County of Forsyth

**PUBLIC NOTICE OF INTENT TO ISSUE A TITLE V AIR QUALITY PERMIT**

**FORSYTH COUNTY**
**OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION**
**WINSTON-SALEM, NORTH CAROLINA**

**March 28, 2025**

Notice is hereby given by the Forsyth County Office of Environmental Assistance and Protection (EAP) of an opportunity for the public to review and comment on a draft Title V air quality permit for:

**R.J. Reynolds Tobacco Company**
**Tobaccoville Facility**
**Tobaccoville, NC**
**Permit #00745-TV-43**

This facility had applied for a renewal of its Title V Air Quality operating permit. The draft permit meets the Title V requirements as specified in FCAQTC Section 3Q-0500.

EPA will process this draft permit as a proposed permit and perform its 45-day review provided by Section 3Q-0522 *Review by EPA and Affected States* concurrently with the public notice period. If public comments are received that result in a change to the permit, EPA's 45-day review period will cease to be performed concurrently with the public notice period. The deadline for citizen's petitions to the EPA Administrator will be determined based on EPA's 45-day review period beginning after the public comment period has ended. The status regarding EPA's 45-day review of this project and the deadline for citizen's petitions can be found at the following website address:

https://www.epa.gov/caa-permitting/north-carolina-proposed-title-v-permits

The EAP will issue a final Air Quality Permit, in accordance with the conditions of the draft/proposed Air Quality Permit, unless there are public comments which result in a different decision or significant change in the permit.

A copy of the draft permit and statement of basis is available at the EAP's website:

http://www.forsyth.cc/EAP/public_notices.aspx

Additional information regarding the draft permit may be obtained from the Office of Environmental Assistance and Protection, Forsyth County Government Center, 201 N. Chestnut Street, Winston-Salem, NC 27101-4120; telephone (336) 703-2440. The public may submit written comments on these proceedings to the address above or by e-mail to lloydpb@forsyth.cc on or before **April 27, 2025**, the close of the public comment period.

Peter B. Lloyd, Ph.D., P.E., Manager
Compliance Assistance & Permitting Division

# DRAFT

## OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION

**FORSYTH COUNTY GOVERNMENT CENTER**
**201 NORTH CHESTNUT STREET**
**WINSTON-SALEM, NC 27101-4120**

**PERMIT TO OPERATE**
**AIR QUALITY CONTROL**
**CLASS: Title V**

| PERMIT NUMBER | EFFECTIVE DATE | EXPIRATION DATE | RENEWAL DUE |
|---|---|---|---|
| 00745-TV-43 | TBD | November 27, 2028 | February 27, 2028 |

**Facility Name:** R.J. Reynolds Tobacco Company - Tobaccoville
**Mailing Address:** P.O. Box 2959
**City, State, ZIP Code:** Winston-Salem, NC 27102

**Facility Location:** RJR Moore Road
**City:** Tobaccoville, NC

In accordance with the provisions set forth in the Forsyth County Air Quality Technical Code and Chapter 3 of the Forsyth County Code, "Air Quality Control", the facility identified above is authorized to operate, as outlined in Part I, "Air Quality Title V Operation Permit", the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations contained within this permit.

The permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete air quality permit application to the Forsyth County Office of Environmental Assistance and Protection and received an Air Quality Permit, except as provided in this permit or in accordance with applicable provisions of the Forsyth County Air Quality Technical Code.

This permit supersedes all previous permits issued to the permittee by the Forsyth County Environmental Affairs Department or Forsyth County Office of Environmental Assistance and Protection.

Peter B. Lloyd, Ph.D., P.E., Program Manager
Compliance Assistance & Permitting Division

DATE:

# R. J. Reynolds Tobacco Company
# Air Quality Permit # 00745-TV-43
**TBD**

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### AIR QUALITY OPERATING PERMIT

**SECTION 1**



**SECTION 2**

# PART II

# Part I

## AIR QUALITY OPERATING PERMIT

In Part I of this permit, all references to permit conditions are for permit conditions in Part I unless otherwise specified.

## SECTION 1
## PERMITTED EQUIPMENT AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)

### 1.1 Equipment List and Applicable Conditions

### Building 851-1 Cigarette Manufacturing

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-1 | Strip Receiving/Blending | | x | 45.0 | x | | | 70 | | | | | x | | 21/21A | x | |
| | | | | | | | | 82 | | | | | x | | 12/12A | x | |
| | | | | | | | | 84, 85, 86 | | | | | x | | 6/6A | x | |
| | | | | | | | | 87, 88, 90 | | | | | x | | 5/5A | x | |
| | | | | | | | | 102 | x | | | x | | | 9 | x | |
| | | | | | | | | 103 | x | | | x | | | 10 | x | |
| | | | | | | | | 104 | x | | | x | | | 8 | x | |
| ES-6 | Recovered Tobacco Silo Discharge (Menthol) | | x | 17.9 | x | | | 67 | | | | | x | | 24/24E | x | |
| ES-7 | Recovered Tobacco Conveying | | x | 17.9 | x | | | 67 | | | | | x | | 24/24E | x | |
| | | | | | | | | 71, 72, 73, 74 | | | | | x | | 24/24A 24B/24C 24D | x | |
| | | | | | | | | 77 | x | | | x | | | 24 | x | |
| | | | | | | | | 79 | | | | | x | | 24 | x | |
| ES-8 | Processed & Recovered Tobacco Input | | x | 16.5 | | | | 67 | | | | | x | | 24/24E | x | |
| | | | | | | | | 80 | x | | | x | | | 24 | x | |
| | | | | | | | | 92 | | | | | x | | 16/16A | x | |

# Building 851-1 Cigarette Manufacturing

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-9 | Processed Tobacco Conveying | | x | 27.9 | | | | 66 | | | | | x | | 51/25:51A | x | |
| | | | | | | | | 67 | | | | | x | | 24/24E | x | |
| | | | | | | | | 71, 72, 73, 74 | | | | | x | | 24/24A 24B/24C 24D | x | |
| ES-10 | Expanded Tobacco Conveying | | x | 28.4 | x | | | 63 | | | | | x | | 25/25:51A | x | |
| | | | | | | | | 71,72, 73,74 | | | | | x | | 24/24A 24B/24C 24D | x | |
| ES-11 | Tobacco Strip Conveying/Blending | | x | 46.3 | x | | | 68, 70 | | | | | x | | 21/21A | x | |
| | | | | | | | | 87, 88, 90 | | | | | x | | 5/5A | x | |
| ES-12 | Tobacco Strip Conveying/Storage | | x | 47.4 | x | | | 68 | | | | | x | | 21/21A | x | |
| | | | | | | | | 69 | x | | | x | | | 22/22A | x | |
| | | | | | | | | 70 | | | | | x | | 21/21A | x | |
| | | | | | | | | 71, 72, 73, 74 | | | | | x | | 24/24A 24B/24C 24D | x | |
| | | | | | | | | 107 | | | | | x | | 37 | x | |
| ES-13 | Tobacco Strip Conveying to Casing/Drying | | x | 30.5 | x | | | 107 | | | | | x | | 37 | x | |
| | | | | | | | | 112 | | | | | x | | 36 | x | |

# Building 851-1 Cigarette Manufacturing

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-14 | Tobacco Strip Casing/Drying | | x | 26.3 | x | | | 70 | | | | | x | | 21/21A | x | |
| | | | | | | | | 107 | | | | | x | | 37 | x | |
| | | | | | | | | 112 | | | | | x | | 36 | x | |
| | | | | | | | | 108 | x | | | x | | | 34 | x | |
| | | | | | | | | 109 | x | | | x | | | 35 | x | |
| | | | | | | | | 128 | | | | | | x | 43 | x | |
| | | | | | | | | 129 | | | | | | x | 40 | x | |
| | | | | | | | | N/A | | | | | | | 39, 42 | x | |
| | | | | | | | | N/A | | | | | | | 38, 41 | x | |
| ES-15 | Tobacco Casing/Cutting/Storage | | x | 45.2 | x | | | 13 | | | | | x | | 32/32A | x | |
| | | | | | | | | 19 | x | | | x | | | 32/32A | x | |
| | | | | | | | | 14, 20 | x | | | x | | | 31/31A | x | |
| | | | | | | | | 15, 16 | x | | | x | | | 30/30A | x | |
| | | | | | | | | 17 | | | | | x | | 29/29A | | |
| | | | | | | | | 18 | x | | | x | | | 29/29A | x | |
| | | | | | | | | 50, 51, 52, 53, 55, 57, 59, 61 | | | | | x | | 23 | x | |
| | | | | | | | | 54, 56, 58, 60 | x | | | x | | | 23 | x | |
| | | | | | | | | 71, 72, 73, 74 | | | | | x | | 24/24A 24B/24C 24D | x | |
| | | | | | | | | 119, 120, 121, 122 | | | | | | x | 20 | x | |
| | | | | | | | | 123, 124, 125, 126 | | | | | | x | 23 | x | |
| | | | | | | **x** | | **RTO** | | | x | x | | | 60 | x | |
| | | | | | | | | N/A | | | | | | | 61 | x | |
| | | | | | | | | N/A | | | | | | | 26 | x | |
| | | | | | | | | Fugitive | | | | | | | | | |
| ES-16 | Cut Tobacco Silo Discharge | | x | 44.4 | x | | | 13 | | | | | x | | 32/32A | x | |
| | | | | | | | | 19 | x | | | x | | | 32/32A | x | |
| | | | | | | | | 14, 20 | x | | | x | | | 31/31A | x | |
| | | | | | | | | 15, 16 | x | | | x | | | 30/30A | x | |
| | | | | | | | | 18 | x | | | x | | | 29/29A | x | |

# Building 851-1 Cigarette Manufacturing

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-18 | Filter Making | | x | 21.4 | x | | | 113 | | | | | x | | 29/29B | x | |
| | | | | | | | | 114 | | | | | x | | 32/32B | x | |
| | | | | | | | | 115 | | | | | x | | 30/30B | x | |
| | | | | | | | | 116 | | | | | x | | 31/31B | x | |
| | | | | | | | | Fugitive | | | | | | | | | |
| ES-19 | Cigarette Making | | x | 45.5 | x | | | 1, 2 | | | | | x | | 29 | x | |
| | | | | | | | | 3, 4 | | | | | x | | 32 | x | |
| | | | | | | | | 5, 6, 7, 10 | | | | | x | | 31 | | |
| | | | | | | | | 8, 9, 11, 12 | | | | | x | | 30 | x | |
| | | | | | | | | 21, 22 | x | | | x | | | 29 | x | |
| | | | | | | | | 23, 24 | x | | | x | | | 32 | x | |
| | | | | | | | | 25, 26, 27 | x | | | x | | | 31 | x | |
| | | | | | | | | 28, 29, 31, 32 | x | | | x | | | 30 | x | |
| | | | | | | | | 30, 131 | | | | | x | | 31 | | |
| | | | | | | | | Fugitive | | | | | | | | | |
| ES-20 | Housekeeping (Industrial Vac) | | x | 19.2 | x | | | 33 | | | | | x | | 30 | x | |
| | | | | | | | | 35 | | | | | x | | 31 | x | |
| | | | | | | | | 38, 42 | | | | | x | | 29 | x | |
| | | | | | | | | 40, 44, 45 | | | | | x | | 32 | x | |
| | | | | | | | | 46 | | | | | x | | 33 | x | |
| | | | | | | | | 48 | Note: This control vents through CD-71. | | | | x | | 24/24A 24B/24C 24D | x | |
| | | | | | | | | 64 | | | | | x | | 25 | x | |
| | | | | | | | | 93 | | | | | x | | 6 | x | |
| | | | | | | | | 106 | | | | | x | | 4 | x | |
| | | | | | | | | 111 | | | | | x | | 37 | x | |

# Building 851-1 Cigarette Manufacturing

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-21 | Tobacco Expansion Process | | x | 10.2 | | | | 63 | | | | | x | | 25/25:51A | x | |
| | | | | | | | | 66 | | | | | x | | 51/25:51A | x | |
| | | | | | | | | 67 | | | | | x | | 24/24E | x | |
| | | | | | | | | 68 | | | | | x | | 21/21A | x | |
| | | | | | | | | 71, 72, 73, 74 | | | | | | | 24/24A 24B/24C 24D | | |
| | | | | | | | | 92 | | | | | x | | 16/16A | x | |
| | | | | | | | | 127 | | | | | | x | 50 | x | |
| | | | | | | **x** | | **130** | | x | | x | | | 52 | x | |
| ES-24 | Box Filling | | x | 19.2 | | | | 19 | | | | | x | | 32/32A | x | |
| ES-25 | Small Batch - Receiving and Blending | | x | 4.10 | | | | 132 | | | | | | x | 62 | x | |
| ES-26 | Small Batch - Casing and Drying | | x | 2.58 | | | | 132 | | | | | | x | 62 | x | |
| | | | | | | | | 133 | x | | | x | | | 63 | x | |
| | | | | | | | | N/A | | | | | | | 64 | x | |
| | | | | | | | | N/A | | | | | | | 65 | x | |
| ES-27 | Small Batch - Casing and Cutting | | x | 5.97 | | | | 75 | | | | | x | | 24/24A 24B/24C 24D | x | |
| | | | | | | | | 76 | | | | | x | | 24/24A 24B/24C 24D | x | |
| | | | | | | | | 122 | | | | | | x | 20 | x | |
| | | | | | | | | 126 | | | | | | x | 23 | x | |
| | | | | | | **x** | | **RTO** | | | x | x | | | 60 | x | |
| | | | | | | | | N/A | | | | | | | 61 | x | |
| | | | | | | | | Fugitive | | | | | | | | | |
| F-13 | Casing Preparation Area | | | | | | | All Fugitive | | | | | | | | | |
| F-16 | Packing Equipment | | | | | | | All Fugitive | | | | | | | | | |

## Building 851-1 Moist Snuff Pouch (MSP), Modern Oral Pouch (MOP), and Snus Manufacturing

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-28 | MSP Processing | | | | | | | All Fugitive | | | | | | | | | |
| ES-30 | MOP Processing 1 | | | | | | | All Fugitive | | | | | | | | | |
| ES-31 | MOP Processing 2 | | | | | | | All Fugitive | | | | | | | | | |
| ES-32 | MOP Packaging | | x | 2.49 | | | | 134 | | | | | x | | 68 | x | |
| | | | | | | | | 135 | | | | | x | | 69 | x | |
| ES-33 | Snus Primary | | x | 1.55 | | | | 89 | | | | | x | | 1/1:2A | x | |
| ES-34 | Snus Processing | | | | | | | All Fugitive | | | | | | | | | |
| ES-35 | Snus Packaging | | x | 1.55 | | | | 89 | | | | | x | | 1/1:2A | x | |

## Building 854-8 Utilities

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-1 | Boiler #5: (87.9 mmBtu/hr, NG) | | | | | | | N/A | | | | | | | | | |
| | Combusting No. 2 fuel oil | x | | | | | x | | | | | | | | 22 | | x |
| | Combusting natural gas | x | | | | x | | | | | | | | | | x | |
| ES-2 | Boiler #6: (87.9 mmBtu/hr, NG) | | | | | | | N/A | | | | | | | | | |
| | Combusting No. 2 fuel oil | x | | | | | x | | | | | | | | 23 | | x |
| | Combusting natural gas | x | | | | x | | | | | | | | | | x | |
| ES-3 | Boiler #7: (87.9 mmBtu/hr, NG) | | | | | | | N/A | | | | | | | | | |
| | Combusting No. 2 fuel oil | x | | | | | x | | | | | | | | 24 | | x |
| | Combusting natural gas | x | | | | x | | | | | | | | | | x | |
| ES-4 | Emergency Generator 19.92 MMBtu/hr | | | | | x | | N/A | | | | | | | 25 | x | |

## Temporary Boilers

In the event that the Tobaccoville facility's steam supply (received from the Building 854-8 boilers) is interrupted, one or two temporary boilers will be installed and operated at the Tobaccoville facility.

| | | Applicable Standards | | | | | | | CAM | | | | non-CAM | | | Visible Emissions | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | PM | PM | | PM | SO2 | SO2 | | Fabric Filter | Fume Incin. | Thermal Incin. | Visual Observ. | Fabric Filter | Wet Scrubber | | | |
| | Applicable Permit Condition | 3.3(A) | 3.3(B) (1) | max. lb/hr | 3.3(C) BACT | 3.4(A) | 3.4(B) NSPS Dc | | 3.6(B) (1),(5),(6) | 3.6(B) (2),(5),(6) | 3.6(B) (3),(5),(6) | 3.6(B) (4),(5),(6) | 3.6(A) (1),(3),(4) | 3.6(A) (2),(3),(4) | | 3.5(A) | 3.5(B) NSPS Dc |
| **ES#** | **Emission Source** | | | | | | | **CD#** | **Controls** | | | | | | **EP#** | **Emission Point** | |
| ES-TEMP | One or two temporary boilers with low-NOx burners fired with diesel fuel with a sulfur content not to exceed 0.05% sulfur or with natural gas and with a combined maximum firing rate not to exceed 98 mmBtu/hr. | x | | | | x | | N/A | | | | | | | EP-T1 (plus EP-T2, if applicable) | x | |

**Note:**

The "x" denotes the applicable conditions in Section 3.

Some emissions have the capability of being recirculated back to the plant through air handling units or exhaust to atmosphere. The Emission Point ID numbers that end with A, B, C, D, or E identify these exhausts as the stacks which have this capability. These emission points are air dehumidifier relief vents through which emissions may be vented to the atmosphere instead of back into the plant.

Mikropul Fabric Filter (ADC 15042) listed in permit application as CD-62-851-1 is not a true control device. It serves as a material separator and its exhaust is routed through CD-48-851-1. Therefore, it is not listed on this permit as a control device.

An emission source may be operated without the concurrent operation of its associated control device only if the emissions are not considered regulated pollutants during this time (i.e. particulate matter emissions being exhausted inside the facility instead of to atmosphere while the control device is not operational).

## 1.2 Operating Conditions Not Covered Under the Permit Shield

The following specific conditions have been revised or added to this permit following procedures other than the Significant Modification procedures in Section 3Q-0500 of the Forsyth County Air Quality Control Ordinance and Technical Code. As required under Sec. 3Q-0512 Permit Shield and Application Shield, a permit shield is not provided for these new or revised permit requirements. During the next Significant Modification as defined in Sec. 3Q-0516 or renewal of this permit, the Title V permit applications for the new and revised permit requirements listed below will also be processed according to the Significant Modification procedures and then a permit shield will be extended at that time.

| Source ID | Source Description | Unshielded Operating Conditions | Effective Date |
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# SECTION 2
# FACILITY GENERAL ADMINISTRATIVE CONDITIONS

## 2.1 General Provisions [Sections 3-0100, 3-0200 and Sec. 3Q-0508(i)(16)]

A. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in Subchapters 3D and 3Q of the Forsyth County Air Quality Technical Code (FCAQTC).

B. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Sections 3-0100 and 3-0200 of the FCAQTC, including assessment of civil and/or criminal penalties. This permit is valid only for the specific processes and operations applied for and indicated in the air quality permit application. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and enforcement action by the Office of Environmental Assistance and Protection (Office).

C. This permit is not a waiver of or approval of any other permits that may be required for other aspects of the facility which are not addressed in this permit.

D. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore. This permit does not allow the permittee to cause pollution in contravention of local laws or rules, unless specifically authorized by an order from the Director, or to cause pollution in contravention of state laws or rules.

E. Terms and conditions contained herein shall be enforceable by this Office, the U.S. EPA and citizens of the United States as defined in the federal Clean Air Act, except those identified as ***Locally Enforceable Only*** requirements which are enforceable by this Office.

F. Any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained or modified without the appropriate and valid permits issued by this Office, unless the source is exempted by rule. This Office may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the applicable requirements.

G. In addition to the authority found in Sec. 3D-0501 and 3Q-0508(i)(16), any deviation from the monitoring provisions of this permit may result in a request by this Office to submit data on rates of emissions in order to demonstrate compliance with any applicable regulation.

2.2 **Permit Availability [Sec. 3Q-0507(k), 0508(i)(16), 0508(i)(9) and 0110]**

The permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of this Office or the U.S. EPA upon request.

2.3 **Submissions [Sec. 3Q-0507(c), 0508(i)(16) and 0104]**

A. All documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required to be sent to this Office by this permit shall be submitted to the Forsyth County Office of Environmental Assistance and Protection, Forsyth County Government Center, 201 N. Chestnut Street, Winston-Salem, NC 27101-4120.

