REGION 5
CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Primient, Duluth, Minnesota

FROM: Dakota Prentice, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Supervisor
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Primary Products Ingredients Americas LLC (dba Primient)

Facility Location: 110 Spring Street, Duluth, Minnesota

Date of Inspection: October 29, 2024

EPA Inspector(s):
1. Dakota Prentice, Environmental Engineer
2. Brianna Fenzl, Environmental Engineer

Other Attendees:
1. Richard Benner, Primient – Plant Manager
2. Andy Paasch, Primient – EHS Coordinator
3. Lucy Okerstrom, Minnesota Pollution Control Agency – Environmental Specialist

Contact Email Address: Richard Benner – richard.benner@primient.com

Purpose of Inspection: to determine compliance with the Minnesota state implementation plan (SIP)

Facility Type: Chemical plant producing malic acid and fumaric acid

Regulations Central to Inspection: The Minnesota SIP

Arrival Time: 9:00AM
Departure Time: 10:25AM

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Presented Credentials
☒ Stated authority and purpose of inspection
☒ Provided Small Business Resource Information Sheet
☐ Small Business Resource Information Sheet not provided
☒ Provided CBI warning to facility

The following information was obtained verbally from Primient personnel unless otherwise noted.

Company Ownership: In 2022, Tate & Lyle PLC sold the facility to KPS Capital Partners, LP.

Process Description:
The Primient facility produces the acidulants, malic acid (MA) and fumaric acid (FA), for the food and beverage industry. Production begins with the delivery of maleic anhydride. The maleic anhydride is mixed with water and sent to a reactor where heat is added and MA and FA are formed. The material leaving the reactor moves to a flash drum where FA is crystallized. The MA and FA are then separated at a centrifuge. The FA leaving the centrifuge is sent to a dryer prior to classification and bagging. The MA leaving the centrifuge moves through multiple purification processes and is then cooled to crystallize the MA. The crystallized MA is then separated with a centrifuge and dried prior to classification and bagging.

Staff Interview:
Priment has five baghouses at classification and packaging to control particulate matter (PM). The FA dryer and MA dryer each have a dedicated venturi scrubber for PM control. Scrubbers are also used to control emissions from the reactor system and the water and maleic anhydride mixing vessel.

TOUR INFORMATION

EPA Toured the Facility: Yes

Data Collected and Observations:
EPA walked the production process while the facility was in operation. During the plant tour EPA observed that emissions from the MA and FA dryers were sent to a cyclone, then a venturi scrubber, then through another cyclone, prior to being routed to the atmosphere.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Process flow diagram;
- Last six months of scrubber water flow data with minimum flow setpoints;
- Last three years of annual emission reports; and
- Potential to emit calculations.

DIGITAL SIGNATURES

Report Author: DAKOTA PRENTICE Digitally signed by DAKOTA PRENTICE Date: 2024.11.15 14:06:05 -06'00'

Section Supervisor: Frank, Nathan Digitally signed by Frank, Nathan Date: 2024.11.19 10:43:08 -06'00'