



Missouri Department of dnr.mo.gov

**NATURAL RESOURCES**

Michael L. Parson, Governor

Carol S. Comer, Director

June 19, 2018

RE: Comments on Tipton East, PVC Management II, LLC Operating Permit Application

Dear Concerned Citizen:

Thank you for your comments concerning the application of PVC Management II, LLC for a Concentrated Animal Feeding Operation (CAFO) general 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 public participation process, and the response of the Missouri Department of Natural Resources. In accordance with 10 CSR 20-6.020(1)(H) the Department does not have jurisdiction to address non-water quality related items.

Chapters 640 and 644 of Missouri's revised statutes are generally referred to as Missouri Clean Water Law. Both federal regulations and state statutes and regulations have been developed specifically for design, construction, and operation of CAFOs. U.S. Environmental Protection Agency's (EPA) CAFO regulations are contained in portions of 40 CFR 122 and 40 CFR 412. State statutes may be found at Sections 640.700 to 640.750 RSMo, and regulations at 10 CSR 20-8.300 Manure Design Storage Regulation and 10 CSR 20-6.300 CAFO Regulation. Additional state regulations at 10 CSR 20-6 address the permitting process but are not specific to CAFOs.

*Comments were received that Missouri CAFO regulations are inadequate.*

Response: CAFO regulations in Missouri incorporate all federal regulations with several additional requirements including buffer distance, neighbor notice requirements, design requirements, protection from inundation from a 100-year flood, and the requirement for all Class I CAFOs to have an operating permit. State regulations in 10 CSR 20-6.300 and 10 CSR 20-8.300 require a CAFO to be designed, constructed, operated, and maintained as no-discharge for the protection of groundwater and surface water. Section 644.051.3.a RSMo, states "Any point source system designed to hold, convey, contain, store or treat domestic, agricultural or industrial process wastewater shall be designed by a professional engineer registered in Missouri in accordance with the commission's design rules."



Chapter 536 RSMo describes 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](mailto:cleanwater@dnr.mo.gov), or mailed to Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176.

*Comments were received that the permit application did not address abandoned wells and does not meet setbacks for a well on neighboring property.*

Response: The Department conducted a site visit on April 4, 2018, regarding concerns about abandoned wells. The wells of concern had been closed for some time. For more information on the site visit, please go to <https://dnr.mo.gov/env/wpp/cafo/index.html>.

The project engineer submitted a map on March 22, 2018, for the proposed CAFO showing the facility meets the setback distance to the existing well on the neighboring property. The map can be seen at the link above.

*Comments were received that CAFO regulations are different than residential sewer system regulations for single family homes.*

Response: The Department agrees and acknowledges that CAFO regulations and residential sewer system regulations are different. State regulations for the construction and operation of a CAFO are contained in the 10 CSR 20-6.300 and 10 CSR 20-8.300. Regulations for single family residences for on-site waste disposal is administered by the Department of Health and Senior Services.

*Comments were received that additional studies should be conducted to determine environmental impacts.*

Response: Missouri's Clean Water Law and its implementing regulations have been developed for the design and operation of CAFOs for the protection of surface and groundwater, and have taken environmental studies into consideration. The no-discharge requirement is the most restrictive effluent limitation that can be required of a permitted facility and is protective of water quality.

*Comments were received asking if the engineering plans for the structures were reviewed or discussed prior to the issuance of the permit.*

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 (P.E.) registered in Missouri in accordance with design rules. Design rules specific to a CAFO can be found in 10 CSR 20-8.300. The application was sealed by a P.E., certifying that the project was designed in accordance with the regulation. In accordance with 10 CSR 20-6.300(2)(F)4 the Department reviews the application to confirm it adheres to

regulation, but does not examine the adequacy or efficiency of the structural, mechanical, or electrical components of the manure system; issuance of a permit does not include approval of such features.

*Comments were received that the concrete manure pits need to be lined to prevent groundwater contamination.*

Response: Current regulations require facilities to be maintained and operated as no-discharge. The use of a liner for the manure pits is at the discretion of the project engineer and or the CAFO owner and is not a requirement. The Department does not examine the adequacy or efficiency of the structural, mechanical, or electrical components of the manure system.

