ALABAMA DEPARTMENT OF

ENVIRONMENTAL MANAGEMENT

IN THE MATTER OF:	)	
	)	Consent Order No. 26-XXX-CSW
Denali Water Solutions, LLC	)	
220 S. Commerce Avenue	)	
Russellville, Arkansas 72801	)	
Registration Number BUD0000-054574	)	

PREAMBLE

This Special Order by Consent is made and entered into by the Alabama Department of Environmental Management (hereinafter "ADEM" or "the Department") and Denali Water Solutions, LLC (hereinafter "Denali", "Registrant", or "Distributor") pursuant to the provisions of the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and the Solid Wastes and Recyclable Materials Management Act (hereinafter "SWRMMA"), Ala. Code §§ 22-27-1 to 22-27-18, as amended, and the ADEM Administrative Code promulgated hereunder,

STIPULATIONS

1. Denali Water Solutions, LLC is a foreign limited liability company registered in Alabama and a distributor of by-product material beneficially used for the purpose of agronomic land application. The Distributor's principal place of business is located at 220 S. Commerce Avenue in Russellville, Arkansas, and is currently operating in Alabama under Registration Number BUD0000-054574. According to the 2024 Annual Report, the Distributor beneficially land applied by-product material at several locations in Alabama during the past year, including: Blount, Chambers, Clay, Colbert, DeKalb, Franklin, Jackson, Jefferson, Lawrence, Mobile, Morgan, Sumter, and Wilcox Counties.

2. The Department is a duly constituted Department of the State of Alabama pursuant to Ala. Code §§ 22-22A-1 to 22-22A-17, as amended.

3. Pursuant to Ala. Code § 22-22A-4(n), as amended and Ala. Code § 22-27-9(a), as amended, the Department is the State agency authorized to administer and enforce the provisions of the SWRMMA, Ala. Code §§ 22-27-1 to 22-27-18, as amended.

4. On April 13, 2020, the Department's regulations governing the beneficial use of by-product material (ADEM Admin. Code ch. 335-13-16) became effective and the Distributor became subject to these regulations. These regulations were subsequently amended and became effective on August 15, 2022.

DEPARTMENT'S CONTENTIONS

5. On November 13, 2024, the Department conducted an inspection of a land application site located at the James Bunt property located at 7115 Thomas Road, Morris, Alabama in Jefferson County, initiated by a complaint received on November 9, 2024, to determine compliance with Division 13 of the ADEM Administrative Code.

6. Based on the November 13, 2024, inspection, Denali was issued a Warning Letter (WL) on December 6, 2024, for the following observations:

a. ADEM Admin. Code. r. 335-13-16-.07(1)(a)5. requires that animals shall not be grazed on the land for thirty (30) days after application of by-product material. Cattle were observed grazing in a field that is contiguous with unlimited access to a field that had recently received food process residuals (FPR) by subsurface land application.

b. ADEM Admin. Code r. 335-13-16-.07(2) requires subsurface injection with immediate incorporation of all FPR material unless the pH of the material is raised to twelve (12) or higher by alkali addition and, without the addition of more alkali, shall remain at

twelve (12) or higher for thirty (30) minutes. FPR material was observed on the surface of the land application sites after subsurface injection. However, no documentation was available demonstrating that the pH requirements were achieved.

c. ADEM Admin. Code r. 335-13-16-.04(2)(d)2. requires an operating plan (OP) to include best management practices (BMPs) to mitigate spills during handling of by-product materials during beneficial use. Mitigation practices included in the plan were not implemented as evidence of spills observed around the frac tanks during the inspection.

7. On January 2, 2025, the Department received a written response from Denali in response to the December 6, 2024, Warning Letter.

8. On January 29, 2025, the Department conducted an inspection of a land application site at Silver Run Farms located on Highway 21 in Munford, Alabama, in Talladega County, initiated by a complaint received on January 24, 2025, to determine compliance with Division 13 of the ADEM Administrative Code.

9. Based on the January 29, 2025, inspection, Denali was issued a Notice of Violation (NOV) on March 7, 2025, for the following observations:

a. ADEM Admin. Code r. 335-13-16-.04(2)(d)2. requires an OP to include BMPs to mitigate vectors and birds during handling of by-product materials for beneficial use. Plan mitigation practices include full incorporation of material into the ground to create a barrier to vectors and birds. FPR material, including balls of grease, were on the surface while buzzards were observed on the land application fields during the inspection.

b. ADEM Admin. Code r. 335-13-16-.07(2) requires subsurface injection with immediate incorporation of all FPR material unless the pH of the material is raised to twelve (12) or higher by alkali addition and, without the addition of more alkali, shall remain at

twelve (12) or higher for thirty (30) minutes. FPR material was observed on the surface of the land application sites after application. However, no documentation was available demonstrating that the pH requirements were achieved.