B. All documents, reports, test data, monitoring data, notifications, and any other information required to be sent to **U.S. EPA Region 4, Air Enforcement Branch** shall be submitted through EPA's Compliance and Emissions Data Reporting Interface, CEDRI, or submitted to U.S. EPA Region 4, Air Enforcement Branch, 61 Forsyth Street, S.W., Atlanta, GA 30303.

C. All documents, reports, test data, monitoring data, notifications, and any other information required to be sent to U.S. EPA Region 4, Air Permits Section shall be submitted through EPA's Compliance and Emissions Data Reporting Interface, CEDRI, or submitted to U.S. EPA Region 4, Air Permits Section, 61 Forsyth Street, S.W., Atlanta, GA 30303.

2.4 **Severability Clause [Sec. 3Q-0508(i)(2)]**

The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any specific circumstance, is challenged, the application of the provision in question to other circumstances, as well as the remainder of this permit's provisions, shall not be affected.

2.5 **Duty to Comply [Sec. 3Q-0508(i)(3)]**

The permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2.6 **Need to Halt or Reduce Activity Not a Defense [Sec. 3Q-0508(i)(4)]**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2.7 **Permit Shield [Sec. 3Q-0512(a)]**

A. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.

B. A permit shield shall not alter or affect:

1. the power of the Forsyth County Board of Commissioners, Director, or Governor under NCGS 143-215.3(a)(12) or the U.S. EPA under Section 303 of the federal Clean Air Act;
2. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
3. the applicable requirements under Title IV of the Clean Air Act; or
4. the ability of the Director or the U.S. EPA under Section 114 of the federal Clean Air Act to obtain information to determine compliance of the facility with its permit.

C. A permit shield shall not apply to any change made at a facility that does not require a permit or to any permit revision made under Sec. 3Q-0523.

D. A permit shield shall not extend to minor permit modifications made under Sec. 3Q-0515.

2.8 **Circumvention [Sec. 3D-0502 and 3Q-0508(i)(16)]**

No person shall circumvent any permitted air pollution control device, or allow the emissions of regulated air pollutants without the applicable air pollution control device operating properly. Unless otherwise specified by this permit, no permitted emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

2.9 **Good Air Pollution Control Practice [Sec. 3D-0502 and 3Q-0508(i)(16)]**

At all times, the equipment listed in *Section 1* shall be operated and maintained in a manner consistent with the design and emissions control as applied for in the application.

2.10 **Reporting Requirements for Excess Emissions and Permit Deviations**

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections 3D-0500, 0900, 1200 or 1400; or by a permit condition; or that exceeds a ***Locally Enforceable Onl*** y emission limit established in a permit issued under Section 3Q-0700. (*Note: This definition applies where the NSPS does not further define excess emissions for an affected NSPS emissions source.* )

“Deviation” - means any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions.

A. Sources subject to Sec. 3D-0524, 1110 or 1111

Excess Emissions and Permit Deviations

1. If the source specific NSPS (Sec. 3D-0524) or NESHAP (Sec. 3D-1110 or 1111) defines "excess emissions", these shall be reported as prescribed in Sec. 3D-0524, 1110 or 1111.

2. If the source specific NSPS (Sec. 3D-0524) or NESHAP (Sec. 3D-1110 or 1111) does NOT define “excess emissions”, the permittee shall report excess emissions as deviations from permit requirements as prescribed in paragraph 3, below.

3. In addition to any specific NSPS or NESHAP reporting requirements the permittee shall upon becoming aware:

    a. report to this Office any deviations from permit requirements by the next business day, unless an alternative reporting schedule is specifically provided in the permit, and

    b. report in writing to this Office all deviations from permit requirements or any excess emissions within two business days, unless an alternative reporting schedule is specifically provided in the permit. The written report shall include the probable cause of such deviations and any corrective actions or preventative actions taken. Reports of all deviations from permit requirements shall be certified by a responsible official.

B. Sources NOT subject to Sec. 3D-0524, 1110 or 1111

1. Excess Emissions Greater than Four Hours in Duration [Sec. 3D-0535(f)]

The permittee shall report excess emissions greater than four hours in duration as prescribed in Sec. 3D-0535(f) including, but not limited to the following:

    a. Notify this Office of any such occurrence by 9:00 a.m. Eastern time of this Office's next business day of becoming aware of the occurrence as described in Sec. 3D-0535(f)(1);

    b. Notify this Office immediately when corrective measures have been accomplished; and

    c. Submit, if requested, to this Office within 15 days after the request, a written report as described in Sec. 3D-0535(f)(3).

2. Excess Emissions Less than Four Hours in Duration and Deviations [Sec. 3Q-0508(f)]

The permittee shall report excess emissions less than four hours in duration and deviations from permit requirements as follows:

    a. Report to this Office any excess emissions less than four hours in duration and any deviations from permit requirements quarterly, unless an alternative reporting schedule is specifically provided in the permit; and

b. Report in writing to this Office any excess emission less than four hours in duration or any deviations from permit requirements quarterly, unless an alternative reporting schedule is specifically provided in the permit. The written report shall include the probable cause of such excess emissions and deviations and any corrective actions or preventative actions taken. All reports of excess emissions and deviations from permit requirements shall be certified by a responsible official.

C. Other Requirements under Sec. 3D-0535 (Sec. 3D-0535(g) is ***Locally Enforceable Only*** ).

The permittee shall comply with all other requirements contained in Sec. 3D-0535(c) for excess emissions that do not occur during startup or shutdown and Sec. 3D-0535(g) for excess emissions that occur during startup or shutdown.

2.11 **Emergency Provisions <40 CFR 70.6(g)>**

The permittee shall be subject to the following provision with regard to emergencies:

A. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

B. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in paragraph C below are met.

C. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows:

1. an emergency occurred and that the permittee can identify the cause(s) of the emergency;
2. the permitted facility was at the time being properly operated;
3. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the standards, or other requirements in the permit; and
4. the permittee submitted notice of the emergency to this Office within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, and steps taken to mitigate emissions, and corrective actions taken.

D. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

E. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

2.12 **Permit Fees [Sec. 3Q-0206(b), 0508(i)(10) and 0519(a)(4)]**

If, within 30 days after being billed, the permittee fails to pay an annual permit fee required under Subchapter 3Q-0200 of the FCAQTC, the Director may initiate action to terminate this permit under Sec. 3Q-0519 of the FCAQTC.

2.13 **Annual Emission Inventory Requirements [Sec. 3Q-0207]**

The permittee shall report to the Director by June 30th of each year the actual emissions of each air pollutant listed in Sec. 3Q-0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form(s) as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

2.14 **Compliance Certification <40 CFR 70.6(c)> [Sec. 3Q-0508(n) and 0508(i)(16)]**

By March 1st unless another date is established by the Director, the permittee shall submit to this Office and the U.S. EPA Air Enforcement Branch a compliance certification by a responsible official with all terms and conditions in the permit, including emissions limitations, standards, or work practices. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the federal Clean Air Act. The compliance certification shall include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports as applicable):

A. the identification of each term or condition of the permit that is the basis of the certification;

B. the status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the methods or means designated in 40 CFR 70.6(c)(5)(iii)(B). The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR 64 occurred;

C. whether compliance was continuous or intermittent;

D. the identification of the method(s) or other means used by the owner and operator for determining the compliance status with each term and condition during the certification period; these methods shall include the methods and means required under 40 CFR Part 70.6(a)(3); and

E. such other facts as the Director may require to determine the compliance status of the source.

2.15 **Retention of Records [Sec. 3Q-0508(f)]**

The permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit.

2.16 **NESHAP - Recordkeeping Requirement for Applicability Determinations <40 CFR 63.10(b)(3)> [Sec. 3D-1111]**

If the permittee determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under 40 CFR Part 63, the permittee shall keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source. This record shall include all of the information required under 40 CFR 63.10(b)(3).

2.17 **Duty to Provide Information [Sec. 3Q-0508(i)(9)]**

A. The permittee shall furnish to this Office, in a timely manner, any reasonable information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.

B. The permittee shall furnish this Office copies of records required to be kept by the permit when such copies are requested by the Director.

2.18 **Duty to Supplement or Correct Application [Sec. 3Q-0507(f)]**

The permittee, upon becoming aware that any relevant facts were omitted from the application or that incorrect information was submitted with the application, shall promptly submit such supplementary facts or corrected information to this Office. The permittee shall also provide additional information necessary to address any requirements that become applicable to the source after the date a complete application was submitted but prior to release of the draft permit.

2.19 **Certification by Responsible Official [Sec. 3Q-0520]**

A responsible official (as defined in 40 CFR 70.2) shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statement and information in the document are true, accurate, and complete.

2.20 **Inspection and Entry [Sec. 3Q-0508(l)]**

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of this Office to perform the following:

1. enter upon the permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;

2. have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;
3. inspect, at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. sample or monitor substances or parameters, at reasonable times and using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements.

Nothing in this condition shall limit the ability of the U.S. EPA to inspect or enter the premises of the permittee under Section 114 or other provisions of the Clean Air Act.

B. No person shall obstruct, hamper or interfere with any such authorized representative while in the process of carrying out his official duties.

2.21 **Averaging Times <40 CFR 70.6(a)(3)> [Sec. 3Q-0508(f)]**

Unless otherwise specified in *Section 3* of this permit for a specific emission standard or limitation, the applicable averaging period for determining compliance with an emission standard or limitation during compliance testing shall be based on the applicable U.S. EPA reference test method.

2.22 **Compliance Testing [Sec. 3D-2602(e)]**

When requested by this Office for determining compliance with emission control standards, the permittee shall provide sampling ports, pipes, lines, or appurtenances for the collection of samples and data required by the test procedure; scaffolding and safe access to the sample and data collection locations; and light, electricity, and other utilities required for sample and data collection.

2.23 **General Emissions Testing and Reporting Requirements [Sec. 3D-2602 and 3Q-0508(i)(16)]**

Testing shall be conducted in accordance with FCAQTC Sec. 3D-2600 except as may be otherwise required in FCAQTC Sections 3D-0524, 3D-0912, 3D-1110, 3D-1111, 3D-1415 or a permit condition specific to the emissions source. Requests to use an alternative test method or procedure must be made in writing at least 45 days prior to the test and approved by this Office. Alternatives to test methods or procedures specified for emissions sources subject to test requirements under 40 CFR 60, 40 CFR 61 or 40 CFR 63, may require approval by the U.S. EPA. When required to conduct emissions testing under the terms of the permit:

A. The permittee shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved prior to air pollution testing. Emission testing protocols must be submitted at least 45 days before conducting the test for pre-approval prior to testing if requested by the permittee.

B. The permittee shall notify this Office of the specific test dates at least 15 days prior to the scheduled test date in order to afford this Office the opportunity to have an observer on-site during the sampling program.

C. During all sampling periods, the permittee shall operate the emission source(s) under operating conditions that best fulfill the purpose of the test and are approved by the Director or his delegate.

D. The permittee shall submit one copy of the test report to this Office not later than 30 days after sample collection. The permittee may request an extension to submit the final test report if the extension request is a result of actions beyond the control of the permittee. The test report shall contain at a minimum the following information:

1. a certification of the test results by sampling team leader and facility representative;
2. a summary of emissions results expressed in the same units as the emission limits given in the rule for which compliance is being determined and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s) as appropriate;
3. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics as necessary;
4. all field, analytical and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
5. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
6. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.

E. This Office will review emission test results with respect to the specified testing objectives as proposed by the permittee and approved by this Office.

2.24 **Termination, Modification, and Revocation of the Permit [Sec. 3Q-0519]**

The Director may terminate, modify, or revoke and reissue this permit if:

A. the information contained in the application or presented in support thereof is determined to be incorrect;
B. the conditions under which the permit or permit renewal was granted have changed;
C. violations of conditions contained in the permit have occurred;
D. the permit holder fails to pay fees required under Section 3Q-0200 within 30 days after being billed;

E. the permittee refuses to allow the Director or his authorized representative upon presentation of credentials:

1. to enter, at reasonable times and using reasonable safety practices, the permittee's premises in which a source of emissions is located or in which any records are required to be kept under terms and conditions of the permit;
2. to have access, at reasonable times, to any copy or records required to be kept under terms and conditions of the permit;
3. to inspect, at reasonable times and using reasonable safety practices, any source of emissions, control equipment, and any monitoring equipment or method required in the permit; or
4. to sample, at reasonable times and using reasonable safety practices, any emission sources at the facility;

F. the U.S. EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or

G. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of Chapter 3 of the Forsyth County Code.

2.25 **Permit Reopenings, Modifications, Revocations and Reissuances, or Terminations [Sec. 3Q-0508(i)(5)]**

The Director may reopen, modify, revoke and reissue, or terminate this permit for reasons specified in Sec. 3Q-0517 or 0519. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition in this permit.

2.26 **Permit Renewal [Sec. 3Q-0508(e) and Sec. 3Q-0513]**

This permit is issued for a term not to exceed five years. Permits issued under Title IV of the Clean Air Act shall be issued for a fixed period of five years. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the permittee or applicant has complied with Sec. 3Q-0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

2.27 **Reopening for Cause [Sec. 3Q-0517 and 0508(g)]**

This permit shall be reopened and revised in accordance with Sec. 3Q-0517 prior to its expiration date, for any of the following reasons:

A. Additional applicable requirements become applicable to the facility with remaining permit term of three or more years.

B. Additional requirements, including excess emissions requirements, become applicable to this source under Title IV of the Clean Air Act. Excess emissions offset plans for this source shall become part of this permit upon approval by the U.S. EPA.

C. The Director or the U.S. EPA finds that a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

D. The Director or the U.S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

2.28 **Construction and Operation Permits [Sections 3Q-0100 and 0300]**

A construction and operating permit shall be obtained by the permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in following the procedures under Sec. 3Q-0500 (except for Sec. 3Q-0504) or a construction and operation permit following the procedures under Sec. 3Q-0504 and filing a complete application to modify the construction and operation permit to meet the requirements of Section 3Q-0500. If the procedures under Sec. 3Q-0504 are followed, the application to meet the requirements of Section 3Q-0500 shall be submitted:

A. within 12 months of beginning operation if the modification does not contravene or conflict with a condition in the existing permit, or

B. before beginning operation if the significant modification contravenes or conflicts with a condition in the existing permit.

2.29 **Permit Modifications [Sec. 3Q-0514, 0515, 0516, 0517, 0523 and 0524]**

A. Permit modifications may be subject to the requirements of Sec. 3Q-0514, 0515, 0516 and 0524.

B. Changes made pursuant to Sec. 3Q-0523(a), Section 502(b)(10) changes, and (b), Off-permit changes do not require a permit modification. The permittee shall notify the Director and U.S. EPA Region 4, Air Permits Section at least seven days before making a 502(b)(10) change.

C. The permittee shall submit an application for reopening for cause in accordance with Sec. 3Q-0517 if notified by this Office.

D. To the extent that emissions trading is allowed under FCAQTC Subchapter 3D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to Sec. 3Q-0523(c).

2.30 **Insignificant Activities [Sec. 3Q-0503 and 0508(i)(15)]**

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The permittee shall have available at the facility at all times and made available to an authorized representative of this Office upon request, documentation, including calculations if necessary, to demonstrate that an emission source or activity is insignificant.

2.31 **Standard Application Form and Required Information [Sec. 3Q-0505 and 0507]**

The permittee shall submit applications and required information in accordance with the provision of Sec. 3Q-0505 and 0507.

2.32 **Property Rights [Sec. 3Q-0508(i)(8)]**

This permit does not convey any property rights of any sort, or any exclusive privileges.

2.33 **Refrigerant Requirements (Stratospheric Ozone and Climate Protection) [Sec. 3Q-0508(b)]**

A. If the permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR 82 Subpart A, Appendices A and B, the permittee shall service, repair, and maintain such equipment according to the work practices and personnel certification requirements, and the permittee shall use certified recycling and recovery equipment specified in 40 CFR 82 Subpart F.

B. The permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR 82 Subpart F.

C. The permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the U.S. EPA or its designee as required.

2.34 **Prevention of Accidental Releases - Section 112(r) [Sec. 3Q-0508(h)]**

If the permittee is required to develop and register a risk management plan pursuant to Section 112(r) of the federal Clean Air Act, then the permittee is required to register this plan in accordance with 40 CFR Part 68.

2.35 **Title IV Allowances [Sec. 3Q-0508(i)(1)]**

The facility's emissions are prohibited from exceeding any allowances that the facility lawfully holds under Title IV of the Clean Air Act. This permit shall not limit the number of allowances held by the permittee, but the permittee may not use allowances as a defense to noncompliance with any other applicable requirement.

2.36 **Air Pollution Alert, Warning or Emergency [Section 3D-0300]**

Should the Director of this Office declare an Air Pollution Alert, Warning or Emergency, the permittee will be required to operate in accordance with the permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in Section 3D-0300.

2.37 **Registration of Air Pollution Sources [Sec. 3D-0202]**

The Director of this Office may require the permittee to register a source of air pollution. If the permittee is required to register a source of air pollution, this registration and required information shall be in accordance with Sec. 3D-0202(b).

2.38 **Ambient Air Quality Standards [Sec. 3D-0501(e)]**

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in Sec. 3D-0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

2.39 **Odor [Sec. 3D-0522]** ***Locally Enforceable Only***

The permittee shall not cause or permit the emission of odors beyond the facility's property lines which are harmful, irritating or which unreasonably interfere with the use and enjoyment of any person's properties or living conditions, or any public properties or facilities. Such odors are prohibited by Sec. 3D-0522. No violation shall be cited, provided that the best practical treatment, maintenance, and control of odor(s) currently available is used. This requirement does not apply to normal agricultural practices, nor to accidental emissions of odors which are not normally produced during routine operations and activities as determined by the Director.

2.40 **Fugitive Dust Control Requirement [Sec. 3D-0540]**

The permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR 60, Appendix A), the owner or operator may be required to submit and implement a fugitive dust control plan as described in 3D .0540(f).

2.41 **NESHAP - National Emission Standard for Asbestos <40 CFR Part 61, Subpart M> [Sec. 3D-1110]**

The permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

## New Source Performance Standards (NSPS) General Provisions - Permit Conditions

Following are conditions found in the 40 CFR Part 60 NSPS General Provisions. The following conditions only apply to sources subject to a relevant standard of a subpart of 40 CFR Part 60 except when otherwise specified in a particular subpart or in a relevant standard.

2.42 **NSPS - General Provisions <40 CFR 60 Subpart A> [Sec. 3D-0524]**

The permittee shall comply with all applicable requirements specified in the general provisions of the New Source Performance Standards (40 CFR 60 Subpart A) including but not limited to requirements concerning notifications, testing, monitoring, recordkeeping, modifications and reconstruction.

2.43 **NSPS - Good Air Pollution Control Practice <40 CFR 60.11(d)> [Sec. 3D-0524]**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

2.44 **NSPS - Circumvention <40 CFR 60.12> [Sec. 3D-0524]**

Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard under 40 CFR 60. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

2.45 **NSPS - Maintain Records - Startup/Shutdown/Malfunction <40 CFR 60.7(b)> [Sec. 3D-0524]**

The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

2.46 **NSPS - Files Available for Inspection <40 CFR 60.7(f)> [Sec. 3D-0524]**

The permittee shall maintain a file of all measurements, including, if applicable, performance test measurements and all other information required in 40 CFR 60 . This file shall be kept in a permanent form suitable for inspection and shall be retained at least two years following the date of such measurements, maintenance, reports, and records.

2.47 **NSPS - Performance Testing Facilities Provided by Permittee <40 CFR 60.8(e)> [Sec. 3D-0524]**

For any performance testing, the permittee shall provide, or cause to be provided, performance testing facilities as follows:

A. Sampling ports adequate for the applicable test methods. This includes:
   1. constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and
   2. providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

B. Safe sampling platform(s) with safe access.

C. Utilities for sampling and testing equipment.

D. Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.

## Compliance Assurance Monitoring for Major Stationary Sources (CAM) - General Conditions - <40 CFR Part 64>

Following are conditions based on the requirements found in 40 CFR Part 64. These conditions only apply to sources subject to the CAM requirements.

