NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date: DRAFT

Region: Raleigh Regional Office
County: Wilson
NC Facility ID: 9800155
Inspector's Name: Dawn Reddix
Date of Last Inspection: 05/17/2022
Compliance Code: W / Violation - procedures

Facility Data

Applicant (Facility's Name): Ardagh Glass Inc.

Facility Address:
Ardagh Glass Inc.
2201 Firestone Parkway
Wilson, NC 27893

SIC: 3221 / Glass Containers
NAICS: 327213 / Glass Container Manufacturing

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: N/A
NSPS: N/A
NESHAP: N/A
PSD: N/A
PSD Avoidance: N/A
NC Toxics: N/A
112(r): N/A
Other: N/A

Contact Data

Facility Contact	Authorized Contact	Technical Contact
James Barringer EHS Manager (252) 234-5239 2201 Firestone Parkway Wilson, NC 27893	Lloyd Taylor III Plant Manager (252) 234-5225 2201 Firestone Parkway Wilson, NC 27893	Julie Inman Environmental Engineer (317) 558-1792 10194 Crosspoint Boulevard Indianapolis, IN 46256

Application Data

Application Number: 9800155.21A
Date Received: 09/13/2021
Application Type: Modification
Application Schedule: TV-Sign-501(b)(2) Part II

Existing Permit Data
Existing Permit Number: 03713/T39
Existing Permit Issue Date: 08/13/2020
Existing Permit Expiration Date: 02/28/2023

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2020	221.44	131.03	10.31	13.74	100.57	20.97	14.35 [Hydrogen chloride (hydrochlori]
2019	224.14	134.43	10.30	14.24	102.59	21.15	14.52 [Hydrogen chloride (hydrochlori]
2018	156.19	129.21	10.36	11.95	75.97	18.39	12.61 [Hydrogen chloride (hydrochlori]
2017	84.29	78.32	5.19	4.63	42.66	1.73	0.8500 [Hydrogen chloride (hydrochlori]
2016	150.38	158.12	11.94	11.29	117.40	4.07	2.27 [Hydrogen chloride (hydrochlori]

Review Engineer: Connie Horne

Review Engineer's Signature: **Date:** DRAFT

Comments / Recommendations:
Issue 03713/T40
Permit Issue Date: DRAFT
Permit Expiration Date: February 28, 2023

1. Purpose of Application

This permit action is for Part II of a two-step process allowed under 15A NCAC 02Q .0501(b)(2). The Rule states:

(c) With the exception in Paragraph (d) of this Rule, the owner or operator of an existing facility, new facility, or modification of an existing facility (except for minor modifications under Rule .0515 of this Section), including significant modifications that would not contravene or conflict with a condition in the existing permit, subject to the requirements of this Section shall not begin construction without first obtaining:

(1) a construction and operation permit following the procedures under this Section (except for Rule .0504), or
(2) a construction and operation permit following the procedures under Rule .0504 and filing a complete application within 12 months after commencing operation to modify the construction and operation permit to meet the requirements of this Section.

The Permittee submitted an application for a construction and operation permit (9800155.20A) on May 20, 2020. The Part I permit was issued on July 17, 2020. According to this application, Ardagh commenced operation of the dedicated conveyer cooling fan for Shop 284 on September 29, 2020. This Part II application was received on September 13, 2021, within the 12-month period after commencing operation, as required. The technical review for the Part I application is attached to this document.

2. Facility Description

The Ardagh facility manufactures clear, amber, and green glass bottles and containers. Raw materials including limestone, soda ash, aplite, sand, salt cake, and cullet (crushed, recycled glass 25-60% of batch) are unloaded and stored in a compartmentalized storage silo until they are transferred, mixed, and fed into the furnaces. Through extruders, a gob of molten glass is cut, dropped into a bottle mold, mechanically plunged, and formed into a bottle with compressed air. The bottles are then reheated to temper the glass and to prevent defects. The bottles are then allowed to cool, have labels applied, and are packaged for shipment.

3. Application Chronology

September 13, 2021	Part II application received
July 12, 2022	Draft to applicant and regional office
DRAFT	Draft to public notice and EPA
DRAFT	Public comment period ends
DRAFT	EPA Comment period ends
DRAFT	Permit issued

4. Permit Modifications/Changes

The table below outlines the proposed changes to the current permit:

Page No.	Section	Description of Changes
Cover Letter	---	Modified to reflect current permit number, issue and effective dates
All	Headers	Amended permit revision number
1-45	Entire permit, where applicable	Modified to reflect current permit number, issue and effective dates
12	2.1.A.7	Removed “15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT”. This requirement was satisfied with the application (.21A) received September 13, 2021.
35-36	Section 3	Moved Insignificant Activities list from attachment to Section 3
37-45	Section 4	Updated General Conditions to Version 6.0 (01/07/2022) and moved to Section 4

5. Other Requirements

- An application fee of $1002 is required and was received by DAQ on 9/13/21.
- The appropriate number of application copies was received on 9/13/21.
- The application was signed by Mr. Lloyd W. Taylor III, Plant Manager on 9/13/21 as the Responsible Official.
- Wilson County has triggered increment tracking under PSD for PM-10, SO_2 and NO_x. However, this permit modification does not consume or expand increments for any pollutants.
- The associated dates are listed in the Application Chronology section above.

6. Public Notice

Public notice and EPA review is required for the completion of this two-step significant process. A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also, pursuant to 15A NCAC 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 15A NCAC 02Q .0521, above.

7. Facility Compliance Status

This facility was last inspected on May 17, 2022 by Dawn Reddix of the Raleigh Regional Office. According to Ms. Reddix's report, this facility "appeared to be operating in compliance with all permit requirements with one exception. Recommend a Notice of Violation be issued for the missed monitoring/recordkeeping" pertaining to particulate emissions 15A NCAC 02D .0515.

8. Conclusions, Comments and Recommendations

The issuance of Air Quality Permit No. 03713T40 to Ardagh Glass Inc. is recommended.

NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date: **July 17, 2020**

Region: Raleigh Regional Office
County: Wilson
NC Facility ID: 9800155
Inspector's Name: Dawn Reddix
Date of Last Inspection: 03/03/2020
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Ardagh Glass Inc.

