

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Issue Date: TBD

Region: Raleigh Regional Office
County: Chatham
NC Facility ID: 1900077
Inspector's Name: Jeff Harris
Date of Last Inspection: 12/16/2021
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Triangle Brick Company-Merry Oaks Brick Manufacturing Plant

Facility Address:

Triangle Brick Company-Merry Oaks Brick Manufacturing Plant
 294 King Rd
 Moncure, NC 27559

SIC: 3251 / Brick And Structural Clay Tile

NAICS: 327121 / Brick and Structural Clay Tile Manufacturing

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

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

Permit Applicability (this application only)

SIP: 02D .0515, 02D .0516, 02D .0521, 02D .0524, 02D .1100, 02D .1111, 02D .1806, 02Q .0317 (PSD Avoid.), 02Q .0317 (MACT Avoid.), 02Q .0711

NSPS: Subpart OOO, UUU

NESHAP: CCCCCC

PSD: n/a

PSD Avoidance: SO₂

NC Toxics: 02D .1100, 02Q .0711

112(r): n/a

Other: n/a

Contact Data

Application Data

Facility Contact

Authorized Contact

Technical Contact

Howard Brown, Jr.
 President & CEO
 (919) 544-1796
 6523 NC Highway 55
 Durham, NC 27713

Howard Brown, Jr.
 President & CEO
 (919) 544-1796
 6523 NC Highway 55
 Durham, NC 27713

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Application Number: 1900077.22A

Date Received: 10/18/2022

Application Type: Renewal

Application Schedule: TV-Renewal

Existing Permit Data

Existing Permit Number: 06897/T12

Existing Permit Issue Date: 05/14/2018

Existing Permit Expiration Date: 04/30/2023

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2020	4.98	10.12	5.35	45.94	66.12	2.78	1.25 [Hydrogen fluoride (hydrofluori)]
2019	5.54	11.24	5.70	51.08	73.42	3.09	1.39 [Hydrogen fluoride (hydrofluori)]
2018	4.94	10.08	6.21	45.61	65.76	2.73	1.24 [Hydrogen fluoride (hydrofluori)]
2017	4.48	9.11	5.73	41.30	59.53	2.47	1.12 [Hydrogen fluoride (hydrofluori)]
2016	4.58	9.31	6.12	42.28	47.96	27.17	18.23 [Hydrogen fluoride (hydrofluori)]

Review Engineer: Russell Braswell

Review Engineer's Signature:

Date:

Comments / Recommendations:

Issue 06897/T13

Permit Issue Date: TBD

Permit Expiration Date: TBD+5 years

1.0 Purpose of Application

Triangle Brick Company-Merry Oaks Brick Manufacturing Plant (TBC; the facility) currently operates a brick factory in Chatham County under Title V permit 06897T13 (the existing permit). The existing permit is set to expire on April 30, 2023. TBC submitted this application in order to renew the permit. In the application, TBC states that there are no requested changes as part of the renewal application.

Because the application for permit renewal was received at least six months before the expiration date, the existing permit will remain in effect until this renewal application is approved or denied.

2.0 Facility Description

This facility is a brick factory that consists of three brick kilns and two associated dry lime adsorbers (DLA). Brickmaking activities also include grinding, conveying, crushing, and forming operations. The facility also includes some supporting activities, such as storage tanks.

According to DAQ's most recent inspection report, Kilns 1 and 2 were initially installed in 1991, and have not operated since 2008. Kiln 3 was installed in 1999. The kilns can be fired with natural gas, No. 2 fuel oil, and No. 6 fuel oil, but according to the most recent emission inventory, only natural gas was used during CY2021.

3.0 Title V Permit Modifications Following the Previous Renewal

The Title V permit was most recently renewed on May 14, 2018. There have been no modifications to the Title V permit since the most recent renewal.

4.0 Application Chronology

- October 22, 2022 Application received.
- November 15, 2022 Initial internal draft of the permit and application review sent to RCO Permits staff.
- November 17, 2022 Updated draft of the permit and application review sent to RCO SSCB staff, RRO staff, and TBC staff.
- XXXX Public notice / EPA review.
- XXXX Permit issued.

