

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Issue Date: DRAFT

Region: Mooresville Regional Office
County: Cabarrus
NC Facility ID: 1300117
Inspector's Name: Seth Hall
Date of Last Inspection: 11/01/2022
Compliance Code: 3 / Compliance - inspection

Facility Data	Permit Applicability (this application only)
<p>Applicant (Facility's Name): Corning Incorporated</p> <p>Facility Address: Corning Incorporated 14556 Highway 601 South Midland, NC 28107</p> <p>SIC: 3229 / Pressed and Blown Glass, Nec NAICS: 327212 / Other Pressed and Blown Glass and Glassware Manufacturing</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p>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</p>

Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	<p>Application Number: 1300117.23A Date Received: 04/10/2023 Application Type: Modification Application Schedule: TV-Sign-501(b)(2) Part II Existing Permit Data Existing Permit Number: 08436/T22 Existing Permit Issue Date: 02/09/2023 Existing Permit Expiration Date: 05/31/2024</p>
Tim Haley Environmental Engineer (704) 569-7677 14556 Highway 601 South Midland, NC 28107	Don Hefner Plant Manager (704) 569-6041 14556 Highway 601 South Midland, NC 28107	Tim Haley Environmental Engineer (704) 569-7677 14556 Highway 601 South Midland, NC 28107	

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2021	0.0800	365.31	34.94	4.46	84.49	10.14	5.92 [Hydrogen chloride (hydrochlori)]
2020	0.0600	325.94	30.58	3.94	77.96	8.50	5.48 [Hydrogen chloride (hydrochlori)]
2019	0.0800	345.62	41.20	4.66	95.39	9.97	6.41 [Hydrogen chloride (hydrochlori)]
2018	0.1000	377.58	37.50	4.81	103.66	9.24	5.86 [Hydrogen chloride (hydrochlori)]
2017	0.0700	362.32	35.98	4.25	91.13	7.73	4.84 [Hydrogen chloride (hydrochlori)]

<p>Review Engineer: Connie Horne</p> <p>Review Engineer's Signature: _____ Date: DRAFT</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue 08436/T23 Permit Issue Date: DRAFT Permit Expiration Date: May 31, 2024</p>
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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 significant 501(b)(2) Part I permit (1300117.22A) on November 7, 2022. The Part I permit was issued on February 9, 2023 and included the following permit modifications.

- Removed three emergency generators (ID Nos. ES-C-PG2b, ES-C-PG2c and ES-C-PG2d). ES-C-PG2b and ES-C-PG2c had been removed from the site prior to the submittal of the Part I application in October 2022. These generators are being replaced by Duke Energy-owned and operated emergency generators of a similar size. Corning has no ownership of these two new emergency generators and the operation of the emergency generators is solely the responsibility of Duke Energy. ES-C-PG2d was never built.
- Removed outdated regulations for other generators.
- The requested changes required updated dispersion modeling based upon the current EPA and DAQ guidance to determine that all emergency generators within the facility's property boundaries, including those owned by Duke Energy, can operate together and demonstrate compliance with the National Ambient Air Quality Standard (NAAQS).

On April 10, 2023, DAQ received this Part II application (1300117.23A) from Corning Incorporated to complete the process to include the above-listed changes. The technical review for the Part I application (1300117.22A) is attached to this document.

2. Facility Description

The facility is an optical waveguide manufacturing plant, classified under the Standard Industrial Classification (SIC) Code 3229 "Pressed and Blown Glass and Glassware, Not Elsewhere Classified". It makes optical fibers, which are typically used across the network equipment and semiconductor equipment markets.

3. Application Chronology

April 10, 2023	Part II application received
April 13, 2023	Sent acknowledgment letter. Application complete.
April 21, 2023	Draft to applicant and regional office
April XX, 2023	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 (08436T22):*

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

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.

5. Other Requirements

- An application fee was not required for this application as \$7210 was paid for the Part I application on 11/10/22.
- The appropriate number of application copies was received on 04/10/23.
- The application was signed by Mr. Don Hefner, Plant Manager on 04/05/23 as the Responsible Official.
- Cabarrus County has triggered increment tracking under PSD for PM₁₀ and SO₂. Any increment changes associated with this modification were addressed in the Part I permit (No. 08436T22).
- 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 November 1, 2022 by Seth Hall of the Mooresville Regional Office. According to Mr. Hall's report, Corning Incorporated "appeared to be in compliance with all applicable air quality regulations at the time of inspection."