Facility Address:
Ardagh Glass Inc.
2201 Firestone Parkway
Wilson, NC 27893

SIC: 3221 / Glass Containers
NAICS: 327213 / Glass Container Manufacturing

Facility Classification: Before: Title V **After:**
Fee Classification: Before: Title V **After:**

Permit Applicability (this application only)

SIP: 02D .1100, .1111, .1112, 02Q .0504
NSPS: NA
NESHAP: GACT 6S
PSD: 02D .0530(u)
PSD Avoidance: NA
NC Toxics: Yes
112(r): NA
Other:

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Rodney Pittman EHS Manager (252) 234-5241 2201 Firestone Parkway Wilson, NC 27893	Brian Jaggernauth Plant Manager (252) 291-1500 2201 Firestone Parkway Wilson, NC 27893	Julie Inman Environmental Engineer (317) 558-1792 10194 Crosspoint Boulevard Indianapolis, IN 46256

Application Data

Application Number: 9800155.18A, .18B, .20A
Date Received: 04/10/18, 12/15/18, 05/20/20
Application Type: Modification
Application Schedule: TV-Sign-501(b)(2) Part I

Existing Permit Data
Existing Permit Number: 03713/T37
Existing Permit Issue Date: 03/22/2018
Existing Permit Expiration Date: 02/28/2023

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2018	156.19	129.21	10.36	11.95	75.97	18.39	12.61 [Hydrogen chloride (hydrochlori]
2017	84.29	78.32	5.19	4.63	42.66	1.73	0.8500 [Hydrogen chloride (hydrochlori]
2016	150.38	158.12	11.94	11.29	117.40	4.07	2.27 [Hydrogen chloride (hydrochlori]
2015	183.41	161.97	12.64	12.15	129.76	4.68	2.74 [Hydrogen chloride (hydrochlori]
2014	177.35	181.65	13.55	11.72	119.69	4.88	2.99 [Hydrogen chloride (hydrochlori]

Review Engineer: Joseph Voelker

Review Engineer's Signature: **Date: July 17, 2020**

Comments / Recommendations:
Issue 03713/T38
Permit Issue Date: 07/17/2020
Permit Expiration Date: 02/28/2023

I. Introduction and Purpose of Application

Ardagh Glass Inc. (AGI) owns and operates a glass container production facility located in Wilson, North Carolina. This review addresses three applications.

Application No.	Application Description
9800155.18A	A 502-b-10 notification to address the replacement of several natural gas burners within the cooling section of the forehearths for Furnace 1 (ID No. GF-1) with larger natural gas burners
9800155.18B	A state only application to address revisions to the toxics (02D .1100) permit condition. The application included revised TAP dispersion modeling and results in the facility becoming a HAP major source.
9800155.20A	A step 1 of a 2-step significant modification application to be processed pursuant to 15A NCAC 02Q .0504. The application is for the installation of a new fan to increase air flow to the conveyor cooling for Shop 284, which is associated with Furnace 28 (Part of GF-1).

Each application/modification will be discussed separately in Section III below. All three applications will be consolidated into the processing schedule for application no. 9800155.20A, a significant modification that qualifies for processing pursuant to 15A NCAC 02Q .0504.

II. Chronology

Date	Description
04/10/2018	A 502-b-10 notification was received in the RCO and assigned application no. **9800155.18A** as described above.
12/05/2018	A Title V state-only application was received and assigned application no. **98000155.18B** as described above.
12/20/2018	Memo issued by the AQAB approving the modeling analysis submitted with the application received on 12/05/2018. Analysis included only HCL.
01/29/2019	An email was received from Nicole Seniti, consultant stating: *Based on the high amount of cullet used in the Milford plant, AGI is not sure that the HCl emission factor is representative of Wilson and Henderson operations. AGI is planning to conduct a performance test for HCl to obtain representative data. I will send out a meeting invite for a call at 1:00 pm ET*
02/07/2019	An email was received from Stéphane Jean, RO stating: *The Ardagh Glass Inc. (AGI) Henderson facility recently submitted a permit application to the Division of Air Quality (DAQ), which included toxic air pollutant dispersion modeling for HCl emissions from the glass melting furnaces. HCl emissions provided in this submittal were based on lb/ton emission factors obtained from the AGI Milford plant. Upon further review, AGI has determined that the Milford HCl emissions data may not be representative of emissions from the Henderson furnaces due to the higher percentage of cullet used at the Milford facility. AGI is planning to conduct a performance test for HCl in April 2019 to obtain representative data for the Henderson facility.* *AGI requests that the Division of Air Quality (DAQ) place the submitted permit application on hold until the HCl emissions testing has been completed and the representative emission rates have been determined.* *Please confirm whether this request is acceptable to DAQ, and feel free to contact us with any questions.* Note this was from the RO for the HENDERSON facility. Upon further discussion the issue affected the WILSON facility as well. The application for WILSON was put on HOLD until the testing was conducted, results reviewed, and a determination was made as to whether a revised application was necessary. The testing was conducted on March 19 and 21, 2019.

Date	Description
07/10/2019	An email was received from Nicole Seniti, consultant stating: *After reviewing the results of the HCl and HF source testing at Henderson and Wilson, we would like to schedule a call or meeting to discuss the path forward regarding permitting and updating the modeling for both facilities. We think a conference call would be sufficient unless you all prefer to have a meeting. We have availability for a conference call or meeting Tuesday and Friday of next week (7/16 and 7/19). Please let me know if either day works for you and your team and what times work best for you.* Further discussion led to the conclusion that a revised permit application was necessary. The application remained on HOLD until the receipt of the application.
09/27/2019	An application addendum to .18B was received. Addendum addressed revised HCL and HF emission rates based on sources tests conducted on March 19 and 21, 2019.
11/12/2019	Memo issued by the AQAB approving the revised modeling analysis submitted with the addendum received on 09/27/2019. Revised analysis included HCL and HF.
01/23/2020	Memo issued form the SSCB approving the sources tests conducted on March 19 and 21, 2019. These tests were used to support the emission factors used in the modeling analysis approved on 11/12/2019. The results were as follows: Emissions Source / Test Date / Pollutant/Parameter / Test Results Glass Furnace 28 GF-1 / 3/21/2019 / HCl / 1.53 lb/hr / 0.079 lb/ton glass HF / 0.69 lb/hr / 0.036 lb/ton glass Glass Pull Rate / 19.2 ton/hr glass Glass Furnace 29 GF-2 / 3/19/2019 / HCl / 1.14 lb/hr / 0.094 lb/ton glass HF / 0.41 lb/hr / 0.034 lb/ton glass Glass Pull Rate / 12.1 ton/hr glass
05/20/2020	An application was received and assigned application no. **9800155.20A** as described above.
06/09/2020	An email was received with updated H2SO4 emission estimates and revised modeling files.
06/19/2020	An email was received stating: Please delete Condition 2.1.B.5 since the Shop 292 chiller project will not move forward. Please adjust 2.1.A.5 condition to remove the reference to application 14B. The reference to the 2028 calendar year can remain, since Furnace 28 commenced operation following the rebuild in 2018. See discussion in Section IV below.
07/01/2020	Memo issued by the AQAB approving the modeling analysis submitted with the application received on 05/20/2020. Analysis included was facility-wide for all TAPs over the TPER with the exception of HCL and HF.