5.0 Changes to the Existing Permit

Page No.	Section	Description of Changes
Throughout	Throughout	<ul style="list-style-type: none"> Updated permit dates/numbers. Updated formatting to latest DAQ standard. Formatting changes are not intended to change the Permittee's compliance requirements.
7, 11, 15	2.1 A.1, 2.1 B.1, 2.1 C.1	<ul style="list-style-type: none"> Updated condition to match DAQ's standard wording for 02D .0515. This update is not intended to change the Permittee's compliance requirements.
17	2.1 C.4.e	<ul style="list-style-type: none"> Reduced reporting frequency to semiannual.
26	3. (new)	<ul style="list-style-type: none"> Added this section. Moved list of insignificant activities to this section.
27	4. (new)	<ul style="list-style-type: none"> Added this section. Moved General Conditions to this section. Updated General Conditions to v6.0.

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

6.0 Regulatory Overview and Rules Review

TBC is subject to the following State Implementation Plan (SIP) rules, in addition to the General Conditions:

- 15A NCAC 02D .0515 "Particulate Emissions from Miscellaneous Industrial Processes"
- 15A NCAC 02D .0516 "Sulfur Dioxide from Combustion Sources"
- 15A NCAC 02D .0521 "Control of Visible Emissions"
- 15A NCAC 02D .0524 "New Source Performance Standards" (40 CFR Part 60, Subparts OOO, UUU)
- 15A NCAC 02D .1100 "Control of Toxic Air Pollutants"
- 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (40 CFR Part 63, Subpart CCCCC)
- 15A NCAC 02D .1806 "Control and Prohibition of Odorous Emissions"
- 15A NCAC 02Q .0317 "Avoidance Conditions" (Avoidance of PSD, MACT)
- 15A NCAC 02Q .0711 "Emission Rates Requiring a Permit"

Below is a discussion of TBC requirements for these rules. This section will also discuss several nonapplicable rules.

6.1 15A NCAC 02D .0515 "Particulate Emissions from Miscellaneous Industrial Processes"

This rule applies to sources of particulate matter (PM) emissions that are not subject to another PM emission standard under 02D .0500. Several of the material handling sources at this facility are subject to this rule. The PM emission limit is a function of the process rate of each individual source subject to this rule.

The NSPS-affected material handling sources (*e.g.*, Scalp Screen PC-2) are subject to a PM limit under 15A NCAC 02D .0524, and therefore are not subject to this rule.

The emission sources subject to this rule (ID Nos. PC-1, CG-1, CG-29, K-1, K-2, and K-3) are expected to have low PM emissions relative to the emission limit in this rule. DAQ has determined that no specific monitoring, recordkeeping, or reporting is required for these sources to demonstrate compliance with this rule. DAQ has reviewed this analysis for the existing permit and agrees with this analysis.

6.2 15A NCAC 02D .0516 “Sulfur Dioxide from Combustion Sources”

This rule applies to combustion sources of sulfur dioxide (SO₂) emissions that are not subject to another SO₂ emission standard under 02D .0500. The brick kilns and coatings dryer are each subject to this rule. In all cases, the limit is 2.3 pounds of SO₂ per million Btu heat input.

In general, SO₂ emitted by combustion sources is a function of the sulfur in the fuel. Firing bricks in the kilns will result in some SO₂ emissions; as discussed below the SO₂ emitted from the bricks is expected to be small.

The fuels available to this facility are natural gas, No. 2 fuel oil, and No. 6 fuel oil. In order to calculate SO₂ emissions from the combustion of these fuels, the emission factors published by EPA in AP-42 can be applied. The published emission factors are not in units of pounds per million Btu, so the emission factor must be converted in each case.

SO₂ from Natural gas (AP-42 Chapter 1.4, Table 1.4-2 SO₂):

$$\frac{0.6 \text{ lb}}{\text{million scf}} \times \frac{1 \text{ scf}}{1,020 \text{ Btu}} = \frac{0.001 \text{ lb}}{\text{million Btu}}$$

Therefore, natural gas is expected to comply with the SO₂ limit by a wide margin.