2.48 **CAM - Proper Maintenance <40 CFR 64.7(b)> [Sec. 3D-0614]**

At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

2.49 **CAM - Continued Operation <40 CFR 64.7(c)> [Sec. 3D-0614]**

Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

2.50 **CAM - Response to Excursions or Exceedances <40 CFR 64.7(d)> [Sec. 3D-0614]**

Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designed condition, or below the applicable emissions limitation or standard, as applicable.

Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. Based on the results of this determination, this Office may require the permittee to develop and implement a Quality Improvement Plan (QIP). The elements of a QIP are identified in 40 CFR 64.8(b).

2.51 **CAM - Documentation of Need for Improved Monitoring <40 CFR 64.7(e)> [Sec. 3D-0614]**

After approval of the CAM plan, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify this Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conduction monitoring and collecting data, or the monitoring of additional parameters.

## National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP) General Conditions - [Sec. 3D-1111]

Following are conditions found in the 40 CFR Part 63 NESHAP General Provisions. The following conditions only apply to sources subject to a relevant standard of a subpart of 40 CFR Part 63 except when otherwise specified in a particular subpart or in a relevant standard.

2.52 **NESHAP - General Provisions <40 CFR 63 Subpart A> [Sec. 3D-1111]**

The permittee shall comply with all applicable requirements specified in the general provisions of the National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR 63 Subpart A) including but not limited to requirements concerning notifications, testing, monitoring, recordkeeping, modifications, construction, and reconstruction.

2.53 **NESHAP - Startup Shutdown and Malfunction Plan <40 CFR 63.6(e)(3)> [Sec. 3D-1111]**

The permittee shall develop and implement a written startup, shutdown and malfunction plan in accordance with the requirements in 40 CFR 63.6(e)(3).

2.54 **NESHAP - Good Air Pollution Control Practice <40 CFR 63.6(e) and 63.8(c)> [Sec. 3D-1111]**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall maintain and operate any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions at least to the levels required by all relevant standards. The permittee also shall maintain and operate each continuous monitoring system (CMS) as specified in 40 CFR 63.8, or in a relevant standard, and in a manner consistent with good air pollution control practices. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required by 40 CFR 63.6(e)(3). Operation and maintenance requirements established pursuant to Section 112 of the Clean Air Act are enforceable independent of emissions limitations or other requirements in relevant standards.

2.55 **NESHAP - Circumvention <40 CFR 63.4(b)> [Sec. 3D-1111]**

The permittee shall not build, erect, install, or use any article, machine, equipment or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere, the use of diluents to achieve compliance with a relevant standard for visible emissions, and the fragmentation of an operation such that the operation avoids regulation by a relevant standard.

2.56 **NESHAP - Maintain Records <40 CFR 63.10(b)(2)> [Sec. 3D-1111]**

For affected sources, the permittee shall maintain relevant records of:

A. the occurrence and duration of each startup, shutdown, or malfunction of operation;

B. the occurrence and duration of each malfunction of the air pollution control equipment;

C. all maintenance performed on the air pollution control equipment;

D. actions taken during periods of startup, shutdown, and malfunction;

E. all information necessary to demonstrate compliance with the affected source's startup, shutdown, and malfunction plan when all actions taken are consistent with the procedures specified in the plan;

F. each period during which a CMS is malfunctioning or inoperative;

G. all required measurement needed to demonstrate compliance with a relevant standard;

H. all results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

I. all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

J. all CMS calibration checks;

K. all adjustments and maintenance performed on CMS;

L. any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements if the source has been granted a waiver under 40 CFR 63.10(f);

M. all emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test if the source has been granted such permission under 40 CFR 63.8(f)(6); and,

N. all documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.

2.57 **NESHAP - Files Available for Inspection <40 CFR 63.10(b)(1)> [Sec. 3D-1111]**
The permittee shall maintain files of all information required by 40 CFR Part 63 recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site.

2.58 **NESHAP - Performance Testing Facilities Provided by Permittee <40 CFR 63.7(d)> [Sec. 3D-1111]**

For any performance testing for each new source and, at the request of the Director, for each existing source, the permittee shall provide performance testing facilities as follows:

A. Sampling ports adequate for test methods applicable to the affected source. This includes:
    1. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and
    2. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

B. Safe sampling platform(s).

C. Safe access to sampling platform(s).

D. Utilities for sampling and testing equipment.

E. Any other facilities that the Director deems necessary for safe and adequate testing of a source.

F. Unless otherwise specified in the applicable subpart, each performance test shall be conducted according to the requirements in 40 CFR 63.7.

# SECTION 3
# SPECIFIC LIMITATIONS AND CONDITIONS

The emission source(s) and associated air pollution control device(s) listed below are subject to the following specific terms, conditions, and limitations, including the monitoring recordkeeping, and reporting requirements to which those requirements apply:

## 3.1 Facility-Wide Emission Source Conditions

### A. Prevention of Significant Deterioration (PSD) [Sec. 3D-0530]

**1. Best Available Control Technology (BACT) for Volatile Organic Compounds**

The permittee shall not use ethanol as a vehicle for introducing flavoring agents into tobacco except to manufacture tobacco products with ethanol-based flavorings as allowed in permit condition 3.11 and for the usage of trace amounts of ethanol inherently present in flavorings used at ES-15-851-1. This work practice standard has been determined to be BACT for emissions of volatile organic compounds at this facility.

**2. Monitoring/Recordkeeping/Reporting [Sec. 3Q-0508(f)]**

The permittee shall maintain updated records of production rates, throughputs, material usage, and other process operational information as is necessary to determine compliance with the ethyl alcohol use limitations described above.

Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office. **[Sec. 3D-0605 and 1105]**

**3. Testing [Sec. 3D-0501(b)]**

If emissions testing is required by this Office or the U.S. EPA, or the permittee submits emissions testing to this Office in support of a permit application, the permittee shall perform such testing in accordance with the appropriate U.S. EPA reference method(s) as approved by this Office. The permittee may request approval from this Office for an alternate test method or procedure in writing.

### B. Limitation to Avoid Being Major for Hazardous Air Pollutants [Sec. 3D-1111 and 3Q-0317(a)(5)]

In order to remain classified as an area source for hazardous air pollutants under Sec. 3D-1111 and thereby avoid regulatory requirements of future NESHAP regulations, the facility must comply with the following:

**1. Emission Limits -**

Vinyl acetate emissions from the facility shall only derive from vinyl acetate in adhesives used at the facility. Total vinyl acetate emissions from the facility and shall not exceed 9.9 tons for any 12-month period.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f)]**
Compliance with the limit specified in condition 3.1(B)(1) shall be demonstrated by the following:

(a) the permittee shall maintain monthly records of all adhesive usage and of the weight fraction of vinyl acetate in the adhesives, as necessary to calculate vinyl acetate emissions using the formula in Section (b) below; and,

(b) total vinyl acetate emissions shall be calculated at the end of each month for the previous 12-month period using the following formula:

$$E = \sum_{i=1}^{12} \sum_{j=1}^{n} (Wj \times Cj) / 2000$$

E = 12-MONTH VINYL ACETATE EMISSIONS (TONS).
Wj = MONTHLY USAGE IN POUNDS FOR ADHESIVE j.
Cj = WEIGHT FRACTION OF VINYL ACETATE IN ADHESIVE j.
i = MONTH 1 THROUGH 12.

3. **Reporting - [Sec. 3Q-0508(f)]**

The permittee shall submit a semiannual report to this Office containing the following information:

(a) total vinyl acetate emissions (tons) emitted each month and for each 12-month period ending on each month using the formula in Section 3.1(B)(2)(b) above; and,

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

## 3.2 Source Specific Emission Limits:

### Prevention of Significant Deterioration (PSD) - Limits to Avoid PSD Review

A. **Prevention of Significant Deterioration:**
**ES-1-851-1 [Sec. 3D-0530 and 3Q-0317]**

1. **Standard/Operation requirements for particulate matter and VOCs for ES-1-851-1**

   In any consecutive 12-month period, VOC emissions shall not exceed 40 tons, and PM emissions shall not exceed 25 tons. Compliance with these emission limits is demonstrated by limiting the throughput. Combined throughput rates shall not exceed 216,705 tons of tobacco (dry weight) per monthly rolling 12-month total in order to remain below the significant levels established for exemption from further regulation under Prevention of Significant Deterioration for particulate matter and VOC emissions.

2. **Monitoring/Recordkeeping requirement [Sec. 3Q-0508(f)]**
   The permittee shall maintain monthly and monthly rolling 12-month total records of tobacco throughput rates (dry weight) for ES-01. These records shall be maintained at the facility for a period of five years following the date of such record and shall be made available upon request to this Office.

3. **Reporting requirement [Sec. 3Q-0508(f)]**
   The permittee shall submit a report of the monitoring requirements to this Office by January 30th and July 30th for the preceding six-month period.

B. **Prevention of Significant Deterioration:**
**ES-18-851-1, ES-19-851-1, and F-16-851-1 [Sec. 3D-0530 and 3Q-0317]**

1. **Emission limit for volatile organic compounds (VOC)**

   The combined emissions of VOC from these sources shall be limited to no more than 100.1 tons in any consecutive 12-month period.

2. **Monitoring/Recordkeeping requirement [Sec. 3Q-0508(f)]**
   The permittee shall maintain updated records of production rates, throughputs, material usage, and other process operational information as is necessary to determine compliance with the emission limit described above. At a minimum these records shall include data sufficient to calculate the combined VOC emission rate from these emission sources on a monthly and monthly rolling 12-month total basis. The permittee shall maintain monthly and monthly rolling 12-month total records of VOC emissions from these emission sources. These records shall be maintained at the facility for a period of five years following the date of such record and shall be made available upon request to this Office.

3. **Reporting requirement [Sec. 3Q-0508(f)]**
   The monthly and monthly 12-month total records described in the paragraph above shall form the basis of a semi-annual report which shall be submitted to this Office by January 30th and July 30th for the proceeding six-month period.

C. **Prevention of Significant Deterioration:**

**ES-25-851-1, ES-26-851-1, and ES-27-851-1 [Sec. 3D-0530 and 3Q-0317(b)]**

1. **Emission limit for volatile organic compounds (VOC)**

The combined emissions of VOC from tobacco processing in

ES-25-851-1: Small Batch Receiving and Blending
ES-26-851-1: Small Batch Casing and Drying
ES-27-851-1: Small Batch Casing and Cutting

shall not exceed 39.5 tons in any consecutive 12-month period.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f)]**

Compliance with the limit specified in condition 3.2(C)(1) shall be demonstrated by the following:

(a) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

(A*W + B*X + C*Y + D*Z + E*ZA + 14.2) / 2000 = monthly VOC emissions (tons)

where:

A = monthly dry tons of tobacco processed in Small Batch Receiving and Blending (ES-25-851-1);

B = monthly dry tons of tobacco processed in Small Batch Casing and Drying (ES-26-851-1);

C = monthly dry tons of tobacco processed in Small Batch Casing and Cutting (ES-27-851-1);

D = monthly pounds of ethanol applied in Small Batch Casing and Cutting (ES-27-851-1);

E = Monthly gallons of cleaning material used in ES-27-851-1;

14.2 = monthly potential combined pounds of VOC from fuel combustion (associated with production in ES-25-851-1, ES-26-851-1 and ES-27-851-1) in the facility's boilers (ES-1-854-8, ES-2-854-8, ES-3-854-8, and ES-TEMP) and the thermal incinerator (CD-RTO-851-1);

W = VOC emission factor (lb VOC/dry ton tobacco) for tobacco processed in Small Batch Receiving and Blending (ES-25-851-1), from the permit application for the 00745-TV-39 permit;

X = VOC emission factor (lb VOC/dry ton tobacco) for tobacco processed in Small Batch Casing and Drying (ES-26-851-1), from the permit application for the 00745-TV-39 permit;

Y = VOC emission factor (lb VOC/dry ton tobacco) for tobacco processed in Small Batch Casing and Cutting (ES-27-851-1), from the permit application for the 00745-TV-39 permit;

Z = VOC emission factor (lb VOC/lb ethanol applied) ethanol applied in Small Batch Casing and Cutting (ES-27-851-1) from the permit application for the 00745-TV-39 permit;

ZA = Emission factor (lb VOC/gal in cleaning material used in ES-27-851-1), from 502(b)(10) notification of June 13, 2022.

(b) Each month the permittee shall calculate the monthly VOC total and the 12-month VOC total.

(c) Each 12-month VOC total shall not exceed the limit specified in condition 3.2(C)(1).

These records shall be maintained at the facility for a period of five years following the date of such record and shall be made available upon request to this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

(a) The permittee shall submit a semiannual report to this Office which includes the total VOC emissions (tons) emitted each month and the total VOC emissions (tons) emitted each 12-month period.

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

D. **Prevention of Significant Deterioration:**
**ES-28-851-1, ES-30-851-1, ES-31-851-1, and ES-34-851-1**
**[Sec. 3D-0530 and 3Q-0317(b)]**

1. **Emission limit for volatile organic compounds (VOC)**
The combined emissions of VOC from processing in
ES-28-851-1: MSP Processing
ES-30-851-1: MOP Processing 1
ES-31-851-1: MOP Processing 2
ES-34-851-1: Snus Processing
shall not exceed 40 tons in any consecutive 12-month period.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f)]**
Compliance with the limit specified in condition 3.2(D)(1) shall be demonstrated by the following:

(a) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

$$[(MSP_{FA\text{-}1} \times EF_{FA\text{-}1}) + (MSP_{FA\text{-}2} \times EF_{FA\text{-}2}) + (MSP_{FA\text{-}3} \times EF_{FA\text{-}3}) + (MSP_{FA\text{-}4} \times EF_{FA\text{-}4}) + (MOP_{FF\text{-}A} \times EF_{FF\text{-}A}) + (MOP_{FF\text{-}B} \times EF_{FF\text{-}B}) + (MOP_{FF\text{-}C} \times EF_{FF\text{-}C}) + (Snus\text{-}P \times EF_{Snus\text{-}P})] / 2{,}000 = \text{Tons VOC/month}$$

where:

$MSP_{FA-1}$ = flavor additive #1 (FA-1) usage (lbs) in MSP/month

$EF_{FA-1}$ = lbs VOC emitted/lb FA-1 used

$MSP_{FA-2}$ = flavor additive #2 (FA-2) usage in MSP/month

$EF_{FA-2}$ = lb VOC emitted/lb FA-2 used

$MSP_{FA-3}$ = flavor additive #3 (FA-3) usage in MSP/month

$EF_{FA-3}$ = lb VOC emitted/lb FA-3 used

$MSP_{FA-4}$ = flavor additive #4 (FA-4) usage in MSP/month

$EF_{FA-4}$ = lb VOC emitted/lb FA-4 used

$MOP_{FF-A}$ = flavor family A (FF-A) usage (lbs) in MOP/month

$EF_{FF-A}$ = lbs VOC emitted/lb FF-A used

$MOP_{FF-B}$ = flavor family B (FF-B) usage in MOP/month

$EF_{FF-B}$ = lb VOC emitted/lb FF-B used

$MOP_{FF-C}$ = flavor family C (FF-C) usage in MOP/month

$EF_{FF-C}$ = lb VOC emitted/lb FF-C used

Snus-P = tons Snus production/month

$EF_{Snus-P}$ = lbs VOC emitted/ton Snus-P

(b) Each month the permittee shall calculate the monthly VOC total and the 12-month VOC total.

(c) Each 12-month VOC total shall not exceed the limit specified in condition 3.2(D)(1).

These records shall be maintained at the facility for a period of five years following the date of such record and shall be made available upon request to this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

(a) The permittee shall submit a semiannual report to this Office which includes the total VOC emissions (tons) emitted each month and the total VOC emissions (tons) emitted each 12-month period.

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

## 3.3 Particulate Emission Limits

### A. Particulates from Fuel Burning Indirect Heat Exchangers [Sec. 3D-0503]

#### 1. Particulate Allowable Emission Rate [Sec. 3D-0503]

(a) **Building 854-8 Boilers: ES-1-854-8, ES-2-854-8 and ES-3-854-8** - Emissions of particulate matter from these emission sources shall not exceed the allowable emission rate calculated by the equation $E=1.09 * Q^{-0.2594}$ ; where E = allowable emission limit for particulate matter in lb/million Btu, and Q =maximum heat input in million Btu/hr of all fuel burning indirect heat exchangers, determined according to Sec. 3D-0503(c) and (e).

| Emission Source ID | Value of Q | Particulate Emission Limit (E) |
|---|---|---|
| ES-1-854-8 | 1256 million Btu/hr | 0.17 lb/million Btu |
| ES-2-854-8 | 1256 million Btu/hr | 0.17 lb/million Btu |
| ES-3-854-8 | 1256 million Btu/hr | 0.17 lb/million Btu |

(b) **Temporary Boiler(s): ES-TEMP** -
Emissions of particulate matter from ES-TEMP shall not exceed the allowable emission rate calculated by the equation $E=1.09 * Q^{-0.2594}$ ; where E = allowable emission limit for particulate matter in lb/million Btu, and Q =maximum heat input in million Btu/hr of all fuel burning indirect heat exchangers, determined according to Sec. 3D-0503(c) and (e).

#### 2. Monitoring/Recordkeeping/Reporting requirements [Sec. 3Q-0508(f)] - No monitoring/recordkeeping/reporting is required for the specific purpose of demonstrating compliance with the above standard because the fuels being combusted are natural gas, No. 2 fuel oil, or diesel fuel with a sulfur content not to exceed 0.05% sulfur by weight which inherently meet the standard. However, the permittee shall maintain the appropriate records for raw material usage and/or production rates in order to calculate the emissions data needed to fulfill the requirements for condition 2.13 entitled Annual Emission Inventory Requirements.

### B. Control of Particulates from Miscellaneous Industrial Processes - [Sec. 3D-0515]

#### 1. Particulate Allowable Emissions Rate - [Sec. 3D-0515]

Emissions for particulate matter from emission sources designated in condition 1.1, shall not exceed the allowable emission rate calculated with the equation $E = 4.10(P)^{0.67}$ calculated to three significant figures for process rates up to 30 tons/hr, or with the equation $E = 55.0(P)^{0.11} - 40$ calculated to three significant figures for process rates greater than 30 tons/hr; where E equals the maximum allowable PM emission rate in lb/hr, and P equals the process rate in tons/hr. Accordingly, the potential emission rate from this equipment shall at no time exceed the emission rates based on maximum production.

2. **Monitoring/Recordkeeping/Reporting requirements [Sec. 3Q-0508(f)]** - For sources with particulate matter control, condition 3.6 provides monitoring, recordkeeping, and reporting requirements sufficient to assure compliance with the above standard. For sources without particulate matter control, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the above standard because each of those sources inherently meets the standard based on the nature of the source.

C. **Control of Particulates from Processes Subject to BACT - [Sec. 3D-0530]**

1. **Particulate Matter Control [Sec. 3D-0530]** - Total particulate matter emissions from emission sources designated in condition 1.1, shall be controlled by properly operated and maintained fabric filters or wet scrubbers where such controls are present. This control strategy has been determined to be Best Available Control Technology (BACT).
2. **Monitoring/Recordkeeping/Reporting requirements [Sec. 3Q-0508(f)]** - For the sources subject to the above BACT requirement, condition 3.6 provides monitoring, recordkeeping, and reporting requirements sufficient to assure that the control devices are properly operated and maintained.

## 3.4 Sulfur Dioxide Emission Limits

### A. Sulfur Dioxide Emissions from Combustion Sources [Sec. 3D-0516]

1. **Sulfur Dioxide Standard [Sec. 3D-0516]** - Emissions of sulfur dioxide from emission sources designated in condition 1.1, shall not exceed 2.3 lb/MMBtu input.

2. **Monitoring/Recordkeeping/Reporting Requirements [Sec. 3Q-0508(f)]** - No monitoring/recordkeeping/reporting is required for the specific purpose of demonstrating compliance with the above standard because the fuels being combusted are natural gas, No. 2 fuel oil, diesel fuel with a sulfur content not to exceed 0.05% sulfur by weight, or propane which inherently meet the standard. However, the permittee shall maintain the appropriate records for raw material usage and/or production rates in order to calculate the emissions data needed to fulfill the requirements for condition 2.13 entitled Annual Emission Inventory Requirements.

### B. New Source Performance Standards (NSPS), Subpart Dc Boiler #5 (ES-1-854-8), Boiler #6 (ES-2-854-8), and Boiler #7 (ES-3-854-8)

1. **New Source Performance Standards <40 CFR 60.1 - 60.19 and 40 CFR 60.40c - 60.48c> [Sec. 3D-0524]** - These boilers are subject to NSPS Subpart A (General Provisions) and Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units).