8. Conclusions, Comments and Recommendations

The issuance of Air Quality Permit No. 08426T23 to Corning Incorporated is recommended.

Application Review

Issue Date: February 9, 2023

Region: Mooresville Regional Office
County: Cabarrus
NC Facility ID: 1300117
Inspector's Name: Seth Hall
Date of Last Inspection: 11/01/2022
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): Corning Incorporated</p> <p>Facility Address: Corning Incorporated 14556 Highway 601 South Midland, NC 28107</p> <p>SIC: 3229 / Pressed And Blown Glass, Nec NAICS: 327212 / Other Pressed and Blown Glass and Glassware Manufacturing</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: 02D .0516, .0521, .0524, 0530, and .1111 NSPS: 40 CFR Subparts IIII NESHAP: 40 CFR Subpart ZZZZ PSD: 02D .0530, 02D .0530(g) PSD Avoidance: N/A NC Toxics: NA 112(r): NA Other: NA</p>
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<p style="text-align: center;">Facility Contact</p> <p>Tim Haley Environmental Engineer (704) 569-7677 14556 Highway 601 South Midland, NC 28107</p>	<p style="text-align: center;">Authorized Contact</p> <p>Don Hefner Plant Manager (704) 569-6041 14556 Highway 601 South Midland, NC 28107</p>	<p style="text-align: center;">Technical Contact</p> <p>Tim Haley Environmental Engineer (704) 569-7677 14556 Highway 601 South Midland, NC 28107</p>	<p>Application Number: 1300117.22A Date Received: 11/07/2022 Application Type: Modification Application Schedule: TV-Sign-501(b)(2) Part I Existing Permit Data Existing Permit Number: 08436/T21 Existing Permit Issue Date: 04/29/2020 Existing Permit Expiration Date: 05/31/2024</p>

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2021	0.0800	365.31	34.94	4.46	84.49	10.14	5.92 [Hydrogen chloride (hydrochlori)]
2020	0.0600	325.94	30.58	3.94	77.96	8.50	5.48 [Hydrogen chloride (hydrochlori)]
2019	0.0800	345.62	41.20	4.66	95.39	9.97	6.41 [Hydrogen chloride (hydrochlori)]
2018	0.1000	377.58	37.50	4.81	103.66	9.24	5.86 [Hydrogen chloride (hydrochlori)]
2017	0.0700	362.32	35.98	4.25	91.13	7.73	4.84 [Hydrogen chloride (hydrochlori)]

<p>Review Engineer: Richard Simpson</p> <p>Review Engineer's Signature: _____ Date: _____</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue 08436/T22 Permit Issue Date: February 9, 2023 Permit Expiration Date: May 31, 2024</p>
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I. Introduction/Description:

Corning Incorporated (Corning) currently holds Title V Permit No. 08436T21 with an expiration date of May 31, 2024 in Midland, Cabarrus County, North Carolina. This facility consists of optical fiber manufacturing lines using raw materials and natural gas burners for the production of optical fiber.

II. Purpose of Application

Permit application No. 1300117.22A was received on October 7, 2022. A payment was received on October 10, 2022, and deemed complete on that date for a first step significant modification (15A NCAC 02Q .0501(b)(2)) of your Title V permit. Corning is submitting this application requesting to remove three emergency generators (EGs) and remove outdated regulations for other generators. There is no construction, there are no new sources, and this is not considered a plant expansion. The request change does require updated dispersion modeling that is based on the current EPA and DAQ guidance. This permit action will address the following sources and control devices associated with the application:

Emergency generators (ID Nos. ES-C-PG2b, ES-C-PG2c and ES-C-PG2d) will be removed from the permit. These generators are being replaced by Duke Energy-owned and operated EGs of a similar size. The facility was required to submit dispersion modeling to determine that all EGs within the facility’s property boundaries can operate together and demonstrate compliance with the National Ambient Air Quality Standard (NAAQS).

III. History/Background/Application Chronology

April 29, 2020 – Permit 08436T21 was issued.