10. On May 12, 2025, the Department received a written response from Denali in response to the March 7, 2025, NOV.

11. On March 12, 2025, the Department conducted an inspection of a land application site at Musselwhite Farms located on County Road 20 in Sumter County, initiated by a complaint received on March 10, 2025, to determine compliance with Division 13 of the ADEM Administrative Code.

12. Based on the March 12, 2025, inspection, Denali was issued a NOV on April 10, 2025, for the following observations:

a. ADEM Admin. Code r. 335-13-16-.07(2) requires subsurface injection with immediate incorporation of all FPR material unless the pH of the material is raised to twelve (12) or higher by alkali addition and, without the addition of more alkali, shall remain at twelve (12) or higher for thirty (30) minutes. FPR material was observed on the surface of the land application sites after application. No documentation was available demonstrating that the pH requirements were achieved.

b. ADEM Admin. Code. r. 335-13-16-.07(1)(a)5. requires that animals shall not be grazed on the land for thirty (30) days after application of by-product material. Cattle were observed grazing in Field 1that had received food process residuals (FPR) by land application within 30 days.

c. ADEM Admin. Code r. 335-13-16-.04(2)(d)2. requires an OP to include BMPs to mitigate spills during handling of by-product materials during beneficial use.

Mitigation practices included in the plan were not implemented as evidence of spills observed around the frac tanks during the inspection.

13. On May 12, 2025, the Department received a written response from Denali in response to the April 10, 2025 NOV.

14. On June 11, 2025, the Department conducted an inspection of a land application site at the David Tyree property located on County Road 196 in Winston County, initiated by a complaint received on June 5, 2025, to determine compliance with Division 13 of the ADEM Administrative Code.

15. Based on the June 11, 2025, inspection, Denali was issued a NOV on July 18, 2025, for the following observations:

a. ADEM Admin. Code r. 335-13-16-.07(2) requires subsurface injection with immediate incorporation of all FPR material unless the pH of the material is raised to twelve (12) or higher by alkali addition and, without the addition of more alkali, shall remain at twelve (12) or higher for thirty (30) minutes. FPR material was observed on the surface of the land application sites after application with no documentation demonstrating that the pH requirements were achieved.

b. ADEM Admin. Code r. 335-13-16-.04(2)(c)(7) requires a Nutrient Management Plan (NMP) to include the description of BMPs to be implemented at each site to protect human health and the environment. NMPs on file indicate residuals shall not be applied to areas of soil that are saturated, frozen, or highly erodible and during rain events or when heavy rain (intensity in excess of 0.30 inches per hour) is imminent. Land application was observed actively occurring in a saturated area with water moving into it

from a hillside drainage feature. There were also several other areas that were saturated that had recently received material.

c. ADEM Admin. Code r. 335-13-16-.04(2)(d)2. requires an OP to include BMPs to mitigate vectors and birds during handling of by-product materials for beneficial use. Plan mitigation practices include full incorporation of material into the ground to create a barrier to vectors and birds. These practices were not implemented as increased fly presence was observed at numerous saturated areas, including FPR material, in the land application fields.

16. On August 29, 2025, the Department received a written response from Denali in response to the July 18, 2025 NOV.

17. On August 5, 2025, the Department conducted an inspection of a land application site at the Dean property located on County Road 107 in Skyline, Alabama in Jackson County, initiated by a complaint received on August 1, 2025, to determine compliance with Division 13 of the ADEM Administrative Code.

18. Based on the August 5, 2025, inspection, Denali was issued a NOV on August 15, 2025, for the following observations:

a. ADEM Admin. Code r. 335-13-16-.07(2) requires subsurface injection with immediate incorporation of all FPR material unless the pH of the material is raised to twelve (12) or higher by alkali addition and, without the addition of more alkali, shall remain at twelve (12) or higher for thirty (30) minutes. FPR material was observed on the surface of the land application sites after application with no documentation demonstrating that the pH requirements were achieved.

b. ADEM Admin. Code r. 335-13-16-.03(4)(c) requires an OP and a NMP for the site or sites where by-product materials will be applied. Land application activities were occurring in a non-approved area south of Field 4 of site ALI-JA-PD with a midpoint location of latitude 34.803121 longitude -86.094390.