2. **Sulfur Dioxide Standard While Firing No. 2 Fuel Oil <40 CFR 60.42c(d)> [Sec. 3D-0524] -** Sulfur dioxide emissions from the boilers shall not exceed 0.50 lb/million Btu heat input. To comply with this standard the permittee shall not combust oil in the boilers that contains greater than 0.5 weight percent sulfur. Compliance with this standard shall be continuously demonstrated by combusting No. 2 fuel oil, as certified by the fuel supplier.

3. **Monitoring [Sec. 3Q-0308(a)(1)]** - Approved fuels for the boilers are natural gas and No. 2 fuel oil. Any change in fuel type for the boilers must receive prior approval from the Office of Environmental Assistance and Protection.

4. **Recordkeeping requirement <40 CFR 60.48c(f), (g) and (i)> [Sec. 3D-0524 and 3Q-0308(a)(1)]** - The permittee shall maintain the following records for a period of five years following the date of such record.

   (a) For each shipment of No. 2 fuel oil, the permittee shall obtain and maintain a written statement from the fuel supplier that certifies that all the fuel oil included in the shipment complies with the American Society for Testing and Materials (ASTM) specifications for No. 2 fuel oil. This written statement shall also include the name of the company supplying the fuel.

   (b) The permittee shall record and maintain monthly records of the amount of No. 2 fuel oil and the amount of natural gas combusted during the reporting period.

5. **Reporting requirement <40 CFR 60.48c(e) and (g)> [Sec. 3D-0524] -** The permittee shall submit a semiannual report to this Office no later than January 30th for the period July through December, and no later than July 30th for the period January through June. Each report shall include the following items:

   (a) The calendar dates covered in the reporting period.

   (b) A copy of the fuel supplier certification, as described in condition 3.4(B)(4)(a), for each shipment of No. 2 fuel oil received during the reporting period.

   (c) The amount of fuel oil and the amount of natural gas combusted during the reporting period. If no fuel oil or natural gas was combusted during the reporting period, a written statement signed by the permittee certifying that fact shall be provided to satisfy this reporting requirement for the given fuel.

   (d) If fuel oil was combusted during the reporting period, a written statement signed by the permittee certifying that all of the fuel oil combusted during the reporting period is represented by the fuel supplier certifications submitted for the current reporting period or by previously submitted fuel supplier certifications.

## 3.5 Control of Visible Emissions

### A. Control of Visible Emissions [Sec. 3D-0521]

1. **Opacity Standard [Sec. 3D-0521(d)]** - Visible emissions from emission sources designated in condition 1.1, shall not exceed 20% opacity when averaged over a six-minute period with the following exceptions:
   (a) No six-minute period exceeds 87% opacity;
   (b) No more than one six-minute period exceeds 20% opacity in any hour; and
   (c) No more than four six-minute periods exceed 20% opacity in any 24-hour period.
2. **Monitoring/Recordkeeping/Reporting Requirements [Sec. 3Q-0508(f)]**
   (a) **Combustion Sources Not Subject to the NSPS Subpart Dc Opacity Standard** - No monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the above standard because the fuels being combusted are natural gas, No. 2 fuel oil, diesel fuel with a sulfur content not to exceed 0.05% sulfur by weight, or propane which inherently meet the standard. However, the permittee shall maintain the appropriate records for raw material usage and/or production rates in order to calculate the emissions data needed to fulfill the requirements for condition 2.13 entitled Annual Emission Inventory Requirements.
   (b) **Non-Combustion Sources** - For sources with particulate matter control, condition 3.6 provides monitoring, recordkeeping, and reporting requirements sufficient to assure compliance with the above standard. For sources without particulate matter control, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the above standard because each of those sources inherently meets the standard based on the nature of the source.

### B. New Source Performance Standards (NSPS) Subpart Dc - Opacity

**Boiler #5 (ES-1-854-8), Boiler #6 (ES-2-854-8), and Boiler #7 (ES-3-854-8)**

1. **Opacity Standard While Firing No. 2 Fuel Oil [40 CFR 60.43c(c) (Subpart Dc)] [Sec. 3D-0524]** - Visible emissions from emission sources designated in condition 1.1, shall not exceed 20% opacity when averaged over a six-minute period, except for one six-minute period per hour of not more than 27% opacity. This standard shall apply at all times, except during periods of startup, shutdown, or malfunction.
2. **Monitoring/Recordkeeping/Reporting Requirements [Sec. 3Q-0508(f)]** - No monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the above standard because the fuel being combusted inherently meets the standard. However, the permittee shall maintain the appropriate records for raw material usage and/or production rates in order to calculate the emissions data needed to fulfill the requirements for condition 2.13 entitled Annual Emission Inventory Requirements.

## 3.6 Monitoring, Recordkeeping, and Reporting

### A. Periodic Monitoring [Sec. 3Q-0508(f)]
### Sources Not Subject to 40 CFR Part 64 Compliance Assurance Monitoring (CAM)

1. **Periodic monitoring for equipment controlled by fabric filters** - Particulate matter emissions from emission sources designated in condition 1.1, shall be controlled during all periods of operation. To ensure the optimum efficiency of the control devices, the permittee shall perform inspections and maintenance in a manner and frequency consistent with good practice for minimizing emissions. At a minimum, an annual internal inspection of the fabric filters' structural integrity and operation shall be performed.
2. **Periodic monitoring for equipment controlled by wet scrubbers** - Particulate matter emissions from emission sources designated in condition 1.1, shall be controlled during all periods of operation. To ensure that optimum control efficiency is maintained, the permittee shall perform inspections and preventative maintenance in a manner consistent with good practice for minimizing emissions. The inspection and maintenance requirement must include the following:
   (a) an annual visual internal inspection of the wet scrubbers' structural integrity and operation;
   (b) the permittee shall maintain and operate low water pressure switches for each wet scrubber and an interlock system that shuts the process down during a low-flow condition.
3. **Recordkeeping requirement** - A log shall be maintained on-site with the dates of inspection and maintenance activities, inspection results, and maintenance performed.
4. **Reporting requirement** - The permittee shall submit a summary report of the monitoring requirements to this Office by January 30th and July 30th for each preceding six-month period.

### B. Compliance Assurance Monitoring (CAM) [Sec. 3D-0614, 40 CFR Part 64]

1. **Monitoring - Fabric Filter Inspection & Maintenance** - To ensure the optimum efficiency of the control devices as designated in condition 1.1, the permittee shall perform inspections and maintenance in a manner and frequency consistent with good practice for minimizing emissions. Inspection and maintenance must include the following:
   (a) An annual visual internal inspection of the fabric filters’ structural integrity and operation.
   (b) Upon evidence of a problem, an investigation shall be initiated and maintenance activities, required to correct the problem, shall be scheduled and performed. The investigation and corrective action shall be conducted as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions.
   (c) Only trained maintenance personnel will perform inspection and maintenance.

(d) An excursion shall be defined as failure to perform inspections and preventative maintenance on at least an annual basis or failure to perform repairs to correct abnormal occurrences in a timely manner.

2. **Monitoring - Fume Incinerator**

To ensure the optimum efficiency of the fume incinerator (CD-130-851-1) the permittee shall perform the following monitoring and recordkeeping activities:

(a) all waste gas and particulate matter emissions resulting from the sublimation loop shall be vented to the fume incinerator at all times the process is in operation. At no time shall this waste stream bypass the incinerator except for periods of malfunction/breakdown; and

(b) the incinerator combustion chamber shall operate at an air temperature of no less than 650 F and no more than 1750 F; and

(c) the incinerator shall be equipped with a temperature gauge situated to monitor the air temperature in the combustion chamber. The temperature gauge shall be checked and calibrated as required and in accordance with the manufacturer's written instruction; and

(d) the temperature shall be monitored continuously while the process is operating and averaged every 15 minutes to ensure proper combustion chamber operation. The temperature data shall be collected by the incinerator operating system and kept in a log (written or electronic form), maintained on site and made available for inspection upon request by this Office; and

(e) an excursion shall be defined as an incinerator combustion chamber temperature reading below 650 F or above 1750 F. Upon detection, the process shall be shut down and an investigation into the cause of the excursion shall be initiated; and

(f) the cause of any excursion, results of the investigation and any corrective action taken, as well as other supporting information, shall be documented in a log (written or electronic form), maintained on site and made available for inspection upon request by this Office. The log shall include the date of the investigation, the inspectors name and any corrective actions performed as a result of the investigation.

3. **Monitoring - Thermal Incinerator**

To ensure the optimum efficiency of the thermal incinerator (CD-RTO-851-1), the permittee shall perform the following operational, monitoring and recordkeeping activities:

(a) the incinerator combustion chamber shall operate at an air temperature of no less than 1500 ºF unless a revised minimum temperature has been established in accordance with condition 3.6(B)(3)(f);

(b) the incinerator shall be equipped with a temperature gauge to monitor the air temperature in the combustion chamber. The temperature gauge shall be checked and calibrated in accordance with the manufacturer's written instruction;

(c) the temperature shall be monitored continuously while any of the associated processes are operating and recorded on a 15-minute block average basis with four 15-minute block averages each hour to ensure proper combustion chamber operation. One-hour and 3-hour block averages of the incinerator combustion chamber temperature shall be calculated and recorded, based on the associated 15-minute block averages. The temperature data shall be collected by the incinerator operating system and kept in a log (written or electronic form), maintained on site and made available for inspection upon request by this Office;

(d) upon detection of a 1-hour block average combustion chamber temperature below 1500 ºF or, if applicable, a revised minimum temperature established during performance testing, the process shall be shut down and an investigation into the cause of the low temperature shall be initiated;

(e) the cause of any low 1-hour block average combustion chamber temperature event, results of the investigation and any corrective action taken, as well as other supporting information, shall be documented in a log (written or electronic form), maintained on site and made available for inspection upon request by this Office. The log shall include the date of the investigation, the inspectors name and any corrective actions performed as a result of the investigation.

(f) Performance testing may be conducted with the thermal incinerator combustion chamber temperature operating at less than 1500 ºF in order to demonstrate that the thermal incinerator achieves at least 98% destruction efficiency and is capable of achieving the requirements of condition 3.11(B)(1) at the lower temperature. The testing shall be conducted in accordance with Section 3D-2600 of the FCAQTC. For the performance testing, the following conditions apply: **[Sec. 3D-0614 and Section 3D-2600]**

(i) Obligation – The permittee shall perform any required test at his own expense. **[Sec. 3D-2602(a) ]**

(ii) Means to allow sampling and measurement – The permittee shall provide sampling ports, pipes, lines, or appurtenances for the collection of samples and data required by the test procedure; scaffolding and safe access to the sample and data collection locations; and light, electricity, and other utilities required for sample and data collection. **[Sec. 3D-2602(e) ]**

(iii) Test methods – Testing shall be conducted in accordance with FCAQTC Section 3D-2600 except as may be otherwise required in FCAQTC Sec. 3D-0524, 0912, 1110, 1111, 1415 or a permit condition specific to the emissions source. Requests to use an alternative test method or procedure must be made in writing at least 45 days prior to the test and approved by this Office. Alternatives to test methods or procedures specified for emissions sources subject to test requirements under 40 CFR 60, 40 CFR 61 or 40 CFR 63, may require approval by the U.S. EPA. **[Sec. 3D-2601, 3D-2602(i) and 3Q-0308(a)(1)]**

(iv) Process rate – The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. **[Sec. 3D-2602(g)]**

(v) Protocol – The permittee shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved prior to air pollution testing. Emission testing protocols must be submitted at least 45 days before conducting the test for pre-approval prior to testing if requested by the permittee. **[Sec. 3D-2602(c)]**

(vi) Notification – The permittee shall notify this Office at least 15 days before beginning the test so that a representative of this Office may be present to observe the test. **[Sec. 3D-2602(d)]**

(vii) Emissions test report – The final air emission test report shall be submitted to this Office not later than 30 days after sample collection. The permittee may request an extension to submit the final test report if the extension request is a result of actions beyond the control of the permittee. Unless otherwise specified in the applicable permit or during the course of the protocol review, the results of the tests shall be expressed in the same units as the emission limits given in the rule for which compliance is being determined. **[Sec. 3D-2602(f) & (h)]**

4. **Monitoring-Visual Stack Observations** - In order to demonstrate compliance with the CAM plan for control devices identified in condition 1.1, the permittee shall perform visual stack observations. As a minimum, the visual stack observation program shall include the following:

(a) With respect to the CAM plan visual stack observations, an "operational day" begins at 8:00:00 AM and ends at 7:59:59 AM the following calendar day. Visible emissions from each stack shall be monitored for the presence of visible emissions, once per operational day for each plant operational day. The visible emissions observation data for each stack must be available for at least 90 percent of the facility's operating days during the six-month reporting period to ensure compliance with this requirement. If an emission source is not operating, a record of this fact along with the corresponding date and time shall substitute for the daily check.

(b) The presence of any visible emissions shall trigger an investigation to determine the cause and, if applicable, corrective action. The investigation and corrective action shall be conducted as expeditiously as practicable in accordance with good air pollution control practice for minimizing emissions. The visual observation shall be repeated as soon as practicable after the investigation and completion of any corrective action to verify that the visual emissions are no longer present. If the visible emissions are present after the investigation and corrective action has been taken, the emissions shall be considered an excursion.

(c) Observers shall receive on-the-job training pertaining to visual observations and what constitutes an excursion.

5. **Recordkeeping** - Records of the monitoring required under conditions 3.6(B)(1) through (5) shall be maintained on-site, made available to Office personnel, that include the following:

(a) Maintenance of fabric filters - dates of inspections and maintenance activities; results of investigations and corrective actions taken; names of persons conducting activities; records of employee on-the-job training for inspection and maintenance.

(b) Maintenance of fume incinerator- the cause of any excursion; results of the investigation and any corrective action taken; the date of any investigation; the inspectors name; any corrective actions performed as a result of the investigation.

(c) Maintenance of thermal incinerator- the cause of any excursion; results of the investigation and any corrective action taken; the date of any investigation; the inspectors name; any corrective actions performed as a result of the investigation.

(d) Visual observations - date/time of each observation; person performing observation; results of observation (visible emissions present or absent); results of investigation and corrective action if visible emissions are present; records of employee on-the-job training for visual observations.

Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

6. **Reporting requirement** - The permittee shall submit a summary report of all monitoring requirements in this section to this Office by January 30th and July 30th for each preceding six-month period.

## 3.7 **RESERVED FOR FUTURE USE**

## 3.8 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ)

Specific emission source permit conditions for ES-4-854-8:
Emergency Generator, 3,210 HP, *Diesel-fired, 19.92 mmBtu/hr

*The diesel fuel shall be No. 2 fuel oil with a sulfur content no greater than 0.5 weight percent sulfur unless the requirement to use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel has been triggered in accordance with condition 3.8(C).

FCAQTC Sec. 3D-1111 "National Emission Standards for Hazardous Air Pollutants"-

For ES-4-854-8, the permittee shall comply with all applicable provisions, including the maintenance and recordkeeping requirements contained in FCAQTC Sec. 3D-1111, as promulgated in 40 CFR 63, Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE)", including Subpart A "General Provisions." The permittee shall comply with the definition of emergency stationary RICE in 40 CFR 63.6675 and the following stationary RICE provisions.
**<40 CFR Part 63, Subpart ZZZZ> [Sec. 3D-1111]**

A. **Maintenance and Work Practices** – Pursuant to 40 CFR 63.6603(a), 63.6625(e), (f), and (h) and 63.6640(f) the permittee shall comply with the following:

1. Change the oil and filter every 500 hours of operation or annually, whichever comes first. The permittee has the option to utilize an oil analysis program as provided in 40 CFR 63.6625(i) in order to extend the specified oil change requirement.
2. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the engine and control device (if any) according to the manufacturer's emission related written instructions or maintenance plan developed by the permittee that minimizes emissions from the engine to the extent practicable.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

7. If the engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedules required in conditions 3.8(A)(1) through (3), or if performing the management practice on the required schedules would otherwise pose an unacceptable risk under federal, state or local law, the management practices can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice shall be performed as soon as possible after the emergency has ended or the unacceptable risk has abated. The Permittee shall report any failure to perform the management practice on the schedule required and the federal, state, or local law under which the risk was deemed unacceptable.

8. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to this Office which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

B. **Operation –** The permittee shall operate the emergency generator in accordance with 40 CFR 63. 6640(f), and the following conditions. If the permittee fails to operate the emergency generator according to these requirements, the emergency generator will not be considered an emergency engine and must meet all requirements for non-emergency engines.

1. There is no time limit on the use of the emergency generator in emergency situations.

2. The permittee may operate the engine for any combination of the purposes specified in conditions 3.8(B)(2)(a) through (c) for a maximum of 100 hours per calendar year.

   a. The engine may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission authority or equivalent balancing authority and transmission operator, or the insurance company associated with the engine The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of the engine beyond 100 hours per calendar year.

b. The engine may operate for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergency or other authorized entity as determined by the Reliability Coordinator has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP– 002–3.

c. The engine may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

3. Pursuant to 40 CFR 63.6640(f)(4), the engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in condition 3.8(B)(2). Except as provided in conditions 3.8(B)(3)(a) and (b), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for the facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

a. Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for the facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

b. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if ALL of the following conditions are met:

i. The engine is dispatched by the local balancing authority or local transmission or distribution system operator.

ii. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

iv. The power is provided only to the facility itself or to support the local transmission and distribution system.

v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

4. At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to this Office which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

C. **Fuel Requirements** – Pursuant to 40 CFR 63.6604(b), beginning January 1, 2015, an emergency engine that operates for the purposes specified in condition 3.8(B)(3)(b) or operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in condition 3.8(B)(2)(b) or (c) shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Any existing diesel fuel purchased prior to January 1, 2015 may be used until depleted. The diesel fuel requirements of 40 CFR 80.510(b) are shown below:

| | |
|---|---|
| Sulfur content | 15 ppm maximum. |
| Cetane index or | A minimum cetane index of 40; or |
| Aromatic content | A maximum aromatic content of 35 volume percent. |

D. **Recordkeeping** – Pursuant to 40 CFR 63.6655(d), (e) and (f), the permittee shall keep records for at least five (5) years showing:

1. The engine was operated and maintained according to the manufacturer's emission related operation and maintenance instructions or the permittee's maintenance plan which must provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
2. If applicable, the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine.
3. The hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for purposes specified in condition 3.8(B)(2)(b) or (c), or condition 3.8(B)(3)(b), then the permittee shall keep records of the notification of the emergency situation, and the date, start time and end time of the engine operation for these purposes.

E. **Reporting** – Pursuant to 40 CFR 63.6650(h), if the engine operates for the purposes specified in condition 3.8(B)(3)(b), or operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in condition 3.8(B)(2)(b) or (c), the permittee shall submit an annual report to this Office. The first annual report shall be submitted no later than March 31, 2016 and cover calendar year 2015. Subsequent annual reports shall be submitted by March 31 of each year and cover the previous calendar year.

The annual report must also be submitted electronically to EPA through the specific NESHAP Subpart ZZZZ reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX). However, if the reporting form specific to NESHAP Subpart ZZZZ is not available in CEDRI at the time that the report is due, the written report shall be submitted to EPA at the appropriate address listed in 40 CFR 63.13.

EPA Region IV
Director, Air, Pesticides and Toxics Management Division
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104

The annual report shall contain the following information:

1. Company name and address where the engine is located.
2. Date of the report and beginning and ending dates of the reporting period.
3. Engine site rating and model year for each engine.
4. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
5. Hours operated for the purposes specified in 3.8(B)(2)(b) or (c), including the date, start time, and end time for engine operation.
6. Number of hours the engine is contractually obligated to be available for the purposes specified in condition 3.8(B)(2)(b) or (c).
7. Hours spent for operation for the purpose specified in condition 3.8(B)(3)(b) including the date, start time, and end time for engine operation. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
8. If there were no deviations from the fuel requirements in condition 3.8(C) that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.
9. If there were deviations from the fuel requirements in condition 3.8(C) that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

3.9 **Specific emission source permit condition for the following three boilers:**

ES-1-854-8: Tobaccoville Boiler #5
ES-2-854-8: Tobaccoville Boiler #6
ES-3-854-8: Tobaccoville Boiler #7

**Limitation on the use of No. 2 fuel oil [Sec. 3Q-0308(a)(1) and 0317(5)] -** Except as provided in condition 3.10, to avoid the applicability of Sec. 3D-1111, 40 CFR Part 63, Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources), the permittee shall not combust No. 2 fuel oil except during periodic testing not to exceed 48 hours per calendar year per boiler, gas supply emergencies, or periods of gas curtailment pursuant to a contract with the natural gas supplier. For each boiler, the permittee shall maintain records of the dates No. 2 fuel oil was combusted, the amount of No. 2 fuel oil combusted on each date, the purpose for combusting No. 2 fuel oil on each date, and the number of hours per calendar year that No. 2 fuel oil was combusted during periodic testing of the boiler.