SO₂ from No. 2 fuel oil (a.k.a. distillate fuel oil; AP-42 Chapter 1.3, Table 1.3-1 SO₂ with S=0.5):¹

$$\left(\frac{[142 \times 0.5] \text{ lb}}{1,000 \text{ gal}} \right) \times \frac{1,000 \text{ gal}}{140 \text{ million Btu}} = \frac{0.51 \text{ lb}}{\text{million Btu}}$$

A sulfur content of 0.5% is extremely conservative; most No. 2 fuel oil will have a sulfur content far lower than 0.5%. This value is also included in the permit as a limit as part of PSD avoidance (see Section 6.8). Therefore, No. 2 fuel oil is expected to comply with the SO₂ limit by a wide margin.

SO₂ from No. 6 fuel oil (AP-42 Chapter 1.3, Table 1.3-1 SO₂ with S=2.1):

$$\left(\frac{[157 \times 2.1] \text{ lb}}{1,000 \text{ gal}} \right) \times \frac{1,000 \text{ gal}}{150 \text{ million Btu}} = \frac{2.19 \text{ lb}}{\text{million Btu}}$$

The sulfur content of No. 6 fuel oil is variable. However, TBC is limited to No. 6 fuel oil with a sulfur content less than 2.1% as part of PSD avoidance (see Section 6.8). Therefore, No. 6 fuel oil is expected to comply with the SO₂ limit.

SO₂ from brickmaking:

¹ Table 1.3-1 has different factors for boilers (heat exchangers) with capacity greater than 100 MMBtu/hr and less than 100 MMBtu/hr. However, the factors for SO₂ are the same regardless of boiler size.

According to AP-42 Table 11.3-3, “Sulfur dioxide emissions are the result of pyrites or other sulfur compounds in the brick raw material. A mass balance on sulfur will provide a better estimate of emissions for individual facilities.” The existing permit includes a SO₂ emission factor of 0.0627 pounds per ton of brick fired as part of PSD avoidance (see Section 6.8). Using that emission factor, the contribution of SO₂ from brickmaking can be calculated on a pounds per million Btu heat input basis:

$$\left(\frac{0.0627 \text{ lb}_{\text{SO}_2}}{\text{ton}_{\text{brick}}}\right) \times \left(\frac{14.5 \text{ ton}_{\text{brick}}}{\text{hour}}\right) \times \left(\frac{1 \text{ hour}}{21.4 \text{ million Btu}}\right) = \frac{0.04 \text{ lb}_{\text{SO}_2}}{\text{million Btu}}$$

Note that the ratio of heat input to brick production is the same for all three kilns. When this emission factor is combined with the fuel-based SO₂ factors, all fuels still comply with the 2.3 pounds per million Btu limit.

Monitoring, Recordkeeping, and Reporting:

The existing permit does not require any monitoring, recordkeeping, or reporting for SO₂ emitted from natural gas and No. 2 fuel oil firing. DAQ has reviewed this analysis for the existing permit and agrees with this analysis.

The existing permit requires TBC to keep records of the sulfur content of all No. 6 fuel oil in order to demonstrate compliance with the SO₂ limit. TBC must submit a semiannual compliance report of the sulfur content.

According to DAQ’s inspection reports for the previous three calendar years, TBC has only been burning natural gas in the kilns, and TBC has appeared in compliance with this rule. Continued compliance will be determined during subsequent inspections.

6.3 15A NCAC 02D .0521 “Control of Visible Emissions”

This rule applies to sources of visible emissions (VE) that are not subject to another VE standard under 02D .0500. Generally, this rule is not applied to sources that are not expected to produce any VE (*e.g.*, from a storage tank).

The NSPS-affected material handling sources (*e.g.*, Scalp Screen PC-2) are subject to a VE limit under 15A NCAC 02D .0524, and therefore are not subject to this rule.

The VE limit for this rule depends on the construction date of the individual source in question. At this facility, the VE limit is 20% for each source subject to this rule. The rule allows for one exceedance of the 20% limit per hour, and four exceedances per 24-hour period.

DAQ has determined that for the emission sources subject to this rule, a monthly VE observation is sufficient to demonstrate compliance with the 20% VE limit. If VE is detected above normal, TBC must initiate corrective action or conduct a formal Method 9 VE test to demonstrate that the VE limit is not exceeded. TBC must keep records of VE observations and any corrective actions, and submit a semiannual summary report. DAQ has reviewed this analysis for the existing permit and agrees with this analysis.

