NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date: Date needed

Region: Winston-Salem Regional Office
County: Guilford
NC Facility ID: 4100810
Inspector's Name: Robert Barker
Date of Last Inspection: 01/08/2025
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Thomas Built Buses – Fairfield Road

Facility Address:
Thomas Built Buses – Fairfield Road
715 West Fairfield Road
High Point, NC 27263

SIC: 3713 / Truck And Bus Bodies
NAICS: 336211 / Motor Vehicle Body Manufacturing

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

Permit Applicability (this application only)

SIP: 15A NCAC 02D .0503, .0515, .0516, .0521, .1111, .1806, and 15A NCAC 02Q .0317
NSPS: NA
NESHAP: 40 CFR 63 MMMM, PPPP, ZZZZ, and DDDDD
PSD: NA
PSD Avoidance: 15A NCAC 02Q .0317 for 15A NCAC 02D .0530
NC Toxics: NA
112(r): NA
Other: NA

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Scott Fister Environmental Engineering Supervisor II (336) 689-7323 1408 Courtesy Road High Point, NC 27260	Jeffrey Kevwitch Vice President of Operations (313) 408-4891 1408 Courtesy Road High Point, NC 27260	Scott Fister Environmental Engineering Supervisor II (336) 689-7323 1408 Courtesy Road High Point, NC 27260

Application Data

Application Number: 4100810.23A
Date Received: 08/01/2023
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 05727/T18
Existing Permit Issue Date: 07/27/2021
Existing Permit Expiration Date: 01/31/2024

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2023	0.0100	2.78	137.16	2.32	3.19	9.81	4.84 [Xylene (mixed isomers)]
2022	0.0100	2.39	90.23	2.00	2.18	7.71	5.18 [Xylene (mixed isomers)]
2021	0.0100	2.02	93.55	1.69	3.83	7.28	4.38 [Xylene (mixed isomers)]
2020	0.0100	1.73	99.50	1.44	2.28	7.78	5.20 [Xylene (mixed isomers)]
2019	0.0100	2.59	117.25	2.17	5.34	9.23	6.13 [Xylene (mixed isomers)]

Review Engineer: Luke Mayer

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

Comments / Recommendations:
Issue 05727/T19
Permit Issue Date: Date needed
Permit Expiration Date: Date needed

1. Purpose of Application

Thomas Built Buses currently holds Title V Permit No. 05727T18 with an expiration date of January 1, 2024, for a facility that manufactures buses, most of which are used as school buses, in High Point, Guilford County, North Carolina. This permit application is for a permit renewal without modification. The renewal application was received on August 1, 2023, or at least six months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

2. Facility Description

The facility is a complex consisting of three adjacent facilities, two of which make and assemble buses. Plants 2 and C2 are both located next to each other at 714 and 713 West Fairfield Road, respectively. Plant 9 is located across the road at 816 West Fairfield Road. Plant 2 takes buses that have been manufactured at the Courtesy Road facility and applies custom colors, white roofs, and undercoating according to customer specifications. At Plant C2, new buses are manufactured. Plant 9 is only used as a warehouse now. It should be noted that the spray booths, curing ovens, bonding operations, and cleaning operations at these plants are subject to 40 CFR Part 63, Subpart PPPP "NESHAP for Surface Coating of Plastic Parts and Products" and Subpart MMMM "NESHAP for Surface Coating of Miscellaneous Metal Parts and Products."

Bus painting and finishing operations at Plant 2 are conducted using the following units:

- double dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB1)**
- double dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB2)**
- dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB3)**
- dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB4)**
- dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB5)**
- dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB6)**
- dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB7)**
- double dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB8)**
- double dry filter-type spray booth (Plant 2-Building 3) **(ID No. SB9)**
- undercoat spray booth (Plant 2-Building 1) **(ID No. Undercoat1)**
- undercoat spray booth (Plant 2-Building 1) **(ID No. Undercoat2)**
- equipment cleaning operations: gun cleaning/line purging (Plant 2 -building 2 and building 3) **(ID No. ES4)**

Bus painting and finishing operations at Plant C2 are conducted using the following units:

- cleaning operations: nap and miscellaneous solvent wipe down/line purging (Plant C2) **(ID No. ES-C01)**
- cleaning operations: nap and miscellaneous solvent wipe down/line purging (Plant C2) **(ID No. ES-C02)**
- cleaning operations: nap and miscellaneous solvent wipe down/line purging (Plant C2) **(ID No. ES-C03)**
- bonding operations: windshields, doors, glass, floor covering, interior and exterior seams, body and roof sheets (Plant C2) **(ID No. ES-B01)**
- bonding operations: windshields, doors, glass, floor covering, interior and exterior seams, body and roof sheets (Plant C2) **(ID No. ES-B02)**

- bonding operations: windshields, doors, glass, floor covering, interior and exterior seams, body and roof sheets (Plant C2) **(ID No. ES-B03)**
- dry-filter type sanding booth: body and roof sheets, guard rails (Plant C2) **(ID No. ES-SO)**
- manual electrostatic/air assisted spray booth (Plant C2) **(ID No. ES-BTH20)**
- manual electrostatic/air assisted spray booth (Plant C2) **(ID No. ES-BTH22)**
- manual electrostatic/air assisted spray booth (Plant C2) **(ID No. ES-BTH24)**
- manual electrostatic/air assisted spray booth (Plant C2) **(ID No. ES-BTH25)**
- automatic electrostatic/air assisted spray booth (Plant C2) **(ID No. ES-BTH21)**
- demasking booth (Plant C2) **(ID No. ES-BTH26)**
- undercoat spray operation (with one booth) (Plant C2) **(ID No. Undercoat3)**
- natural gas-fired oven (6 million Btu per hour maximum heat input, Plant C2) **(ID No. ES-OV09)**
- natural gas-fired oven (13.46 million Btu per hour maximum heat input, Plant C2) **(ID No. ES-OV-10)**