## 3.10 National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (Subpart JJJJJJ)

Specific emission source permit conditions for the following three boilers:

ES-1-854-8: Tobaccoville Boiler #5
ES-2-854-8: Tobaccoville Boiler #6
ES-3-854-8: Tobaccoville Boiler #7

Upon start-up of a boiler with No. 2 fuel oil usage beyond the limitations in condition 3.9, for that boiler the permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart JJJJJJ, National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, including the applicable requirements of 40 CFR Part 63, General Provisions as specified in Table 8 to Subpart JJJJJJ. **<40 CFR 63, Subpart JJJJJJ> [Sec. 3D-1111]**

A. **Notification requirement -** Within 30 days after becoming subject to 40 CFR Part 63 Subpart JJJJJJ, the permittee shall notify this Office of the change. The notification must identify:

1. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, were physically changed, or took a permit limit, and the date of the notice.
2. The date upon which the fuel switch, physical change, or permit limit occurred.

The permittee shall demonstrate compliance with 40 CFR Part 63 Subpart JJJJJJ within 180 days after becoming subject to this rule.

B. **Tune-up requirements -** As required under 40 CFR 63.11214(b), the permittee shall conduct an initial boiler tune-up according to the requirements in 40 CFR 63.11223(b) no later than March 21, 2014 or 180 days after becoming subject to 40 CFR Part 63 Subpart JJJJJJ, whichever is later. Subsequent biennial tune-ups shall be conducted no more than 25 months after the previous tune-up. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

C. **Energy assessment requirement -** As required under 40 CFR 63.11214(c), the permittee shall conduct a one-time energy assessment no later than March 21, 2014 or 180 days after becoming subject to 40 CFR Part 63 Subpart JJJJJJ, whichever is later. The energy assessment must be performed by a qualified energy assessor according to the requirements in Table 2 to Subpart JJJJJJ of Part 63. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this section satisfies the energy assessment requirement.

D. **Biennial compliance certification report -** The permittee shall prepare a biennial compliance report as required under 40 CFR 63.11225(b). The first report shall be prepared March 1, 2015 or by March 1 of the year following the initial tune-up required in condition 3.10(B), whichever is later. Subsequent reports shall be prepared March 1st of every other year. The report shall include the following information:

1. Company name and address.

2. Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart.
3. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

The permittee shall submit the report to this Office if requested by this Office, or no later than March 15 of the reporting year if any deviations from the applicable requirements occurred during the reporting period.

E. **Recordkeeping requirements -** The permittee shall maintain the following records:

1. Copies of all required notifications and reports submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status as required under 40 CFR 63.10(b)(2)(xiv).
2. Records of tune-ups required in condition 3.10(B) and 40 CFR 63.11214(b) identifying each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer’s specifications to which the boiler was tuned as required under 40 CFR 63.11225(c)(2)(i).
3. A copy of the energy assessment required in condition 3.10(C) and 40 CFR 63.11214(c).
4. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment as required under 40 CFR 63.11225(c)(4).
5. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a) as required under 40 CFR 63.1225(c)(5), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), each record must be kept for 5 years following the date of each recorded action. Records must be kept onsite for at least 2 years after the date of each recorded action and may be kept off site for the remaining 3 years.

F. **Reporting requirements -** The permittee shall submit the following reports:

1. Initial Notification according to the requirements of 40 CFR 63.9(b) and 40 CFR 63.11225(a)(2) no later than January 20, 2014 or within 120 days after becoming subject to 40 CFR Part 63 Subpart JJJJJJ, whichever is later.

2. Notification of Compliance Status according to the requirements of 40 CFR 63.9(h) and 40 CFR 63.11225(a)(4) for the initial tune-up required in condition 3.10(B) and 40 CFR 63.11214(b) no later than July 19, 2014 or 120 days after the applicable compliance date, whichever is later. The notification must also be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13 and to this Office.

3. Notification of Compliance Status according to the requirements of 40 CFR 63.9(h) and 40 CFR 63.11225(a)(2) for the energy assessment required in condition 3.10(C) and 40 CFR 63.11214(c) no later than July 19, 2014 or 120 days after the applicable compliance date, whichever is later.

4. The Biennial Compliance report required in condition 3.10(D) and 40 CFR 63.11225(b) if any deviations from the applicable requirements occurred during the reporting period no later than March 15 of the reporting year.

## 3.11 Source Specific Emission Limits

**Prevention of Significant Deterioration (PSD) - Best Available Control Technology (BACT)**

### A. BACT for Volatile Organic Compounds (VOCs) [Sec. 3D-0530]

**Conveyor Systems: Part of ES-1-851-1, ES-10-851-1, and ES-21-851-1**

1. The permittee shall limit the uncontrolled VOC emission rate from the following conveyor systems to no more than:
   (a) 0.60 lb/hr for the new conveyor system serving ES-1-851-1;
   (b) 0.20 lb/hr for the new conveyor system serving ES-10-851-1; and
   (c) 0.05 lb/hr for the new conveyor system serving ES-21-851-1.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f) and 3D-0605]**

   Compliance with the three limits specified in condition 3.11(A)(1) shall be demonstrated by maintaining a list of the new conveyors (including conveyor identification numbers) installed for the manufacture of tobacco products with ethanol-based flavoring in each of the three emissions sources described above.

   Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

   If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

   No reporting is required for the specific purpose of demonstrating compliance with the limits specified in condition 3.11(A)(1) because the limits are derived from throughputs that exceed the maximum throughputs achievable based on the number of new conveyors installed in each of the emissions sources.

### B. BACT for Volatile Organic Compounds (VOCs) [Sec. 3D-0530]

**Manufacture of tobacco products with ethanol-based flavoring using ethanol-based top dressing materials in the top dressing drums and downstream conveyors (Part of ES-15-851-1)**

1. The permittee shall limit the VOC emissions as follows:
   (a) The permittee shall limit the VOC emission rate from this emission source to no more than 0.54 lb VOC per ton of wet tobacco.
   (b) The permittee shall control the VOC emissions by means of a thermal incinerator (CD-RTO-851-1) operated with at least 98% destruction efficiency. Compliance with the destruction efficiency requirement for the thermal incinerator shall be based upon the 3-hour block average of the incinerator combustion chamber temperature.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f) and 3D-0605]**

Compliance with the limit specified in condition 3.11(B)(1) shall be demonstrated by the permittee performing the applicable thermal incinerator operational, monitoring and recordkeeping activities as stated in conditions 3.6(B)(3) and (5).

3. **Reporting - [Sec. 3Q-0508(f)]**

The permittee shall submit a semiannual report to this Office as described in condition 3.6(B)(6).

C. **BACT for Volatile Organic Compounds (VOCs) [Sec. 3D-0530]**

**Cigarette Production Floor Fugitives (ES-18-851-1, ES-19-851-1, F-16-851-1, and Part of ES-15-851-1)**

1. The permittee shall limit the combined uncontrolled VOC emission rate from these emission sources to no more than 271.81 tons per monthly rolling 12-month total.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f) and 3D-0605]**

Compliance with the limit specified in condition 3.11(C)(1) shall be demonstrated by the following:

(a) The permittee shall maintain monthly records of all product throughputs necessary to calculate uncontrolled VOC emissions using the following formula:

{ [ EtOH x (100 - CE) /100 ] + [ ( X + Y + Z ) x CP ] } / (2000 lb/ton) = uncontrolled VOC emissions (tons / month)

where:

EtOH = Total ethanol applied in the ES-15-851-1 top dressing drums (lbs / month);

CP = ES-19-851-1 cigarette production (million cigarettes / month);

CE = The capture efficiency (%) of the thermal incinerator (CD-RTO-851-1);

X = ES-18-851-1 filter making VOC emission factor (lbs VOC / million cigarettes);

Y = ES-19-851-1 cigarette making VOC emission factor (lbs VOC / million cigarettes); and

Z = F-16-851-1 packing equipment VOC emission factor (lbs VOC / million cigarettes).

(b) Each month the permittee shall calculate the monthly uncontrolled VOC emissions total and the 12-month VOC emissions total.

(c) Each 12-month uncontrolled VOC emissions total shall not exceed the limit specified in condition 3.11(C)(1).

Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

(a) The permittee shall submit a semiannual report to this Office which includes the total uncontrolled VOC emissions (tons) emitted each month and the total VOC emissions (tons) emitted each 12-month period.

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

D. **BACT for Volatile Organic Compounds (VOCs) [Sec. 3D-0530]**

**Part of ES-15-851-1 Casing Drums: Propylene Glycol-based Casing Materials**

1. The permittee shall limit the uncontrolled VOC emission rate from the casing drums while manufacturing tobacco products with propylene glycol-based casing material to:

(a) no more than 13.35 lb/hr, and
(b) 3.7 tons per monthly rolling 12-month total.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f) and 3D-0605]**

No monitoring, recordkeeping, or reporting is required to demonstrate compliance with the limit specified in condition 3.11(D)(1)(a) because the 13.35 lb/hr limit is greater than the potential uncontrolled VOC emissions of the applicable installed equipment.

Compliance with the limit specified in condition 3.11(D)(1)(b) shall be demonstrated by the following:

(a) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

$[ A \times ( TE_{PGBCM} / 2000 \text{ lb/ton} ) ] / 2000 \text{ lb/ton} =$ uncontrolled VOC emissions (tons / month)

where:

A = VOC emission factor (lbs VOC / ton dry tobacco) for manufacturing tobacco products with propylene glycol-based casing material in the ES-15-851-1 casing drums; and

$TE_{PGBCM}$ = Tobacco for manufacturing tobacco products with propylene glycol-based casing material entering the ES-15-851-1 casing drums (lbs of dry tobacco / month).

(b) Each month the permittee shall calculate the monthly uncontrolled VOC emissions total and the 12-month VOC emissions total.

(c) Each 12-month uncontrolled VOC emissions total shall not exceed the limit specified in condition 3.11(D)(1)(b).

Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

(a) The permittee shall submit a semiannual report to this Office which includes the total uncontrolled VOC emissions (tons) emitted each month and the total VOC emissions (tons) emitted each 12-month period.

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

E. **BACT for Volatile Organic Compounds (VOCs) [Sec. 3D-0530]**

**Part of ES-15-851-1 Flotation Chambers, Dryers, and Separators: Propylene Glycol-based Casing Materials**

1. The permittee shall limit the uncontrolled VOC emission rate from the flotation chambers, dryers, and separators to

(a) no more than 219.2 lb/hr, and

(b) 97.5 tons per monthly rolling 12-month total.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f) and 3D-0605]**

No monitoring, recordkeeping, or reporting is required to demonstrate compliance with the limit specified in condition 3.11(E)(1)(a) because the 219.2 lb/hr limit is greater than the potential uncontrolled VOC emissions of the applicable installed equipment.

Compliance with the limit specified in condition 3.11(E)(1)(b) shall be demonstrated by the following:

(a) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

$\{ [ ( TE_{PGBCM} \times B ) + ( TE_{NPGBCM} \times C ) ] / 2000 \text{ lb/ton} \} / 2000 \text{ lb/ton} =$ uncontrolled VOC emissions (tons / month)

where:

B = VOC emission factor (lbs VOC / ton dry tobacco) for manufacturing tobacco products with propylene glycol-based casing material in the ES-15-851-1 steam flotation chambers, dryers, and separators;

C = VOC emission factor (lbs VOC / ton dry tobacco) for manufacturing tobacco products without propylene glycol-based casing material in the ES-15-851-1 steam flotation chambers, dryers, and separators;

$TE_{PGBCM}$ = Tobacco for manufacturing tobacco products with propylene glycol-based casing material entering the ES-15-851-1 casing drums (lbs of dry tobacco / month); and

$TE_{NPGBCM}$ = Tobacco for manufacturing tobacco products without propylene glycol-based casing material entering the ES-15-851-1 casing drums (lbs of dry tobacco / month).

(b) Each month the permittee shall calculate the monthly uncontrolled VOC emissions total and the 12-month VOC emissions total.

(c) Each 12-month uncontrolled VOC emissions total shall not exceed the limit specified in condition 3.11(E)(1)(b).

Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

(a) The permittee shall submit a semiannual report to this Office which includes the total uncontrolled VOC emissions (tons) emitted each month and the total VOC emissions (tons) emitted each 12-month period.

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

F. **BACT for Volatile Organic Compounds (VOCs) [Sec. 3D-0530]**

**Part of ES-14-851-1 Casing Drums: Ethanol-based Casing Materials**

1. The permittee shall limit the uncontrolled VOC emission rate from the casing drums while using ethanol-based casing materials to manufacture tobacco products with ethanol-based flavoring to no more than 1.2 lb VOC per ton wet tobacco.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f) and 3D-0605]**

Compliance with the limit specified in condition 3.11(F)(1) shall be demonstrated by the following:

(a) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

$EtOH / [TE_{EBF} / (2000\ lb/ton)] =$ uncontrolled VOC emission rate (lb VOC / ton wet tobacco)

where:

EtOH = Total ethanol applied in ES-14-851-1 casing drums (lbs / month); and

$TE_{EBF}$ = Tobacco for manufacturing tobacco products with ethanol-based flavoring entering the ES-14-851-1 casing drums (lbs of wet tobacco / month).

(b) Each month the permittee shall calculate the monthly uncontrolled VOC emission rate.

Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

(a) The permittee shall submit a semiannual report to this Office which includes, for each month, the uncontrolled VOC emission rate (lbs VOC per ton wet tobacco) from the casing drums while manufacturing tobacco products with ethanol-based flavoring.

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

G. **BACT for Volatile Organic Compounds (VOCs) [Sec. 3D-0530]**

**F-13-851-1 Casing Preparation Area: Mix Tanks and Day Tanks**

1. The permittee shall limit the uncontrolled VOC emission rate from the casing preparation area mix tanks and day tanks as described below:

(a) **Mix Tanks** - Propylene Glycol casing preparation area**:** No more than 0.0054 tons VOC per monthly rolling 12-month total.

(b) **Day Tanks** - Propylene Glycol casing preparation area: No more than 0.0054 tons VOC per monthly rolling 12-month total.

(c) **Mix Tanks** - Ethanol casing preparation area: No more than 0.0049 tons VOC per monthly rolling 12-month total.

(d) **Day Tanks** - Ethanol casing preparation area: No more than 0.0049 tons VOC per monthly rolling 12-month total.

2. **Monitoring/Recordkeeping - [Sec. 3Q-0508(f) and 3D-0605]**

(a) **Mix Tanks, VOC** - Compliance with the limit specified in condition 3.11(G)(1)(a) shall be demonstrated by the following:

(i) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

$TE_{PGBCM}$ x ( 0.0054 / D ) = uncontrolled VOC emissions (tons / month)

where:

$TE_{PGBCM}$ = Actual tobacco throughput, for manufacturing tobacco products with propylene glycol-based casing material, entering the ES-15-851-1 Casing and Cutting process (lbs dry tobacco / month);

0.0054 = Maximum VOC emissions, for manufacturing tobacco products with propylene glycol-based casing material (tons VOC / 12 months); and

D = Maximum tobacco throughput, for manufacturing tobacco products with propylene glycol-based casing material, entering the ES-15-851-1 Casing and Cutting process (lbs dry tobacco / 12 months).

(ii) Each month the permittee shall calculate the monthly uncontrolled VOC emissions total and the 12-month VOC emissions total.

(iii) Each 12-month uncontrolled VOC emissions total shall not exceed the limit specified in condition 3.11(G)(1)(a).

(b) **Day Tanks, VOC** - Compliance with the limit specified in condition 3.11(G)(1)(b) shall be demonstrated by the following:

(i) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

$TE_{PGBCM}$ x ( 0.0054 / D ) = uncontrolled VOC emissions (tons / month)

where:

$TE_{PGBCM}$ = Actual Tobacco throughput, for manufacturing tobacco products with propylene glycol-based casing material, entering the ES-15-851-1 Casing and Cutting process (lbs dry tobacco / month);

0.0054 = Maximum VOC emissions, for manufacturing tobacco products with propylene glycol-based casing material (tons VOC / 12 months); and

D = Maximum tobacco throughput, for manufacturing tobacco products with propylene glycol-based casing material, entering the ES-15-851-1 Casing and Cutting process (lbs dry tobacco / 12 months).

(ii) Each month the permittee shall calculate the monthly uncontrolled VOC emissions total and the 12-month VOC emissions total.

(iii) Each 12-month uncontrolled VOC emissions total shall not exceed the limit specified in condition 3.11(G)(1)(b).

(c) **Mix Tanks, VOC** - Compliance with the limit specified in condition 3.11(G)(1)(c) shall be demonstrated by the following:

(i) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

EtOH x ( 0.0049 / E ) = uncontrolled VOC emissions (tons / month)

where:

EtOH = Actual Ethanol usage, for manufacturing tobacco products with ethanol-based flavoring, entering the ES-14-851-1 Casing and Drying process (lbs ethanol / month);

0.0049 = Maximum VOC emissions, for manufacturing tobacco products with ethanol-based flavoring (tons VOC / 12 months); and

E = Maximum ethanol usage, for manufacturing tobacco products with ethanol-based flavoring, entering the ES-14-851-1 Casing and Drying process (lbs ethanol / month).

(ii) Each month the permittee shall calculate the monthly uncontrolled VOC emissions total and the 12-month VOC emissions total.

(iii) Each 12-month uncontrolled VOC emissions total shall not exceed the limit specified in condition 3.11(G)(1)(c).

(d) **Day Tanks, VOC** - Compliance with the limit specified in condition 3.11(G)(1)(d) shall be demonstrated by the following:

(i) The permittee shall maintain monthly records of all product throughputs necessary to calculate VOC emissions using the following formula:

EtOH x ( 0.0049 / E ) = uncontrolled VOC emissions (tons / month)

where:

EtOH = Actual Ethanol usage, for manufacturing tobacco products with ethanol-based flavoring, entering the ES-14-851-1 Casing and Drying process (lbs ethanol / month);

0.0049 = Maximum VOC emissions, for manufacturing tobacco products with ethanol-based flavoring (tons VOC / 12 months); and

E = Maximum ethanol usage, for manufacturing tobacco products with ethanol-based flavoring, entering the ES-14-851-1 Casing and Drying process (lbs ethanol / month).

(ii) Each month the permittee shall calculate the monthly uncontrolled VOC emissions total and the 12-month VOC emissions total.

(iii) Each 12-month uncontrolled VOC emissions total shall not exceed the limit specified in condition 3.11(G)(1)(d).

Copies of these records shall be retained by the permittee for a period of five years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

3. **Reporting - [Sec. 3Q-0508(f)]**

(a) The permittee shall submit a semiannual report to this Office which includes the total uncontrolled VOC emissions (tons) emitted each month and the total VOC emissions (tons) emitted each 12-month period as described in conditions 3.11(G)(2)(a)(ii), 3.11(G)(2)(b)(ii), 3.11(G)(2)(c)(ii), and 3.11(G)(2)(d)(ii).

(b) The report shall be received by this Office by July 30th for the previous months of January through June, and by January 30th for the previous months of July through December.

# SECTION 4
# CONTROL OF TOXIC AIR POLLUTANTS - LOCALLY ENFORCEABLE ONLY

The entire facility is subject to Section 3D-1100 of the FCAQTC for the toxic air pollutants listed. This section is locally enforceable only. All the emission sources and their associated air pollution control device(s) are subject to the following specific terms, conditions, and limitations, including the monitoring recordkeeping, and reporting requirements to which those requirements apply.

## 4.1. Facility-Wide Toxic Air Pollutant Conditions

### A. Permit Requirements for Toxic Air Pollutants and Control of Toxic Air Pollutants [Section 3D-1100]

1. **Other and future air toxic requirements [Sections 3D-1100 and 3Q-0700]** - Specification of a listed toxic air pollutant (TAP) in this permit does not excuse the permittee from complying with the requirements of Sections 3D-1100 and 3Q-0700 of the FCAQTC with regard to any other listed TAP emitted from the regulated facility, nor does this permit exempt the permittee from compliance with any future air toxic regulations promulgated pursuant to the requirements of the Clean Air Act.