III. Modification Descriptions

Each application stated in Section I will be discussed separately below.

Application no. 9800155.18A - 502-b-10 notification for increased burner size in the forehearth of GF-1

The current permit has the descriptors for Furnace No.1 as follows:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
GF-1 **NSPS CC**	Glass melting furnace including the following equipment: (i) one natural gas/propane/No. 2 fuel oil/ No. 4 fuel oil and oxygen (oxy fuel) fired furnace (Furnace #28) with a 565 ton per day	n/a	n/a

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
	maximum glass pull rate (90 million Btu per hour maximum heat input capacity and 2,400 kVA maximum electric boost capacity) (ii) one natural gas/propane-fired distributor (3.26 million Btu per hour maximum heat input capacity) (iii) five natural gas/propane-fired forehearths (12.02 million Btu per hour combined maximum heat input capacity)		

The permittee submitted a 502(b)(10) notification to increase the heat input in the forehearths from 12.02 to 12.41 million Btu per hour. The purpose was stated in the notification as follows:

> AGI plans to replace several natural gas burners within the cooling section of the forehearths for Furnace 1 (GF-1) with larger natural gas burners. The permitted natural gas burners in the forehearths have a combined heat input rating of 12.02 million Btu per hour, and the new natural gas burners will increase the heat input capacity of the forehearths to 12.41 million Btu per hour. This change is being made to improve the quality of the glass containers produced and will not debottleneck any units or increase the production rate or capacity GF-1. The distributor currently has two burners with combined heat input rating of 2.86 million Btu/hr. After the project, the combined total heat input capacity of the distributor and forehearths will not exceed 15.27 million Btu per hour. No other changes are proposed as part of this project.

The notification supplied justification that the increase in emissions from the change in heat input was minimal, did not trigger NSPS or PSD, did not require any avoidance conditions ,did not trigger any new regulatory applicability nor require any new permit conditions, and did not require revisions to any of the existing permit terms and conditions. The only revisions necessary to the permit were except the equipment descriptors. The 502(b)(10) notification will be included as an attachment to this review document.

A clarification needs to be made to the explanation above. The current permit lists the distributor heat input as 3.26 million Btu per hour but the explanation refers to 2.86 million Btu per hour. The consultant explained that the burners were permitted at 3.26 but installed 2.86. In any case, they have lower heat inputs and would have not required any permit revisions other than to the equipment list. The correction will be made in the revised permit.

Furnace no.1 will appear in the revised permit as follows:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
GF-1 NSPS CC	Glass melting furnace including the following equipment: (i) one natural gas/propane/No. 2 fuel oil/ No. 4 fuel oil and oxygen (oxy fuel) fired furnace (Furnace #28) with a 565 ton per day maximum glass pull rate (90 million Btu per hour maximum heat input capacity and 2,400 kVA maximum electric boost capacity) (ii) one natural gas/propane-fired distributor (2.86 million Btu per hour maximum heat input capacity) (iii) five natural gas/propane-fired forehearths (12.41 million Btu per hour combined maximum heat input capacity)	n/a	n/a

This application was originally received on December 05, 2018 to update the HCL emission rates in the 02D .1100 condition. The current permit reflects HCL emissions only from the the hot end treatment process (ID No. IS-HET) at 0.74 lb/hr. The revised emission estimates are as follows:

Facility-wide Potential HCl Emissions

Emission Source ID	Emission Source Description	Potential Emissions (lbs/hr)	(lbs/yr)	(tpy)
GF-1	Glass Melting Furnace 1	1.22	10,724	5.36
GF-2	Glass Melting Furnace 2	1.08	9,490	4.75
IS-HET-1	Hot End Treatment	1.38	12,060	6.03
Total Facility-Wide Emissions		3.68	32,274	16.14

Modeled Emission Rates

Model ID	Modeled Emission Point Description	Emission Rate (lbs/hr)	Emission Rate per Stack (lbs/hr)
GF-1	Glass Melting Furnace 1	1.22	1.22
GF-2	Glass Melting Furnace 2	1.08	1.08
L11 to L14, L21 to L23	Lehr Roof Monitor Pseudo Points (6 Points)	1.38	0.23

Note that the facility wide HCL PTE is greater than 10 tpy. Thus, the facility is now a HAP major source. The implications of this will be discussed in Section IV below.

The modeling was reviewed and the results memorialized in a memo from the AQAB issued December 20, 2018 as follows:

Maximum Impacts - Ardagh Glass Inc. – Wilson Facility
Wilson, Wilson County, North Carolina

Pollutant	Averaging Period	Max. Conc. ($\mu g/m^3$)	AAL ($\mu g/m^3$)	% of AAL
HCl	1-hour	249	700	35.6 %

However, an email was received from Nicole Seniti, consultant on January 29, 2019 stating:

> Based on the high amount of cullet used in the Milford plant, AGI is not sure that the HCl emission factor is representative of Wilson and Henderson operations. AGI is planning to conduct a performance test for HCl to obtain representative data.

AGI subsequently tested the furnace at WILSON on March 19 and 21, 2019. The tests were approved by the SSCB via a memo issued on January 23, 2020. The results are summarized as follows:

Emissions Source	Test Date	Pollutant/Parameter	Test Results	
Glass Furnace 28 GF-1	3/21/2019	HCl	1.53 lb/hr	0.079 lb/ton glass
		HF	0.69 lb/hr	0.036 lb/ton glass
		Glass Pull Rate	19.2 ton/hr glass	
Glass Furnace 29 GF-2	3/19/2019	HCl	1.14 lb/hr	0.094 lb/ton glass
		HF	0.41 lb/hr	0.034 lb/ton glass
		Glass Pull Rate	12.1 ton/hr glass	

Note that the HCL emissions were greater than those previously submitted. Also note that emissions of hydrogen fluoride (HF) were determined. In the current permit only total fluorides (TF) were identified. Note under federal rules TF does NOT include HF. Similarly, under NCs toxics rules (02D .1100 and 02Q.0700), HF and TF have separate AALs. The Permittee states in the application:

> Previously, emissions of HF were not estimated because a representative factor was not available. Given the increased emissions of HC1 and now quantifiable emissions of HF that exceed the Toxic Pollutant Exemption Rate (TPER] established in I5A NCAC 02Q.0711, dispersion modeling is required to demonstrate compliance with the AALs for HC1 and HF. An updated compliance demonstration is provided in Section 6 of this report.

As a result of these findings, the Permitee submitted an addendum to the original application on October 19, 2019 which included revised modeling for HCL and included new modeling for HF.