Facility-wide operations include:

- open processes (Plant 2, Plant C2) **(ID No. ES2)**
- parts washing operations: parts washers, maintenance (Plant 2, and Plant C2) **(ID No. ES7)**

The facility operates one boiler:

- natural gas-fired boiler for Plant 2, Building 3 (8.37 million Btu per hour maximum heat input) **(ID No. ESB-1)**

Finally, there are several insignificant sources at the facility, listed below:

- 68 gallon capacity day tank located in paint room **(5x, ID Nos. IDT-1** through **IDT-5)**
- Infrared Heater (100,000 Btu per hour maximum heat input rate) **(69x, ID Nos. IES-IH1** through **IES-IH69)**
- Plant 9 – Air Handling Units 1 and 2 (10.264 million Btu per hour) **(ID No. IES-AHU1&2)**
- welding operations **(ID No. IWELD)**
- diesel fired emergency generator (64 horsepower) **(ID No. Igen)**
- Plant C2 – Air Make-Up Unit for Booth #20 (7.035 million Btu per hour) **(ID No. IES-AMU1)**
- Plant C2 – Air Make-Up Unit for robot booth (11.69 million Btu per hour) **(ID No. IES-AMU2)**
- Plant C2 – Air Make-Up Unit for Booth #22 (7.035 million Btu per hour) **(ID No. IES-AMU3)**
- Plant C2 – Air Make-Up Unit for Booth #24 (7.035 million Btu per hour) **(ID No. IES-AMU4)**
- Plant C2 – Air Make-Up Unit for manual spray booth (11.69 million Btu per hour) **(ID No. IES-AMU5)**
- Plant C2 – Air Make-Up Unit for Booth #25 (7.035 million Btu per hour) **(ID No. IES-AMU6)**
- Plant C2 – Air Make-Up Unit 7 (0.5 million Btu per hour) **(ID No. IES-AMU7)**
- Plant C2 – Air Make-Up Unit 7a (0.4 million Btu per hour) **(ID No. IES-AMU7a)**
- Plant C2 – Air Make-Up Unit 8 (1.25 million Btu per hour) **(ID No. IES-AMU8)**
- Plant C2 – Air Make-Up Unit 9 (0.4 million Btu per hour) **(ID No. IES-AMU9)**
- Plant C2 – Air Make-Up Unit 10 (0.25 million Btu per hour) **(ID No. IES-AMU10)**
- Plant C2 – Air Make-Up Unit 11 (0.25 million Btu per hour) **(ID No. IES-AMU11)**
- Plant C2 – Air Make-Up Unit 12 (0.70 million Btu per hour) **(ID No. IES-AMU12)**
- Plant C2 – Air Make-Up Unit 12a (0.70 million Btu per hour) **(ID No. IES-AMU12a)**
- Plant C2 – Air Make-Up Unit (8.58 million Btu per hour) **(ID No. IES-AMU13)**
- Hot Water Heater (1.17 million Btu per hour) **(3x, ID Nos. IES-B3** through **IES-B5)**

The most recent inspection report[1], prepared by engineer Robert Barker of the Winston-Salem Regional Office and dated January 8, 2025, indicates that there is a previously unknown and non-permitted source used at the facility: a 399,999 Btu hydronic boiler used for heating the main office. This source is able to claim an exemption from permitting under 15A NCAC 02Q .0503(7)(d), as this is a heater used for human comfort with a heat input rate of less than 10,000,000 Btu. As a result, this boiler will be excluded from the permit. During discussions regarding this boiler, the facility requested the addition of 70 small natural gas-fired ceiling heaters used for comfort heat to the permit as an insignificant source. It was eventually decided that, since this source is also able to claim an exemption under 15A NCAC 02Q .0503(7)(d), it would also not be added to the permit. The discussion surrounding these sources will still be included here for posterity, to document that these sources have been acknowledged, reviewed and deemed exempt by DAQ.

The facility subject to Title V because its emissions of volatile organic compounds (VOCs) exceed 100 tons per year, and because its potential emissions of individual hazardous air pollutants (HAPs) exceed 10 tons per year and total potential emissions of any combination of HAPs exceed 25 tons per year.

3. History/Background/Application Chronology

History/Background

February 6, 2019	TV permit renewal issued. Air Permit No. 05727T17 was issued on February 6, 2019, with an expiration date of January 31, 2024. *(See Jenny Sheppard's TV review for permit No. 05727T17, dated February 6, 2019.)*
July 27, 2021	Air Permit No. 05727T18 was issued for a minor modification to add a new spray operation **(ID No. Undercoat3)**. *(See Jenny Sheppard's TV review for permit No. 05727T18, dated July 27, 2021.)*