October 7-10, 2022 – Permit 1300117.22A was received for a Title V significant modification and a permit acknowledgement was sent to the facility.

November 1, 2022 – The facility was inspected by MRO engineer Seth Hall and the facility appeared to operate in compliance with all applicable regulations and permit conditions at the time of the inspection.

February 3-8, 2023 – The facility, Mooresville Regional Office, and Stationary Compliance Section were requested by the Permitting Section to comment on the draft permit modification. Comments were received and included in the permit.

February 8, 2023– TVEE changes were approved by Jenny Sheppard TVEE Coordinator.

February 9, 2023 – Permit 08436T22 was issued.

IV. Permit Modifications/Changes and TVEE Discussion

The following changes were made to Air Permit No. 08436T21:*

Page No.	Section	Description of Changes
Cover and throughout	Throughout	Updated all tables, dates, and permit revision numbers. Permit was updated with the latest Permit Shell 7.0.
Throughout	Permit	Changed permit number, replaced permit number, effective date, application number, effective date of permit.
Attachment	Insignificant Activities	Moved to Section 3.

5, 15, 33	Sections 1, 2.1 D, 2.2 B.	Removed emergency generators ES-C-PC2b, ES-C-PC2c, and ES-C-PC2d. The sources have not been built and will be owned by Duke Energy. All applicable regulations for the sources were removed.
35 -37	Section 2.2 B.1.d and Section 2.2 B.1.q.	Any outdated regulations associated with generator readiness testing.
41-49	Section 4	The General Conditions were updated to the latest version of DAQ shell and moved to Section 4.
50	General Conditions	Moved List of Acronyms to page 3 of the permit.

*This list is not intended to be a detailed record of every change made to the permit but a summary of those changes. There were changes required to the Title V Equipment Editor (TVEE) under this Title V modification application.

V. Statement of Compliance

Five-year compliance history

The facility was issued a Notice of Violation and Recommendation for Enforcement (NOV/NRE) for one violation of Air Permit No. 08436T21, Specific Condition and Limitation No. 2.2 B.1 and 15A NCAC 02D .0530 Prevention of Significant Deterioration on April 29, 2021, for a failed stack test. A penalty of \$5,196 was assessed and paid in full on August 24, 2021.

An NOD was issued on December 9, 2021, for failure to submit the initial notification for two emergency generators in accordance with NESHAP ZZZZ.

During the most recent inspection conducted on November 1, 2022, Seth Hall of the MRO indicated that the facility appeared to operate in compliance with all applicable regulations and permit conditions at the time of inspection.

VI. Application Description

There were no new changes to the emission sources, control devices, monitoring equipment, and potential emissions for this Title V permit modification application. The facility sent the following information about the proposed modification to update the facility's emergency generator situation:

On August 25, 2022, representatives from Corning Incorporated (Corning) and Trinity Consultants met DAQ staff regarding the current operating requirements for the emergency generators (EGs) as specified in Permit Condition No. 2.2.B.1.d. and other conditions. The permit conditions were developed based on specific DAQ dispersion modeling guidance at the time of issuance of the last permit, which required modeling full operation of the EGs at a maximum rate to determine compliance with the 1-hour National Ambient Air Quality Standard (NAAQS) for nitrogen dioxide (NO₂). This guidance was much more stringent than United States Environmental Protection Agency (EPA) guidance which acknowledges that modeling the temporary operation of emergency engines and other intermittent sources/operating scenarios would overestimate actual impacts as follows:

"However, the intermittent nature of the actual emissions associated with emergency generators and startup/shutdown in many cases, when coupled with the probabilistic form of the standard, could result in modeled impacts being significantly higher than actual impacts would realistically be expected to be for these emission scenarios." {U.S. EPA, Office of Air Quality Planning and

Standards, Memorandum from Mr. Tyler Fox to Regional Air Division Directors. Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO₂ National Ambient Air Quality Standard (March 1, 2011)}

As a result of the implications of including such an assumption in the modeling analysis, the EPA guidance provides that compliance demonstrations for the 1-hour NO₂ NAAQ should be based on emission scenarios that can logically be assumed to be relatively continuous or which occur frequently enough to contribute significantly to the annual distribution of daily maximum 1-hour concentrations.

