



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

DATE: See Date of Section Chief Signature Below

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Ardagh Glass, Inc., Winchester, IN

FROM: Brittany Cobb, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Chief
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Ardagh Glass, Inc.

Facility Location: 603 East North Street, Winchester, IN 47394

Date of Inspection: 8/31/2021

EPA Inspector(s):

1. Daniel Schaufelberger, Environmental Scientist
2. Brittany Cobb, Environmental Engineer

Other Attendees:

1. Aaron Wine, Plant Manager
2. Bill Nelson, Batch and Furnace Manager
3. Nick Reese, Batch and Furnace Supervisor

Contact Email Address: aaron.wine@ardaghgroup.com

Purpose of Inspection: To determine Clean Air Act (CAA) Compliance.

Facility Type: Container Glass Manufacturer

Regulations Central to Inspection: 40 CFR Part 70 – Title V State Operating Permit, 40 CFR 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart CCCCCC - NESHAP for Source Category: Gasoline Dispensing Facilities

Arrival Time: 9:30 AM Eastern

Departure Time: 11:30 AM Eastern

Inspection Type:

- Unannounced Inspection
- Announced Inspection

OPENING CONFERENCE

- Presented Credentials
- Stated authority and purpose of inspection
- Small Business Resource Information Sheet not provided. Reason: Not a small business
- Provided CBI warning to facility

The following information was obtained verbally from Aaron Wine or Bill Nelson unless otherwise noted.

Company Ownership: Ardagh Group purchased this facility in 2012 from Anchor Glass.

Process Description:

The overall process includes raw material handling, melting, conditioning and then forming. All of the raw materials, except dolomite, are brought in by railcar. The primary raw materials include sand, soda ash, dolomite, limestone, salt cake, and cullet. The cullet usage at the melting furnaces is approximately 25% - ranging from 20 – 30%. The facility uses natural gas combustion to heat the furnaces and electricity to provide additional heat to the glass melt. The molten glass is then cut to specified sizes and fed to bottle forming machines. Molten glass is injected into the top of molds to form the glass containers. The formed containers are then conveyed to a glass annealinglehr where they are heat treated to remove any strains that may have developed during the molding/shaping process. The glass is then cooled, inspected, and packaged for customer shipment.

There are two glass furnaces (“tanks”) at the facility and together they produce about 1,000 glass containers per minute. They only produce flint glass (approximately 93% flint cullet) and do not perform any color changes. The total glass pull rate at the time of the inspection was 604 tons per day (262 tons/day for tank 1 and 342 tons/day for tank 2). The maximum pull rate for tank 1 is 315 tons/day and the maximum rate for tank 2 is 385 tons/day. Tank 1 has an operating volume of 832 ft³ and tank 2 has an operating volume of 1,200 ft³. The furnace design is regenerative, in which air flow is alternated between brick stacks (regenerators) to recover heat from the furnace for combustion. The tanks were last completely rebuilt in 2015. Tank 1 is scheduled for an early rebuild in December 2022 and tank 2 does not have a current scheduled date for a rebuild. The

last stack test was performed in 2015, right after the rebuilds. The port connections were repaired on both tanks in the past month and there will be more extensive maintenance performed between Dec 24 – Dec 31st of this year.

There are 2 baghouses and 3 dust collectors that controls emissions from the raw material handling. They are checked daily. They do not monitor pressure drop. Additionally, the facility performs batch wetting of raw material to reduce airborne dust. Staff members perform daily opacity readings. The staff members are not EPA Method 9 certified, instead they have a modified opacity training. Nick Reese coordinates these trainings and certifies opacity readings.

Staff Interview: There are 420 employees at the Winchester facility. The Ardagh Group glass plant in Lincoln closed in 2019, which led to a temporary increase in production at this facility.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

Aaron Wine led the inspectors on a tour of the facility, which included the area where molds are made, the tank 2 forehearth, and the furnace control room. The control room had video displays of the facility. Two of the cameras of the furnaces were not operating. Numerous alarms were going off while in the control room. The inspectors could not enter the raw material handling room because they were informed that they need respirators. The inspectors then observed the outside storage area for cullet. The cullet was in large piles and not covered. From outside, the inspectors observed the location of four out of the five baghouses/dust collectors and saw where daily opacity readings of the furnace stacks are taken. There were no visible emissions observed at the time of the inspection. There was no active offloading of raw materials at the time of the inspection and the baghouse over the area where raw materials are offloaded from railcars was not operating.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Opacity Readings

CLOSING CONFERENCE

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

DIGITAL SIGNATURES

Report Author: **Cobb, Brittany** Digitally signed by Cobb, Brittany
Date: 2021.09.22 16:45:28 -05'00'

Section Chief: **SARAH MARSHALL** Digitally signed by SARAH MARSHALL
Date: 2021.09.23 14:15:41 -05'00'

Facility Name: Ardagh Glass, Inc.

Facility Location: 603 East North Street, Winchester, IN 47394

Date of Inspection: August 31, 2021

APPENDICES AND ATTACHMENTS

1. Digital Image Log

Facility Name: Ardagh Glass, Inc.

Facility Location: 603 East North Street, Winchester, IN 47394

Date of Inspection: August 31, 2021

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Brittany Cobb	2. Archival Record Location: https://usepa.sharepoint.com/:f:/r/sites/R5_Work/r5erc/ecad/AECAB%20Library/Enf_Ardagh%20Glass_IN_21_Inspection/Photos?csf=1&web=1&e=OpdfLv
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Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	IMG_1	8/31/2021 10:54 AM CST	The furnace forehearth
2	IMG_2	8/31/2021 10:55 AM CST	The furnace forehearth
3	IMG_3	8/31/2021 10:56 AM CST	The furnace forehearth
4	IMG_4	8/31/2021 10:56 AM CST	The furnace forehearth
5	IMG_5	8/31/2021 10:58 AM CST	The view of where Nick Reese said staff take opacity readings.
6	IMG_6	8/31/2021 11:04 AM CST	A view of the back of the building showing the blue shed where 1 dust collector exhausts inside of the building.
7	IMG_7	8/31/2021 11:04 AM CST	A view of the back of the facility, showing the full stacks, dust collectors and baghouses.
8	IMG_8	8/31/2021 11:09 AM CST	Baghouse over the location where raw materials is offloaded from railcars.