Application Chronology

August 1, 2023	Received permit application 4100810.23A for renewal.
August 1, 2023	Sent acknowledgment letter indicating that the application for permit renewal was complete.
October 24, 2023	Regional technical review completed.
July 2, 2024	Application transferred to permitting engineer Luke Mayer.
August 6, 2024	Sent request for process rate information about certain sources subject to 15A NCAC 02D .0515, and for information about MACT MMMM and PPPP applicability for two sources.
August 28, 2024	Sent request for information about the presence of newly regulated HAP 1-bromopropane at the facility.
August 30, 2024	Met with technical contact Scott Fister of Thomas Built Buses and two environmental contractors associated with the facility about 1-bromopropane

[1] https://edocs.deq.nc.gov/AirQuality/DocView.aspx?id=537075&dbid=0&repo=AirQuality

	presence/usage, process rate information, and discussion about MACT MMMM and PPPP applicability.
September 18, 2024	Site visit conducted at the Fairfield Road facility to further discuss MACT MMMM and PPPP applicability of certain sources onsite.
September 23, 2024	Received site process rate data from technical contact Scott Fister.
September 24, 2024	Sent a request for final review of MACT MMMM and PPPP applicability of all sources at the facility.
December 9, 2024	Sent a request for more information on the heating source for the main office, mentioned in the most recent inspection report to be a 399,999 Btu boiler.
December 18, 2024	Received SDS data from technical contact Scott Fister, indicating that the coatings used in source **ID No. ES-Undercoat3** contain no HAPs. This source will no longer be subject to 40 CFR 63, Subpart MMMM and PPPP as of this permit renewal.
December 19, 2024	Received initial information regarding the main office heating source, to be listed as insignificant and named **IES-CHB1**. Requested potential-to-emit data in support.
February 12, 2025	Received potential-to-emit data for new source **IES-CHB1**. Also received a request to remove **IES-SH1** through **SH12** because they are electric devices, a request to add 70 natural gas-fired small ceiling heaters to the permit as **IES-CH**, and a request to clarify the descriptions of **IES-IH1** through **IH69** to reflect that they are associated with oven **ES-OV10**. **IES-CH** and **IES-CHB1** are eligible for exemption under 15A NCAC 02Q .0503(7), but the applicant requested that these sources be included in the insignificant table regardless under 15A NCAC 02Q .0503(8). See the discussion in Section 4 for more information.
February 18, 2025	Engineer Robert Barker of the Winston-Salem Regional Office indicated that he had no objections to the plan to remove the spot heaters **(IES-SH1** through **SH12)**.
February 19, 2025	Technical contact Scott Fister requested via phone call that the "new" insignificant sources **(ID Nos. IES-CH** and **IES-CHB1)** be left off the permit in accordance with their exempt status under 15A NCAC 02Q .0503(7).
February 21, 2025	Draft permit and review forwarded to supervisor for review.
March 21, 2025	Comments received from supervisor. Editorial changes requested along with additional clarifications for NSPS, NESHAP, NC Air Toxics, and PSD applicability.
April 2, 2025	Engineer Russell Braswell, acting as supervisor, indicated that they had no further comments on the draft permit or permit review.

April 15, 2025	Sent a request for information about the manufacture and construction date of insignificant activity **Igen** to analyze applicability of 40 CFR 60, Subpart IIII and 40 CFR 63, Subpart ZZZZ.
May 15, 2025	Received manufacture and construction dates for insignificant activity **Igen** from technical contact Scott Fister.
May 15, 2025	Draft permit and review forwarded to applicant, SSCB, and regional office for comments.
May 19, 2025	Engineer Robert Barker from the Winston-Salem Regional Office indicated via email that they had no comments on the draft permit or permit review.
May 30, 2025	Samir Parekh of the SSCB indicated via email that they had no comments on the draft permit or permit review.
June 2, 2025	Technical contact Scott Fister indicated via email that they had no comments on the draft permit or permit review.
date	Draft permit and permit review forwarded to public notice via DAQ website.
date	Public comment period ends. Comments were/were not received. .
date	EPA comment period ends. Comments were/were not received.
date	Permit issued.

4. Permit Modifications/Changes and TVEE Discussion

The following table describes the modifications to the current permit as part of the renewal process. This summary is not meant to be an exact accounting of each change but a summary of those changes.

Page(s)	Section	Description of Changes
Cover Letter and throughout permit	--	• Updated all dates and permit revision numbers • Reformatted permit in accordance with current TV permitting shell
4	1	• Removed references to MACT MMMM and PPPP for undercoat spray operation **(ID No. ES-Undercoat3)** and demasking booth **(ID No. ES-BTH26)** as these subparts do not apply to these sources
8-17	2.1 A.4	• Updated permit language to match current MACT PPPP language • Removed references to undercoat spray operation **(ID No. ES-Undercoat3)** and demasking booth **(ID No. ES-BTH26)** as Subpart PPPP does not apply to those sources
17-19	2.1 A.5	• Updated permit language to match current MACT PPPP language • Removed references to undercoat spray operation **(ID No. ES-Undercoat3)** and demasking booth **(ID No. ES-BTH26)** as Subpart MMMM does not apply to those sources

Page(s)	Section	Description of Changes
24	3	• Updated the description of insignificant sources **IES-1H1** through **IES-1H69** to reflect that they are associated with oven **ES-OV10** • Removed spot heaters **IES-SH1** through **SH12** from the insignificant activities table • Added a listing for MACT ZZZZ under source **Igen** in the insignificant sources table. Note that the source is not newly subject to this rule, but the listing was previously omitted.
25	4	• Updated General Conditions with most recent version (Version 8 dated 07/10/2024)

This permit renewal is being processed with only one modification to the facility's processes. At the request of the facility, twelve related insignificant sources will be removed. The facility's twelve spot heaters **(ID Nos. IES-SH1** through **SH12)** are being removed because they are electric devices and do not combust any fuel or have any emissions associated with them. These heaters are used for spot drying touch-up paint, and emissions associated with the drying process will be minimal to nonexistent. It is likely that these emissions would be captured as part of the reporting for the initial painting process in any case. Engineer Robert Barker of the Wilmington Regional Office commented via phone call that he had no objections to the removal of these sources on February 18, 2025.