Based on the most recent inspection report, TBC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

6.4 15A NCAC 02D .0524 “New Source Performance Standards” (40 CFR Part 60; NSPS)

This rule incorporates the NSPS rules under 40 CFR Part 60 into North Carolina’s SIP. This facility is subject to two NSPS rules: Subpart OOO and Subpart UUU.

6.4.1 Subpart OOO “Standards of Performance for Nonmetallic Mineral Processing Plants”

Applicability: This rule applies to nonmetallic mineral processing plants that include a crusher. Each crusher, grinding mill, screen, elevator, conveyor, and storage bin that is part of the of the processing plant is subject to this rule (see 40 CFR 60.670(a)(1)). Note that “feeders” are not included in the list of sources. Each material handling process other than the kilns, coatings dryer, and feeders at this facility is subject to NSPS Subpart OOO.

Emission Standards: Broadly speaking, this rule controls PM emissions by limiting VE from the subject sources. The VE limit for each source depends on the type of source (e.g., a crusher) and if the specific source is enclosed within a building.

Monitoring, Recordkeeping, and Reporting: TBC must observe each subject emission source for VE above normal on a monthly basis. If VE above normal is detected, TBC must conduct a formal Method 9 or Method 22 (as applicable) to confirm that the observed VE is below the limit. TBC must keep records of VE observations and submit a summary report semiannually.

Based on the most recent inspection report, TBC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

6.4.2 Subpart UUU “Standards of Performance for Calciners and Dryers in Mineral Industries”

Applicability: This rule applies to dryers located at mineral processing plants. The coatings dryer is subject to this rule because it is located at a facility that is subject to NSPS Subpart OOO.

Emission Standards: Exhaust from the coatings dryer is limited to 0.040 grains per dry standard cubic meter of PM and 10% opacity. TBC has previously demonstrated compliance with these emission limits (test reference number 2007-021ST) without using a control device.

Monitoring, Recordkeeping, and Reporting: TBC must observe each the coatings dryer exhaust for VE above normal on a monthly basis. In addition, TBC must perform regular maintenance on the coatings dryer and a semiannual internal inspection of the unit. TBC must keep records of VE observations and maintenance, and submit a summary report semiannually.

Based on the most recent inspection report, TBC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

6.5 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” [State-enforceable Only]

This rule applies to facilities that have make a modification that increases emissions of toxic air pollutants (TAP). A facility that makes such a modification must demonstrate that the acceptable ambient levels (AAL) in 02D .1104 are not exceeded. Facilities normally demonstrate compliance with the AALs using air dispersion modeling.

TBC has previously submitted an air dispersion modeling demonstration for several TAPs. The modeled emission rates are included in the permit as emission limits. The TAP emission limits have been listed in

the Title V permit since at least the T07 permit revision (issued February 5, 2003), which is the earliest available permit issued to this facility in DAQ’s electronic database. Additional documentation for the original modeling demonstration is not available.

The below table compares the permit emission limits with the emission rates reported in the CY2021 emission inventory:

Pollutant	Permit limit			CY2021 Emission Inventory			Compliance?
	lb/yr	lb/dy	lb/hr	lb/yr*	lb/dy*	lb/hr*	
Arsenic	38.63			5.66			Yes
Benzene	25,023.43			529.35			Yes
Benzo(a)pyrene	7,024			<i>not reported</i>			Yes
Beryllium	873.33			0.08			Yes
Cadmium	1,151.55			2.74			Yes
Chlorine		1,131.88	151	237.30	0.65	0.027	Yes
Chromium (VI)	17.3			9.31			Yes
Hydrogen chloride			115.44	1,811.42		0.207	Yes
Hydrogen fluoride		878.11		2,870.40	7.86		Yes
Mercury, vapor			44.36	1.37		0.000	Yes
Nickel metal			4.95	13.14		0.002	Yes

* Emission Inventory data reported in units of facility-wide pounds per year. Facility stated annual operations of 8,760 hours per year (*i.e.*, 365 days per year)

Based on the reported emission rates, TBC appears to be in compliance with the modeled emission limits. Note that since the T07 permit was issued, TBC has installed dry lime adsorbers (DLA) on each of the three brick kilns. DLAs are expected to reduce acid gas emissions (such as hydrogen chloride and hydrogen fluoride). Furthermore, TBC has not burned fuel oil in the kilns in several years.