2. **De minimis limits [Section 3Q-0700]** - Total facility-wide emissions of the following pollutants shall not exceed their respective de minimis emissions limits as shown in Sec. 3Q-0711 unless a modeling demonstration is first approved by this Office which shows that the emissions of the subject TAPs from the facility will not adversely affect human health. This demonstration shall be in accordance with the requirements set forth in Sections 3D-1100 and 3Q-0700 of the FCAQTC. This demonstration must be made with an up-to-date version of a U.S. EPA approved computer model or, upon approval by this Office, calculated using the results of a previous modeling analysis showing compliance with the acceptable ambient levels for the pollutants listed below.

| Pollutant (CAS Number) | De minimis level |
|---|---|
| acetaldehyde (75-07-0) | 6.8 lb/hr |
| acrolein (107-02-8) | 0.02 lb/hr |
| benzo(a)pyrene (50-32-8) | 2.2 lb/yr |
| 1,3-butadiene (106-99-0) | 11 lb/yr |
| carbon disulfide (75-15-0) | 3.9 lb/day |
| chloroform (67-66-3) | 290 lb/yr |
| cresol (1319-77-3) | 0.56 lb/hr |
| p-dichlorobenzene (106-46-7) | 16.8 lb/hr |
| 1,4-dioxane (123-91-1) | 12 lb/day |
| n-hexane (110-54-3) | 23 lb/day |
| manganese and compounds | 0.63 lb/day |
| mercury, vapor (7439-97-6) | 0.013 lb/day |

| | |
|---|---|
| methyl chloroform (71-55-6) | 250 lb/day |
| nickel metal (7440-02-0) | 0.13 lb/day |
| methyl ethyl ketone (78-93-3) | 78 lb/day and 22.4 lb/hr |
| phenol (108-95-2) | 0.24 lb/hr |
| soluble chromate compounds, as chromium (VI) equivalent | 0.013 lb/day |
| styrene (100-42-5) | 2.7 lb/hr |
| toluene (108-88-3) | 98 lb/day and 14.4 lb/hr |
| trichlorofluoromethane (75-69-4) | 140 lb/hr |
| xylene (1330-20-7) | 57 lb/day and 16.4 lb/hr |

3. **Dispersion modeling emission limits [Section 3D-1100]** - Combined emissions of the following TAPs from all sources not exempted by Sec. 3Q-0702(a) or (b) at this facility shall not exceed the emission rates listed below. Dispersion modeling, approved by this Office, demonstrated that the permitted emissions of the TAPs listed in the table below from this facility impacted the surrounding ambient air at levels below the acceptable ambient levels (AALs) specified in Sec. 3D-1104 of the FCAQTC. The emission rates listed below shall be used as a basis for certifying that any future modifications or changes in the methods of operation will result in ambient impacts below these AALs. In no case shall actual emissions resulting from changes or modifications exceed any of the following emission rates without first applying for and receiving a permit:

| Pollutant (CAS Number) | Maximum facility-wide emission rate | AERMOD EPA version | Date of model output file |
|---|---|---|---|
| acetic acid (64-19-7) | 438.30 lb/hour | 16216r | 04/23/2018 |
| ammonia (7664-41-7) | 349.31 lb/hour | 16216r | 04/23/2018 |
| arsenic and inorganic arsenic compounds | 73.47 lb/year | 16216r | 04/23/2018 |
| benzene (71-43-2) | 9,119 lb/year | 16216r | 04/23/2018 |
| beryllium (7440-41-7) | 142.3 lb/year | 16216r | 04/23/2018 |
| cadmium (7440-43-9) | 203.5 lb/year | 16216r | 04/23/2018 |
| ethylene oxide (75-21-8) | 1,029 lb/year | 16216r | 04/23/2018 |
| fluorides | 3.80 lb/hour and 91.15 lb/day | 16216r | 04/23/2018 |
| formaldehyde (50-00-0) | 20.81 lb/hour | 16216r | 04/23/2018 |
| hydrogen chloride (7647-01-1) | 236.71 lb/hour | 16216r | 04/23/2018 |

4. **Monitoring/recordkeeping/reporting requirement [Sec. 3D-0605 and 1105]** -The permittee shall maintain updated records of production rates, throughputs, material usage, and other process operational information as is necessary to determine compliance with the emission rates specified in permit conditions 4.1(A)(2) and (3). At a minimum these records shall include data sufficient to calculate monthly averaged emission rates (in pounds per hour of emission source operation) for TAPs with 1-hour or 24-hour emission limits and yearly emission rates (in pounds per calendar year) for TAPs with annual emission limits.

   Copies of these records shall be retained by the permittee for a period of two years after the date on which the record was made.

   If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office.

# PART II
## AIR QUALITY CONSTRUCTION PERMIT

The permittee is hereby authorized to construct air emission source(s) and associated air pollution control device(s) listed in Part II, Section 1 of this permit, in accordance with the associated air quality permit application(s) received, including all plans, specifications, previous applications, and other supporting data, all of which are filed with this Office and are incorporated in Part II of this Air Quality Permit.

### SECTION 1

### PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)

**A. ES-TEMP Temporary Boiler Project:**

| Emission Source ID # | Emission Source Description | Emission Point ID No. |
|---|---|---|
| ES-TEMP | One or two temporary boilers with low-NOx burners fired with diesel fuel with a sulfur content not to exceed 0.05% sulfur or with natural gas and with a combined maximum firing rate not to exceed 98 mmBtu/hr. Uncontrolled. | EP-T1 (plus EP-T2, if applicable) |

**B. Project Shoehorn**

| Emission Source ID # | Emission Source Description | Control Devices |
|---|---|---|
| **Building 851-1** | | |
| ES-28-851-1 | MSP Processing | Uncontrolled |
| ES-30-851-1 | MOP Processing 1 | Uncontrolled |

# SECTION 2
# GENERAL CONDITIONS

This section describes terms and conditions applicable to the construction of the air emission source(s) and associated air pollution control device(s) listed in Part II Section 1. Unless otherwise specified herein all references to the "permit" in this section apply only to Part II of the permit.

## A. General Provisions

1. This permit is nontransferable by the permittee. Future owners and operators must obtain a new air quality permit from this Office.
2. This issuance of this permit in no way absolves the permittee of liability for any potential civil penalties which may be assessed for violations of State law which have occurred prior to the issuance date of this permit.
3. A violation of any term or condition of Part II of this permit shall subject the permittee to enforcement pursuant to Forsyth County Air Quality Control Ordinance and Technical Code, including assessment of civil and/or criminal penalties.

## B. Submissions
**(REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, AND REQUESTS FOR RENEWAL)**

Unless otherwise approved by this Office, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to this Office.

## C. Part II Renewal Request

The permittee shall request renewal of the emission source(s) and associated air pollution control device(s) listed in Part II Section 1 at the same time as specified in Part I, condition 2.26, of this permit.

## D. Annual Fee Payment

The permittee shall pay all fees in accordance with FCAQTC Section 3Q-0200 and in conjunction with Part I, condition 2.12, of this permit.

## E. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Part II Section 1 must be reported to the Director:

1. changes in the information submitted in the application;
2. changes that modify equipment or processes; or
3. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by this Office to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

F. **Termination, Modification, and Revocation of the Permit**

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred; or
4. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of Forsyth County Air Quality Control Ordinance and Technical Code.

G. **Inspection and Entry**

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow this Office, or an authorized representative to perform the following:

1. enter the permittee's premises where the permitted facility is located or emissions related activity is conducted, or where records are kept under the conditions of the permit;
2. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
3. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

# SECTION 3
# SPECIFIC LIMITATIONS AND CONDITIONS

The air emission source(s) and associated air pollution control device(s) listed in Part II, Section 1, Condition A are subject to the following specific terms, conditions, and limitations, including the monitoring, record keeping, and reporting requirements as specified herein:

A. Any air emission sources or control devices authorized to construct in Part II, Section 1, Condition A must be constructed and maintained in accordance with the provisions contained herein. The permittee shall comply with applicable Forsyth County Air Quality Control Ordinance and Technical Code Regulations.

B. The permittee shall operate the air emission sources and control devices listed in Part II, Section 1, Condition A in accordance with provisions contained in Part I of this permit.

C. ***ES-TEMP Temporary Boiler Project:***

In the event that the Tobaccoville facility's steam supply (received from the Building 854-8 boilers) is interrupted, one or two temporary boilers will be installed and operated at the Tobaccoville facility.

One or two temporary boilers with low-NOx burners fired with diesel fuel with a sulfur content not to exceed 0.05% sulfur or with natural gas and with a combined maximum firing rate not to exceed 98 mmBtu/hr. Uncontrolled.

1. **Notification requirements - The permittee shall submit to this Office notification as follows:**
   (a) A written notification, hard-copy or electronic, providing the date that each temporary boiler was ordered and the date and time that each temporary boiler began operation. The notification shall also include information describing make, model, firing rate (mmBtu/hr), and installation location of the boiler(s). This notification shall be submitted so that it is received no later than three business days after the date temporary boiler operation commences.

   (b) A written notification, hard-copy or electronic, providing the date that each temporary boiler was removed from the facility and the date and time that each boiler last ceased operation prior to removal. This notification shall be submitted so that it is received no later than five business days after the date each boiler is removed from the facility.

   **[Sec. 3-0103(a)(5) and 3Q-0308(a)]**

2. **Temporary boiler criteria: 40 CFR 63, Subpart JJJJJJ (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources)** - Each boiler must at all times meet the definition of a temporary boiler as stated in section 63.11237 of 40 CFR, Part 63, Subpart JJJJJJ.

   "Temporary boiler" is defined in section 63.11237 as:

   *Temporary boiler* means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A boiler is not a temporary boiler if any one of the following conditions exists:

(a) The equipment is attached to a foundation.

(b) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulating agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location within the facility and performs the same or similar function will be included in calculating the consecutive time period unless there is a gap in operation of 12 months or more.

(c) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(d) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

**[Sec. 3D-1111, and 40 CFR 63.11237]**

3. **Temporary boiler criteria: 40 CFR 60, Subpart Dc** - Each boiler must at all times meet the definition of a temporary boiler as stated in section 60.41c of 40 CFR, Part 60, Subpart Dc.
"Temporary boiler" is defined in section 60.41c as:

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO2 emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

(a) The equipment is attached to a foundation.

(b) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.

(c) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(d) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

**[Sec. 3D-0524 and 40 CFR 60.41c]**

# SECTION 4
# SPECIFIC LIMITATIONS AND CONDITIONS

The air emission source(s) and associated air pollution control device(s) listed in Part II, Section 1, Condition B are subject to the following specific terms, conditions, and limitations, including the monitoring, record keeping, and reporting requirements as specified herein:

A. Any air emission sources or control devices authorized to construct in Part II, Section 1, Condition B must be constructed and maintained in accordance with the provisions contained herein. The permittee shall comply with applicable Forsyth County Air Quality Control Ordinance and Technical Code Regulations.

B. The permittee shall operate the air emission sources and control devices listed in Part II, Section 1, Condition B in accordance with provisions contained in Part I of this permit.

C. ***Project Shoehorn (as described in the application)***

a. **ES-28-851-1: MSP Processing**

Fugitive emissions only

Uncontrolled

b. **ES-30-851-1: MOP Processing 1**

Fugitive emissions only

Uncontrolled

The purpose of the project is to add equipment for the production of several oral tobacco product lines to the Tobaccoville facility: MSP, MOP, and Snus.

1. **30-Day Notification From Start-up** - The permittee shall notify this Office of the actual start-up date of each of the completed project components (a)-(b) within 30 days after the applicable date for each completed project component. This notification is to enable this Office to plan an inspection to verify compliance with any applicable standards. **[Sec. 3-0103(a)(5) and 3Q-0308(a)]**

2. **Commencement of Construction** - If construction/modification of this equipment has not commenced by July 7, 2025 (18 months after the effective date of permit 00745-TV-42), or construction activities lapse for a period of 18 months after construction has commenced, the permittee shall reapply to this Office and obtain a permit to construct before commencing or resuming construction. **[Sec. 3Q-0308(a)]**

# Attachment 1

## Insignificant Activities List

As provided in Sec. 3Q-0503(7) and (8), certain air emission sources are considered insignificant activities and are not listed on the permit. However, insignificant activities because of size or production rate [Sec. 3Q-0503(8)] are required to be listed in the initial permit application and with each request for renewal. The following list summarizes the insignificant activities provided in the Title V permit application. Insignificant activities are not exempted from any applicable requirement or from demonstrating compliance with any applicable requirement.

| Insignificant because of size or production rate [Sec. 3Q-0503(8)] | |
|---|---|
| **Emission Source ID.** | **Emission Source Description** |
| S-ProVap | Propane Vaporizer (for Fume Incinerator and RTO) |
| F-1-851-1 | Adhesive Bulk Storage Tank (TK 13033) |
| F-2-851-1 | Adhesive Bulk Storage Tank (TK 13032) |
| F-3-851-1 | Plasticizer Bulk Storage Tank (TK 13031) |
| F-4-851-1 | Plasticizer Bulk Storage Tank (TK 13029) |
| F-5-851-1 | Plasticizer Bulk Storage Tank (TK 13030) |
| F-6-851-1 | Plasticizer Bulk Storage Tank (TK 13028) |
| F-7-851-1 | Liquid Casing Material Storage Tank (TK 13027) |
| F-8-851-1 | Liquid Casing Material Storage Tank (TK 13025) |
| F-9-851-1 | Liquid Casing Material Storage Tank (TK 13023) |
| F-10-851-1 | Liquid Casing Material Storage Tank (TK 13026) |
| F-11-851-1 | Liquid Casing Material Storage Tank (TK 13024) |
| F-12-851-1 | Liquid Casing Material Storage Tank (TK 13022) |
| F-14-851-1 | Top-Dressing Input System |
| F-15-851-1 | Adhesive Input System |
| F-17-851-1 | Case Labeling |
| IS-FT1 | No. 2 Fuel Oil Storage Tank A |
| IS-FT2 | No. 2 Fuel Oil Storage Tank B |
| 851-4-IS-FP | 237 HP fire pump (2015) |
| 00745-IS-E bottle | E-liquid bottle fill and packaging |
| 854-8-IS7 | 10,000 gallon day tank (Fuel Oil) |
| IS-5-851-1 | Menthol shorts silo fill 851-1 |
| N/A | CFA Operation (Building 851-1) |
| 851-1 IS-VMIX | E-liquid mixing |
| ES-3-851-1 | Recovered Tobacco Input (Regular) |
| ES-4-851-1 | Recovered Tobacco Silo Discharge (Regular) |
| ES-9-851-1 | Processed Tobacco Conveying |
| F-19-851-1 | 10,000 gal Ethanol Storage tank |
| F-20-851-1 | 10,000 gal Ethanol Storage tank |
| F-23-851-1 | Ingredient Mixing and Storage (IMS) Area |

*List continued on next page.*

| Insignificant because of size or production rate [Sec. 3Q-0503(8)] | |
|---|---|
| **Emission Source ID.** | **Emission Source Description** |
| F-19-851-1 | 10,000 gal Ethanol Storage tank |
| F-20-851-1 | 10,000 gal Ethanol Storage tank |
| F-23-851-1 | Ingredient Mixing and Storage (IMS) Area |
| TK-28031 | 1,200 gallon Propylene Glycol Day Tank |
| 851-6-IS1 | OTT KDF E60 (training filter maker) |
| 851-6-IS2 | OTT Protos 80 (training cigarette maker) |
| 851-6-IS3 | OTT Protos 80 (training cigarette maker) |
| 851-6-IS4 | OTT Protos 90 (training cigarette maker) |
| 851-6-IS5 | OTT Packer X500 (training packer) |
| 851-6-IS6 | OTT Packer X2 (training packer) |
| IS-WELD-851-1 | Welding Shop Exhaust |
| 851TCART-IS | T Cartridge Making and Packing |
| IS-MOL | Modern Oral Lozenge (MOL) processing & packaging |
| IS-PARTS WASHERS-851-1 | Parts Washers (9) |

| Insignificant because of category [Sec. 3Q-0503(7)] | |
|---|---|
| **Emission Source ID.** | **Emission Source Description** |
| N/A | Various maintenance activities |

**FORSYTH COUNTY**
**OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION**

# RENEWAL STATEMENT OF BASIS for Permit #00745-TV-43

## R.J. Reynolds Tobacco Company (RJRT) Tobaccoville facility - Premise # 00745

Permit Tracking #: **1414**

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| Site Location: | Current Permit No. | New Permit No. |
|---|---|---|
| **Tobaccoville, NC** | **00745-TV-42** | **00745-TV-43** |

| Technical Contacts: | Phone: | Responsible Official: |
|---|---|---|
| **W. Scott Snow**<br>**Sr. Manager Environmental** | **(336) 741-2236** | **Gary Noble**<br>**Senior Vice President – Manufacturing** |

**Rob Russ**
Agency Reviewer _____ Signature _____ Date

**Peter Lloyd**
Agency Q/A Supervisor _____ Signature _____ Date

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Two Excel spreadsheet files are also part of this Statement of Basis. One of the spreadsheet files contains CONFIDENTIAL information (**00745-TV-43-SoB-CONFIDENTIAL.xlsx**) and is stored in this Office in hard-copy form with other confidential Tobaccoville facility files in a locked location and in electronic form on this Office's shared drive in a locked folder. The other spreadsheet file (**00745-TV-43-SoB-PUBLIC.xlsx**) does not contain any confidential information and is stored in this Office in hard-copy form with other public Tobaccoville facility files and in electronic form on this Office's shared drive. The following information is considered confidential: maximum throughput rates, emission factors (but not emission rates), and some equipment or material composition details.

*In this statement of basis, all references to permit conditions are for permit conditions in Part I of the permit unless otherwise specified.*

# SECTION A:
# Processing

This statement of basis is for a permit renewal for the Tobaccoville facility owned by the R. J. Reynolds Tobacco Company (RJRT). The renewal request was received 2-24-2023 prior to the 2-27-2023 due date.

As described in Section H, the processing of the renewal was delayed by several significant changes to the emissions calculations for the various sources at the Tobaccoville facility.

This draft permit (permit 00745-TV-43) is being processed as a renewal – so it will go through a 30-day public comment period and a concurrent 45-day review by the U.S. EPA prior to final approval.

# SECTION B:
# General Facility Description

RJRT operates a manufacturing complex including tobacco processing operations along with an associated steam utility plant in the northern part of Forsyth County in Tobaccoville, North Carolina.

RJRT is a wholly owned subsidiary of Reynolds American Inc. (RAI). RAI was formed in 2004 when R. J. Reynolds Tobacco merged with Brown and Williamson Tobacco Corporation (B&W), a subsidiary of British American Tobacco p.l.c. (BAT). As a result of the merger with B&W, BAT owned approximately 42% of RAI, the parent company of RJRT. On July 25, 2017, BAT acquired the remaining 58% of RAI, and RAI became an unconsolidated subsidiary of BAT.

Facility Description:

The utility operations for the Tobaccoville Facility are located in Building 854-8. The facility has three boilers which provide steam for the manufacturing plant: Boilers #5, #6, and #7 (ES-854-8-1, ES-854-8-2, and ES-854-8-3, respectively). The boilers are capable of combusting natural gas and No. 2 Fuel Oil. The boilers are equipped with Low-NOx burners and employ Flue Gas Recirculation for NOx emission minimization. These boilers provide the steam demand for the tobacco processing operations. The facility also has an emergency diesel generator (ES-854-8-4) and an emergency diesel fire water pump. The emergency fire water pump is not listed on the permit because it is an insignificant activity.

The RJRT tobacco processing operations at the Tobaccoville facility are located in Building 851-1. The main activity in this building is the processing of tobacco and production of cigarettes into a final packaged form for shipment. Tobacco is unloaded and conveyed to storage silos for further processing at 851-1 or received and packed for shipment to other facilities. Various steps are taken in conveying, screening and storage of the tobacco in route to the casing and drying and/or the casing and cutting department. In the casing and drying department tobacco is dried and cased with flavoring materials prior to routing to casing and cutting or shipped offsite for processing at another facility. In the casing and cutting department, tobacco is cased with flavoring materials and then cut and conditioned prior to addition of final top-dressing materials. Top-dressing materials consist primarily of ethanol, propylene glycol and flavoring ingredients. Menthol may also be added. After casing and cutting, the cut filler tobacco is conveyed to storage silos for making and packing or shipped out. Recovered tobacco is added at various stages of casing and cutting.