TVEE was reviewed and approved by Connie Horne on XX XX, XXXX.

5. Regulatory Review

Thomas Built Buses' Fairfield Road facility is subject to the following regulations. The facility's equipment and operations have not changed since the last renewal in 2019. The permit language will be updated to reflect the most current stipulations for all applicable regulations, where necessary.

15A NCAC 02D .0503: Particulates from Fuel Burning Indirect Heat Exchangers – The facility's 8.7 million Btu per hour natural gas fired boiler **(ID No. ESB-1)** for Plant 2, Building 3 is subject to this rule because it is an indirect heat exchanger. The allowable particulate matter (PM) emission rate limit for this boiler is calculated using the following equation:

$$E = 1.090 \times Q^{-0.2594}$$

Where

E = allowable emission limit [lb/million Btu]
Q = maximum heat input [million Btu/hr]

For the purposes of the equation above, Q is the summation of all maximum heat input capacities of each indirect heat exchanger at the site. Given a maximum heat input (Q) of 8.7 million Btu/hr, since there is only one boiler onsite, the resulting allowable emission limit (E) is 0.62 pounds per million Btu. However, an existing emission limit for the boiler has already been set at 0.59 pounds per million Btu because Q is determined when an emission source is added to the permit, and the resulting value for E is not subsequently recalculated based on changes to Q. This existing emission limit will not be changed as part of this permit renewal.

No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this source **(ID No. ESB-1)**. Emissions estimations made using DEQ's Natural Gas

Combustion Emissions Estimation Spreadsheet, Rev. N (dated January 5, 2017) indicate that potential PM emissions are well below the allowable emission rate limit. Continued compliance is expected.

15A NCAC 02D .0515: Particulates from Miscellaneous Industrial Processes – The facility's bus painting and finishing operations **(ID Nos. SB1** through **SB9**, **Undercoat1**, **Undercoat2**, **ES4**, **ES-CO1**, **ES-CO2**, **ES-CO3**, **ES-BO1**, **ES-BO2**, **ES-BO3**, **ES-SO**, **ES-BTH20**, **ES-BTH21**, **ES-BTH22**, **ES-BTH24**, **ES-BTH25**, **ES-BTH26**, **Undercoat3**, **ES-OV09**, and **ES-OV10)**, its open processes **(ID No. ES2)**, and its parts washing operations **(ID No. ES7)** are subject to this rule because they are not subject to particulate matter emission rate limits under any other regulation. Allowable emissions limits are calculated for each applicable emissions source according to their process rate in tons per hour, using the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates ≤ 30 tons per hour)
$E = 55.0 \times P^{0.11} - 40$ (for process rates > 30 tons per hour)

Based on data submitted by technical contact Scott Fister on September 23, 2024, Plant 2 has a maximum process rate of 39 tons per hour, and Plant C2 has a maximum process rate of 187.2 tons per hour. Using the second equation above for process rates > 30 tons per hour, this equates to an allowable emission limit of 42.34 lb of PM per hour for Plant 2 and an allowable emission limit of 57.79 lb of PM per hour for Plant C2. For calendar year 2023, Thomas Built Buses reported total particulate matter emissions of 4.1 tons, equivalent to 0.936 pounds per hour on average and well below the allowable emission limit in this rule. Continued compliance is expected.

15A NCAC 02D .0516: Sulfur Dioxide Emissions from Combustion Sources – The facility's combustion sources, consisting of two natural gas-fired curing ovens **(ID Nos. ES-OV09** and **ES-OV10)** and one natural gas-fired boiler **(ID No. ESB-1)** are subject to this rule.

All combustion sources are subject to a flat limit of 2.3 pounds per million Btu. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. For the combustion of natural gas, the AP-42 emissions factor for sulfur dioxide is 0.6 lb/SO_2 per 10^6 scf. Given an average heating value for natural gas of 1,020 Btu/scf,

$$0.6 \frac{\text{lb}SO_2}{10^6 \text{ scf}} \div 1020 \frac{\text{Btu}}{\text{scf}} = 0.000588 \frac{\text{lb } SO_2}{\text{mmBtu}}$$

This converts to an emissions factor of 0.000588 lbSO_2/mmBtu, well below the allowable emission rate limit in this rule. Due to the wide margin of compliance that can be expected for the firing of natural gas, no monitoring, recordkeeping, or reporting is required for the facility's combustion sources. Continued compliance is expected.

15A NCAC 02D .0521: Control of Visible Emissions –All of the TBB facility's operations, including bus painting and finishing at both locations and facility-wide operations, can be reasonably expected to produce visible emissions. All sources were constructed, reconstructed, or last modified after July 1, 1971. Visible emissions from any source shall not be more than 20% opacity when averaged over a 6-minute period. Six-minute periods may exceed 20% opacity if: no six-minute period exceeds 87% opacity; no more than one six-minute period exceeds 20% opacity in any hour; and no more than four six-minute periods exceed 20% opacity in any 24-hour period.