*Comments were received about the potential of the proposed CAFO to contaminate ground and surface water.*

Response: Regulations found in 10 CSR 20-8.300 and 10 CSR 20-6.300 require CAFOs to be designed, constructed, operated, and maintained as no-discharge for the protection of groundwater and surface water, and is the most restrictive effluent limitation that can be required of a permitted facility. The application indicates the operation was designed by a P.E. registered in Missouri in accordance with design regulations. Discharge for any other reason is not authorized, nor can the manure be exposed to precipitation or stormwater without runoff containment prior to its use as a fertilizer. Tipton East must sample the manure for nitrogen and phosphorus content so that it is applied at agronomic rates to prevent excess runoff of nutrients. The proposed facility meets the regulatory setback distances to features such as streams, ponds, wetlands, and wells.

*Comments were received regarding the requirements for the monitoring of water quality.*

Response: Regulations require a CAFO to be designed, constructed, operated, and maintained as no-discharge for the protection of groundwater and surface water; because no discharge is authorized, no discharge monitoring is required. Animals must not have contact with waters of the state and the manure cannot be exposed to precipitation without runoff containment prior to its use as a fertilizer. Tipton East must sample the manure for nitrogen and phosphorus content so that it is applied at agronomic rates to prevent excess runoff of nutrients. The Department's Water Protection Program periodically tests and assesses waterbodies throughout the state with respect to Water Quality Standards (WQS). Waterbodies not meeting WQS are 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 <https://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm>.

*Comments were received about the effects the proposed CAFO may have on groundwater levels.*

Response: In Missouri there are no statutes or regulations that specify how much groundwater 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.

*Comments were received concerning the CAFO's water source and area residents experiencing their wells going dry.*

Response: The CAFO's water source is at the discretion of the owner. The Missouri Clean Water Law and its implementing regulations do not establish requirements specific to the water source of a CAFO. This issue does not fall within the scope of this permit action. If an existing well is to be used or a new well is constructed, it must meet requirements in 10 CSR 23-3.

You may contact the Missouri Geologic Survey by mail at P.O. Box 250, Rolla, MO 65402 or by phone at 573-368-2100 for questions on ground water levels.

*Comments were received regarding the potential for odor and air quality and air pollution from the proposed CAFO.*

Response: A Class I CAFO must meet the minimum buffer distance required in Section 640.710 RSMo between the nearest confinement building or wastewater storage structure, and existing public building or occupied residence. PVC Management II, LLC has complied with the minimum 1,000 ft buffer distance for a Class IC CAFO. The Department's Air Pollution Control Program odor regulations apply only to Class IA CAFO operations. This permit application is for a Class IC operation, not a Class IA operation, and therefore does not apply.

*Comments were received concerning the location of the proposed CAFO in relation to residential areas, Century Farms, wells, springs, and fault lines.*

Response: In addition to the buffer distance requirement, the Department reviews the confinement building location for the regulatory requirements of setback distances, geohydrologic evaluation if required, and protection from inundation from a 100-year flood event. Maps submitted with the application show all confinement buildings and manure storage structures to be located outside of the Federal Emergency Management Agency 100-year flood area and compliant with all regulatory setback distances. These are the only requirements regarding location that fall within the scope of this permit action.

*Comments were received requesting a geohydrologic evaluation be done at the site.*

Response: Requirements for a geohydrologic evaluation are found in 10 CSR 8.300 (6) (A). A geohydrologic evaluation is required to be conducted with the construction of an earthen basin. Since the project does not propose to construct an earthen basin an evaluation is not required.

*Comments were received regarding the number of animals in confinement reported on the application at the proposed CAFO.*

Response: Applicants are required to provide the design capacity of the operation. This is the number of animals in confinement the operation is designed to house at any given time. Design capacity is used to determine the size classification and to calculate annual manure production based upon 365-day occupancy. Regulations allow a CAFO to operate at an animal number level not to exceed their permitted class size as long as manure storage is not adversely affected. The number of animals a CAFO is designed for is at the discretion of the owner. If the animal numbers exceed the Class IC size, then the facility would be in violation of the permit and the operation would be required to reduce animal numbers.

*Comments were received that not all of the nutrients will be absorbed or available to crops and with nitrogen based applications, phosphorus will be over applied and could cause soil pollution.*

Response: Manure contains inorganic and organic forms of nitrogen. Inorganic nitrogen is immediately available to the plants, but some can be lost by volatilization. Incorporating the manure reduces the amount that is lost to volatilization. Organic nitrogen must go through a mineralization process before it is available to the plants. A portion of this is available the first year, some the second year, and some never becomes available. Application rates must be calculated every year using the Plant Available Nitrogen (PAN) calculation. The PAN calculation takes into account the organic nitrogen that is available from the previous year's application as well as any nitrogen excess or deficiencies resulting from the previous year's crop.

