UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

DATE: ***May 19, 2021***

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Ardagh Metal Beverage, Chicago, Illinois

FROM: Daniel Heins, Environmental Scientist
AECAB (IL/IN)

THRU: Constantinos Loukeris, Acting Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Ardagh Metal Beverage USA Inc

Facility Location: 1101 W 43rd Street, Chicago, Illinois

Date of Inspection: April 29 & 30, 2021

EPA Inspector(s):
1. Daniel Heins, Environmental Scientist
2. Karina Kuc, Environmental Engineer
3. Emma Leeds, Environmental Engineer
4. Brianna Fenzl, Environmental Engineer

Other Attendees:
1. Robert Lanham, Senior Director, Environment, Health, and Safety– Ardagh Group
2. Brett Valach, Quality Manager – Ardagh Group
3. Jimmy Antia, Senior Environmental Engineer – Ardagh Group
4. Ray Stewart, Plant Manager – Ardagh Group

Contact Email Address: brett.valach@ardaghgroup.com

Purpose of Inspection: To determine compliance with the Clean Air Act

Facility Type: Two-piece aluminum can manufacturer

Virtual Conference (4/29) Start Time: 9:00
Virtual Conference (4/29) End Time: 10:00
On Site (4/30) Arrival Time: 9:30
On Site (4/30) Departure Time: 11:30

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: Not a small business.
☒ Provided CBI warning to facility

The following information was obtained verbally from Ardagh Metal Beverages USA (Ardagh) representatives.

Company Ownership:
The facility was owned by Rexam Beverage Can Company until it was acquired by Ardagh in 2016.

Process Description:
Ardagh produces metal cans for beverages. Aluminum sheets are fed into two lines that stamp, trim, and wash the aluminum to produce generic can bodies ready for printing and coating. Cans may then go to a printer/basecoater, which applies an initial exterior coating if desired by the end customer. They next go to a pin oven where the exterior coating is cured, with pins holding the can bodies in place. Either directly from body forming or after the basecoat process, cans go to one of three printing/coating lines. Each of these lines first prints the final exterior design on the cans and cures the exterior in a pin oven. After this, the internal coating spray is applied and then cured in an internal bake oven (IBO). At this stage, the coating process is complete.
Cans with complete coating have additional forming and testing before being palletized for shipment to customer plants to be filled with product.

All three IBOs are routed to a regenerative thermal oxidizer (RTO), as is the line 3 pin oven. The RTO is run 24/7 but has an allowed amount of downtime each year where the ovens can still operate without controls. The RTO has a continuous temperature monitor. All IBOs and line 3 pin over are operated under negative pressure.

Staff Interview:
Volatile organic compounds (VOCs) and volatile hazardous air pollutants (VHAPs) would be primarily emitted in the pin ovens and the IBOs. VOCs and VHAPs come from the inks and coatings used, all of which meet New Source Performance Standards (NSPS) requirements

without the additional controls. The capture and control of emissions on site is done to fulfill requirements from the Illinois State Implementation Plan for control of VOC emissions in the Chicago area. The inside coating would be a larger source of uncontrolled VOC than the exterior printing and coating.

Ardagh staff indicated that there is no monitoring associated with the maintenance of negative pressure, but rather that staff on the facility floor would notice the additional smell of volatiles. The lines 1 and 2 IBOs were not connected to the RTO until 2019. This was done due to Ardagh beginning to manufacture certain cans with bisphenol-A-free internal coating that would have, without additional control, increased VOC emissions at the facility.

Emissions calculations are based on VOC and VHAP concentrations in the inks and coatings provided by the suppliers, then applying an overall 76% capture/control efficiency. The tested capture and control values are higher, but 76% is the permit minimum. Based on emissions records provided by the facility, values of VHAP emissions in the National Emissions Inventory appear to be over-estimated.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
The acid wash for the cans after forming uses sulfuric acid and hydrofluoric acid.

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

Reviewed documents:
- All active Clean Air Act permits
- Overview of emissions units and controls
- Most recent performance tests for VOC capture/control systems
- Process flow diagram for facility
- Site map
- Monthly VOC and HAP emissions by unit for the past 5 years

Requested documents:
- Last 12 months of daily vacuum/negative pressure readings from coating lines 1 and 2
- Copy of vendor specifications and recommended operating practices for the capture system(s) and associated monitoring equipment
- VOC/HAP content data sheets for each of the coatings used

- Most recent Toxic Release Inventory report
- 12 months of RTO temperature monitoring in a spreadsheet format
- Maximum airflow pulled from each controlled oven
- Airflow capacity of the RTO
- Last two years of semi-annual compliance reports

DIGITAL SIGNATURES

DANIEL HEINS Digitally signed by DANIEL HEINS Date: 2021.05.19 17:50:18 -05'00'

Daniel Heins, Report Author

CONSTANTINOS LOUKERIS Digitally signed by CONSTANTINOS LOUKERIS Date: 2021.06.03 15:37:07 -05'00'

Constantinos Loukeris
Acting Section Chief (IL/IN)