For units fired with natural gas, propane, and No. 2 fuel oil, no monitoring, recordkeeping, or reporting is required. For all other sources, visible inspections of the sources' emission points are

required on a monthly basis. The results of these inspections shall be recorded in a logbook, and a summary report of these activities shall be submitted on a semi-annual basis. The most recent inspection report[1], prepared by engineer Robert Barker of the Winston-Salem Regional Office and dated January 8, 2025, indicates that the facility is carrying out the required monitoring, recordkeeping, and reporting activities, and that no unacceptable emissions are occurring. Continued compliance is expected.

15A NCAC 02D .1111: Maximum Achievable Control Technology – For the purposes of hazardous air pollutant (HAP) permitting, this facility is classified as a major source of HAPs. Several of the facility's sources or source groups are subject to this rule because they are also subject to National Emission Standards for Hazardous Air Pollutants (NESHAPs).

Most of the equipment associated with bus painting and finishing operations at both plants **(ID Nos. SB1** through **SB9**, **Undercoat1**, **Undercoat2**, **ES4**, **ES-OV09**, **ES-OV10**, **ES-BTH20**, **ES-BTH22**, **ES-BTH24**, **ES-BTH25**, **ES-BTH21**, **ES-BO1**, **ES-BO2**, **ES-BO3**, **ES-CO1**, **ES-CO2**, **ES-CO3**, and **ES7)** are subject to 40 CFR 63, Subparts MMMM and PPPP because they are used in coating operations for miscellaneous metal and plastic components. The facility owner or operator shall demonstrate compliance with 40 CFR 63, Subpart MMMM by meeting the requirements of Subpart PPPP. The facility's emergency generator **(ID No. Igen)** is subject to 40 CFR 63, Subpart ZZZZ because it is a stationary reciprocating internal combustion engine. The facility's boiler **(ID No. ESB-1)** is subject to 40 CFR 63, Subpart DDDDD because it is a boiler and because the facility is classified as a major source for HAPs. See the NESHAPs review segment in Section 6 for more information. The facility owner or operator is responsible for complying with all applicable NESHAP requirements. No permit conditions related to insignificant sources will be included in the permit language, but the facility owner or operator will still be responsible for compliance.

15A NCAC 02D .1806: Control and Prohibition of Odorous Emissions – The TBB facility's operations and their associated equipment can be reasonably expected to generate emissions with a noticeable odor. The facility owner/operator is required to implement practices or odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odor beyond the facility's boundary. The most recent inspection report[1], prepared by engineer Robert Barker of the Winston-Salem Regional Office and dated January 8, 2025, indicates that odors are not detectable outside the facility boundary. The facility does not have a history of odor complaints to the DAQ from neighbors or other citizens. Continued compliance is expected.

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

NSPS

The facility is not currently subject to any New Source Performance Standards. This permit renewal does not change the facility's NSPS status.

NESHAP/MACT

The facility is currently subject to four Maximum Achievable Control Technology standards: MACT MMMM, PPPP, ZZZZ, and DDDDD. The facility is a major source for HAPs. This permit renewal does not change the facility's MACT status. Language has been reviewed and updated as necessary to reflect the current version of the permit.

40 CFR 63 Subpart MMMM: National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products – The TBB facility's bus coating and finishing

operations and their associated equipment are subject to this rule because they are used in the application of surface coatings to various metal parts and products – in this case, bus interior and exterior components. [40 CFR 63.3881]

Emission sources **ID No. ES-SO**, **Undercoat3**, and **ES-BTH26** are not subject to 40 CFR 63, Subpart MMMM and PPPP despite being associated with coating operations. **ES-SO**, the sanding booth, is used to sand defects and excess material off the body of buses before coating takes place. In 40 CFR 63.3881 (a)(1) and 63.4481(a)(1), it is written that "surface coating also includes associated activities, such as surface preparation…" for the purpose of these two subparts, although "…activities do not comprise surface coating if they are not directly related to the application of the coating." Since the sanding operation is primarily focused on removing errors in operations earlier in the production process and not specifically cleaning surfaces or preparing them for coating application, it can be considered not directly related to coating and thus not subject to the rules. **Undercoat3**, a new undercoat operation, uses solid coatings that do not contain any hazardous air pollutants (HAPs). In 40 CFR 63.3881(b) and 63.4481(b), it is written that coatings that use "946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP)," and also that "[one does] not need to include coatings that meet the definition of non-HAP coating … in determining whether you use 946 liters (250 gal) per year, or more, of coatings…" According to Safety Data Sheets submitted by technical contact Scott Fister on December 18, 2024, the coatings used in this source contain no HAPs. This source has been considered exempt from Subpart MMMM and PPPP since it was first permitted in 2021 because no HAP emissions are expected from this source. See Jenny Sheppard's technical review[2] for Air Permit No. 05727T18, dated July 27, 2021, for more information. **ES-BTH26** is a demasking booth used to remove a previously applied paper mask that protects the body of the bus from paint used for detailing certain exterior components. After discussion with facility contacts, this source will no longer be subject to 40 CFR 63, Subparts MMMM and PPPP. Since the booth's entire purpose is to remove the film, is not directly associated with coating application, and shouldn't be considered "cleaning" for the purposes of the Subparts, it should no longer be subject to the rules. It should also be noted that there will be no coatings used in this operation and very little if any emissions due to the nature of the process, so removing conditions should have little effect on the facility's reported emissions.

