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April 30, 2025

Jonathan Rice, Chief
Industrial and General Permits Division
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

RE: Monthly Progress Report – April 2025
Perdue AgriBusiness LLC
AI#2087, State Permit No. 15-DP-0359, NPDES Permit No. MD0000060
6906 Zion Church Road, Salisbury, Maryland 21804
Langan Project No.: 220210101

Dear Mr. Rice:

Langan Engineering and Environmental Services, LLC (Langan) has prepared this progress report for April 2025 on behalf of Perdue AgriBusiness LLC (PAB) regarding the Zion Church Road (ZCR) facility located at 6906 Zion Church Road in Salisbury, Maryland (the "Facility"). This report was prepared in response to the *Request for Action to Address PFAS in Wastewater* letter issued to PAB in November 2024, by the Maryland Department of the Environment (MDE), Water and Science Administration, Wastewater Pollution Prevention and Reclamation Program (the "Department").

The Department's November 8 letter contained the following two substantive requests:

1. ***Monitoring and Reporting:*** *As soon as possible, but no later than 15 days from the date of this letter, collect your first monthly sample at Outfall 001 for PFAS and submit it for testing using EPA Method 1633. Samples shall be collected every month until further notice. Sample results shall be provided to the Department via email to jonathan.rice@maryland.gov no later than 7 days after you receive each lab report.*

2. ***Source Identification:*** *As soon as possible, but no later than 5 days from the date of this letter, begin a comprehensive assessment of the Facility's processes, materials, and any third-party waste streams to identify sources of PFAS that may enter the Facility's discharges, stormwater runoff, or sludge. Progress reports regarding the evaluation, including any preliminary results or final findings, shall be submitted to the Department on a monthly basis. Monthly reports shall be provided to the Department via email to jonathan.rice@maryland.gov by the final date of each month, with the first report due on November 30, 2024. Based on the findings, a mitigation plan may be necessary to propose a strategy to reduce or to the extent practicable eliminate PFAS-containing materials entering the Facility's wastewater, stormwater runoff, or sludge.*

This is the sixth report submitted in accordance with the Department's request for monthly progress reports to be submitted by the final date of each month, starting on or before November 30, 2024. This monthly progress report provides a summary of per- and polyfluoroalkyl substances (PFAS) monitoring and reporting activities (Section "A" below), a summary of PFAS source assessment activities (Section "B" below), and plans and recommendations for groundwater monitoring (Section "C" below).

Langan and PAB have developed a standard operating procedure (SOP) for PFAS wastewater sampling. A copy was attached to the February 2025 report.

A. Monitoring and Reporting

Langan performed a fifth monthly sampling event on March 12, 2025. The sample (ID WWTP_OUTFALL001_GDPTOC_C1_031225) was collected as a composite-grab along with a field blank. The results of this sampling event were provided to the Department on April 10, 2025. The total PFAS concentration (defined as the sum of PFAS compounds analyzed under EPA Method 1633) for the composite-grab sample was 151.49 parts per trillion (ppt). Sampling events and results obtained thus far are summarized in the table below.

Sampling Event No.	Sampling Date	Sum of Analyzed PFAS (ppt)	Date Provided to Department
1	11/20/2024	118.06	12/26/2024
2	12/17/2024	121.79 129.12	1/15/2025
3	1/15/2025	58.94	2/12/2025
4	2/12/2025	98.96	3/10/2025
5	3/12/2025	151.49	4/10/2025
6	4/16/2025	Pending	Pending

A sixth monthly sampling event occurred on April 16, 2025. Sample analysis has a standard turnaround time of 10 business days, and Langan will validate the results with an anticipated turnaround time of 5 business days after receipt of results from the lab. At the time of this writing, validated results of this sixth sampling event were not yet available. Sampling events will continue to occur monthly. Results will be provided to the Department within 7 days of completing data validation and management and will also be attached to the Facility's monthly DMR.