The revised modeling was reviewed and the results memorialized in a memo from the AQAB issued on November 12, 2019 as follows:

Maximum Impacts - Ardagh Glass Inc. – Wilson Facility
Wilson, Wilson County, North Carolina

Pollutant	Averaging Period	Max. Conc. ($\mu g/m^3$)	AAL ($\mu g/m^3$)	% of AAL
HCl	1-hour	250	700	36 %
HF	1-hour	3.44	250	1 %
	24-hour	1.68	30	6 %

See Section IV below for further discussion.

The addendum also included the following request:

> The five (5) No. 2 fuel oil-fired peak shaving generators (Emission Source ID. Nos. ES-07 through ES-11) listed i the current Title V permit are no longer in operation and have been removed from the Wilson facility. AGI requests that these emission sources be removed from the permit along with any associated requirements.

Application 9800155.20A

On May 20, 2020 an application was received, the purpose of which is as follows:

> *This permit application has been prepared for the installation of a new fan to increase air flow to the conveyor cooling for Shop 284, which is associated with Furnace 28 (Part of GF-1). This project could reduce the conveyor cooling time, which could result in a small percentage increase in glass production over normal historical rates. Despite the actual production increase, the glass pull rate will not exceed the current permitted production capacity of the furnace, which is 565 tons per day.*
>
> *In addition, AGI has elected to submit a revised toxic air pollutant (TAP) modeling demonstration based on a Furnace 28 capacity of 565 tons per day in accordance with Title V Permit Condition 2.2.B.2.c.*
>
> *This permit application demonstrates that the facility is in compliance with the Acceptable Ambient Levels (AALs) set forth in 15 NCAC 02D .1100. Note that updated dispersion modeling for HCI and HF has not been included, as updated dispersion modeling has already been submitted for these pollutants. Enclosed are three (3) copies of the complete application, including the required application fee. One electronic copy has been sent to the Raleigh Regional Office.*

Note that this modification is not to request an increase in the pull rate to the furnace or a physical modification to the melter, refiner or forehearths, the primary sources of emissions for the "furnace" as it is referred to collectively and those indicated explicitly in the equipment list. Thus, the equipment descriptors will not need to be revised. The modification does have the ability to result in an increase in actual throughput to the furnace and hence a reviewed regulatory review is necessary.

See Section IV below for further discussion.

IV. Regulatory Review

The following regulations will be discussed by considering all the items discussed in Section III above.

15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

If increases in production rates are expected, increases in emission rates can be expected. Compliance with this rule to date has not been a problem. Annual testing is required under this rule. No changes are necessary to the existing permit condition. Continued compliance is expected.

15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

The following discussion is copied from the review for the last permit renewal and will be repeated here as it is entirely applicable.

> *This regulation limits SO2 emissions to 2.3 lb/mmbtu of heat input. This includes SO2 emissions originating from sulfur containing batch materials. The furnace is also subject to SO2 emission limits pursuant to a Global Consent Decree (GCD), which are included in the permit at Sections 2.2 A and B and Section 2.3. The GCD requires a 30-day rolling average SO2 emission limitation of 2.4 lb/ton when firing natural gas and 4.4 lb/ton when firing fuel oil. SO2 CEMS are used pursuant to the GCD. Given the maximum heat input into the furnace is 90 mmBtu, these GCD limits equate to 0.62 and 1.15 lb/mmbtu respectively. Thus, compliance with the GCD limits will ensure compliance with 02D .0516 by a very wide margin. Therefore, no monitoring, recordkeeping or reporting is required for SO2 emissions from the firing of natural gas/propane/ No. 2 fuel oil/No. 4 fuel oil in the glass melting furnace. No substantive changes will be made to the existing permit condition.*

No changes are necessary to the existing permit condition.

15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

This rule limits opacity to 20% when averaged over a six-minute period with some exceptions. The current permit requires the use of COMS and the monitoring, recordkeeping and reporting via NSPS subpart CC on the melter to demonstrate compliance. No monitoring or recordkeeping requirements are required for the distributor and forehearths. No changes are necessary to the existing permit condition.

15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS - 40 CFR PART 60 SUBPART CC - STANDARDS OF PERFORMANCE FOR GLASS MANUFACTURING PLANTS

This NSPS limits the melter to filterable PM emissions of 1.0 lb/ton of glass produced and the use of opacity as an indicator of proper operation and maintenance. Opacity has also been utilized for Title V purposes as monitoring to ensure compliance with the PM standard. Annual testing is also required.

The modifications to the new fan to increase air flow to the conveyor cooling for Shop 284, which is associated with Furnace 28 (ID no. Gf-1) is not a "modification" under NSPS and does not trigger any new requirements.

No changes to the existing permit are necessary. Continued compliance is expected.

15A NCAC 02D. 0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

Existing

The furnace (ID No. GF-1) is already subject to the requirements of 15A NCAC 02D .0530(u) for modifications described in application no. 9800155.14B. and 9800155.14E. The requirements can be found at Section 2.1 A.5. The project associated with "14E" was completed in 2018. The project associated with "14B" has not been undertaken.

The Permittee requested on June 19, 2020 to remove reference to "14B" from the existing 02D .0530(u) condition. "14B" addressed the "furnace 28 shop 284 mold cooling fan replacement" project. The Permittee stated there are no plans to

complete the project. The reference to the project will simply be removed from the permit condition. No other changes are necessary.

New project

For this new project, the Permitee states the following in the application:

> *Projected emissions increases from the actual increase in glass production resulting from the conveyor cooling change must be compared to the PSD significance levels to determine PSD applicability. The emissions increases from the proposed changes contained in this application are calculated as the difference between projected actual emissions and baseline actual emissions from the furnace. Baseline actual emissions are calculated in accordance with current EPA guidance, and are detailed in Section 4 of this permit application. The emissions increase from ancillary equipment resulting from the increase in glass production is also added to the projected increase in emissions from the furnace to determine the total projected actual emissions increase.*
>
> *Note that AGI has not excluded any emissions from Furnace 28 which could have been accommodated during the consecutive 24-month baseline period from the projected actual emissions.*
>
> *The conveyor cooling change is projected to increase the Furnace 28 actual throughput to 530 tpd, or 193,450 tpy, of glass pull. It is unlikely that increases to this production level will be solely attributed to the conveyor cooling fan addition; however, it is a conservative approach to estimating project emission increases.*
>
> *Since an increase in glass pull will have a direct effect on the throughput for all other emissions units at the facility, AGI has included emissions from ancillary equipment that could increase as a result of this project. As a conservative assumption, AGI has assumed that all emission sources at the facility will have an associated increase.*

Thus, the projected actual emission estimates are based upon a process rate of 530 tons per day. and for conservatism do not include the effect of any "demand growth" or "could have accommodated" emissions as allowed under PSD. All details of the emissions calculations can be found in the permit application. The projected actual emissions from the furnace melter only are shown in Table 4-2 of the application and are correct except for the H2S04 estimate which was revised via an email received on June 09, 2020. The Permittee submitted a revised spreadsheet with calculations. Table 4-2 is reproduced below. The correct H2SO4 value is shown below the table.