Nitrogen based applications are allowed if soil test phosphorus (P) levels are low, medium or optimum, or if P-index rating is low or medium. With nitrogen based manure applications, there is usually an over application of phosphorus. If soil test phosphorus levels are high or P-index rating is high, manure applications must be phosphorus based. When soil test phosphorus levels are high or P-index rating is very high, no manure applications are allowed.

*Comments were received regarding the method and timing of land application.*

Land application of manure to fields under the operational control of the CAFO owner or operator must be done according to their Nutrient Management Plan (NMP) and in compliance with the Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard (NMTS). The NMTS is incorporated into state regulations and contains Best Management Practices for calculating agronomic application rates for the land application of manure, and includes setback distances from sensitive features, prohibits manure from being surface applied during frozen, saturated or snow covered soil conditions, or within 24 hours of a precipitation event that is likely to produce runoff.

Manure that is land applied to fields not under the operational control of the CAFO owner or operator is considered a manure transfer or export. A CAFO is required to keep records of all manure transfers and provide all recipients a copy of the most recent manure analysis and the NMTS. There are no regulatory requirements pertaining to the land application of manure on land that is not under the operational control of the CAFO owner. However, in accordance with Section 644.051 RSMo it is unlawful to cause pollution of any waters of the state.

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

Response: There is no state or federal regulation that requires manure to be tested for antibiotics, pathogens, or metal content. The amount of metals in manure can vary and is primarily dependent on the metal content of the feed. Research shows the metal content in manure is below the ceiling concentration and loading rates in 40 CFR 503 for land application of sludge.

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. Pathogen survival rates vary with the type of pathogen. Exposure to ultraviolet radiation, drying of the manure, and soil microbial activity helps to reduce pathogen concentrations.

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

Response: Discharges of manure to waters of the state resulting from land application of manure, litter, or process wastewater are not allowed. Any such discharge is a violation, and is subject to compliance and enforcement actions. When manure has been land applied in accordance with the operation's nutrient management plan and the NMTS, a precipitation related discharge is considered to be an agricultural stormwater discharge, which is not subject to permitting.

If a third party is conducting the application on fields that are not under the operation control of the CAFO, the CAFO is not responsible for misapplication or spills that occur during transportation or application of manure. Pursuant to Missouri Clean Water Law, 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 manure. Any agreement between the CAFO, applicator, or landowner as to who is the responsible party is a civil agreement between those parties.

*Comments were received about the export of manure and why it is an option.*

Response: Currently, there are no regulations that restrict how much manure can be exported from a CAFO. Manure is often sold or given to area farms for use as crop fertilizer. The exporting of manure is an acceptable practice.

*Comments were received regarding mortality management at PVC Management II, LLC.*

Response: Each operation may choose the method of mortality management used. Acceptable methods include composting, incineration, rendering, and taking mortalities to a permitted landfill. Burial cannot be used for disposal of routine mortalities but may be used in the event of a mass mortality event. Burial must be done in accordance with Missouri Department of Agriculture regulations. PVC Management II, LLC has identified composting as their method of mortality management.

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 absorbs leachate, controls odors, and prevents rodent and pest problems.

*Comments were received regarding discharges resulting from accidents or spills, the requirement for the facility to self-report discharges, and penalties for discharges or other non-compliance issues.*

Response: CAFO permits include requirements for inspections to be conducted by the CAFO on a regular basis. The operator is required to keep records 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. Any discharge of manure, litter, process wastewater, or mortality by-products to surface waters of the state or release that crosses property boundaries shall be reported to the Department as soon as practicable but no later than 24 hours after the permittee becomes aware of the discharge. This reporting requirement is consistent with other general and site specific permits issued by the Department. Any unauthorized discharge is a violation and subject to compliance and enforcement actions. The type and severity of the actions taken is determined on a case-by-case basis.

Individuals can report an environmental concern associated with this facility by contacting the Northeast Regional Office at 660-385-8000 or by visiting <https://dnr.mo.gov/concern.htm>. Reported discharges and environmental concerns are promptly investigated by the Department.

*Comments were received regarding sampling requirements.*

Response: Because a CAFO in Missouri is required to be no-discharge facility, any unauthorized discharge is a permit violation regardless of the type or concentration of pollutants. Therefore, sampling of discharges is not required. State regulations require the sampling of each unique source of manure annually for nutrient content and soil samples to be taken every five years for fields that are required to be included in the NMP. The results of manure and soil samples are to be used to calculate annual manure application rates.