Langan may recommend replacing 'composite-grab' sampling with grab sampling, if appropriate (e.g., the source(s) of PFAS in the wastewater is/are determined to be continuous/non-transient, PFAS concentrations are stable or exhibiting steady trends based on monthly monitoring results, etc.).

B. Source Identification

At the request of MDE's Controlled Hazardous Substance Enforcement Divisions ("CHS"), Langan performed an Environmental Assessment of PFAS, on behalf of PAB, to identify potential sources of PFAS in soil and groundwater at the Facility (referred to in the report as "Areas of Interest"). The assessment methods and findings were summarized in a report titled *Environmental Assessment of PFAS, Perdue AgriBusiness LLC, Salisbury, Maryland*, which was submitted to MDE's CHS Division on January 21, 2025.

As indicated in the last monthly NPDES Progress Report and further discussed in the *Environmental Assessment of PFAS* Report, to date, PAB has not identified any PFAS-containing products or chemicals used by PAB in any of its operations at the Facility. At this time, the only known PFAS-containing product or chemical at the Facility is aqueous film-forming foam (AFFF), which is stored for use in the fire suppression system at the Soybean Extraction Plant. The fire suppression system currently contains Ansulite AFC-3B.[1] In the event of an AFFF discharge inside the Soybean Oil Extraction Plant, AFFF is directed to the Extraction Plant Containment Sump, which leads to the facility's Wastewater Treatment Plant. PAB is evaluating other potential fire suppression systems that would not contain PFAS.

The last reported release of AFFF at the Facility was around November 2019. At that time, the AFFF in the fire suppression system was Ansulite AFC–3A. As noted above, AFFF discharged inside the Soybean Oil Extraction Plant would have been directed to the Extraction Plant Containment Sump, which leads to the facility's Wastewater Treatment Plant via underground process sewers. However, AFFF discharged via spray nozzles positioned above the Hexane Tank Enclosure and Extraction Plant Containment Sump could have fallen on the ground surrounding those structures.

The AFFF Fire Suppression System is one of nine identified PFAS Areas of Interest (AOIs). The other eight PFAS AOIs are potential secondary AOIs that were, or may have been, affected by historic discharges of AFFF. Langan and PAB are in the process of gathering additional information regarding the AFFF Fire Suppression System and associated/nearby process water infrastructure. Historical AFFF use and fire suppression system operations are also being assessed.

PAB has submitted a proposed PFAS Investigation Workplan for additional sampling at the Facility as part of PAB's ongoing hazardous substance response site assessment. The proposed investigation activities focus on characterizing PFAS occurrence in soil and groundwater within the identified AOIs, prioritizing key locations for soil sampling, targeted groundwater sampling, and hydrogeologic characterization. Results from these activities will guide the scope and need for subsequent investigation phases, including additional sampling and evaluation of PFAS migration pathways. The IWP is currently under MDE review. Following approval, field activities will be initiated.

Initial steps have been taken to investigate potential inflows, including possible groundwater intrusion, that could contribute to observed PFAS concentrations in samples taken from a comingled process sewer manhole located near the AFFF Fire Suppression System, which MDE sampled in December 2023. To date, no groundwater intrusion has been noted, but when

[1] Ansulite AFC-3B does not contain any of the six PFAS compounds for which EPA has established drinking water standards.

drought conditions end and groundwater levels rise, further assessment will be made and documented in future deliverables.

Groundwater is used in the Facility's operations and therefore could be a source of PFAS in Facility wastewater. Accordingly, PAB has implemented point of use systems for treating all product contact water or steam including boiler feedwater, oil refinery process water, and oil refinery truck wash water.

C. Closing

As stated above, NPDES PFAS sampling will continue to occur monthly as required in the Department's November 8 letter. Scheduling for source assessment and sampling continues to be developed.

Sincerely,
Langan Engineering and Environmental Services, LLC

Jillian Terhune
Senior Project Manager

cc: Jaclyn Mays, PAB
Herb Frerichs, PAB