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November 27, 2024

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

RE: Monthly Progress Report
PFAS Wastewater Monitoring, Reporting, and Source Assessment
Perdue AgriBusiness LLC
AI#2087, State Permit No. 15-DP-0359, NPDES Permit No. MD0000060
6906 Zion Church Rd, Salisbury, MD 21804
Langan Project No.: 220210101

Dear Mr. Rice:

Langan Engineering and Environmental Services LLC (Langan) has prepared this progress report on behalf of Perdue Agribusiness LLC (PAB) regarding the Zion Church Road (ZCR) facility at 6906 Zion Church Rd, Salisbury, Maryland ("Facility"). This report was prepared in specific response to the "Request for Action to Address PFAS in Wastewater" letter that was issued to PAB on November 8, 2024 by the Maryland Department of the Environment (MDE), Water and Science Administration, Wastewater Pollution Prevention and Reclamation Program ("Department").

The Department's November 8 letter contained two substantive requests, as follows:

> ***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.*
>
> ***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 report is the first prepared by Langan, on behalf of PAB, to fulfill the Department's request for monthly progress reports starting on or before November 30, 2024. This monthly progress report provides background information (Section "A" below), a summary of per- and polyfluoroalkyl substances (PFAS) monitoring activities (Section "B" below), and a summary of PFAS source assessment activities (Section "C" below).

A. Background

Process and sanitary wastewater from the operations at the Facility is treated on-site and discharged under authorization of NPDES Permit No. MD0000060 / State Permit No. 15-DP-0359 (the "Permit"). Process water is generated in several areas of the Facility, including two Hatcheries (Nos. 2 and 3), a Soybean Crush Plant, a Soybean Oil Refinery, and a Truck Wash. Process water is conveyed to an on-site wastewater treatment system consisting of equalization, pH adjustment, dissolved air floatation (DAF), aeration, chlorination/de-chlorination, and clarification prior to monitoring, and discharged to Peggy Branch via Outfall 001. PFAS have been detected in the effluent discharged from the Facility. The Department believes PAB's Permit renewal application (dated February 26, 2021) should be supplemented and has requested that PAB undertake PFAS monitoring and reporting along with a PFAS source assessment, as noted above.

B. Monitoring and Reporting

Langan performed an initial sampling of the Facility's effluent on November 20, 2024. At the Department's request, and pursuant to Department guidance[1], the sample (ID "WWTP_Effluent_WB_112024") was collected as a "composite–grab" sample obtained within an 8-hour period. An equipment blank sample (sample ID "EB-1_112024") was also collected. The samples were submitted under chain-of-custody to Pace Analytical (formerly Alpha Analytical) in Mansfield, Massachusetts for analysis of 40 PFAS using United States Environmental Protection Agency (USEPA) Method 1633.

The samples are being analyzed on a standard turn-around time of 10 business days, and results will be provided in a Level IV reporting format. Langan will validate the results (anticipated time frame of 5 business days) and will provide them to the Department via email within 7 calendar days of completing the validation. Accordingly, we expect to email results for the initial sampling event to the Department on or before December 20, 2024. The results will also be attached to an appropriate upcoming Discharge Monitoring Report (DMR).

Langan may recommend discontinuing composite-grab sampling, in favor of grab sampling, if warranted. For example, grab sampling may be appropriate if the source(s) of PFAS in the wastewater are determined to be continuous (i.e., non-transient). Grab sampling may also be appropriate if monthly monitoring results indicate relatively stable concentrations or a steady trend.

[1] Maryland Department of the Environment Water and Science Administration PFAS Sampling Guidance Document for Wastewater Analysis, September 10, 2024, accessed at https://mde.maryland.gov/programs/permits/WaterManagementPermits/Documents/WPPRP-PFAS-Guidance.pdf.

C. Source Assessment

PAB has been conducting a comprehensive and systematic inventory and assessment of products and chemicals currently used in its processes and throughout the facility. Langan was hired to further advance and support PAB's PFAS investigation, which has included or will include a site visit, sampling and testing of soil and groundwater, and evaluation of process areas that generate wastewater.

The source assessment at the facility is on-going. To-date, PAB has not identified any PFAS-containing products or chemicals used by PAB in any of its daily operations at the Facility. At this time, the only known source of PFAS in any products or chemicals used at the Facility is aqueous film forming foam (AFFF), which is stored for use in the fire suppression system at the Crush Plant. The last known release of AFFF at the Facility was in approximately 2018. The fire suppression system currently contains Ansulite AFC-3B. PAB is evaluating other potential fire suppression systems that would not contain PFAS.

Groundwater is used in the Facility's daily operations. As MDE knows, PFAS has been detected in groundwater at the site and therefore could be a source of PFAS in Facility wastewater. PAB is evaluating options for treatment of groundwater prior to its use at the site.

D. Closing

Langan and PAB are in the process of developing a plan and preliminary schedule for additional PFAS monitoring, reporting, and source assessment activities and will share that plan with the Department as a component of the next monthly progress report on or before December 30, 2024.

Sincerely,
Langan Engineering and Environmental Services, LLC

Jeffrey A. Smith, P.G.
Senior Associate

INITIAL:ARH

cc: Jaclyn Mays, PAB
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