The facility demonstrates compliance with MACT MMMM by demonstrating compliance with MACT PPPP. See the regulatory review for MACT PPPP below for more information. Continued compliance is expected.

The last permit renewal for this facility was issued on February 6, 2019. MACT MMMM was first promulgated on January 2, 2004, but has been updated four times since the renewal: on July 8, 2020; on November 19, 2020; on January 19, 2021; and on March 8, 2023. The July 8, 2020 takes final action on the residual risk and technology review (RTR) for this subpart and MACT PPPP, and revises the general compliance, recordkeeping, and reporting requirements in this subpart. The November 19, 2020 update reflects changes to the General Provisions (Subpart A to Part 63) that apply to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) relating to situations where major sources seek to be reclassified as area sources by reducing their potential emissions of hazardous air pollutants (HAPs). The January 19, 2021 update incorporates the changes from the previous amendment directly into the text. The March 8, 2023 update is unsubstantial. The permit text implementing this subpart will be updated as necessary to reflect these changes where applicable.

[2] See Attachment 1 below.

40 CFR 63 Subpart PPPP: National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products – The TBB facility's bus coating and finishing operations and their associated equipment involve the application of surface coatings to various plastic parts and products – in this case, bus interior and exterior components. [40 CFR 63.4481] The facility's dry filter-type sanding booth **(ID No. ES-SO)**, demasking booth **(ES-BTH26)**, and third undercoat booth **(ID No. Undercoat3)** are exempt from MACT PPPP. See the regulatory review for 40 CFR 63, Subpart MMMM above for more details about this exemption.

The facility owner or operator shall demonstrate compliance by either using only compliant materials known to contain HAPs in amounts below acceptable limits, or by demonstrating that the organic HAP emission rate for the facility's coating operations is less than or equal to the applicable emission limit in this subpart. If the facility owner or operator chooses to use the compliant material option or the emission rate without add-on controls option for compliance, they do not have to meet any operating limits or work practice standards of this subpart. The facility owner or operator is required to submit a notification of compliance status no later than May 30, 2008. According to a previous inspection report[3], prepared by engineer Eric Hudson of the Winston-Salem Regional Office and dated May 14, 2009, the NOCS was submitted as required. The facility owner or operator shall maintain records of all notifications and reports submitted to comply with this subpart, as well as all applicable data, calculations, and test results used in demonstrating compliance with this subpart. A summary report of these activities shall be submitted on a semi-annual basis.

According to the most recent inspection report[1], prepared by engineer Robert Barker of the Winston-Salem Regional Office and dated January 8, 2025, the facility only uses the emission rate without add-on control options. From January 2024 through December 2024, the facility averaged emissions of 0.0247 lb HAP/lb coating solids used. Continued compliance is expected.

The last permit renewal for this facility was issued on January 14, 2020. MACT PPPP was first promulgated on April 19, 2004, but has been updated three times since the renewal: on July 8, 2020; on November 19, 2020; and on January 19, 2021. Most of the changes are unsubstantial relative to the permit language, but two changes can be added. An alternative to EPA Method 24, used for determining the mass fraction of nonaqueous volatile matter in coatings, has been introduced. ASTM D2369-10 (Reapproved 2015) has been added as of July 8, 2020, and ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products," has been replaced with either ASTM D1475-13 or ASTM D2111-10 (Reapproved 2015). The permit text implementing this subpart will be updated as necessary to reflect these changes where applicable.

40 CFR 63 Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines – The facility's 64-horsepower emergency generator **(ID No. Igen)** is subject to this subpart because it is a stationary reciprocating internal combustion engine. For the purposes of this subpart, this engine is considered an existing compression ignition stationary RICE located at a major source of HAPs because it is diesel-fired and because it was manufactured and constructed in 2003.

The facility owner or operator shall operate this emergency generator in compliance with the requirements found in Table 2c of this subpart.

The only source onsite that is subject to this rule **(ID No. Igen)** is classified as insignificant, so there are no conditions in the permit language related to this subpart. The facility owner or operator is still responsible for compliance with this rule.

[3] https://edocs.deq.nc.gov/AirQuality/DocView.aspx?id=234891&dbid=0&repo=AirQuality

40 CFR 63 Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters – The facility's 8.37 million Btu per hour natural gas-fired boiler **(ID No. ESB-1)** is subject to this subpart because it is a boiler and because the facility is classified as a major source for HAPs. The three other boilers/process heaters at the facility **(ID Nos. IES-B3**, **IES-B4**, and **IES-B5)** are considered hot water heaters because they have heat input capacities less than 1.6 mmBtu/hr, so they are exempt from the requirements of this subpart. [40 CFR 63.7575] For the purposes of this subpart, the affected boiler is considered existing because it was constructed prior to June 4, 2010. [40 CFR 63.7490(b), (c), and (d)]

The affected source **(ID No. ESB-1)** is not subject to any emission limits in Table 2 to this subpart. The facility owner or operator shall submit an initial notification of compliance to DAQ no later than July 19, 2019, and perform an initial tune-up and one-time energy assessment no later than May 20, 2019. The facility's most recent Annual Compliance Certification[4], received February 28, 2024, indicates that the tune-up and energy assessment were completed in March 2014, and the required notification of compliance was sent in January 2016. For continued compliance, the facility owner or operator shall observe the work practice standards of this subpart. This includes performing subsequent boiler tune-ups on a biennial basis. The facility's most recent Periodic Compliance Report[5], received March 3, 2025, indicates that the boiler tune-ups have been completed, and that the next boiler tune-up is required by November 14, 2026. The facility owner or operator shall maintain records of each notification and report submitted for compliance with this subpart; of the concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after tune-up of the source; of any corrective actions undertaken as part of tune-ups; and of the type and amount of fuel used over the 12 months prior to tune-up if the unit is physically and legally capable of firing more than one type of fuel. The facility shall submit a summary report of these activities on a 2-year basis.