Baseline actual emissions were calculated to define the rate at which Furnace 28 was emitting regulated pollutants during the most recent ten-year period of operation. The baseline actual emissions are based on a maximum two-year average based on ten years of data on a pollutant-by-pollutant basis.

The baseline actual emissions for PM, PM10, PM2.5, VOC, CO, lead, sulfuric acid mist (H2SO4), and fluorides (not HF) were estimated using emission factors derived from emission source testing from AGI's Wilson facility for Furnace 28. Emissions of SO2 and NOx were determined using continuous emissions monitoring system (CEMS) records. Emissions used to determine the two-year average baseline actual emissions are provided in Table 4-1 of the application and reproduced here.

Table 4-1. Furnace 28 Baseline Actual Emissions

Year	PM (tpy)	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	SO_2 (tpy)	VOC (tpy)	NO_X (tpy)	CO (tpy)	H_2SO_4 (tpy)	Fluorides (tpy)	Lead (tpy)
Average 11/12	64.4	64.4	64.4	110.5	4.9	70.5	1.2	4.5	0.5	0.11
Average 12/13	58.0	58.0	58.0	116.9	5.0	66.7	1.2	4.6	0.5	0.11
Average 13/14	60.7	60.7	60.7	112.7	4.8	77.1	1.1	4.5	0.5	0.11
Average 14/15	64.0	64.0	64.0	98.3	4.9	76.4	1.2	4.4	0.5	0.11
Average 15/16	59.4	59.4	59.4	83.9	4.5	62.7	1.1	4.1	0.4	0.10
Average 16/17	25.9	25.9	25.9	35.4	2.0	27.7	0.5	1.9	0.2	0.05
Average 17/18	14.0	14.0	14.0	39.0	1.7	25.0	0.4	1.6	0.2	0.04
Average 18/19	40.2	58.5	56.2	124.2	3.9	59.0	0.9	3.6	0.4	0.09
Baseline Period	**11/12**	**11/12**	**11/12**	**12/13**	**12/13**	**13/14**	**12/13**	**12/13**	**12/13**	**12/13**
Max 2-yr Ave (A)	**64.4**	**64.4**	**64.4**	**116.9**	**5.0**	**77.1**	**1.2**	**4.6**	**0.5**	**0.11**

Table 4-2. Furnace 28 Projected Actual Emissions

	PM (tpy)	PM_{10} (tpy)	$PM_{2.5}$ (tpy)	SO_2 (tpy)	VOC (tpy)	NO_X (tpy)	CO (tpy)	H_2SO_4 (tpy)	Fluorides (tpy)	Lead (tpy)
Projected Actual (B)	71.6	71.6	71.6	147.2	5.4	90.0	1.30	~~5.0~~ 11.5	0.5	0.13

Table 4-4 of the application and reproduced here shows the emissions increase associated with the furnace alone, the appurtenant equipment emissions increase, their sum and a comparison to the respective PSD significant emissions rate. The correct values associated with H2SO4 are shown in RED below Table 4-4.

Table 4-4. Project Emissions Increase

Pollutant	Furnace No. 28 Emissions Increase (tpy)	Associated Equipment Emissions Increase (tpy)	Total Emissions Increase	PSD Significant Emission Rate (tpy)	PSD Review Required?
PM	7.2	1.7	8.9	25	No
PM_{10}	7.2	1.7	8.9	15	No
$PM_{2.5}$	7.2	1.7	8.9	10	No
SO_2	30.3	4.6E-02	30.3	40	No
VOC	0.4	0.6	1.0	40	No
NO_X	12.9	2.3	15.2	40	No
CO	2.2E-02	1.0	1.0	100	No
H_2SO_4	~~0.5~~ 6.9	0	~~0.5~~ 6.9	7	No
Fluorides	4.7E-02	0	4.7E-02	3	No
Lead	1.6E-02	4.9E-06	1.6E-02	0.6	No

Note that based on the assumptions used in the analysis, the Permittee claims a PSD review will not be triggered as result of this project. Since projected actual emissions are being relied upon to avoid a PSD review, monitoring, recordkeeping and reporting will be placed into the permit pursuant to 15A NCAC 02D .0530(u) for a period of 5 years. To facilitate review of the records and compliance with 02D .0530(u), a table of the projected actual emissions will be placed into the permit. These projections are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 02D .0530, the permittee shall include in its annual report an explanation as to why the actual rates exceeded the projection.

As can be seem in Table 4-4, the majority of the emissions are associated with the furnace melter. To simplify recordkeeping, the permittee will be required to only track emissions of the furnace melter.

Furnace GF-2 request

As seen in Section II above, the Permittee stated that there are no plans to compete the "Shop 292 chiller project on Furnace 29 (GF-2)" This project was addressed in application no. 13A. The total project was for "a mold air chiller for Shops 291and 292 associated with Melter #29, which is part of GF-2". The permit contains a 02D .0530(u) condition at Section 2.1.B.5 to address this project. The mold chiller project for Shop 291 was completed. The permittee notes in the 2019 report that the 5-year reporting period ended for this condition since the Shop 291 chiller project was completed; the shop 292 chiller was never installed; and there are no future plans for it to be completed. At the request of the Permittee and since the requirements of the condition have been satisfied, this permit condition will be removed from the revised permit.

15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT

Application no. 9800155.20A, which is a significant modification meeting the requirements of 15A NCAC 02Q .0501(b)(2), as well as the other applications addressed here, qualify for processing pursuant to 02Q .0504. The Permittee has requested the applications be processed pursuant to this rule. This rule requires that the Permittee file an amended

application following the procedures of Section 15A NCAC 02Q .0500 within one year from the date of commencing operation of the melter of the furnace (ID No. GF-1) after the modifications described in application no. 9800155.20A. A condition will be placed into the permit to this effect.

The permit condition will also require the Permittee to notify the Regional Office in writing of the date of commencing operation of the melter of the furnace (ID No. GF-1) after the modifications described in application no. 9800155.20A, postmarked no later than 30 days after such date.

15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, SUBPART SSSSSS - "National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources

This furnace has not triggered the requirements of this regulation as it has not begun to use the targeted HAP containing materials. However, as discussed, the facility is now categorized as a HAP major source and hence this rule has no potential applicability to either GF-1 or GF-2.