DAQ has previously determined that no monitoring, recordkeeping, or reporting is required for TBC to demonstrate compliance with 02D .1100. DAQ has reviewed this analysis for the existing permit and agrees with this analysis.

6.6 15A NCAC 02D .1111 “Maximum Achievable Control Technology” (40 CFR Part 63; MACT)

This rule incorporates the MACT rules under 40 CFR Part 63 into North Carolina’s SIP. The only MACT rule that applies to this facility is Subpart CCCCC.

6.6.1 Subpart CCCCC “National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities”

Applicability: This rule applies to gasoline dispensing facilities located at area sources of hazardous air pollutants (HAP). The 3,000 gallon gasoline storage tank at this facility is subject to this rule. Because the facility has less than 10,000 gallons per month of gasoline throughput, the facility is subject to the requirements in §63.11116.

Requirements: TBC must operate with good work practices and not handle gasoline in a manner that allows for extended release of vapors. §63.11116(a) includes a general list of measures that TBC must take to demonstrate compliance.

Monitoring, Recordkeeping, and Reporting: There are no specific monitoring, recordkeeping, and reporting requirements for the small gasoline storage tank.

Insignificant Activity: This rule only applies to an emission source included in the list of insignificant activities. Such sources are generally not referenced elsewhere in the Title V permit. Therefore, the existing permit does not include any specific condition for this rule.

Based on the most recent inspection report, TBC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections.

6.7 15A NCAC 02D .1806 “Control and Prohibition of Odorous Emissions” [State-enforceable Only]

This rule requires that facilities not cause objectionable odors outside of the facility's boundary. In general, DAQ requires facilities that have caused substantiated odor complaints to implement some kind of control for odorous emissions.

There are no documented odor complaints for this facility. The facility has no specific requirements under this rule. Based on the most recent compliance inspection, TBC appeared to be in compliance with this rule. Continued compliance will be determined during subsequent inspections.

6.8 15A NCAC 02Q .0317 “Avoidance Conditions”

This rule allows a facility to accept an enforceable limit in order to avoid the applicability of other rules. TBC has accepted emission limits to avoid 15A NCAC 02D .0530 “Prevention of Significant Deterioration” and to avoid being designated a major source of HAP under 40 CFR 63.2 (a.k.a. MACT avoidance).

6.8.1 Avoidance of Prevention of Significant Deterioration (PSD)

In general, a facility is designated a major source for PSD if it has actual emissions greater than the major source threshold in 40 CFR 51.166(b)(1)(i)(b). For this facility, the threshold is 250 tpy. TBC has previously accepted a facility-wide limit on SO₂ emissions in order to avoid major source status for PSD.

The SO₂ limit has been included in the Title V permit since the T07 permit revision (issued February 5, 2003), which is the earliest available permit issued to this facility in DAQ's electronic database.

In order to demonstrate compliance with the avoidance limit, TBC must calculate facility-wide SO₂ emissions. The permit includes specific emission factors for use when calculating emissions. As discussed in Section 6.2, the vast majority of potential SO₂ emissions come from the fuel-bound sulfur in fuel oil burned in the kilns.

TBC is required to keep records of the sulfur content of fuel oil burned in the kilns. According to the most recent inspection report and the most recent emission inventory, TBC has not recently used any fuel oil. Within the previous five years, the highest annual reported SO₂ emission was

5.54 tpy versus a limit of 250 tpy (see the emission summary table on the cover of this application review).

The existing permit requires TBC to submit a quarterly SO₂ summary report. The reporting frequency will be reduced to semiannual due to the wide margin of compliance.

Based on the most recent inspection report, TBC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

6.8.2 Avoidance of 40 CFR Part 63, Subpart JJJJJ “National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing”

In general, a facility is designated a major source of HAP if it has actual emissions of HAP greater than 10 tpy for any individual HAP and/or 25 tpy for total HAP. Facilities that are not major sources of HAP are designated as area sources of HAP. TBC has previously accepted a facility-wide limit on HAP emissions in order to avoid major source status for HAP.