19. On September 8, 2025, the Department received a written response from Denali in response to the August 15, 2025 NOV.

20. On October 21, 2025, the Department conducted an inspection of a land application site at the Chris Glasscock properties located south of Highway 36 in Danville, Alabama in Morgan County, initiated by a complaint, to determine compliance with Division 13 of the ADEM Administrative Code.

21. Based on the October 21, 2025, inspection, Denali was issued a NOV on November 20, 2025, for the following observations:

a. ADEM Admin. Code. r. 335-13-16-.07(1)(a)5. requires that animals shall not be grazed on the land for thirty (30) days after application of by-product material. Cattle were observed grazing in Field 2 that had received food process residuals (FPR) by land application within 30 days.

22. On December 11, 2025, the Department received a written response from Denali in response to the November 20, 2025 NOV.

23. On January 8, 2026, the Department conducted an inspection of a land application site at Musselwhite Farms located on County Road 20 and County Road 39 in Sumter County, initiated by a complaint received on December 22, 2025, to determine compliance with Division 13 of the ADEM Administrative Code. As part of the inspection in response to the odor complaint for Musselwhite Farms, ADEM inspected Steinhilber Farm, where storage tanks were located and

Denali was actively modifying the implement used in land application. During the inspection it was determined that:

a. ADEM Admin. Code r. 335-13-16-.07(2) requires subsurface injection with immediate incorporation of all FPR material unless the pH of the material is raised to twelve (12) or higher by alkali addition and, without the addition of more alkali, shall remain at twelve (12) or higher for thirty (30) minutes. At Musselwhite Farms, FPR material was observed on the surface of the land application sites after application with no documentation demonstrating that the pH requirements were achieved.

b. ADEM Admin. Code r. 335-13-16-.04(2)(d)2. requires an OP to include BMPs to mitigate spills during handling of by-product materials during beneficial use. At Steinhilber Farms, mitigation practices included in the plan were not implemented as evidence of layers/mounds of dried FPR material was observed on top of the frac tanks during the inspection.

24. On February 9, 2026, Denali submitted a registration information update (RIU) which included an OP and NMP to add additional property for land application of FPR.

25. On February 13, 2026, ADEM requested Denali revise the plan to address the following

    a. Update the plan to indicate what actions are to be implemented to inspect the land application site daily to ensure the FPR material has immediately been incorporated into the soil and what actions will be taken if FPR is noted on the surface post subsurface injection.

b. Revise the operational plan with additional management practices and mitigation actions for the minimization of fly, rodent, and bird attraction. The plan shall include the specific activities, including timelines, for implementation if FPR material is noted on the surface post land application.

c. Revise the operational plan with additional best management practices and mitigation actions to minimize the generation of odors. The plan shall include specific activities, including timelines, for implementation if FPR material is noted on the surface post land application.

d. Update the spill management portion of the plan for both on road and in field spills. The plan shall include the process to inspect for spills and response timelines for both on road and in field spills when noted.

26. On March 19, 2026, Denali submitted a revised RIU which addressed issues noted by ADEM on February 13, 2026.

27. On March 20, 2026, ADEM submitted a letter to Denali indicating the revised RIU was considered complete and would be added to the registration package.

28. Pursuant to Ala. Code § 22-22A-5(18)c., as amended, in determining the amount of any penalty, the Department must give consideration to the seriousness of the violation, including any irreparable harm to the environment and any threat to the health or safety of the public; the standard of care manifested by the Distributor; the economic benefit which delayed compliance may confer upon the Distributor; the nature, extent, and degree of the success of the Distributor's efforts to minimize or mitigate the effects of such violation upon the environment; the Distributor's history of previous violations; and the ability of the Distributor to pay such

penalty. Any civil penalty assessed pursuant to this authority shall not exceed $25,000.00 for each violation, provided however, that the total penalty assessed in an order issued by the Department shall not exceed $250,000.00. Each day such violation continues shall constitute a separate violation. In arriving at this civil penalty, the Department has considered the following:

A. SERIOUSNESS OF THE VIOLATION: The Department considers the fact that the Distributor did not comply with provisions of ADEM Admin. Code div. 335-13 at multiple locations in Alabama to be serious. However, the Department has no evidence of any irreparable harm to human health or the environment.

B. THE STANDARD OF CARE: The Distributor failed to exhibit a sufficient standard of care by failing to operate in a manner commensurate with beneficial use regulatory requirements at the land application sites aforementioned in this order.

C. ECONOMIC BENEFIT WHICH DELAYED COMPLIANCE MAY HAVE CONFERRED: The Department has been unable to ascertain if the Distributor has realized a significant economic benefit as a result of the violations noted.