The permit condition addressing this rule for both furnaces will be removed from the permit.

15A NCAC 02D .1112: 112(G) CASE BY CASE MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

The permittee has provided the following explanation as to why 112(G) does not apply to the facility as result of becoming a major source.

The applicability definition for this rule states:

> *This Rule applies to the construction or reconstruction of major sources of hazardous air pollutants unless:*
> *(1) the major source has been regulated or exempted from regulation pursuant to:*
> *(A) 15A NCAC 02D .1109 or.1111; or*
> *(B) a standard issued pursuant to Section 112(d), 112(h), or 112(j) of the federal Clean Air Act and incorporated in another Subpart of 40 CFR Part 63;*

No regulation has been promulgated for glass manufacturing major sources of HAPs. Furthermore, the Wilson facility began construction prior to the July 1998 applicability date. Since that date, the source does not meet the definition of "reconstruct a major source" as defined in 15A NCAC 02D .1112(c)(14). The definition states:

> *The replacement of components at an existing process or production unit that emits or has that potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP...*

Furnace #28 and Furnace #29 are individual production units that satisfy the definition of "process or production unit" as defined in 15A NCAC 02D .1112(c)(13) and provided below:

> *Any collection of structures and/or equipment, that processes assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product A single facility may contain more than one process or production unit.*

Both furnaces use material inputs to produce a final product (glass). Individually, Furnace #28 and Furnace #29 do not in and of themselves emit more than 10 tons per year of any HAP or 25 tons per year of any combination of HAPs. A summary of the individual and total HAPs produced by each furnace is included in Appendix C.

In this situation, this engineer finds the salient points to be the facts that both furnaces underwent construction prior to July 1, 1998, each furnace is not HAP major by itself, and neither furnace has undergone reconstruction since July 1, 1998. This engineer concurs that this rule does not apply.

Facility Wide Affected Sources

STATE ENFORCEABLE ONLY

15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

This rule requires the Permittee to not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary. This requirement is already included in the permit. This enforcement of this rule is generally complaint driven. It is unlikely that the modifications made pursuant to this application will result in any off-site odor issues. Continued compliance is expected.

STATE ENFORCEABLE ONLY

15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

As discussed in section III above the Permittee has submitted two "final" modeling analyses.
The first was associated with the newly documented emission rates of HCL and HF. This new modeling was foreshadowed in the existing permit condition 2.2 B.2.b which states:

> *b. The toxic air pollutant emission limits are calculated as described in the Air Permit Review document for Permit No. 03713T34. The modeled impacts (which include the contribution of the GF-2 melter) were memorialized in a DAQ memo dated December 15, 2014. If the Permittee determines through subsequent source testing that any of the emission factors are greater than those included in this analysis, the Permittee shall submit a written notification with the new emission factor. The DAQ will then reevaluate compliance with the respective AALs under 15A NCAC 02D .1100. The emission limits may be revised administratively pending DAQ review. No other monitoring, recordkeeping and reporting requirements apply.*

This modeling was reviewed and the results memorialized in a memo from the AQAB issued on November 12, 2019 as follows:

Maximum Impacts - Ardagh Glass Inc. – Wilson Facility
Wilson, Wilson County, North Carolina

Pollutant	Averaging Period	Max. Conc. ($\mu g/m^3$)	AAL ($\mu g/m^3$)	% of AAL
HCl	1-hour	250	700	36 %
HF	1-hour	3.44	250	1 %
	24-hour	1.68	30	6 %

The second modeling analysis was a revised facility-wide modeling analysis conducted in part to permit condition 2.2 B.2.c which states:

> *c. The Permittee shall submit a permit application to comply with 15A NCAC 02D .1100 prior to operating Furnace 28 (ID No. GF-1) at a rate exceeding 550 tpd.*

Additionally, with the revised HCL and HF emissions estimates, the facility became a HAP major source. As a HAP major source, the facility was no longer subject to GACT 6S. Since no major source MACTs apply to these emission sources, furnace (ID No. GF-2), no longer met the criteria for its exemption from the toxics rules at 15A NCAC 02Q .0702. Thus, the Permittee chose to update the 02D .1100 modeling condition on a facility-wide basis.

The Permittee included all sources of TAP emissions in the demonstration, even those engines that qualified for exemption under 15A NCAC 02Q .0702.

The following table 5-1 is included in the application and provides a cross-reference from the sources descriptions to the ID Nos. used in the modeling program (AERMOD).

Table 5-1. Modeled Source Types and Locations

AERMOD ID	Source Type	Source Description	Source Location		Base Elevation
			UTM-E (m)	UTM-N (m)	(m)
EG1	Point	Emergency Generator #1	239,290.70	3,961,319.20	40.11
EG2	Point	Emergency Generator #2	239,298.50	3,961,319.40	40.52
GF1	Point	Glass Furnace #28	239,285.80	3,961,300.00	39.87
GF2	Point	Glass Furnace #29	239,286.00	3,961,263.10	39.87
F11	Point	Furnace 28 Roof Vent Psuedo Pt 1	239,301.60	3,961,307.80	39.87
F12	Point	Furnace 28 Roof Vent Psuedo Pt 2	239,316.60	3,961,307.60	39.87
F13	Point	Furnace 28 Roof Vent Psuedo Pt 3	239,332.20	3,961,307.40	39.87
F21	Point	Furnace 28 Roof Vent Psuedo Pt 4	239,301.20	3,961,291.80	39.87
F22	Point	Furnace 28 Roof Vent Psuedo Pt 5	239,316.60	3,961,291.10	39.87
F23	Point	Furnace 28 Roof Vent Psuedo Pt 6	239,332.70	3,961,291.80	39.87
F31	Point	Furnace 29 Roof Vent Psuedo Pt 1	239,300.80	3,961,270.70	39.87
F32	Point	Furnace 29 Roof Vent Psuedo Pt 2	239,316.40	3,961,270.70	39.87
F33	Point	Furnace 29 Roof Vent Psuedo Pt 3	239,332.70	3,961,271.20	39.87
F41	Point	Furnace 29 Roof Vent Psuedo Pt 4	239,300.80	3,961,254.10	39.87
F42	Point	Furnace 29 Roof Vent Psuedo Pt 5	239,316.60	3,961,254.70	39.87
F43	Point	Furnace 29 Roof Vent Psuedo Pt 6	239,333.10	3,961,254.50	39.87
L11	Point	Lehr Roof Vent Psuedo Point 1	239,341.20	3,961,299.90	39.87
L12	Point	Lehr Roof Vent Psuedo Point 2	239,353.90	3,961,299.90	39.87
L13	Point	Lehr Roof Vent Psuedo Point 3	239,367.60	3,961,299.50	39.87
L21	Point	Lehr Roof Vent Psuedo Point 4	239,341.00	3,961,262.80	39.87
L22	Point	Lehr Roof Vent Psuedo Point 5	239,354.30	3,961,263.00	39.87
L23	Point	Lehr Roof Vent Psuedo Point 6	239,367.60	3,961,262.80	39.87
FP1	Horizontal Point	Fire Pump Engine #1	239,218.30	3.961.222.20	38.56

Note:
Furnace roof vent sources include emissions from the mold preheat ovens.
Lehr roof vent sources include emissions from the annealing lehrs, forehearths and distributors, space heaters, and hot end treatment.