The HAP limit was added to the permit with the T18 permit revision (issued January 23, 2018). As long as TBC complies with the HAP limit, the facility will not be a major source of HAP and therefore rules that apply exclusively to major sources of HAP (such as MACT Subpart JJJJJ) do not apply to TBC.

In order to control HAP emissions, TBC operates dry limestone adsorbers (DLA) with the three brick kilns. The brick kilns account for the vast majority of potential HAP emissions.

In order to demonstrate compliance with the avoidance limit, TBC must operate and maintain the DLAs. TBC must keep records of limestone usage within the DLAs. The limestone grade and feeder settings must be the same as what was in use during the most recent performance test. Note that the most recent test (reference number 2017-053ST) only covered Kiln 3 because Kilns 1 and 2 were not operating at that time. If TBC restarts Kilns 1 and 2, TBC must conduct a performance test on those kilns.

TBC must perform daily and monthly inspections of the DLA to ensure proper operation. TBC must also keep records of maintenance, startups, shutdowns, and malfunctions of the DLA. In addition, TBC must keep records of brick production and calculated HAP emissions on a monthly basis. A summary report of the monitoring and recordkeeping must be submitted semiannually.

Based on the most recent inspection report, TBC appears to be in compliance with this rule. Continued compliance will be determined with subsequent inspections and reports.

6.9 15A NCAC 02Q .0711 “Emission Rates Requiring a Permit” [State-enforceable Only]

This rule limits the emission rates of toxic air pollutants (TAP) from facilities. When making a modification (defined by 02Q .0706), a facility must demonstrate that the emission rates of all TAPs listed in 02Q .0711 are below their respective TAP permitting emission rates (TPER). For TAPs emitted in excess of the TPER, the facility must follow the procedures in 02D .1100.

This facility has previously been reviewed for TAP emissions. The existing permit includes a list of TAPs for which the facility has been reviewed and shown to not exceed the TPER. This list of TAPs has been included in the permit since at least the T07 permit revision (issued February 5, 2003), which is the earliest

available permit issued to this facility in DAQ’s electronic database. TBC has not made a modification to the facility that would trigger a new TAP review.

The permit does not require any specific monitoring, recordkeeping, or reporting to demonstrate compliance with the TPERs. A review of data available in the emission inventory shows that TBC is below the TPERs by a wide margin. Therefore, continued compliance is expected.

6.10 15A NCAC 02D .0530 “Prevention of Significant Deterioration” (PSD) [not applicable]

This rule applies to facilities that make a major modification or construct a new major source. TBC has accepted an enforceable emission limit in order to avoid being designated as a major source. Therefore, this rule does not apply to TBC.

6.11 15A NCAC 02D .0614 “Compliance Assurance Monitoring” (40 CFR Part 64) [not applicable]

The compliance assurance monitoring (CAM) rule requires owners and operators to conduct monitoring to provide a reasonable assurance of compliance with applicable requirements under the act. Monitoring focuses on emissions units that rely on pollution control device equipment to achieve compliance with applicable standards. An emission unit is subject to CAM, under 40 CFR Part 64, if all of the following three conditions are met:

- I. The unit is subject to any (non-exempt, e.g., pre-November 15, 1990, Section 111 or 112 standard) emission limitation or standard for the applicable regulated pollutant.
- II. The unit uses any control device to achieve compliance with any such emission limitation or standard.
- III. The unit’s pre-control potential emission rate exceeds 100 percent of the amount required for a source to be classified as a major source, i.e., either 100 tpy (for criteria pollutants) or 10 tpy of any individual/25 tpy of any combination of HAP.