D. EFFORTS TO MINIMIZE OR MITIGATE THE EFFECTS OF THE VIOLATION UPON THE ENVIRONMENT: The Department is unaware of any efforts employed by the Distributor to mitigate any effects upon the environment.

E. HISTORY OF PREVIOUS VIOLATIONS: The Distributor has a history of similar violations as documented in Consent Order 23-065-CSW issued on May 23, 2023.

F. THE ABILITY TO PAY: The Distributor has not alleged an inability to pay the civil penalty.

G. OTHER FACTORS: The Department has carefully considered the six statutory penalty factors enumerated in Ala. Code § 22-22A-5(18)c., as amended, as well as the need for

timely and effective enforcement, and has concluded that a civil penalty provided in Section A of the Order is appropriate given the actions of the violator, and in keeping with a penalty range imposed by the Department for similar violations, as follows:

Violation Type	Penalty Range for Violation Type
Beneficial Use Distributor Operation Requirements	$100 - $25,000

The Department neither admits nor denies the Registrant's Contentions, which are set forth below. The Department has agreed to the terms of this Consent Order in an effort to resolve the alleged violations cited herein without the unwarranted expenditure of State resources in further prosecuting the above violations. The Department has determined that the terms contemplated in this Consent Order are in the best interest of the citizens of Alabama.

DENALI'S CONTENTIONS

29. The Distributor neither admits nor denies the Department's contentions. The Distributor has agreed to the terms of this Consent Order in an effort to resolve the alleged violations cited herein.

30. As set forth above in paragraph 7, on January 2, 2025, Denali sent a written response to the Department in response to the December 6, 2024, Warning Letter. In response to the observation relating to ADEM Admin. Code r. 335-13-16-.04(2)(d)2, Denali acknowledged that minor, de minimis spills may occur due to the high volume of truck connections at large sites and committed to ensuring hoses are hung up on a stake to prevent any de minimis spills near the frac tank, as well as to keeping bags of lime nearby to be spread over any de minimis spills near the frac tank.

31. On April 23, 2025, the Department and representatives of Denali met in person to discuss the March 7, 2025, NOV. The discussion focused on industry-accepted methods of subsurface injection and BMPs.

32. As set forth above in paragraph 10, on May 12, 2025, Denali sent a written response to the Department in response to the March 7, 2025, NOV. In response to the observation relating to ADEM Admin. Code r. 335-13-16-.04(2)(d)2, Denali reminded the Department that, for every FPR land application site, Denali submits an operating plan with best management practices to *mitigate* vectors and birds, not to eliminate vectors and birds completely (which would not be completely attainable given the involvement of organic food processing residuals). In addition, Denali committed to retrofitting its subsurface land application equipment with newer, more aggressive discs.

33. As set forth above in paragraph 13, on May 12, 2025, Denali sent a written response to the Department in response to the April 10, 2025, NOV. In response to the observation relating to ADEM Admin. Code. r. 335-13-16-.07(1)(a)5, Denali explained that, while cattle were initially separated from the land application area by temporary fencing, the cattle eventually breached the temporary fencing in search of grass and water.

34. As set forth above in paragraph 16, on August 29, 2025, Denali sent a written response to the Department in response to the July 18, 2025, NOV. In response to the observation relating to ADEM Admin. Code r. 335-13-16-.04(2)(c)(7), Denali explained this particular land application site received an unprecedented 22 inches of rain in May and June. In addition, Denali committed to better identifying saturated areas in the field prior to application, recognizing that some isolated saturated areas may be difficult to detect prior to application.

35. As set forth above in paragraph 19, on September 8, 2025, Denali sent a written response to the Department in response to the August 15, 2025, NOV. In response to the observation relating to ADEM Admin. Code r. 335-13-16-.07(2), Denali acknowledged that pooling of FPR material at the land application site was unacceptable. While the farmer agreed that he would disc the land-applied area at the end of every day, unexpected farm responsibilities arose, and the farmer was unable to disc as regularly as Denali had instructed. However, the farmer disced the entire field after Denali had finished its land application. Finally, in response to the observation relating to ADEM Admin. Code r. 335-13-16-.03(4)(c), Denali explained that land application outside the approved area resulted from a third-party operator's misinterpretation of the ADEM-approved field maps. Denali explained the severity of the situation to the third-party operator and provided additional clarification to ensure land application is provided within the confines of the approved site boundaries.

36. The finding stated in paragraph 21.a. above was not issued in a separate NOV, nor had the Distributor been given an opportunity to respond. The finding has been included in this Order as the formal notification of violation.