In July 2020, DAQ's Air Quality Analysis Branch (AQAB) updated its PSD modeling guidance to be consistent with the EPA guidance for intermittent emission source modeling. Based on conversations during the August 25th meeting, DAQ requested that Corning conduct updated dispersion modeling that is based on the current EPA and DAQ guidance. Corning completed the requested dispersion modeling and determined that all EGs can operate together during any 24-hour period and demonstrate compliance with the NAAQs and PSD increment standards for all applicable pollutants from the original PSD application (See tables below).

Considering the results of the updated modeling analysis, the facility requested:

1. the complete removal of Condition No. 2.2.B.1.d. from the permit.
2. the removal of the time of day and provision that only one EG can operate at a time in Condition No. 2.2.B.1.i. (Note: The 500 hours per 12-month period can also be removed as there is no limit on emergency operation in the underlying regulation. The 500 hours is only used to establish potential emissions for PSD and Title V purposes. Thus, the entire condition can be removed.); and
3. the complete removal of Condition No. 2.2.B.1.q. from the permit.

To update the permit consistent with current DAQ permitting/modeling guidance, the facility opted for a two-step significant permit modification. There is no construction, no new sources, and no plant expansions, and a consistency determination is not required for the application.

Since the requested actions require a significant Title V permit modification, Corning also requested that EG ID Nos. (ES-C-PG2b, ES-C-PG2c and ES-C-PG2d) be removed from the permit. Corning removed two EGs: ID Nos. (ES-C-PG2b and ES-C-PG2c). These generators are being replaced by Duke Energy-owned and operated EGs of a similar size. Corning has no ownership of these two new EGs and the operation of the EGs is solely the responsibility of Duke Energy. ES-C-PG2d has never been built at the site. However, under our current mode of EG operation and agreement with Duke Energy, this EG, when built, would be under the ownership of Duke Energy and would be operated by Duke Energy.

Revised Modeling Tables Submitted by Corning

Table A-1. Modeled NO₂ Emission Rates

Source ID	Modeled SIL/NAAQS Emission Rates (g/s)	
	NO _x - Hourly	NO _x - Annual
EP1	9.572E+00	5.314E+00
EP2	2.102E+01	1.250E+01
EP3	1.149E+01	6.377E+00
PG1A	5.066E-01	5.066E-01
PG1B	5.066E-01	5.066E-01
PG2A	3.192E-01	3.192E-01
PG2B	2.109E-01	2.109E-01
PG2C	2.109E-01	2.109E-01
PG2D	2.109E-01	2.109E-01
FP1	4.080E-02	4.080E-02
FP2	4.080E-02	4.080E-02
HB1A1B	6.201E-02	6.201E-02
HB2A2B	1.034E-01	1.034E-01

Table A-2. NO₂ NAAQS Results

Pollutant	Averaging Period	UTM-E (m)	UTM-N (m)	Date/Time	Modeled Concentration (µg/m ³)	Background Concentration ¹ (µg/m ³)	Total Concentration (µg/m ³)	NAAQS (µg/m ³)	Exceeds NAAQS? ² (Yes/No)
NO ₂	1-Hour	544,000.0	3,897,700.0	2016-2020	101.76	15.30	117.06	188	No
	Annual	543,557.2	3,896,872.2	2016	21.96	2.24	24.20	100	No

¹ Background Concentrations provided in email from Matthew Porter (NCDAQ) to Jon Hill (Trinity) on November 26, 2018.

Table A-3. NO₂ Increment Results

Pollutant	Averaging Period	UTM-E (m)	UTM-N (m)	Date/Time	Modeled Concentration (µg/m ³)	Increment (µg/m ³)	Exceeds Increment? (Yes/No)
NO ₂	Annual	543,557.2	3,896,872.2	2016	21.96	25	No

Corning’s modeling analysis was received on February 7, 2022. AQAB reviewed and approved by the AQAB on February 8, 2023. The submitted modeling demonstrates compliance with the 1-hour and annual NO₂ National Ambient Air Quality Standards (NAAQS) and the annual NO₂ PSD Increment when testing the engines without restriction. Placement of the emission sources, configuration of the

emission points, and operation of the sources shall be in accordance with the submitted dispersion modeling analysis and should reflect any changes from the original analysis submittal as outlined in the AQAB review memo. Below is a summary of AQAB analysis.