The following table shows the emission rates used in the model.

	Toxic Air Pollutant Emission Rate (lb/hr)											
Source	Ammonia	Arsenic	Benzene	Beryllium	Cadmium	Chromium VI	Soluble Chromium Compounds	Formaldehyde	Flourides	Mercury	Nickel	Sulfuric Acid
												Horizontal Point Sources
FP1	7.59E-03		1.20E-03					1.51E-03				
												Point Sources
EG1	2.43E-02		5.24E-06					4.84E-03				
EG2	2.43E-02		5.24E-06					4.84E-03				
GF1	5.33E-01	4.91E-03	1.83E-03	6.57E-04	3.48E-03		5.21E-04	3.20E-02	0.15	3.84E-04	5.29E-02	8.99
GF2	5.81E-01	4.51E-03	2.00E-03	6.38E-04	3.14E-03	1.55E-03	5.67E-04	3.48E-02	0.39	3.97E-04	5.74E-02	9.40
F11	4.10E-04		2.69E-07					9.61E-06				
F12	4.10E-04		2.69E-07					9.61E-06				
F13	4.10E-04		2.69E-07					9.61E-06				
F21	4.10E-04		2.69E-07					9.61E-06				
F22	4.10E-04		2.69E-07					9.61E-06				
F23	4.10E-04		2.69E-07					9.61E-06				
F31	4.10E-04		2.69E-07					9.61E-06				
F32	4.10E-04		2.69E-07					9.61E-06				
F33	4.10E-04		2.69E-07					9.61E-06				
F41	4.10E-04		2.69E-07					9.61E-06				
F42	4.10E-04		2.69E-07					9.61E-06				
F43	4.10E-04		2.69E-07					9.61E-06				
L11	2.60E-02		1.71E-05	8.70E-07	8.70E-07			6.10E-04		8.70E-07	8.70E-07	
L12	2.60E-02		1.71E-05	8.70E-07	8.70E-07			6.10E-04		8.70E-07	8.70E-07	
L13	2.60E-02		1.71E-05	8.70E-07	8.70E-07			6.10E-04		8.70E-07	8.70E-07	
L21	2.60E-02		1.71E-05	8.70E-07	8.70E-07			6.10E-04		8.70E-07	8.70E-07	
L22	2.60E-02		1.71E-05	8.70E-07	8.70E-07			6.10E-04		8.70E-07	8.70E-07	
L23	2.60E-02		1.71E-05	8.70E-07	8.70E-07			6.10E-04		8.70E-07	8.70E-07	

On June 08, 2020, the consultant revised the emission rates for H2SO4, which is only emitted from the furnace melters. Those rates are:
GF-1: 8.99 lb/hr
GF-2 9.4 lb/hr
The table above includes the revised rates.

The emissions modeled from each furnace melter, refiner and forehearth are based on potential emission estimates, based off of AP-42 emission factors or source specific stack tests. All other sources except the RICE are also based off of potential emission estimates and AP-42 emission factors.

The Permittee has provided the following discussion to describe the emission estimates from the three RICE that are on site.

> *According to 15A NCAC 02Q .702(a)(27)(B), a compliance demonstration is not required for an affected source under 40 CFR Part 63. The following sources at the Wilson facility are affected sources under 40 CFR Part 63: IS-EG1 and IS-EG2 (40 CFR Part 63, Subpart ZZZZ) IS-FP1 (40 CFR Part 63, Subpart ZZZZ). Though these sources may be excluded from the TAP compliance demonstration, Session Law 2012-91 requires North Carolina Division of Air Quality (NC DAQ) to demonstrate that emissions from these sources do not pose an unacceptable risk to human health. To assist NC DAQ in its determination that there is no unacceptable risk to human health from the facility's TAP emissions, AGI has included emissions from the 40 CFR Part 63 affected sources in the evaluation. In the 2014 TAP compliance demonstration for these pollutants, AGI reviewed the most recent three years of available emissions data for each of the Part 63 affected sources and selected the maximum emissions during the three year period. The emergency generators (IS-EG1 and IS-EG2) were included in that analysis and have not been modified since. As a result, the actual emission rates previously determined for these sources are used in this demonstration. The emergency fire pump (IS-FP1) was constructed after the 2014 compliance demonstration. The potential emission rates from this engine are conservatively included in this compliance demonstration to demonstrate that there is no unacceptable risk to human health from this source.*

This modeling was reviewed and the results memorialized in a memo from the AQAB issued on July 1, 2020 as follows:

Table 1.
Maximum Modeled Impacts
AGI, Wilson, NC

Pollutant	Averaging Period	AAL ($\mu g/m^3$)	Maximum Modeled Impacts % of AAL
Ammonia	1-hour	2,700	1.07 %
Arsenic	Annual	2.10E-03	18.57 %
Benzene	Annual	0.12	4.12 %
Beryllium	Annual	0.0041	1.46 %
Cadmium	Annual	0.0055	5.09 %
Chromium VI	Annual	8.30E-05	36.14 %
Fluorides	1-hour	250	0.32 %
	24-hour	16	1.74 %
Formaldehyde	1-hour	150	0.70 %
Mercury	24-hour	0.6	0.08 %
Nickel	24-hour	6	1.07 %
Soluble Chromate	24-hour	0.62	0.10 %
Sulfuric Acid	1-hour	100	25.38 %
	24-hour	12	90.08 %

Given the margin of compliance with each AAL and since the major sources of TAPs were either modeled at their potential emission rate or greater, no ongoing monitoring, recordkeeping and reporting is necessary.

Global Consent Decree (GCD)

Ardagh (previously Saint Gobain Containers,) entered into a Global Consent Decree (GCD) with the United States Environmental Protection Agency (EPA), DENR and other state agencies. The Date of Entry of this Consent Decree is May 7, 2010. Pursuant to the GCD, SGCI is subject to numerous requirements, which are found in Section 2.2 A.2, 2.2 A.3 and 2.3 of the permit. Most of the milestones under the GCD have passed and the facility now operates with SO2,

NOx, H2SO4 and PM limits imposed under the authority of the GCD. No substantive changes are necessary to the permit conditions addressing the GCD except as explained below.