This subpart has been updated five times since the last permit renewal. The last permit renewal was issued on February 6, 2019, and this subpart was updated on November 19, 2020; on December 28, 2020; on January 20, 2021; on October 6, 2022; and on December 5, 2022. The November 19, 2020 update reflects changes to the General Provisions (Subpart A) that apply to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), relating to situations where major sources seek to be reclassified as area sources by reducing their potential emissions of hazardous air pollutants (HAPs). The December 28, 2020 update includes corrections to the previous amendment. The January 20, 2021 update implements the previous two amendments directly into the text of the rule. The October 6, 2022 update finalizes amendments to this rule that affect several emission limits and their compliance dates following a court decision. The December 5, 2022 update implements the previous amendment directly into the text of the rule. Because the facility is not reclassifying from major to area source and is not subject to any numerical emission limits, these changes do not affect the permit language for the condition implementing this subpart. No changes are necessary as part of this renewal.

PSD

The TBB facility is classified as a minor source for the purposes of PSD regulations. Because the facility has potential emissions of VOCs above the major source threshold of 250 tons per year, the facility's painting operations **(ID Nos. SB1** through **SB9**, **Undercoat1**, **Undercoat2**, **ES4**, **ES-CO1**, **ES-CO2**, **ES-**

[4] https://edocs.deq.nc.gov/AirQuality/DocView.aspx?id=474149&dbid=0&repo=AirQuality
[5] https://edocs.deq.nc.gov/AirQuality/DocView.aspx?id=540801&dbid=0&repo=AirQuality

CO3, **ES-BO1**, **ES-BO2**, **ES-BO3**, **ES-SO**, **ES-BTH20**, **ES-BTH21**, **ES-BTH22**, **ES-BTH24**, **ES-BTH25**, **ES-BTH26**, **Undercoat3**, **ES-OV09**, **ES-OV10**, **ES2**, and **ES7)** are subject to an avoidance condition under 15A NCAC 02Q .0317 for 15A NCAC 02D .0530: Prevention of Significant Deterioration. In order to avoid the applicability of 15A NCAC 02D .0530, these sources are required to discharge into the atmosphere less than 250 tons of volatile organic compounds (VOCs) per consecutive 12-month period. To ensure compliance with this rule, monthly VOC emissions must be calculated and recorded at the end of each month. A summary report of these activities, containing the monthly VOC emissions for the previous 17 months, shall be submitted on a semi-annual basis.

The PSD status of the facility is not expected to change under this permit renewal. Continued compliance is expected.

112(r)

The facility 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 112(r) thresholds. No change with respect to 112(r) is anticipated under this permit renewal. The applicant certified this in Form A2/A3 submitted along with the application[6].

CAM

The CAM rule (40 CFR 64; 15A NCAC 02D .0614) applies to each pollutant specific emissions unit (PSEU) at facilities required to hold a Title V permit that meets all three following criteria:

- the unit is subject to any non-exempt (e.g., pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source (i.e., 100 tons per year for criteria pollutants or 10/25 tons per year for HAPs).

None of the emissions sources at this facility are equipped with control devices. Therefore, none of the facility's emission sources are subject to any CAM requirements. No change with respect to CAM is anticipated under this permit renewal.

7. Facility Wide Air Toxics

The TBB facility is not currently subject to any NC Air Toxics requirements. In 2019, the facility requested to remove air toxics conditions from the permit language. Annual emissions and risk modeling indicated that the facility did not pose an unacceptable risk. Air toxics requirements were removed from the permit as of Air Permit 05727T17, issued February 6, 2019. See Jenny Sheppard's technical review[7] for Air Permit No. 05727T17, dated February 6, 2019, for more information. No change with respect to air toxics is anticipated under this permit renewal.

[6] https://edocs.deq.nc.gov/AirQuality/DocView.aspx?id=448595&dbid=0&repo=AirQuality
[7] See Attachment 2 below.

8. Facility Emissions Review

The facility-wide potential emissions have not changed because of this TV permit renewal. Actual emissions for criteria pollutants and HAPs for the previous five years reporting periods are provided in the header of this permit review.

The facility is a major source for Title V because its emissions of volatile organic compounds (VOCs) exceed 100 tons per year, and because potential emissions of individual hazardous air pollutants (HAPs) exceed 10 tons per year and total potential emissions of any combination of HAPs exceed 25 tons per year.