*Comments were received about the biosecurity procedures of the operation.*

Response: The development and implementation of biosecurity measures for the operation are not required under the Missouri Clean Water Law or its implementing regulations. This issue does not fall within the scope of this permit action.

*Comments were received regarding corporate and/or out of state ownership of PVC Management II, LLC.*

Response: This issue does not fall within the scope of this permit action and is outside the jurisdiction of the Missouri Clean Water Law.

*Comments were received regarding the fact that PVC Management II, LLC owners do not live on site.*

Response: The Missouri Clean Water Law and its implementing regulations do not require that owner to live on site. This issue does not fall within the scope of this permit action.

*Comments were received relating to health issues.*

Response: Health issues that fall within the scope of this permit action are addressed in the following regulations: The Clean Water Commission has developed WQS at 10 CSR 20-7.031. This regulation establishes ambient WQS for water contaminants for the protection of groundwater and surface water used 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. The Clean Water Commission has also developed regulations regarding the design of manure storage structures and permit requirements for the operation of a CAFO, including a no-discharge effluent limitation.

*Comments were received relating the use of antibiotics and the prevention and spreading of diseases, health and welfare of livestock, and insect and other pest concerns.*

Response: The Missouri Clean Water Law and its implementing regulations do not establish requirements for livestock welfare, antibiotic use, and insect or other pests. These issues do not fall within the scope of this permit action.

*Comments were made relating to wildlife and the endangered Topeka Shiner.*

Response: The no-discharge requirement for a CAFO is protective of water quality for the purpose of wildlife and aquatic life protection. This is the only requirement related to wildlife and endangered species that is within the scope of this permit action.

*Comments were made relating to worker safety, and possible use of cheap and illegal labor.*

Response: The Missouri Clean Water Law and its implementing regulations do not establish requirements for worker safety. This issue does not fall within the scope of this permit action.

*Comments were received relating to noise, local traffic conditions, maintenance of the roads, control of noxious weeds, quality of life, property values, and property use.*

Response: The Missouri Clean Water Law and its implementing regulations do not establish requirements specific to these concerns. These issues do not fall within the scope of this permit action.

*Comments were received regarding the compliance history of PVC Management II, LLC and other companies under the same ownership, and past violations and enforcement actions by other states and federal agencies.*

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, or violations issued by other states or agencies, are not considered in the permitting, compliance, or enforcement actions of other facilities.

*Comments were received asking if the public would be made aware of contacts and reports made to the Department by PVC Management II, LLC and where they would be located.*

Response: Information such as annual reports and inspection reports can be provided through a Sunshine Law request. For more information about making a sunshine/open records request, visit the Department's webpage at <https://dnr.mo.gov/sunshinerequests.htm>.

*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 regulations and permit requirements. Facilities covered by a general permit are inspected once per permit cycle, which is five years. In addition, environmental concerns received by the Department are promptly investigated. All CAFO operating permits require the permittee to notify the Department in the event a discharge occurs as well as keeping records on site and submitting an annual report to the Department.

*Comments were received that the Missouri Clean Water Commission (CWC) is not full and no decision regarding the permit should be made until it is.*

Response: It is the responsibility of the Department to issue or deny CWC permits, regardless of the number of commissioners.

*Comments were received that the Department should take into account the public opposition to the facility. Further comments suggest the Department deny the application and not issue a permit to PVC Management II, LLC.*

Response: The Department reviews and considers all relevant and material comments before making a final decision. While the Department received a number of comments opposed to issuing the permit, Section 644.051 RSMo requires permits be reviewed and issued or denied based upon the permit application's compliance with state and federal statutes and regulations.

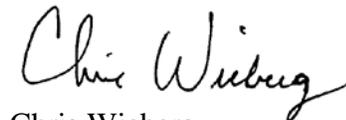
### Conclusion

The Department has carefully reviewed the PVC Management II, LLC application and considered all relevant and material comments received during the public participation process. The Department is obligated to review each application equally with respect to compliance with regulations set forth by the Clean Water Commission. Based upon this review we have determined the operating permit application is complete and the operation meets the requirements as outlined in 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 will be issued to PVC Management II, LLC.

Thank you for taking the time to become involved in our efforts to protect our environment and preserve our water resources. We hope this letter was valuable in providing answers to your questions. If you have further questions, please contact Mr. Gordon Wray by phone at 573-751-1398 or by mail at Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM



Chris Wieberg  
Director

CW:gws

c: Tipton East