be required of a permitted facility and is protective of Water Quality Standards.

Comment: Comments were received concerning the potential for odor and air quality/pollution from the proposed CAFO.

Response: Class I CAFOs must meet the appropriate buffer distance required in Section 640.710 RSMo., between the nearest confinement building or wastewater storage structure, and existing public buildings or occupied residences. Z-8 Sow Farm has complied with the minimum 1000 foot buffer distance for a Class IC CAFO. This is the only state law or regulation regarding odor or air pollution for Class IC CAFOs that falls within the scope of this permit action and the jurisdiction of the Missouri Clean Water Law. The Department's Air Pollution Control Program regulates odor. However, with respect to CAFOs, odor regulations apply only to Class IA facilities.

Comment: Comments were received regarding buffer distance requirements.

Response: All Class I CAFOs are required to meet buffer distance and neighbor notice requirements in Sections 640.710 and 640.715 RSMo. The proposed Z-8 Sow Farm is a Class IC CAFO and has complied with the minimum 1000 foot buffer distance between the nearest confinement building or wastewater storage structure and public buildings or occupied residences as required by statute.

Comment: Commenters requested the Department deny the application and not issue a permit to Z-8 Sow Farm.

Response: The Department's responsibility is to protect water quality through the administration of state and federal environmental laws and regulations. As required by state law, the Department must promptly review CAFO general operating permit applications for compliance with laws and regulations and if met, issue the permit within sixty days of receiving a complete application.

Comment: Commenters questioned whether the engineering plans for the structures would be reviewed.

Response: Engineering plans are not required to be submitted with an operating permit application. In accordance with Section 644.051 RSMo., any point source designed to hold, convey, store, or treat domestic, agricultural, or industrial process wastewater must be designed by a professional engineer registered in Missouri in accordance with design rules in 10 CSR 20-8.300. A document was submitted with P.E seal, certifying that the project was designed in accordance with the regulation. In accordance with 10 CSR 20-6.300(2)(E)1., the Department does not examine the adequacy or efficiency of the structural, mechanical, or electrical components of the manure system, and instead only ensures adherence to the regulation. The Department's issuance of a permit does not include approval of such features.

Comment: Comments were received that not all of the nutrients will be absorbed by the crops.

Response: This facility is an export only, which means that the land application activities are not conducted at the permitted facility or under the direct control of the permittee. As such, the land application activities are not covered in this facility permit.

Please note, though that manure contains inorganic and organic forms of nitrogen. All of the inorganic nitrogen is immediately available to the plants, but some can be lost by volatilization. Incorporating or injecting the manure reduces the amount that is lost. Organic nitrogen must go through a mineralization process before it is available to the plants. A portion is available during the first year, some during the second year, and some never becomes available. As such, farmers

should re-calculate every year and take into account the nitrogen that is available from the previous years' applications.

Comment: Comments were received regarding the method, timing, and setbacks for land application as well as regulatory requirements for injection.

Response: This facility is an export only, which means that the land application activities are not conducted at the permitted facility or under the direct control of the permittee. As such, the land application activities are not covered in this facility permit.

Manure that is land applied to fields not under the operational control of the CAFO owner or operator is considered a manure transfer. United Hog Systems, LLC is required to provide all recipients of manure a copy of the most recent manure analysis, the NMTS, and to keep records of all manure transfers.

However, surface land application of liquid manure from CAFOs is subject to the setback requirements established in 640.760 RSMo.

Comment: Comments were received regarding land application fields are prone to flooding and there should be alternative fields identified.

Response: This facility is an export only, which means that the land application activities are not conducted at the permitted facility or under the direct control of the permittee. As such, the land application activities are not covered in this facility permit.

Furthermore, there are no state or federal regulations restricting the use of fields prone to flooding for the land application of manure. Likewise, there is no regulation requiring operations to identify alternative fields for land application during wet weather periods. However, clean water law prohibits agricultural stormwater runoff from land application fields from causing harm to waters of the state. Runoff due to over-application, and runoff due to land application of manure during or immediately before or after a precipitation event should not occur as these runoffs are not agricultural stormwater runoff and are subject to water quality standards. Land application must occur in a manner to protect waters of the state.

Comment: Comments were received about the location of the proposed CAFO in relation to houses/CAFOs in the area/streams etc...

Response: The proposed CAFO has complied with the minimum 1000 foot buffer distance between the nearest confinement building or wastewater storage structure, and existing public buildings or occupied residences as required by Section 640.710 RSMo. The Department also reviews the confinement building location for the regulatory requirements of setback distances, geohydrological evaluation if required, and protection from a one hundred year flood event. These are the only regulations regarding location that fall within the scope of this permit action

and the jurisdiction of the Missouri Clean Water Law. There are also no regulations regarding the separation distance between other CAFOs.