NO₂ was evaluated using AERMOD (22112) with five years (2013-2017) of surface meteorological data from Charlotte, NC and upper air data from Greensboro, NC. The emergency generator NO₂ emissions rates were averaged based on 500 hours of operation per year. Corning selected the plume volume molar ratio method (PVMRM) modeling option to refine 1-hour and annual NO₂ cumulative impacts predicted with AERMOD. Direction-specific building dimensions, determined using EPA’s BPIP-Prime program (04274), were used as input to the model for building wake effect determination. EPA’s AERMAP terrain processor was used to determine elevations. Receptors were spaced at 100-meters from the facility’s property line out to about 1 km. Additional receptors were spaced at 25-meter intervals out around the property line and the maximum receptor.

Representative background 1-hour and annual NO₂ concentrations were developed from Blackstone site (AQS Site ID 37-119-41) located in Lee County covering the period 2015-2017. The AQAB discussed available background concentration data with Trinity via emails exchanged November 28 through December 3, 2018. The Blackstone data was deemed conservatively representative of the project site based on the monitoring station’s similar rural locale and exposure to non-point sources. The 3-year dataset from Blackstone was reduced to the average annual 1-hour daily 7th high for the 1-hour NO₂ modeling demonstration (i.e., 8.13 ppb or 15.3 µg/m³). The annual background design value was based on the most recent 2017 annual arithmetic mean concentration (i.e., 1.19 ppb or 2.24 µg/m³). In summary, 1-hour and annual background concentrations were added to the modeled 1-hour and annual NO₂ concentrations predicted by AERMOD to determine cumulative impacts across the 5-year modeling period. Results of the 1-hour and annual NO₂ NAAQS cumulative impact analyses and the annual PSD Increment are presented in the following table:

NO₂ NAAQS Impact Analysis Results (µg/m³)

Pollutant	Averaging Period	Model Design Value Criteria	Model Concentration	Monitor Background Concentration	Total Concentration	NAAQS
NO ₂	1-hour	Maximum 8 th -highest Max Daily 1-hour Value Averaged Over 5 Years	101.76	15.30	117.06	188
	Annual	Maximum Annual Average of 5 Years	21.96	2.24	24.20	100

NO₂ Increment Analysis Results (µg/m³)

Pollutant	Averaging Period	Model Design Value Criteria	Model Concentration	Increment
NO ₂	Annual	Maximum Annual Average of 5 Years	21.96	25

VII. Regulatory Review/Equipment Changes

The facility is currently subject to the following regulations:

- A. 15A NCAC 02D .0515: “Particulates from Miscellaneous Industrial Processes”
- B. 15A NCAC 02D .0516: “Sulfur Dioxide Emissions from Combustion Sources”
- C. 15A NCAC 02D .0521: “Control of Visible Emissions”
- D. 15A NCAC 02D .0524: “New Source Performance Standards (40 CFR 60, Subpart IIII)”
- E. 15A NCAC 02D .0614: “Compliance Assurance Monitoring”
- F. 15A NCAC 02D .0958: “Work Practices for Sources of Volatile Organic Compounds”
- G. 15A NCAC 02D .1407 “Boilers and Indirect-Fired Process Heaters and 15A NCAC 02D .1414 Tune-Up Requirements”
- H. 15A NCAC 02D .1806: “Control and Prohibition of Odorous Emissions”
- I. 15A NCAC 02D .1100: “Toxic Air Pollutant Emissions Limitation and Reporting Requirements”
- J. 15A NCAC 02D .1111: “Maximum Achievable Control Technology” (40 CFR 63, Subpart DDDD)
- K. 15A NCAC 02D .1111: “Maximum Achievable Control Technology” (40 CFR 63, Subpart ZZZZ)”
- L. 15A NCAC 02D .1413: “Sources not otherwise Listed in this Section”
- M. 15A NCAC 02Q .0711: “Emission Rates Requiring a Permit”
- N. 15A NCAC 02Q .0317: to comply with this permit and avoid the applicability of 15A NCAC 02D .0530: “Prevention of Significant Deterioration”

For a discussion of MACT, CAM, and PSD requirements, see Section IX. There are no other regulatory changes associated with this modification. A detailed regulatory discussion is only for the applicable regulations and emissions sources directly related to this modification.