The casing materials consist of nonhazardous solid and liquid flavoring ingredients. The primary VOC material is glycerin which is relatively nonvolatile. Fabric filter dust collector systems are used to collect tobacco dust generated from conveying and handling operations. Wet scrubber (“Rotoclone”) controls are employed to collect particulate from casing drums and steam flotation chambers which moisten and condition tobacco. The facility employs over 95 fabric filters and 10 wet scrubbers.

Cut tobacco and cigarette making materials go to the making department for final processing. The making and packing department contains many cigarette making, packing and filter making complexes. Cigarette filters are made from plasticizer, adhesives, and cellulose filter material. Fabric filter systems are used to collect particulate generated from transfer of tobacco to cigarette makers. Roll filter fabric filters are used to collect particulate in the filter making process.

A special tobacco processing operation for expanding tobacco is also conducted at Building 851-1. In this process, cut tobacco is frozen with liquid carbon dioxide, then heated to allow the expansion to take place. A mixture of water and glycerin may be added to the expanded tobacco prior to storage and blending with other tobacco for cigarette manufacturing. A fume incinerator system which provides process heat also reduces volatile organic compound (VOC) and particulate matter (PM) emissions. Industrial vacuum systems are utilized to collect dust from surface cleaning activities throughout the process.

With Project Shoehorn, three new, non-cigarette, product lines were added at the Tobaccoville facility: Moist Snuff Pouch (MSP), Modern Oral Pouch (MOP), and Snus. The Project Shoehorn modification was authorized with permit 00745-TV-42 with an effective date of 1-1-2024. These processes had originally operated at subsidiaries of RAI in Memphis TN and Winston-Salem NC.

**Prevention of Significant Deterioration (PSD):**

The facility was originally permitted in 1983 subject to Prevention of Significant Deterioration (PSD) regulations. The PSD application, review, and permit included PM controls and VOC work practices defined as Best Available Control Technology (BACT).

Emission sources constructed after the initial PSD permit were not subject to PSD unless emissions triggered another PSD review. In most cases the facility elected to have emission restrictions to avoid PSD review. PSD avoidance conditions are included in the permit in condition 3.2. This is explained in more detail in the review that follows. A new PSD avoidance condition for Project Shoehorn was added in the 00745-TV-42 permit as condition 3.2(D).

The original 1983 BACT for the cigarette manufacturing equipment was determined to include fabric filters or wet scrubbers to control particulate emissions for those emission sources subject to BACT. This BACT requirement is included in the permit in condition 3.3(C).

At that time, the facility was also subject to PSD because of VOC emissions from the cigarette manufacturing equipment. The original 1983 BACT for emissions of VOCs from the cigarette manufacturing equipment included a work practice standard that prohibited the use of ethyl alcohol (ethanol) as a vehicle for introducing flavoring agents into tobacco and thereby reduced emissions of volatile organic compounds. There were later exclusions to this work practice standard for some equipment installed in ES-15-851-1 in 2005.

In July 2014, RAI and Lorillard, Inc. (Lorillard) announced an agreement for RAI to acquire Lorillard, the third largest manufacturer of cigarettes in the United States. The 2014 and 2015 PSD applications involved the manufacture of tobacco products with ethanol-based flavorings. This included, but was not limited to, former Lorillard cigarette products (such as Newport) that differ from original RJRT cigarette products in that the former Lorillard cigarettes use ethanol-based flavorings while the original RJRT cigarette products do not. Permit condition 3.11 includes the individual BACT limits for the emissions sources modified to allow for the manufacture of ethanol-based cigarette brands. In addition, permit condition 3.1(A) allows for the use of ethanol in the production tobacco products with ethanol-based flavorings.

# SECTION C:
# Tobacco Manufacturing – PM and VOC Emissions

## I. ES-1-851-1: Tobacco Strip Receiving and Blending

### A. ES-1-851-1 - Overview

In Tobacco Strip Receiving and Blending, various tobacco strips are weighed, delaminated, and conditioned in conditioning drums. The tobacco is then conveyed to storage silos to be kept for later use. The processing of the tobacco in the conditioning drums is a source of VOC emissions and PM emissions as well as some federal hazardous air pollutants (HAPs) and local toxic air pollutants (TAPs). TAP regulations are locally-enforceable only. The conveying of the tobacco results in PM emissions only with no VOC, HAP, or TAP emissions.

All emissions from Tobacco Strip Receiving and Blending are vented to atmosphere via stacks with PM emissions controlled by fabric filters. The fabric filters have a control efficiency of 99.9%. There is no control for VOCs, HAPs, or TAPs.

For more detail see the "ES-1" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-1-851-1 – PM Emissions

The conditioning drum PM emission factor (confidential) is based on past stack testing of a similar source (the apron dyer) involving elevated temperatures. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions. The tobacco conveying PM emission factor (confidential) is based on past stack testing of a similar tobacco conveying source. The tobacco conveying emission factor is also used for non-conveying tobacco handling processes that are considered to have similar PM emissions to conveyors – such as: input points and exit scales. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-1-851-1 equipment are 732.1 lb/hour which converts to 0.7321 lb/hour after control by fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
In the permit, condition 3.3(B) includes requirements pertaining to Forsyth County Air Quality Technical Code (FCAQTC) Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-1-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 45.0 lb/hr. The source's combined 0.7321 lb/hr controlled PM emissions are1.63% of that limit. The source's combined 732.1 lb/hr uncontrolled PM emissions are 1627% of that limit. Consequently, particulate matter control by the fabric filters is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in permit conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-1-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to FCAQTC Sec. 3D-0521(d). Sec. 3D-0521(d) requires that visible emissions not exceed 20% opacity when averaged over a six-minute period with the following exceptions: (a) No six-minute period exceeds 87% opacity; (b) No more than one six-minute period exceeds 20% opacity in any hour; and (c) No more than four six-minute periods exceed 20% opacity in any 24-hour period. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure

compliance with Sec. 3D-0521(d).

The ES-1-851-1 equipment is subject to federally enforceable limits (VOC 40 TPY, PM 25 TPY) to avoid PSD regulations. The PSD avoidance limit is in condition 3.2(A)(1) and restricts the operation of ES-1-851-1 to processing no more than 216,705 tons of dry tobacco in any consecutive 12-month period.

Based on that PSD avoidance production limit, the potential controlled PM/PM10/PM2.5 emissions are 1.511 tons/year. Without considering the PSD avoidance limit, based on 8760 hours/year of operation, the potential uncontrolled PM/PM10/PM2.5 emissions are 3,206.7 tons/year, and the potential controlled PM/PM10/PM2.5 emissions are 3.2067tons/year.

### C. ES-1-851-1 – VOC Emissions

The conditioning drum VOC emission factor (confidential) is based on past stack testing of a similar source (the apron dryer reorder and drying sections) with adjustments made to account for differences in temperature and residence time. During conveying, the tobacco is unheated. Because there is no reason to expect VOC emissions from unflavored, unheated tobacco being moved on a conveyor, no VOC emissions are deemed to be emitted from ES-1-851-1 conveying.

VOC emissions from this source are uncontrolled. The uncontrolled VOC emissions from the ES-1-851-1 equipment are 17.0415 lb/hour.

The ES-1-851-1 equipment is subject to federally enforceable limits (VOC 40 TPY, PM 25 TPY) to avoid PSD regulations. The PSD avoidance limit is in condition 3.2(A)(1) and restricts the operation of ES-1-851-1 to processing no more than 216,705 tons of dry tobacco in any consecutive 12-month period.

Based on that PSD avoidance production limit, the potential VOC emissions are 35.171 tons/year. Without considering the PSD avoidance limit, based on 8760 hours/year of operation, the potential uncontrolled VOC emissions are 74.64 tons/year.

## II. ES-6-851-1: Recovered Tobacco Silo Discharge (Menthol)

### A. ES-6-851-1 - Overview

In Recovered Tobacco Silo Discharge (Menthol), menthol-treated tobacco is conveyed from storage silos to pneumatic feeders. The pneumatic feeders then transport the tobacco to ES-7-851-1, Recovered Tobacco Conveying. The conveyor hoods associated with Recovered Tobacco Silo Discharge (Menthol) collect the emissions which include VOC and PM emissions.

All emissions from Recovered Tobacco Silo Discharge (Menthol) are vented to atmosphere via a stack with PM emissions controlled by a fabric filter with 99.9% control efficiency for PM. There is no control for VOC.

For more detail see the “ES-6” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. ES-6-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-6-851-1 equipment are 0.2217 lb/hour which converts to 0.00022 lb/hour after control by the fabric filter with 99.9% control efficiency for particulate

matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-6-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 17.9 lb/hr. The source's combined 0.00022 lb/hr controlled PM emissions are 0.00124% of that limit. The source's combined 0.2217 lb/hr uncontrolled PM emissions are 1.24% of that limit. Consequently, particulate matter control by the fabric filter is not required for compliance with Sec. 3D-0515. Nonetheless, the non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure that the fabric filter is operating properly.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 0.9712 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.0009712 tons/year.

### C. ES-6-851-1 – VOC Emissions

The conveyor hood VOC emission factor (confidential) is based on past stack testing of a similar source. VOC emissions from this source are uncontrolled. The uncontrolled VOC emissions from the ES-6-851-1 equipment are 0.09727 lb/hour. Based on 8760 hours per year, the potential uncontrolled VOC emissions are 0.4261 tons/year.

## III. ES-7-851-1: Recovered Tobacco Conveying

### A. ES-7-851-1 - Overview

In Recovered Tobacco Conveying, recovered tobacco is pneumatically conveyed to scales where it is weighed prior to entering the Casing and Cutting process (ES-15-851-1). From the recovered tobacco separators and conveyor hoods associated with ES-7-851-1 emissions include VOC and PM emissions.

All emissions from Recovered Tobacco Conveying are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM. There is no control for VOC.

For more detail see the "ES-7" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-7-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-7-851-1 equipment are 59.48 lb/hour which converts to 0.05948 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential

maximum throughput rate for ES-7-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 17.9 lb/hr. The source's combined 0.05948 lb/hr controlled PM emissions are 0.33% of that limit. The source's combined 59.48 lb/hr uncontrolled PM emissions are 332% of that limit. Consequently, particulate matter control by the fabric filters is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0515 PM limit for ES-7-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in Part I, permit conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 260.5 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.2605 tons/year.

### C. ES-7-851-1 – VOC Emissions

The conveyor hood and recovered tobacco separator VOC emission factors (confidential) are based on past stack testing of a similar sources. VOC emissions from this source are uncontrolled. The uncontrolled VOC emissions from the ES-7-851-1 equipment are 0.0801 lb/hour. Based on 8760 hours per year, the potential uncontrolled VOC emissions are 0.3508 tons/year.

## IV. ES-8-851-1: Processed & Recovered Tobacco Input

### A. ES-8-851-1 - Overview

In Processed & Recovered Tobacco Input, recovered tobacco is unloaded from trailers and pneumatically transported to storage silos. From the pneumatic separator and conveyor hoods associated with ES-8-851-1 emissions include VOC and PM emissions, plus ammonia (ammonia is a TAP, but not a VOC or HAP).

All emissions from Processed & Recovered Tobacco Input are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM. There is no control for VOC or ammonia.

For more detail see the "ES-8" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-8-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the sources, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-8-851-1 equipment are 53.36 lb/hour which converts to 0.0534 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential

maximum throughput rate for ES-8-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 16.5 lb/hr. The source's combined 0.0534 lb/hr controlled PM emissions are 0.32% of that limit. The source's combined 53.36 lb/hr uncontrolled PM emissions are 323% of that limit. Consequently, particulate matter control by the fabric filters is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0515 PM limit for ES-8-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in Part I, permit conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 233.7 tons/year, the potential controlled PM emissions are 0.234 tons/year.

### C. ES-8-851-1 – VOC Emissions

During conveying, the tobacco is unheated and no casing (flavoring) has been applied). Because there is no reason to expect VOC emissions from unflavored, unheated tobacco being moved on a conveyor, no VOC emissions are deemed to be emitted from ES-8-851-1 conveying.

The pneumatic separator VOC emission factor (confidential) is based on past stack testing of a similar source. VOC emissions from this source are uncontrolled. The uncontrolled VOC emissions from the ES-8-851-1 equipment are 0.0712 lb/hour.

Based on 8760 hours per year, the potential uncontrolled VOC emissions from ES-8-851-1 are 0.312 tons/year.

## V. ES-9-851-1: Processed Tobacco Conveying

### A. ES-9-851-1 - Overview

In Processed Tobacco Conveying, recovered tobacco is conveyed to scales where it is weighed before being pneumatically conveyed to the Casing and Cutting process (ES-15-851-1). Particulate matter is the only pollutant emitted from the conveying associated with ES-9-851-1.

All emissions from Recovered Tobacco Conveying are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM.

For more detail see the "ES-9" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-9-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-9-851-1 equipment are 2.16 lb/hour which converts to 0.00216 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-9-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 27.9 lb/hr. The source's combined 0.00216 lb/hr controlled PM emissions are 0.008% of that limit. The source's combined 2.16 lb/hr uncontrolled PM emissions are 7.73% of that limit. Consequently, particulate matter control by the fabric filter is not required for compliance with Sec. 3D-0515. Nonetheless, the non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure that the fabric filter is operating properly.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 9.442 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.009442 tons/year.

### C. ES-9-851-1 – VOC Emissions

No VOC emissions are emitted from Processed Tobacco Conveying (ES-9-851-1).

## VI. ES-10-851-1: Expanded Tobacco Conveying

### A. ES-10-851-1 – Overview

In Expanded Tobacco Conveying, expanded tobacco from portable storage containers or fixed storage silos is conveyed to scales where it is weighed prior to entering the Casing and Cutting process (ES-15-851-1). Particulate matter is the only pollutant emitted from the conveying associated with ES-10-851-1.

All emissions from Expanded Tobacco Conveying are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM.

For more detail see the "ES-10" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-10-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-10-851-1 equipment are 0.9423 lb/hour which converts to 0.0009423 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-10-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 28.4 lb/hr. The source's combined 0.0009423 lb/hr controlled PM emissions are 0.003% of that limit. The source's combined 0.9423 lb/hr uncontrolled PM emissions are 3.3% of that limit. Consequently, particulate matter control by the fabric filter is not

required for compliance with Sec. 3D-0515. Nonetheless, the non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure that the fabric filter is operating properly.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 4.127 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.004127 tons/year.

### C. ES-10-851-1 – VOC Emissions

No VOC emissions are emitted from Expanded Tobacco Conveying (ES-10-851-1).

## VII. ES-11-851-1: Tobacco Strip Conveying and Blending

### A. ES-11-851-1 - Overview

In Tobacco Strip Conveying and Blending, different groups of blended tobacco strips are conveyed from storage silos, weighed, and blended together as required. Particulate matter is the only pollutant emitted from the activity associated with ES-11-851-1.

All emissions from Tobacco Strip Conveying and Blending are collected by conveyor hoods and vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM.

For more detail see the "ES-11" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-11-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-11-851-1 equipment are 48.04 lb/hour which converts to 0.04804 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-11-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 46.3 lb/hr. The source's combined 0.04804 lb/hr controlled PM emissions are 0.10% of that limit. The source's combined 48.04 lb/hr uncontrolled PM emissions are 104% of that limit. Consequently, particulate matter control by the fabric filters is required for compliance with Sec. 3D-0515. The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-11-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure

compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 210.4 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.2104 tons/year.

### C. ES-11-851-1 – VOC Emissions

No VOC emissions are emitted from Tobacco Strip Conveying and Blending (ES-11-851-1).

## VIII. ES-12-851-1: Tobacco Strip Conveying and Storage

### A. ES-12-851-1 - Overview

In Tobacco Strip Conveying and Storage, blended tobacco strip is conveyed to storage silos, pallet packers, box packers, and the Casing and Cutting process (ES-15-851-1). Particulate matter is the only pollutant emitted from the activity associated with ES-12-851-1.

Emissions from Tobacco Strip Conveying and Storage are collected by conveyor hoods or inspection station hoods and vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM.

For more detail see the "ES-12" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-12-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-12-851-1 equipment are 81.5 lb/hour which converts to 0.0815 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-12-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 47.4 lb/hr. The source's combined 0.0815 b/hr controlled PM emissions are 0.17% of that limit. The source's combined 81.5 lb/hr uncontrolled PM emissions are 172% of that limit. Consequently, particulate matter control by the fabric filters is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-12-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 356.9 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.3569 tons/year.

### C. ES-12-851-1 – VOC Emissions

No VOC emissions are emitted from Tobacco Strip Conveying and Storage (ES-12-851-1).

## IX. ES-13-851-1: Tobacco Strip Conveying to Casing and Drying

### A. ES-13-851-1 - Overview

In Tobacco Strip Conveying to Casing and Drying, tobacco strip is conveyed to the casers and/or dryers in the Casing and Drying process (ES-14-851-1). Particulate matter is the only pollutant emitted from the conveying associated with ES-13-851-1.

All emissions from Tobacco Strip Conveying to Casing and Drying are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM.

For more detail see the "ES-13" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-13-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-13-851-1 equipment are 2.217 lb/hour which converts to 0.002217 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

> Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
> Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-13-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 30.5 lb/hr. The source's combined 0.002217 lb/hr controlled PM emissions are 0.007% of that limit. The source's combined 2.217 lb/hr uncontrolled PM emissions are 7.27% of that limit. Consequently, particulate matter control by the fabric filters is not required for compliance with Sec. 3D-0515. Nonetheless, the non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure that the fabric filter is operating properly.
>
> Sec. 3D-0521(d), "Control of Visible Emissions"
> Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 9.712 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.009712 tons/year.

### C. ES-13-851-1 – VOC Emissions

No VOC emissions are emitted from Tobacco Strip Conveying to Casing and Drying (ES-13-851-1).

# X. ES-14-851-1: Tobacco Strip Casing and Drying

## A. ES-14-851-1 - Overview

In Tobacco Strip Casing and Drying, tobacco strip is conditioned, cased, dried, cooled, and reconditioned as required. Emissions from ES-14-851-1 come from several different types of sources: conveying, casing drums, and apron dyers. The apron dryers have emissions from the drying section, cooling section, and reorder section.

From the casing drums and apron dryers associated with ES-14-851-1, emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only.

All emissions from the casing drums are vented to atmosphere via stacks with PM emissions controlled by wet scrubbers with 90% control efficiency for PM. The same wet scrubbers have 30% control efficiency for VOC. No control is assumed for HAPs or TAPs.

All emissions from the apron dryer drying section are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM. There is no control for VOC, HAPs, or TAPs. All emissions from the apron dryer cooling section and reorder section are vented to atmosphere via stacks with no control.

The ES-14-851-1 conveyors only emit particulate matter with no HAPs or TAPs. All emissions from the conveyors are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM. There is no control for VOCs, HAPs, or TAPs.

The ES-14-851-1 equipment can process tobacco in regular mode or heat-treated mode. The worst-case PM, VOC and HAP/TAP emissions are for heat-treated mode. For some products additional ethanol is applied in the casing drums which results in additional VOC emissions.

Overall, the worst-case PM, VOC and HAP/TAP emissions are when tobacco is processed in heat-treated mode with the application of ethanol. The following emissions analysis is based upon that overall worst-case scenario.

For more detail see the “ES-14 Reg”, “ES-14 HT”, and ES-14 Ethanol” worksheets in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

## B. ES-14-851-1 – PM Emissions

The PM emission factors (confidential) are based on past stack testing of similar sources. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

Overall, the uncontrolled PM/PM10/PM2.5 emissions from the ES-14-851-1 equipment are 1,063.2 lb/hour which converts to 2.570 lb/hour after applicable controls.

Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”

Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-14-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 26.3 lb/hr. The source’s combined 2.570 lb/hr controlled PM emissions are 9.77% of that limit. The source’s combined 1,036.2 lb/hr uncontrolled PM emissions are 3904% of that limit. Consequently, particulate matter control is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-

0515 PM limit for ES-14-8514-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in permit conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 4,538.7 tons/year, the potential controlled PM emissions are 11.257 tons/year.