Comment: Comments were received about the transfer/ exporting/land applying of manure.

Response: This facility is an export only, which means that the land application activities are not conducted at the permitted facility or under the direct control of the permittee. As such, the land application activities are not covered in this facility permit.

If manure from a CAFO is applied on land that is not under control of the CAFO owner, whether it is owned, rented, or leased, it is considered a manure transfer. When all manure produced at an operation is transferred to other parties it is called an "export only" operation, which is one method of manure management that meets regulatory requirements. The CAFO is required to provide the recipients of manure, litter, or process wastewater a copy of the current manure analysis, the Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard (NMTS), and to keep records of all manure transfers.

Surface land application of liquid manure from CAFOs is subject to the setback requirements established in 640.760 RSMo.

Comment: Comments were received relating to the manure being land applied containing antibiotics, pathogens, pesticides, and metals.

Response: This facility is an export only, which means that the land application activities are not conducted at the permitted facility or under the direct control of the permittee. As such, the land application activities are not covered in this facility permit.

Land application is widely used and is the preferred method of disposing of animal manure. Domestic and industrial wastewater and sludge are also commonly land applied. Antibiotics and pathogens such as E. coli are a concern in both animal and domestic waste. Antibiotics are not listed as water contaminants in 10 CSR 20-7.031 or 40 CFR Part 412. Therefore, they do not have effluent limitations and are not subject to sampling requirements. Pathogen survival rates vary with the type of pathogen. Exposure to ultraviolet radiation, drying of the manure, and soil remediation help to reduce pathogen concentrations. Injection or incorporation of manure into the soil can extend pathogen survival rate but reduces the risk of being transported by erosion from the land application field.

Pesticide content of animal manure is dependent on pesticide usage at each individual CAFO.

Pesticides can also be land applied as part of crop production.

The amount of metals in manure can vary and is primarily dependent on the metal content in the feed. Research shows the metal content in manure is below the ceiling concentration and loading rates in 40 CFR Part 503 for land application of sludge.

The Department has developed the Missouri Concentrated Animal Feeding Operations Nutrient Management Technical Standard. This document contains procedures for calculating agronomic application rates and best management practices for land application of manure and is required to be given to all recipients of manure. There are no state or federal regulations that require manure to be tested for antibiotics, pathogens, pesticides, or metal content.

Comment: Comments were received regarding the manure storage.

Response: Manure will be stored under the confinement buildings and not exposed to precipitation or stormwater runoff. Manure storage structures are required to be designed with a minimum of 180 days of storage. State regulations prohibit stockpiling of uncovered solid manure within the production area, without runoff collection, and require weekly inspections of litter/manure storage structures for structural integrity and leaks. The design of manure storage structures of Z-8 Sow Farm exceed this requirement.

Comment: Comments were received regarding the legality/requirements for manure/spreading agreements submitted by operation.

Response: There are no state regulations requiring CAFOs that transfer manure to obtain spreading agreements or to submit them with an operating permit application.

Spreading agreements are arrangements between landowners and the CAFO. The development and maintenance of these agreements are the responsibility of the involved parties.

Comment: Comments were received regarding the neighbor notice/comment period.

Response: All Class I CAFOs are required to meet neighbor notice requirements in Section 640.715 RSMo. Z-8 Sow Farm sent notifications that met the statutory requirements on February 6, 2020, initiating the neighbor notice process. Section 640.715 RSMo. also requires the Department to accept written comments for 30-days after the receipt of an application for an operating permit. The Department received the permit application on February 7, 2020, and the comment period ended on March 9, 2020. While those individuals that are required to receive the notification may not know if an application has been submitted, they will have a minimum of 30-days to submit written comments.

Comment: Comments were received the Department should take into account the public opposition to the facility.

Response: The Department reviews and considers the content of all comments. While the Department received a number of comments opposed to issuing the permit, Section 644.051, RSMo requires that permits be reviewed, and issued or denied based upon compliance with state and federal statutes and regulations.

Comment: Comments were received about runoff from land application fields getting on to adjoining property and who is responsible for any environmental impacts.

Response: This facility is an export only, which means that the land application activities are not conducted at the permitted facility or under the direct control of the permittee. As such, the land application activities are not covered in this facility permit.

Discharges of manure to waters of the state resulting from land application of manure are not allowed except where it is an agricultural stormwater discharge within the meaning of Section 644.059 RSMo. Any such discharge is subject to compliance and enforcement actions.

As this CAFO is not conducting the application and the application is not on fields under their operational control, they are not responsible for misapplication or spills that occur during transportation or application of manure on other people's property. Environmental impacts and any compliance or enforcement actions, including clean up resulting from the discharge of manure is the responsibility of the person conducting the application and/or the landowner receiving the application, pursuant to Missouri Clean Water Law. Any agreement between the CAFO, applicator, or landowner as to who is the responsible property is a civil agreement between those parties. As stated above, surface application of liquid manure from this facility must meet all setback requirements established in 640.760 RSMo.