With the deletion of the three EGs (ID Nos. ES-C-PG2b, ES-C-PG2c and ES-C-PG2d), the following regulations were also deleted for the applicable sources:

- 15A NCAC 02D .0516: “Sulfur Dioxide Emissions from Combustion Sources”
- 15A NCAC 02D .0521: “Control of Visible Emissions”
- 15A NCAC 02D .0530: “Prevention of Significant Deterioration”
- 15A NCAC 02D .0524: “New Source Performance Standards (40 CFR 60, Subpart IIII)”
- 15A NCAC 02D .1111: “Maximum Achievable Control Technology” (40 CFR 63, Subpart ZZZZ)”

VIII. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS

This facility is subject to New Source Performance Standards (NSPS), under 40 CFR Part 60. This permit modification does not affect this status.

- 40 CFR 60 Subpart IIII for Standards of Performance for Stationary Compression Ignition Internal Combustion Engines – This regulation applies to compression ignition engines manufactured or reconstructed after July 11, 2005. This regulation was deleted from these emission sources: ID Nos. ES-C-PG2b, ES-C-PG2c and ES-C-PG2d.

NESHAPS/MACT

This facility is NOT subject to the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63. Since there are no proposed changes to the permit, this permit modification does not trigger any additional NESHAP rules or requirements.

- 40 CFR 63, Subpart ZZZZ for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines – This regulation applies to stationary engines manufacture/reconstructed after July 12, 2006 at an area source of HAPs. This regulation was deleted from these emission sources: ID Nos. ES-C-PG2b, ES-C-PG2c and ES-C-PG2d. This permit modification does not affect this status.
- 40 CFR 63, Subpart DDDDD for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters – This regulation applies to the four natural gas-fired humidification boilers (ID Nos. ES-C-HB1a, ES-C-HB1b, ES-C-HB2a, and ES-C-HB2b). This permit modification does not affect this status.

PSD/BACT

The facility has several PSD Avoidance conditions in the permit limiting the emissions of nitrogen oxides, PM, PM10, PM2.5, VOC emissions. The facility shall comply with the following Best Available Control Technology (BACT) during all periods of operation including normal, start-up, shutdown, and malfunctions, pursuant to 15A NCAC 02D .0530(g). Except for the deletion of EG emission sources ID Nos. (ES-C-PG2b, ES-C-PG2c and ES-C-PG2d), there are no other changes to the PSD/BACT limits due to this modification. Per permit Section 2.2 B.1.b, the following table had these changes:

EMISSION SOURCE	REGULATED NSR POLLUTANT	BACT	CONTROL DESCRIPTION
ID Nos. ES-C-PG2b, ES-C-PG2c, and ES-C-PG2d	PM/PM ₁₀ /PM _{2.5}	0.17 g/HP-hr (both filterable and condensable) each, 3-run stack test average	Use of Tier 2 Certified Engine
ID Nos. ES-C-PG1a and ES-C-PG1b	NOx	10.9 g/HP-hr each, 3-run stack test average	-
ID No. ES-C-PG2a	NOx	6.86 g/HP-hr, 3-run stack test average	Use of Tier 1 Certified Engine
ID Nos. ES-C-PG2b, ES-C-PG2c, and ES-C-PG2d	NOx	4.53 g/HP-hr each, 3-run stack test average	Use of Tier 2 Certified Engine
ID Nos. ES-C-PG1a and ES-C-PG1b	VOCs	0.32 g/HP-hr each, 3-run stack test average	-
ID No. ES-C-PG2a	VOCs	0.97 g/HP-hr, 3-run stack test average	Use of Tier 1 Certified Engine
ID Nos. ES-C-PG2b, ES-C-PG2c, and ES-C-PG2d	VOCs	0.24 g/HP-hr each, 3-run stack test average	Use of Tier 2 Certified Engine

