

May 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 – May 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 May 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 MDE'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 seventh 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 conclusions (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 sixth monthly sampling event on April 16, 2025. The sample (ID VWWTP_OUTFALL001_GDPTOC_C1_041625) was collected as a composite-grab along with a field blank. The results of this sampling event were provided to MDE on May 14, 2025. The total PFAS concentration (defined as the sum of PFAS compounds analyzed under EPA Method 1633) for the composite-grab sample was 91.17 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	91.17	5/14/2025
7	5/14/2025	Pending	Pending

A seventh monthly sampling event occurred on May 14, 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 seventh sampling event were not yet available. Sampling events will continue to occur monthly. Results will be provided to the MDE within 7 days of completing data validation and management and will also be attached to the Facility's monthly Discharge Monitoring Report (DMR).

Langan may recommend replacing "composite-grab" sampling with grab sampling, if appropriate (e.g., if 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" (AOIs)). The assessment methods and findings were summarized in a report titled *Environmental Assessment of PFAS, Perdue AgriBusiness LLC, Salisbury, Maryland* (EA Report), which was submitted to MDE's CHS Division on January 21, 2025.

As further discussed in the EA Report, to date, PAB has not identified any PFAS-containing products or chemicals used by PAB in any of its operations at the Facility other than aqueous film-forming foam (AFFF). The AFFF Fire Suppression System is one of nine identified PFAS AOIs identified in the EA Report. 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 about the AOIs. Updated information pertinent to this effort is summarized next.

The AFFF Fire Suppression System contained AFFF that was stored for use in emergencies associated with the Soybean Extraction Plant. The fire suppression system, which most recently contained Ansulite AFC-3B, has been decommissioned and is in the process of being replaced with a synthetic fluorine-free foam (SFFF) system. The SFFF product selected for use is Ansul Non-Fluorinated Film Forming Foam (NFFF) 331 3% \times 3%. The new foam system is not yet operational; Johnson Controls is scheduled to return to the Facility on June 11–12 to complete removal of the remaining aboveground piping and install the new SFFF tank. Full installation and commissioning of the SFFF system is anticipated to be completed by the end of June. In the longer term, PAB plans to replace the SFFF system with an exclusively water-based deluge fire suppression system.

The removed Ansulite AFC-3B AFFF is currently in the possession of Clean Harbors and is scheduled for disposal via incineration at a Clean Harbors facility permitted to destroy AFFF-containing materials. A Certificate of Destruction will be obtained upon completion of the incineration. While the liquid AFFF and associated vac trucks have been removed from the site, one lined and covered roll-off container containing piping from the foam system remains on-site. This container will remain in place until the remaining piping work is completed in June, at which point the additional piping will be consolidated into the same container. Piping and tanks from the previous system have been dismantled and transported by Clean Harbors to its closed-loop landfill in Lambton, Ontario.

PAB submitted the Revised/Final PFAS Investigation Workplan (IWP) for the Zion Church Road Facility to MDE on May 28, 2025, following receipt and incorporation of MDE-LRP's second round of comments issued on May 7, 2025. The IWP was initially submitted on March 7, 2025, with revisions provided on April 10, 2025, to address MDE's initial comments. The Revised/Final IWP incorporates all outstanding feedback directly into the IWP text and reflects ongoing coordination with MDE. The investigation activities outlined in the IWP focus on characterizing PFAS occurrence in soil and groundwater within the identified AOIs, including prioritized soil sampling locations, targeted groundwater sampling, and hydrogeologic characterization. Findings from this work will inform the scope and approach of any potential future investigation phases, including

potential additional sampling and evaluation of PFAS migration pathways. Field activities will commence following MDE's approval of the IWP.

On May 16, 2025, Langan conducted targeted sampling of various process streams at the Facility's wastewater treatment plant (WWTP) to support an ongoing evaluation of PFAS occurrence and transport within the wastewater treatment system. Samples were collected for analysis of PFAS and water quality parameters to assess potential mass flow pathways and identify upstream sources contributing to PFAS loading. Additional sampling of WWTP lagoons and Facility process flows is scheduled for early June 2025 to further characterize PFAS distribution in sediment and sludge, as well as to collect supporting water quality and hydrogeologic data.

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 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