Comment: Comments were received that there are other CAFOs in the area.

Response: The Department acknowledges the community's concern; however, there are no laws providing for separation distance between CAFOs. This issue does not fall within the scope of this permit action.

Comment: Comments were received regarding the ability of state to oversee the proposed CAFO.

Response: The Department's Regional Offices conduct regular inspections of permitted animal feeding operations for compliance with statutes, regulations, and permit requirements. In addition, environmental concerns received by the Department are promptly investigated. All CAFO operating permits require the permittees to submit an annual report to the Department each year.

Comment: Comments were received regarding discharges resulting from accidents/spills/equipment failure.

Response: CAFO permits contain inspection requirements that must be conducted by the CAFO on a regular basis. Records are required to be kept of these inspections and any deficiencies found during these inspections are to be noted and corrected as soon as possible. These inspections are intended to prevent unauthorized discharges. An unauthorized discharge is a

violation and subject to compliance and enforcement actions. The CAFO must report any discharge to the Department within 24 hours of becoming aware of the discharge. Individuals may also contact the Northeast Regional Office to report an environmental concern. Reported discharges and environmental concerns are promptly investigated by the Department.

Comment: Comments were received regarding the compliance history of United Hog Systems, LLC.

Response: Each permitted facility is responsible for complying with regulations and permit requirements. When violations occur, compliance and enforcement actions are taken against the responsible party or parties that caused the violations. Violations at one facility are not considered in the permitting, compliance, or enforcement actions of other facilities.

Comment: Comments were received about the possibility of future expansion of Z-8 Sow Farm.

Response: CAFOs are allowed to operate at an animal number level not to exceed their permitted class size (i.e. Class IC or IB). CAFOs that add confinement buildings or areas, or expand to a larger class size, must do so according to state regulations, including buffer distance, setback distances, and neighbor notice requirements.

Comment: Comments were received about composting of mortalities.

Response. Composting is a safe and effective method of managing mortalities. High temperatures created during the composting process inhibit insect larvae and eliminate pathogens. Covering the mortalities with sawdust or other material adsorbs leachate, controls odors, and prevents rodent and pest problems.

Comment: Comments were received regarding the sampling requirements.

Response: Missouri law and regulations do not require water quality monitoring for Class IC and Class IB CAFO facilities. As such, the permit for this facility does not require routine water quality monitoring. Furthermore, this permit does not allow any wastewater discharges and, therefore, does not necessitate discharge monitoring.

This facility is an export only, which means that the land application activities are not conducted at the permitted facility or under the direct control of the permittee. As such, the land application activities are not covered in this facility permit. State regulations require the sampling of each unique source of manure annually for nutrient content. Prior to applying manure, farmers and other land applicators should review the results of manure and soil samples to calculate annual manure application rates.

Comment: Comments were received concerning the CAFO's water source.

Response: The CAFO's water source is at the discretion of the CAFO owner. If an existing well is to be used or a new well is constructed it must meet construction requirements and setback distances in 10 CSR 23-3.

Comment: Comments were received regarding corporate ownership of Z-8 Sow Farm.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law. The Department verified that the continuing authority is a legal continuing authority, in accordance with 10 CSR 20- 6.010(2).

Comment: Comments were received about easements for access to adjoining property.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law.

Comment: Comments were received regarding the fact that CAFO Owner does not live on-site.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law.

Comment: Comments were received relating to health issues.

Response: Missouri's Water Quality Standards regulation, 10 CSR 20-7.031, establishes ambient Water Quality Standards for the protection of groundwater and surface water for the purposes of aquatic life protection, human health protection-fish consumption, drinking water supply, irrigation, livestock and wildlife watering, groundwater, and whole body and secondary contact recreation. State regulations also govern the design of manure storage structures and establish the no-discharge effluent limitation for CAFOs. These are the only state laws or regulations regarding health issues that fall within the scope of this permit action and the jurisdiction of the Missouri Clean Water Law.

Comment: Comments were received relating the use of antibiotics and the prevention and spreading of diseases.

Response: The use of antibiotics and disease prevention at CAFOs does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law. However, it may fall under the jurisdiction of other state or federal agencies.

Comment: Comments were made relating to community involvement in the permitting for Z-8 Sow Farm.

Response: The Department is required to accept written comments for thirty days after the receipt of application for an operating permit. Citizens may contact their Congressman or state legislator to seek to enact or change laws. Chapter 536 RSMo. outlines the procedure for petitioning for rule changes. Suggestions can be submitted in written form and faxed to 573-522-9920, emailed to cleanwater@dnr.mo.gov, or mailed to Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102.

Comment: Comments were received relating to issues with flies.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law. However, this may fall under the jurisdiction of the Missouri Department of Health and Senior Services.