ORDER

THEREFORE, without admitting that it has violated any statutes or regulations, the Distributor, along with the Department, desires to resolve and settle the alleged violations cited above. The Department has carefully considered the facts available to it and has considered the six penalty factors enumerated in Ala. Code §22-22A-5(18), as amended, as well as the need for timely and effective enforcement; the Department believes that the following conditions are appropriate to address the violations alleged herein. Therefore, the Department and the Distributor agree to enter into this Consent Order with the following terms and conditions:

A. That, not later than forty-five days after issuance of this Order, the Distributor agrees to pay to the Department a civil penalty in the amount of $36,400 for the violations cited herein. Said penalty shall be made payable to the Alabama Department of Environmental Management by certified check or cashier's check and shall be remitted to:

Office of General Counsel
Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463

All checks shall reference the Distributor's name and address and the ADEM Consent Order number of this action.

B. That the issuance of this Order does not preclude the Department from seeking criminal fines or other appropriate sanctions or relief against the Distributor for the violations cited herein.

C. That failure to comply with the provisions of the Order shall constitute cause for commencement of legal action by the Department against the Registrant for recovery of additional civil penalties, criminal fines, or other appropriate sanctions or relief.

D. The parties agree that this Consent Order shall apply to and be binding upon both parties, their directors, officers, and all persons or entities acting under or for them. Each signatory to this Consent Order certifies that he or she is fully authorized by the party he or she represents to enter into the terms and conditions of this Consent Order, to execute the Consent Order on behalf of the party represented, and to legally bind such party.

E. The parties agree that, subject to the terms of these provisions and subject to provisions otherwise provided by statute, this Consent Order is intended to operate as a full resolution of the violations, which are cited in this Consent Order.

F. For purposes of this Consent Order only, the Registrant agrees that the Department may properly bring an action to compel compliance with the terms and conditions contained herein in the Circuit Court of Montgomery County.

G. The parties agree that the sole purpose of this Consent Order is to resolve and dispose of all allegations and contentions stated herein concerning the factual circumstances referenced herein. Should additional facts and circumstances be discovered in the future which would constitute possible violations not addressed in this Consent Order, then such future violations may be addressed in Orders as may be issued by the Director, ligation initiated by the Department, or such other enforcement action as may be appropriate; the Registrant shall not object to such future orders, ligation, or enforcement action based on the issuance of this Consent Order if future orders, ligation, or enforcement action address new matters not raised in the Consent Order.

H. The parties agree that this Consent Order shall not affect the Registrant's obligation to comply with any federal, State, or local laws or regulations.

I. The parties agree that final approval and entry into this Consent Order are subject to the requirements that the Department give notice of proposed Orders to the public, and that the public have at least thirty days within which to comment on the Consent Order.

J. The parties agree that, should any provision of this Consent Order be declared by a court of competent jurisdiction of the Environmental Management Commission to be inconsistent with Federal or State law and, therefore, unenforceable, the remaining provisions hereof shall remain in full force and effect.

K. The parties agree that any modifications of this Consent Order must be agreed to in writing signed by both parties.

Executed in duplicate, with each part being an original.

Denali Water Solutions, LLC	**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
Lauren King	
(Signature of Authorized Representative)	Edward F. Poolos
	Director
Vice President, Environmental	
(Printed Title)	(Date Signed)
09/01/2026	
(Date Signed)	

Attachment A

Consent Order
Denali Water Solutions, LLC
Russellville, Arkansas
Registration BUD0000-054574

Violation*	Number of Violations*	Seriousness of Violation*	Standard of Care*	History of Previous Violations*	
Failure to abide by land application requirements for FPR material. (8/15/25 NOV, 1/8/26 IR)	2	$8,000	$2,000	$4,000	
Failure to abide by spill mitigation requirements. (4/10/25 NOV, 1/8/26 IR)	2	$2,000	$1,000		
Failure to abide by vector and bird mitigation requirements. (3/7/25 NOV, 7/18/25 NOV)	2	$2,000	$500		
Failure to abide by operational BMP requirements. (7/18/25 NOV)	1	$5,000	$1,000		
Failure to abide by requirement to have an OP\NMP for land application site. (8/15/25 NOV)	1	$10,000	$5,000	$5,000	
					Total of Three Factors
TOTAL PER FACTOR		***$27,000***	***$9,500***	***$9,000***	***$45,500***

Adjustments to Amount of Initial Penalty	
Mitigating Factors (-/+)	$0
Ability to Pay (-/+)	$0
Other Factors (-20%)	-$9,100
TOTAL ADJUSTMENTS	-$9,100

Economic Benefit (-/+)	$0
Amount of Initial Penalty	$45,500
Total Adjustments (-/+)	-$9,100
FINAL PENALTY	**$36,400**