CAM applicability for each control device at this facility is examined in the table below:

Control Device	Associated Emission Sources	Applicable Emission Limits	Triggers CAM?	Notes
Covers on conveyor belts, controlling PM and VE	PC-4, PC-5 PC-6, CG-4 CG-5, CG-6	E = 4.10 x P ^{0.67} (15A NCAC 02D .0515)	No	1
		10% VE (NSPS Subpart OOO)	No	
Screen covers, controlling PM and VE	CG-16, CG-17 CG-18, CG-19	E = 4.10 x P ^{0.67} (15A NCAC 02D .0515)	No	
		10% VE (NSPS Subpart OOO)	No	
DLA, controlling HAP and TAP	K-1, K-2, K-3	Various TAP emission limits (15A NCAC 02D .1100)	No	2
		Facility-wide HAP limit (15A NCAC 02Q .0317)	No	3

Notes:

- 1: These sources individually do not have potential PM emissions greater than the major source threshold. Therefore, these emission sources cannot trigger CAM per condition III above.
- 2: TAPs do not have a major source threshold. Therefore, these emission sources cannot trigger CAM per condition III above.

- 3: This limit is an emission cap approved pursuant to the rules of Subchapter 02Q. Therefore, this limit is exempt from CAM applicability per 15A NCAC 02D .0614(b)(1)(E) and Condition I above.

Based on the above analysis, CAM does not apply to this facility.

6.12 15A NCAC 02D .2100 “Risk Management Program” (a.k.a. §112(r); Section 112(r) of the Clean Air Act) [not applicable]

This rule applies to facilities that store materials above their respective thresholds in 40 CFR 68.130. Such facilities are required to prepare and submit a Risk Management Plan (RMP). In the application on Form A3, TBC indicated that an RMP is not required for this facility because no such materials are stored in quantities above their thresholds. Because no RMP is required, this rule does not apply.

Note that other portions of §112(r), such as the General Duty Clause, may still apply to this facility.

7.0 Compliance Status and Other Regulatory Concerns

- *Compliance status:* This facility was most recently inspected on December 16, 2021 by Jeff Harris. TBC appeared to be in compliance with the Title V permit during that inspection.
- *Compliance history:* There have been no Notice of Violations issued to TBC since the previous Title V renewal.
- *Application fee:* Title V permit renewals do not require an application fee.
- *PE Seal:* Pursuant to 15A NCAC 02Q .0112 “Application requiring a Professional Engineering Seal,” a professional engineer’s seal (PE Seal) is required to seal technical portions of air permit applications for new sources and modifications of existing sources as defined in 02Q .0103. A PE Seal was not required for this Title V permit renewal.
- *Zoning:* A Zoning Consistency Determination per 15A NCAC 02Q .0304(b) was not required for this Title V permit renewal.

8.0 Facility Emissions Review

- The table on the first page of this permit review presents the criteria pollutant (plus total HAP) from the latest available approved facility emissions inventory (2021). The HAP emitted in the largest quantity from the facility is HF.
- TBC is classified as a Title V facility due to potential emissions of PM and SO₂ above the major source threshold. This permit renewal will not affect TBC’s status as a Title V facility.
- TBC is classified as an area source of HAP (*i.e.*, not a major source) due to a facility-wide HAP emission limit. This permit renewal will not affect TBC’s status as an area source of HAP.
- TBC is classified as a minor source for PSD because it has never had actual emissions greater than the PSD major source threshold and has never made a major modification. TBC is avoiding triggering a major modification by complying with a PSD avoidance limit. This renewal will not affect TBC’s status as a minor source for PSD or TBC’s ability to comply with PSD avoidance.

9.0 Draft Permit Review Summary

9.1 Initial draft

An initial draft of the permit and application review were sent to DAQ RCO staff on November 12, 2022. Comments on this initial draft noted typos in the draft permit, but did not note any substantial changes to the draft permit or application review.

9.2 Subsequent draft

A second draft of the permit and application review were sent to DAQ SSCB staff, DAQ RRO staff, and TBC staff on November 17, 2022. No comments were received on this second draft.

10.0 Public Notice and EPA 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 is provided to the public under 02Q .0521 above. Virginia is an affected state.

- The Public Notice and EPA Review periods began on XXXX
- The Public Notice period ended on XXXX
- The EPA Review period ended on XXXX

11.0 Recommendations

This permit application has been reviewed by NC DAQ to determine compliance with all procedures and requirements. NC DAQ has determined that this facility appears to be complying with all applicable requirements.

Recommend Issuance of Permit No. 06897T12. RRO and TBC staff have received a copy of this permit as described in Section 9.0.