Comment: Comments were received concerning the location of the proposed CAFO in relation to the Poosey Conservation Area.

Response: The proposed Z-8 Sow Farm is a Class IC CAFO and has complied with the minimum 1000 foot buffer distance between the nearest confinement building or wastewater storage structure and public buildings or occupied residences as required by Section 640.710 RSMo. There is no minimum buffer distance between a CAFO and a conservation area.

Comment: Comments were received that the proposed site location is not suitable for the operation, based on an NRCS soil report.

Response: Although NRCS web soil survey and soil reports are meant to help with general project planning, onsite investigation is needed to supplement this information in some cases. The application submitted was sealed by a professional engineer with a statement certifying that the operation was designed in accordance with the Missouri CAFO design regulations in 10 CSR 20-8.300. The engineer's seal certifies compliance with 10 CSR 20-8.300(6)(A), which states: *"Soils and Foundation. A thorough site investigation shall be made to determine the physical characteristics and suitability of the soil and foundation for the fabricated storage structure. Position the floor of the belowground storage tanks two feet (2') above the groundwater table."* Furthermore, soils information are used by engineers to design a system specific for the site, the

soils, and the material to be stored. Engineers must consider all relevant information and must design appropriately. Engineering designs must consider the depth to groundwater, soil types, soil conditions, and many other factors in their design. The NRCS soil report and the NRCS county soil survey both state that the information is provided for general use, not site specific investigations. Furthermore, low soil ratings do not prevent construction, but simply indicate that there may be soil conditions present that require special design considerations, all of which is required by 10 CSR 20-8.300. By signing and sealing the application, the engineer has certified that the design satisfies all of these requirements and considers the soil and foundation at this location. Additionally, the professional engineer confirmed that test pits and soil borings were used to evaluate the site specific soils and depth to groundwater. Beyond the signature and seal, the engineer further stated that the system is designed for site conditions in accordance with the above-listed requirements in 10 CSR 20-8.300.

Comment: Comments were received that the proposed site for the operation is marginal land and subject to erosion.

Response: If one acre or more is disturbed during site preparation and construction of the buildings, a Department-issued land disturbance permit is required. This permit requires the development of a Stormwater Pollution Prevention Plan that identifies best management practices to be used for sediment control. Sediment that crosses property boundaries or enters waters of the state as a result of land disturbance activities is a permit violation. Land disturbance permit coverage must be maintained until the site has been stabilized according to permit requirements.

Assistance for erosion control measures on agricultural land is available through the United States Department of Agriculture's Natural Resources Conservation Service and through the Department's Soil and Water Conservation Program which is administered by local Soil and Water Conservation Districts.

Comment: Comments were received about noise, local traffic conditions, and maintenance of the roads due to the traffic from Z-8 Sow Farm.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law.

Comment: Comments were received that animal feeding operations may have impacts on residential property values.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law.

Comment: Comments were received regarding the quality of life.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law.

Comment: Comments were received regarding stormwater/floodwater from export land application fields.

Response: The Department acknowledges the community's concern; however, this issue does not fall within the scope of this specific permit action, but any concerns or issues may be addressed with the appropriate responsible party as appropriate in accordance with the Missouri Clean Water Law.

Comment: Comments were made relating to health/welfare of wildlife and livestock.

Response: The no discharge requirement for CAFOs is protective of Water Quality Standards for the purpose of aquatic life protection. The Department acknowledges the community's concern; however, this issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law. However, this issue may fall within the jurisdiction of other agencies within state or federal government.

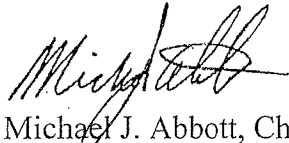
Conclusion

The Department has carefully reviewed the Z-8 Sow Farm application for a new permit along with the public's comments and concerns. The Department is obligated to review each application equally in respect to compliance with state statutes and regulations. Based upon this review, the Department has determined that the operating permit application is complete and that the operation meets the requirements of the Missouri Clean Water Law. In accordance with Missouri's regulations found in 10 CSR 20-6.300 and 10 CSR 20.8.300, an operating permit was issued to Z-8 Sow Farm on May 4, 2020. This permitting decision may be subject to an appeal in accordance with 621.250 RSMo.

Thank you for taking the time to become involved in our efforts to protect our environment and preserve our water resources. Your comments were fully considered as this matter was reviewed. We hope that this letter was valuable in providing answers to your questions, and if you have further questions, please contact Gorden Wray at 573-751-1398 or by mail at P.O. Box 176, Jefferson City MO 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM

A handwritten signature in black ink, appearing to read "Michael J. Abbott", written over the printed name.

Michael J. Abbott, Chief
Operating Permits Section

MJA:gwv

c: United Hog Systems, LLC