V. Permitting history since last renewal

NA

VI. NSPS, NESHAPS, PSD, Toxics, Attainment Status, 112(r), and CAM

NSPS

Implications of the modifications with respect to NSPS Subpart CC applicability is discussed in Section IV.
The modification has no implications with respect to any other NSPS affected sources, namely the three insignificant engines (ID Nos. IS-ES-EG1, EG-2 and -FP1), which are subject to NSPS IIII.

NESHAP/MACT

The facility is currently a minor source of HAP. Upon permit issuance it will be categorized as a major source of HAP. No major source NESHAPS apply to this category of glass furnaces. The Permittee also demonstrated that 112(G) does not apply.

MACT ZZZZ applies to the three the three insignificant engines (ID Nos. IS-ES-EG1, EG-2 and -FP1. Pursuant to 63.6595(b)(2):

> *Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.*

The requirements for insignificant sources are beyond the scope of this review.

PSD

Wilson County is in attainment for all pollutants. The facility is a PSD major source. The facility currently has three 02D .0530(u) recordkeeping conditions to demonstrate that certain modifications have not triggered PSD review. One will be removed during this renewal. See discussion in Section IV.

CAM

CAM review is not applicable to this modification.

112r

The Permittee is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in 112(r).

Toxics

See discussion in Section IV.

VII. Compliance History

Based on the most recent compliance inspection report issued by Dawn Reddix for the inspection conducted on March 03, 2020, Ardagh appeared to be operating in compliance with all permit requirements. The following discussion is excerpted from that report. Note none of these actions occurred in the previous 5 years.

> ***ENFORCEMENT HISTORY:*** *Ardagh has been issued four Notices of Violation (NOV) as identified in the Violations Module of I Beam. On November 3, 2011, an NOV was issued for late submittal of a stack test report. On July 19, 2010, an NOV was issued for late submittal of annual emissions inventory for calendar year 2009. On October 25, 2007, an NOV was issued for late submittal of EPA's copy of the 2007 annual compliance certification report. On March 9, 2006, an NOV was issued for failing to submit a 2005 annual compliance certification, a 2H'05 semiannual report, and a 4Q'15 quarterly report. No civil penalties have been assessed against the facility for any of the violations listed above.*

However, on June 12, 2020 the facility was issued an NOV/NRE for a violation of NSPS Subpart CC at Section 2.1.B.3.d. As this is very recent no further additional information is available at this time.

VIII. Changes Implemented in Revised Permit

Existing Condition No.	New Condition No.	Changes
Cover Letter	Cover Letter	1. Used current shell language, updated responsible office, permit numbers, dates, etc.
Permit page one	Same	2. Revised dates, permit numbers, etc. using current shell standards
Insignificant activities list	Same	. For IS-EG1, EG2 and IS-FP1, revised GACT ZZZZ to MACT ZZZZ. The facility has three years to comply with the revised requirements.
Section 1 – Permitted Equipment list	Same	For the furnace (ID No. GF-1): 4. updated the heat input for the distributor from 3.26 to 2.86 million Btu per hour updated the heat input for the forehearths from 12.02 to 12.41 million Btu per hour 5. Remove the five peak shaving generators (ES-07 through ES-11) at the request of the Permittee 6. Added TV permit application requirement to GF-1 For the furnace (ID No. GF-2): 7. Removed "GACT 6S" identifier
Section 2.1 emission source description	Same	For the furnace (ID No. GF-1): 8. updated the heat input for the distributor from 3.26 to 2.86 million Btu per hour 9. updated the heat input for the forehearths from 12.02 to 12.41 million Btu per hour
Section 2.1 A Applicable Regulations Table	Same	10. Removed reference to 02D .0530(u) condition for application nos. (9800155.09B, 9800155.10B and 9800155.11B). The condition was removed during the previous permit modification as it no longer applied. This is simply a correction. 11. Added reference to the new 02D .0530(u) condition 12. Added reference to the new 02Q .0504 condition 13. Corrected reference to the 02D .1806 odor rule condition from 2.2 B.2 to 2.2 B.1 14. Corrected reference to the 02D .1100 toxics rule condition from 2.2 B.3 to 2.2 B.2 15. Removed reference to Section 2.2 A.1 (02D .1111, GACT 6S) condition as it no longer applies to this HAP major facility and the condition was removed 16. Removed reference to application no 9800155.14B from the 02D .0530(u) condition
2.1 A.5	same	17. Removed reference to application no 9800155.14B from the 02D .0530(u) condition as the project was not completed and there are no plans to complete it.
NA	2.1 A.6	18. Added new 02D .0530(u) condition for the proposed project
	2.1 A.7	19. Added a 02Q .0504 condition that includes requirements for the subsequent submittal of a TV application and the notification of recommencing operation after the modification

Existing Condition No.	New Condition No.	Changes
Section 2.1 B Applicable Regulations Table	Same	20. Removed reference to Section 2.2 A.1 (02D .1111, GACT 6S) condition as it no longer applies to this HAP major facility and the condition was removed 21. Removed reference to 02D .0530(u) 22. Added reference to 02D .1100 limits in section 2.2 B.2
Section 2.1 B.5	NA	23. The 02D .0530(u) condition was removed as the requirements under 02D .0530(u) have been satisfied.
Section 2.1 C	RESERVED	24. Removed all requirements for the five peak shaving generators from the permit. 25. Substituted RESERVED to avoid revising the numbering conventions in other existing permit conditions.
Section 2.2 A.1	RESERVED	26. Removed 02D .1111 (GACT 6S) condition as it no longer applies to this HAP major facility 27. Substituted RESERVED to avoid revising the numbering conventions in other existing permit conditions.
Section 2.2 B.2	Same	28. Revised this condition completely to incorporate the allowable emissions for two new facility-wide analyses.
Section 3 General Conditions	Same	Section was revised from version 5.1(08/03/2017) to version 5.3, 08/21/2018. Changes include: 29. Condition K – revise the phrase "submitted at least nine months before" to "submitted at least six months before" 30. Condition Y – fix typographical spacing error 31. Condition BB - correct regulatory reference from 02Q .0507(d)(4) to (d)(3) 32. Condition CC – correct regulatory reference from 02Q .0501(e) to (d) 33. Condition NN – correct regulatory references from 02Q .0501(c)(2) to (b)(2) in paragraph 1. and from 02Q .0501(d)(2) to (c)(2) in paragraph 2.
Attachment - List of Acronyms	Same	34. Revised AOS to mean Alternative Operating Scenario

IX. Public Notice/EPA and Affected State(s) Review

NA

X. Recommendations

Issue permit no. 03713T38

Attachment A

502-b-10 notification received 04/10/2018