Denali Water Solutions LLC

Storage and Land Application

November 2023

Land Application

Denali Water Solutions LLC (Denali) collects organic byproducts from meat, dairy, food, pet food and other similar processing plants located in Missouri, Arkansas, Illinois, Iowa, Kansas, Kentucky, Oklahoma and Tennessee. Until this year, these materials were land applied in Missouri under a permit exemption, based on a fertilizer license issued by the Missouri Fertilizer Control Board. As of July 1, 2023, the Missouri Fertilizer Control Board did not renew those licenses.

On June 30, 2023, based on a sudden change in regulatory oversight authority, the Missouri Department of Natural Resources issued letters to Denali and other companies that previously held fertilizer licenses. In those letters, the department stated that it would not take enforcement action for the continued land application of materials formerly licensed as fertilizer, as long as the company submits a permit application and all land applications meet the specific conditions and operational parameters set forth in the letter. If a permit is issued, Denali could be authorized to store process wastewater and land apply the material as a soil amendment in accordance with permit conditions and limitations.

On Nov. 29, 2023, the department withdrew the June 30, 2023, letter to Denali based on its land application noncompliance (see below). **Land application is prohibited without a valid permit or current permit exemption.**

Facility Locations

- Evans Lagoon - Quince Road, Fairview, Newton County.
- Gideon Lagoon - Able Road, Stella, McDonald County.
- Callao Lagoon - State Highway 3, Callao, Macon County.
- Jacksonville Lagoon - County Road 1765 and 1770, Jacksonville, Randolph County.

- Land Application - Previously occurred at various locations throughout the state.

Recent Compliance History

On Aug. 2, 2023, Denali and the department entered into Abatement Order on Consent 2023-WPCB-1832 to resolve six past violations of the Missouri Clean Water Law. Three violations cited in the order relate to Cave Springs Branch (WBID #3941) in McDonald County and consisted of land application activity resulting in discharge to waters of the state without a permit, causing pollution and violating water quality standards. The other three violations cited in the order relate to a tributary to Indian Creek (WBID #3256) in Newton County

and also consisted of land application activity resulting in discharge to waters of the state without a permit, causing pollution and violating water quality standards. Note: Department-collected penalties are paid to the school district in the county in which the violations occurred; the department does not retain any collected penalties.

On Oct. 3, 2023, department staff conducted an investigation in response to public concern and observed evidence of over-application of materials on saturated ground. Additionally, department investigators noted that rain was forecasted for that evening. Based on observations made during the investigation, the department issued a notice of violation for operating without a permit and placing water contaminants in a location where they are reasonably certain to cause pollution. At this time, Denali has committed four violations that have not been resolved: Operating and maintaining a water contaminant source without a Missouri State Operating Permit (Gideon, Evans, and Callao lagoons, and land application of process wastewater). The department is working to resolve the violations of the Missouri Clean Water Law, Sections 644.006 – 644.150, RSMo, through formal enforcement action.

If a concerned citizen observes improper land application or runoff of applied material that is impacting waters of the state, they should contact the appropriate department regional office. Contact information is available at dnr.mo.gov/about-us/division-environmental-quality/regional-office. If a permit is issued in the future, Denali would be required by permit conditions to report over-application, releases or discharges. State inspectors conduct routine inspections of permitted sites and also investigate concerns associated with improper operations, land application and runoff. If inspectors find evidence of noncompliance or impacts to waters of the state, the department may work with the operator to correct the problem. However, continued noncompliance may require implementation of formal enforcement actions to compel compliance.

Missouri Clean Water Law Permit Application and Regulatory Requirements

Storage and land application of this material requires a permit, unless the activities are specifically exempted from permitting by 10 CSR 20-6.015(3)(B)8. The application practices must meet applicable state clean water laws and regulations, as well as all permit conditions and requirements, to protect waters of the state. Permit conditions will establish proper application rates, setback requirements, sampling and pollutant concentration limits, recordkeeping and reporting requirements, and establish other requirements deemed appropriate, including prohibition of over-application.

Organic Byproducts Use in Agriculture

When used correctly, organic byproducts from wastewater treatment from food production have agronomic value as soil amendment. The department allows organic byproducts to be used in agricultural applications because this practice reduces energy consumption and pollution from the manufacture of commercial chemical fertilizers, and saves space in wastewater basins or other storage facilities.

Not all organic byproducts are eligible for use as soil amendment in Missouri. The material must not exceed protective limits for metals and other pollutants. While wastewater from animal feeding operations and biosolids from domestic waste are often used as soil amendment material, a department permit for Denali would prohibit mixing any domestic or animal waste with the approved processing wastewater and wastewater treatment sludges and byproducts.

Missouri Solid Waste Management Law Regulatory Requirements

The Missouri Solid Waste Management Law, Sections 260.200 – 260.345, RSMo, establishes requirements for the handling, storage and disposal of regulated solid waste. Recent allegations have been made that the department should regulate the land application of this material as solid waste and should require solid waste permits for the storage basins. These allegations incorrectly apply the law and misunderstand the regulatory relationship between the regulation of solid waste and the regulation of water contaminant sources.

The Denali storage basins are properly characterized and regulated as water contaminant sources subject to the Missouri Clean Water Law, because the Solid Waste Management Law does not regulate liquid waste. Accordingly, the basins do not meet the definition of a sanitary landfill or a solid waste processing facility in Section 260.200.1(49) and -(62), RSMo, respectively. Furthermore, Denali's land application activities, if permitted in the future, are properly and sufficiently regulated as water contaminant sources under the Missouri Clean Water Law. The land application fields do not meet the definition of a solid waste management area or solid waste processing facility in Section 260.200.1(59) and -(62), RSMo, respectively.

The materials contained in the Denali basins are not allowed to be accepted for disposal in landfills in Missouri, because state regulations 10 CSR 80-3.010(2)(A)11 and -(B)3 prevent sanitary landfills from accepting bulk liquids or bulk containerized or noncontainerized liquid waste.

Air Emissions Requirements

Missouri Air Conservation Commission regulation 10 CSR 10-6.165 - Restriction of Emissions of Odors, restricts the emissions of excessive odorous matter. This rule applies to emissions of odorous matter from storage basins containing wastewater, sludge, and other process wastes that Denali may store. However, the rule does not apply to the emissions of odorous matter from land application of wastewater, sludge and other process wastes when such land application is associated with the raising and harvesting of crops or the feeding, breeding and management of livestock or domestic animals or fowl. The department regularly responds to and investigates citizen concerns regarding odor issues and takes appropriate action based upon the results of investigations.

For More Information

To request information, you may access records available online at dnr.mo.gov/water/business-industry-other-entities/water-pollution-control-sites-interest or submit a records request online at dnr.mo.gov/open-records-sunshine-law-requests.

For questions about permitting or open enforcement records, contact the Water Pollution Control Branch at cleanwater@dnr.mo.gov or 573-751-1300.

For questions about air emissions requirements, contact the Air Pollution Control Program at aircompliancereporting@dnr.mo.gov or 573-751-6415.