The facility is a major source for HAPs because its potential emissions of an individual HAP exceed 10 tons per year and because total potential emissions of any combination of HAPs exceed 25 tons per year. In 2015, the facility emitted 24.88 tons of polycyclic organic matter and 41.57 tons of HAPs in total. According to the emissions inventory for calendar year 2015 (dated June 30, 2016), this was because the facility used a product in bus painting that year that contained a significant amount of naphthalene. These emissions are attributed to the emissions source group GR2 – bus painting operations, consisting of the facility's spray booths **(ID Nos. ES-BTH20**, **ES-BTH21**, **ES-BTH22**, **ES-BTH24**, **ES-BTH25**, and **ES-BTH26)**

The facility is a minor source for PSD because it is subject to an avoidance condition to avoid becoming a major source for PSD. To avoid the applicability of 15A NCAC 02D .0530 (Prevention of Significant Deterioration), the facility's bus painting operations **(ID Nos. SB1** through **SB9**, **Undercoat1**, **Undercoat2**, **ES4**, **ES-CO1**¸**ES-CO2**, **ES-CO3**, **ES-BO1**, **ES-BO2**, **ES-BO3**, **ES-SO**, **ES-BTH20**, **ES-BTH21**, **ES-BTH22**, **ES-BTH24**, **ES-BTH25**, **ES-BTH26**, **Undercoat3**, **ES-OV09**, **ES-OV10**, **ES2**, and **ES7)** are required to discharge into the atmosphere less than 250 tons of VOCs per consecutive 12-month period.

9. Compliance Status

DAQ has reviewed the compliance status of TBB's Fairfield Road facility. During the most recent inspection, conducted on February 28, 2024, the facility appeared to be in compliance with all applicable requirements. The facility had three air quality violations within the last five years: one notice of violation (NOV) of 15A NCAC 02D .0530: Prevention of Significant Deterioration; one NOV of 15A NCAC 02D .1111 for 40 CFR 63 Subpart PPPP; and one NOV of 15A NCAC 02D .1111 for 40 CFR 63, Subpart MMMM; all dated May 23, 2023. These violations are described below:

- May 23, 2023 – NOV[8] for not calculating and recording the monthly amount of VOC emissions for the 2023 calendar year. Violation of 15A NCAC 02Q .0317: Avoidance Conditions for 15A NCAC 02Q .0530: Prevention of Significant Deterioration. The facility also did not calculate for the 2023 calendar year the HAP emission rate for facility coating operations to verify that the facility was in compliance with its emission limit of 0.16 lb of organic HAP per lb of coating solids. This rate must be calculated as a rolling 12-month emission rate and determined on a monthly basis as required for 15A NCAC 02D .1111: Maximum Available Control Technology for 40 CFR 63, Subpart PPPP (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products). The facility's permit stipulates that the facility can demonstrate compliance with 40 CFR 63, Subpart MMMM (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products) as referenced in Condition 2.1.A.7 by demonstrating compliance with 40 CFR 63, Subpart PPPP.

[8] https://edocs.deq.nc.gov/AirQuality/DocView.aspx?id=420957&dbid=0&repo=AirQuality

Since the facility is in noncompliance with Subpart PPPP, compliance with Subpart MMMM cannot be assured. The facility failed to calculate for the 2023 calendar year the HAP emission rate for coating operations to verify that it was no more than the emissions limit of 2.6 lb of organic HAP emitted per gallon of coating solids. The DAQ received a response letter[9] from the facility on June 6, 2023 for these violations.

The facility's Annual Compliance Certification[4] was received on February 23, 2024, and indicated compliance with all applicable requirements in 2023, except for the recognized deviations listed above. The facility certified compliance with all applicable requirements through the submission of a signed Form E5 "Title V Compliance Certification" along with the application[6].

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

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. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. 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 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. Both Virginia and Forsyth County are in proximity to this facility. Regardless of actual distance, all possible affected states and local air quality programs will be notified as per DAQ policy.

11. Other Regulatory Considerations

- A P.E. seal is NOT required for this renewal application.
- A zoning consistency determination is NOT required for this renewal application.
- A permit fee is NOT required for this renewal application.

12. Recommendations

The permit renewal application for TBB's Fairfield Road facility has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 05727T19.

[9] https://edocs.deq.nc.gov/AirQuality/DocView.aspx?id=424386&dbid=0&repo=AirQuality

<u>Attachment 1</u>:
Excerpt from Jenny Sheppard's Technical Review for Air Permit No. 05727T18

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V. Regulatory Review – State and Federal Rules

As noted above, the facility has submitted an application to add an additional undercoat spray operation consisting of one booth **(ID No. Undercoat3)** at Plant C2. The booth will utilize one PPG Adhesives and Sealant coating and one BASF Corporation in the new undercoat spray operation. The application states PM and volatile organic compounds (VOC) emissions are the only pollutants emitted from this operation and review of the SDS for the coating proposed confirm that there are no Hazardous Air Pollutant (HAP) emissions from the coatings being utilized in the new undercoat spray operation **(ID No. Undercoat3)**. The facility is a major source of HAP emissions and are subject to MACT MMMM (Coating of Miscellaneous Metal Parts), MACT PPPP (Coating of Miscellaneous Plastic Parts), MACT DDDDD, and MACT ZZZZ. Since there are no HAP emissions from the proposed modification MACT MMMM and MACT PPPP do not apply to the undercoat spray operation **(ID No. Undercoat3)**.

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Attachment 2:
Excerpt from Jenny Sheppard's Technical Review for Air Permit No. 05727T17

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7. Facility Wide Air Toxics

Currently this facility has conditions for 02Q .0711 and 02D .1100. As part of the renewal the facility has requested that the toxics conditions and limits be removed. The majority of the permitted emission sources at TBB-Fairfield Road which emit toxic air pollutants are subject to a NESHAP (MACT). These sources are now exempt from NC air toxic rules in accordance with NC House Bill 952 and the conditions have been removed [for] 02D .1100. As part of the renewal the facility has requested that the toxics conditions and limits be removed based on a review of annual emissions and previous modeling this change in the permit does not pose an unacceptable risk.

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