Deleted outdated regulation from permit 08436T21 Section 2.2 B 1.d. which was:
~~For conducting readiness testing, the Permittee shall be restricted to operating only one emergency generator/fire pump (ID Nos. ES-C-PG1a, ES-C-PG1b, ES-C-PG2a, ES-C-PG2b, ES-C-PG2c, ES-C-PG2d, IES-C-FPDT1, and IES-C-FPDT2) at any one time and only between the hours of 9 AM to 5 PM, pursuant to the requirements in 15A NCAC 02D .0530(g), specifically, compliance with National Ambient Air Quality Standards and PSD increments.~~

Deleted outdated regulatory section from permit 08436T21 Section 2.2 B 1.i. which was:

The Permittee shall keep records of operating hours for each month, and time and date for each readiness testing, for emergency generators and fire pumps (ID Nos. ES-C-PG1a, ES-C-PG1b, ES-C-PG2a, ~~ES-C-PG2b, ES-C-PG2c, ES-C-PG2d~~, IES-C-FPDT1, and IES-C-FPDT2). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if ~~any readiness testing occurs before 9 AM or after 5 PM, or readiness testing is conducted on more than one emergency generator/fire pump at any one time, or operating hours for any emergency generator/fire pump exceeds 500 hours per any rolling 12-month period, or these records are not kept.~~

Deleted outdated regulatory section from permit 08436T21 Section 2.2 B 1.p. which was:
~~No reporting shall be required for timings of readiness testing or operating hours for each emergency generators and fire pumps (ID Nos. ES-C-PG1a, ES-C-PG1b, ES-C-PG2a, ES-C-PG2b, ES-C-PG2c, ES-C-PG2d, IES-C-FPDT1, and IES-C-FPDT2) to ensure compliance with PM/PM₁₀/PM_{2.5}, NO_x, and VOC requirements in 15A NCAC 02D .0530.~~

112(r) – The facility is subject to Section 112(r) of the Clean Air Act requirements because it does store regulated substances in quantities above the thresholds in the Rule. The Permittee shall develop, implement and submit a Risk Management Plan to EPA pursuant to 40 CFR 68.150 as specified in 40 CFR 68.10. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .2100 if the Permittee does not develop, implement and submit a Risk Management Plan to EPA. This permit application does not affect this status.

CAM – 40 CFR 64 requires that a compliance assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the 100 tons/yr major source threshold and use a control device to meet an applicable standard. This facility has several sources subject to a CAM plan and one source (ES-C-SHP3) which has a CAM avoidance plan. The facility is expected to be in continued compliance. This permit application does not affect this status.

Attainment Status and Increments - As per 40 CFR 81.334 “Designation of Areas for Air Quality Planning Purposes” Cabarrus County is in attainment of the National Ambient Air Quality Standards (NAAQS). Cabarrus County has triggered increment under PSD for PM₁₀ and SO₂. However, this modification of your Title V permit does not consume or expand increments for any pollutants.

IX. Facility Wide Air Toxics (State-enforceable only)

North Carolina General Statute (NCGS) 143-215.107(a) was approved on June 28, 2012, and this Act exempts from State Air Toxics those sources of emissions that are subject to certain Federal emissions requirements under 40 CFR Part 61 (NESHAP), Part 63 (MACT). This statute was placed into the North Carolina State Air Toxics regulations on May 1, 2014, under Regulation 15A NCAC 02Q .0702(a)(27).

Pursuant to 15A NCAC 02Q .0700, the emission limits contained in the current permit shall not be exceeded. The facility will continue to comply with all requirements 15A NCAC 02Q .0700. There are no other unacceptable risk sources with this Title V permit modification and the current status of the facility is not affected.

X. Facility Emissions Review

The actual emissions from the annual reporting inventories are listed in the first page of this review.

XI. Other Regulatory Considerations

- A thirty-day public notice period and a forty-five-day EPA review period is not required for a first step significant modification (15A NCAC 02Q .0501(b)(2)) of the Title V permit.
- A fee for \$7,210.00 was required for this permit modification and ePayment was received on October 10, 2022.
- The appropriate number of application copies was received by the DAQ.
- A Professional Engineer's seal is not required for this application.
- A zoning consistency determination is not required for this application.
- The application was signed by Don Hefner, Plant Manger on November 6, 2022.

XII. Recommendations

The Title V permit modification application for Corning Incorporated Company in Midland, Cabarrus County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 08436T22.