### C. ES-14-851-1 – VOC Emissions

The VOC emission factors (confidential) are based on past stack testing of a similar sources. All emissions from the casing drums are vented to atmosphere via stacks with VOC emissions controlled by wet scrubbers with 30% control efficiency for VOC. All other VOC emissions from ES-14-851-1 are vented to atmosphere via stacks with no VOC control. No control is assumed for HAPs and TAPs.

The overall worst-case VOC emissions from the ES-14-851-1 equipment (Heat-treated mode with ethanol-based casings) 56.315 lb/hour uncontrolled and 50.553 lb/hr with 30% VOC control from the wet scrubbers serving the casing drums. In this production mode, based on 8760 hours per year, the potential uncontrolled VOC emissions are 493,323 tons/year, and the potential controlled VOC emissions are 442,848 tons/yr.

## XI. ES-15-851-1: Tobacco Casing, Cutting and Storage

### A. ES-15-851-1 - Overview

Tobacco Casing, Cutting and Storage is a complex emissions source with many components. In this source, tobacco strip is conditioned, cased, checked for metal debris, cut, and weighed. The cut tobacco continues through the equipment in this source or is conveyed to the Tobacco Expansion process (ES-21-851-1). When required, recovered tobacco is added to the cut tobacco. The cut tobacco mixture is then conditioned (delaminated, moistened, dried, and cooled). When required, processed and expanded tobaccos are added to the cut tobacco mixture. The final mixture of cut tobacco is then conditioned, top-dressed (if required), weighed, and conveyed to storage silos.

Emissions from ES-15-851-1 come from several different types of sources: conveying, top-dressing drums, casing drums, flotation chambers, dryers, separators (primary & secondary), cutters, ethanol-based casing materials, propylene glycol-based casing materials, and combustion of natural gas in the thermal incinerator. Tobacco processing emissions factors (confidential) come from stack testing of ES-15 or similar sources, mass balance, or engineering calculations. Natural gas combustion emissions from the RTO agree with NC DEQ spreadsheet "NATURAL GAS COMBUSTION EMISSIONS CALCULATOR" (Revision N) 1/5/2017 (small boilers <100 mmBtu/hr, uncontrolled) except for PM/PM10/PM2.5 emission factors which come from AP-42, Table 1.4-2 with PM=PM10=PM2.5.

ES-15-851-1 emissions include PM and VOC plus various federal HAPs and local TAPs. TAP regulations are locally-enforceable only. Due to the nature of the sources, all ES-15-851-1 PM10 and PM2.5 emissions are assumed to equal PM emissions.

PM and/or VOC control occurs for some sources, while others are uncontrolled. No control is assumed for any HAPs or TAPs. There are also some fugitive VOC emissions. Control devices include fabric filters, wet scrubbers (Rotoclones), and the regenerative thermal oxidizer (RTO, CD-RTO-851-1). The fabric filters all have 99.9% control for PM/PM10/PM2.5. The wet scrubbers all have 90% control for PM/PM10/PM2.5 and 30% control for VOC. The RTO has 98% VOC control (demonstrated from stack

testing).

For more detail see the “ES-15” and “ES-15 RTO” worksheets in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. ES-15-851-1 – PM Emissions

The uncontrolled PM/PM10/PM2.5 emissions from the ES-15-851-1 equipment are 1002.4 lb/hour which converts to 19.4 lb/hour after applicable controls.

Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-15-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 45.2 lb/hr. The source’s combined 19.4 lb/hr controlled PM emissions are 43% of that limit, and the source’s combined 1002.4 lb/hr uncontrolled PM emissions are 2218% of that limit. Consequently, particulate matter control is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in permit conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-15-8514-1.

Sec. 3D-0521(d), “Control of Visible Emissions”
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in permit conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM emissions are 4,390.66 tons/year, the potential controlled PM emissions are 85.12 tons/year. NOTE: These emissions values are conservatively high because they assume the simultaneous maximum production of ethanol-based and non-ethanol-based products (both of which emit some PM) which isn’t technically possible.

### C. ES-15-851-1 – VOC Emissions

The VOC emission factors (confidential) are based on past stack testing of a similar sources, mass balance, and March 2016 stack testing of VOC emissions both before and after control by the thermal incinerator (Control Device CD-RTO-851-1, Stack EP-60-851-1).

ES-15-851-1 is equipped to make tobacco products that have an ethanol-based casing. All four casing lines (Lines 1, 2, 3, and 4) can also make products that don’t use ethanol. The VOC emissions are greater when processing casing materials with ethanol than when processing casings without ethanol.

The overall VOC emissions from the ES-15-851-1 equipment are 1,229.5 lb/hour uncontrolled and 221.7 lb/hr with applicable controls. Based on 8760 hours per year, the potential uncontrolled VOC emissions are 5,385.3 tons/year and the potential controlled VOC emissions are 970.9 tons/yr. NOTE: These emissions values are conservatively high because they assume the simultaneous maximum production of ethanol-based and non-ethanol-based products which isn’t technically possible.

## XII. ES-16-851-1: Cut Tobacco Silo Discharge

### A. ES-16-851-1 - Overview

In Cut Tobacco Silo Discharge, cut tobacco is conveyed from storage silos and/or portable storage containers to scales and then to pneumatic feeders. These feeders are used to supply cut tobacco to the cigarette making process (ES-19-851-1). From the conveyor hoods associated with ES-16-851-1 emissions include volatile organic compound (VOC) emissions and particulate matter (PM) emissions.

All emissions from Cut Tobacco Silo Discharge are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM. There is no control for VOC.

For more detail see the "ES-16" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-16-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-16-851-1 equipment are 6.10 lb/hour which converts to 0.0061 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-16-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 44.4 lb/hr. The source's combined 0.0061 lb/hr controlled PM emissions are 0.01% of that limit. The source's combined 6.10 lb/hr uncontrolled PM emissions are 14% of that limit. Consequently, particulate matter control by the fabric filters is not required for compliance with Sec. 3D-0515. Nonetheless, the non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure that the fabric filter is operating properly.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 26.7 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.0267 tons/year.

### C. ES-16-851-1 – VOC Emissions

The conveyor hood VOC emission factors (confidential) are based on past stack testing of a similar source. VOC emissions from this source are uncontrolled. The uncontrolled VOC emissions from the ES-16-851-1 equipment are 0.4335 lb/hour. Based on 8760 hours per year, the potential uncontrolled VOC emissions are 1.90 tons/year.

## XIII. ES-18-851-1: Filter Making

### A. ES-18-851-1 - Overview

In Filter Making, the filter maker machines use plasticizer, adhesives, paper, filter material, and filter additives to produce filter rods for the cigarette makers. From the filter making machines in ES-18-851-1

emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only. VOC emissions also come from polyethylene glycol usage and vinyl acetate usage (adhesives). Vinyl acetate is a VOC and a HAP, but not a TAP.

All PM emissions from Filter Making are vented to atmosphere via stacks with PM emissions controlled by roll filters with 75% control efficiency for PM. All VOC emissions are fugitive. There is no control for VOCs, HAPs, or TAPs.

The Make and Pack Modernization Project was a significant modification that included changes to ES-18-851-1 (Filter Making). Those changes were initially permitted in permit 00745-TV-37 (Construction-Only) and in permit 00745-TV-38 (Operation). The analysis presented in this statement of basis incorporates the Make and Pack Modernization Project changes.

For more detail see the "ES-18 & ES-18 PG" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

## B. ES-18-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-18-851-1 equipment are 7.1354 lb/hour which converts to 1.7838 lb/hour after control by the glass fiber roll filters with 75% control efficiency for particulate matter.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-18-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 21.4 lb/hr. The source's combined 1.7838 lb/hr controlled PM emissions are 8.34% of that limit. The source's combined 7.135 lb/hr uncontrolled PM emissions are 33% of that limit. Consequently, particulate matter control by the fabric filter is not required for compliance with Sec. 3D-0515. Nonetheless, the non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure that the fabric filter is operating properly.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in permit condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM emissions are 31.25 tons/year, the potential controlled PM emissions are 7.813 tons/year.

## C. ES-18-851-1 – VOC Emissions

The filter making VOC emission factor (confidential) is based on past stack testing of a similar source plus the addition of VOC based on plasticizer tank VOC loss calculations from two plasticizer tanks (TK-21001 & TK-21002). Additional VOC emissions from polyethylene glycol usage are determined by mass balance. VOC emissions from this source are uncontrolled. The uncontrolled VOC emissions from the ES-18-851-1 equipment are 4.2927 lb/hour.

Based on 8760 hours per year, the potential uncontrolled VOC emissions from ES-18-851-1 are 18.02

tons/year. These emissions do not take into account the PSD Avoidance limit of 100.1 tons/year on the combined VOC emissions from Filter Making (ES-18-851-1), Cigarette Making (ES-19-851-1), and Packing Equipment (F-16-851-1).

# XIV. ES-19-851-1: Cigarette Making

## A. ES-19-851-1 - Overview

In Cigarette Making, the cigarette maker machines use tobacco, filter rods, adhesives, paper, ink, and laser gas to produce cigarette rods for the packing equipment. From the cigarette making machines in ES-19-851-1 emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only. VOC emissions also come from ethanol usage and vinyl acetate usage. Vinyl acetate is a VOC and a HAP, but not a TAP.

All PM emissions from Cigarette Making are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM. There is no control for VOCs, HAPs, or TAPs.

The Make and Pack Modernization Project was a significant modification that included changes to ES-19-851-1 (Cigarette Making). Those changes were initially permitted in permit 00745-TV-37 (Construction-Only) and in permit 00745-TV-38 (Operation). The analysis presented in this statement of basis incorporates the Make and Pack Modernization Project changes.

For more detail see the “ES-19 & ES-19 EtOH” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

## B. ES-19-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-19-851-1 equipment are 865.2 lb/hour which converts to 0.8652 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

> Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”
> Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-19-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 45.5 lb/hr. The source’s combined 0.8652 lb/hr controlled PM emissions are 1.90% of that limit. The source’s combined 865.2lb/hr uncontrolled PM emissions are 1902% of that limit. Consequently, particulate matter control by the fabric filters is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-19-851-1.
>
> Sec. 3D-0521(d), “Control of Visible Emissions”
> Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 3,789.6 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 3.7896 tons/year.

### C. ES-19-851-1 – VOC Emissions

The cigarette making VOC emission factor (confidential) is based on past stack testing of a similar source, plus VOC emissions from ethanol usage and vinyl acetate usage that are determined by mass balance. The ethanol emissions are only emitted while making ethanol-based products. VOC emissions from this source are uncontrolled.

The uncontrolled VOC emissions from the ES-19-851-1 equipment are 32.75 lb/hour while making non-ethanol-based products and 123.51 lb/hr while making ethanol-based products. The ethanol usage contributes 90.76 lb/hr.

Based on 8760 hours per year, the potential uncontrolled VOC emissions from ES-19-851-1 are 143.4 tons/year while making non-ethanol-based products and 541.0 ton/year while making ethanol-based products. These emissions do not take into account the PSD Avoidance limit of 100.1 tons/year on the combined VOC emissions from Filter Making (ES-18-851-1), Cigarette Making (ES-19-851-1), and Packing Equipment (F-16-851-1).

## XV. ES-20-851-1: Housekeeping (Industrial Vacuuming)

### A. ES-20-851-1 – Overview

In Housekeeping, industrial vacuums are used to clean surfaces in Building 851-1. The particulate matter removed from these surfaces by the vacuum systems consists primarily of tobacco dust. Other sources of dust include solids from casing ingredients, paper, filter media, and packaging materials. Particulate matter is the only pollutant emitted from the vacuums in Housekeeping, ES-20-851-1.

All emissions from Housekeeping are vented to atmosphere via stacks with PM emissions controlled by fabric filters with either 99.9% control efficiency for PM.

For more detail see the “ES-20” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. ES-20-851-1 – PM Emissions

The PM emission factors (confidential) are based on an engineering analysis taking into account PM collected in mechanical separators prior to the fabric filters, fabric filter control efficiencies, particle sizes, and air flows. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-20-851-1 equipment are 963.83 lb/hour which converts to 0.96383 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-20-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 19.2 lb/hr. The source’s combined 0.96383 lb/hr controlled PM emissions are 5.02% of that limit. The source’s combined 963.83 lb/hr uncontrolled PM emissions are 5020% of that limit. Consequently, particulate matter control by the fabric filters is required for compliance with Sec. 3D-0515. The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-20-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 4221.6 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 4.222 tons/year.

### C. ES-20-851-1 – VOC Emissions

No VOC emissions are emitted from Housekeeping – Industrial Vacuuming (ES-20-851-1).

## XVI. ES-21-851-1: Tobacco Expansion Process

### A. ES-21-851-1 - Overview

In the Tobacco Expansion Process, cut tobacco is first conditioned and conveyed to storage silos. From those silos, the cut tobacco is conveyed to pressurized impregnators where it is soaked in liquid carbon dioxide. This frozen tobacco is then rapidly heated in the "sublimation loop" which causes the tobacco to expand. The expanded tobacco is then cooled and conditioned. The process is referred to as the DIET process - named for "Dry Ice Expansion of Tobacco". Finally, the finished product is conveyed for further processing. Sublimation loop VOC and PM emissions are controlled by a fume incinerator control device (CD-130) that combusts natural gas with propane back-up. The heat from the incinerator is also used to provide the heat for the sublimation loop.

From the equipment associated with the Tobacco Expansion Process (ES-21-851-1) emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only. Emissions are derived from the conveying and processing of tobacco and from the combustion of natural gas. Propane combustion is allowed as a back-up fuel, but has not been used.

The only pollutant emitted from conveying activity is PM. All PM emissions from the conveying are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM except for one stack (EP-50) that is controlled by a wet scrubber with 90% control efficiency for PM.

The fume incinerator (CD-130), which controls the sublimation loop, has a 98.2% control efficiency for PM and a 94.99% control efficiency for VOC. No control is assumed for the HAP/TAP pollutants.

The 17.424 mmBtu/hr fume incinerator combusts natural gas. RJRT uses past stack testing results from the fume incinerator stack (EP-52) to calculate PM, VOC, SO2, CO, NOx and some HAP/TAP emissions. For some other HAP and TAP pollutants, RJRT uses emission factors from past testing at another tobacco manufacturing facility - in addition to natural gas combustion emission factors from AP-42, tables 1.4-3 (and for lead 1.4-2).

For more detail see the "ES-21" and worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-21-851-1 – PM Emissions

The PM emission factors for conveying are based on past stack testing of a similar sources. Based on the nature of the sources and fabric filter control, emissions determinations for ES-21-851-1 conveying equipment assume that PM10 and PM2.5 emissions equal PM emissions. The PM emission factor for processing (uncased) tobacco through the sublimation loop (EP-52) is based on past stack testing of that

source and includes PM derived from the combustion of natural gas.

The combined uncontrolled PM/PM10/PM2.5 emissions from the ES-21-851-1 equipment are 48.89 lb/hour which converts to 0.7953 lb/hour after control by the fabric filters with 99.9 efficiency for particulate matter, the wet scrubber with 90% control for PM, and the fume incinerator with 98.2% PM control.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-21-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 10.2 lb/hr. The source's combined 0.7953 lb/hr controlled PM emissions are 7.8% of that limit. The source's combined 48.89 lb/hr uncontrolled PM emissions are 479% of that limit. Consequently, particulate matter control is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-21-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 214.15 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 3.483 tons/year.

### C. ES-21-851-1 – VOC Emissions

During conveying, the tobacco is unheated and no casing (flavoring) has been applied. Because there is no reason to expect VOC emissions from unflavored, unheated tobacco being moved on a conveyor, no VOC emissions are deemed to be emitted from ES-21-851-1 conveying. The VOC emission factor for processing (uncased) tobacco through the sublimation loop is based on past stack testing of that source and includes VOC derived from the combustion of natural gas.

The uncontrolled VOC emissions from the ES-21-851-1 equipment are 8.795 lb/hour which converts to 0.4406 lb/hour after control by the fume incinerator with 94.99% control efficiency for VOC.

Based on 8760 hours per year, the potential uncontrolled VOC emissions from ES-21-851-1 are 38.524 tons/year and the potential controlled VOC emissions are 1.930 tons/year.

## XVII. ES-24-851-1: Box Filling

### A. ES-24-851-1 - Overview

The Box Filling (ES-24-851-1) emission source allows transfer of G7 materials to other RJRT facilities. ES-24-851-1 includes a box filling station, a hammer mill, and some new and modified conveyors. The hammer mill provides additional cutting and sizing capability for G7 infeed materials as well as G7 tobacco being transferred to other RJRT facilities. Emissions from the box packer filling station, hammer mill, and conveyor junctions are collected and routed to an existing dust collector (CD-19-851-1).

The only pollutant emitted from Box Filling (ES-24-851-1) is particulate matter with PM2.5 and PM10 conservatively assumed to equal PM.

"G7" is a term used by RJRT to identify a certain proprietary tobacco product. The G7 materials will enter the Tobaccoville facility through Strip Receiving and Blending (ES-1-851-1). The G7 materials will be processed through Tobacco Strip Conveying and Blending (ES-11-851-1) and conveyed to bulkers in

Tobacco Strip Conveying and Storage (ES-12-851-1). The G7 materials will then be processed through Tobacco Casing, Cutting and Storage (ES-15-851-1) and transferred to other RJRT facilities through Box Filling emission unit (ES-24-851-1).

For more detail see the "ES-24" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-24-851-1 – PM Emissions

The PM emission factors (confidential) for the conveyor hoods and box packer are based on past stack testing of conveying activity including the engineering estimation that the box packer is similar to a conveying junction. The PM emission factor (confidential) for the hammer mill is based on past stack testing of cutting activity including the engineering estimation that the hammer miller is similar to the cutters in ES-15-851-1. The Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM/PM10/PM2.5 emissions from the ES-24-851-1 equipment are 10.175 lb/hour which converts to 0.010175 lb/hour after control by the fabric filters with 99.9% control efficiency for particulate matter.

> Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
> Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-24-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 19.2 lb/hr. The source's combined 0.010175 lb/hr controlled PM emissions are 0.05% of that limit. The source's combined 10.175 lb/hr uncontrolled PM emissions are 53% of that limit. Consequently, particulate matter control by the fabric filter is not required for compliance with Sec. 3D-0515. Nonetheless, the non-CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure that the fabric filter is operating properly.
>
> Sec. 3D-0521(d), "Control of Visible Emissions"
> Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled PM/PM10/PM2.5 emissions are 44.56 tons/year, the potential controlled PM/PM10/PM2.5 emissions are 0.04456 tons/year.

### C. ES-24-851-1 – VOC Emissions

No VOC emissions are emitted from Box Filling (ES-24-851-1).

## XVIII. ES-25-851-1: Small Batch – Receiving and Blending

### A. ES-25-851-1 - Overview

Small Batch – Receiving and Blending (ES-25-851-1) along with Small Batch – Casing and Drying (ES-26-851-1), and Small Batch – Casing and Cutting (ES-27-851-1) allow for the efficient processing of small batches of tobacco that would be impractical to process through the analogous (but much higher throughput capacity) equipment of Strip Receiving and Blending (ES-1-851-1), Tobacco Strip Casing and

Drying (ES14-851-1), and Tobacco casing, Cutting and Storage (ES-15-851-1).

The three "Small Batch" emissions sources were originally permitted in permit 00745-TV-39 as part of the Small Batch Project. Permit Condition 3.2(C) includes a 39.5 ton/12-month PSD avoidance limit for VOC from the Small Batch emissions sources.

Small Batch – Receiving and Blending (ES-25-851-1) is analogous to the much larger Strip Receiving and Blending (ES-1-851-1). ES-25-851-1 includes a conditioning drum, classifier, bulker, tobacco feeders, scales and conveyors. From ES-25-851-1 emissions are derived from the conditioning drum and include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only.

Emissions are vented out of a single stack with wet scrubber control: 90% control efficiency for PM and 30% control efficiency for VOC. No control is assumed for HAPs or TAPs.

For more detail see the "ES-25" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

## B. ES-25-851-1 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that the PM10 and PM2.5 emissions are 80% of the PM emissions.

The uncontrolled PM emissions from the ES-25-851-1 equipment are 13.51 lb/hour which converts to 1.351 lb/hour after control by a wet scrubber with 90% control efficiency for particulate matter. Based on 8760 hours per year, the potential uncontrolled PM emissions are 59.17 tons/year, the potential controlled PM emissions are 5.917 tons/year.

The uncontrolled PM10 and PM2.5 emissions from the ES-25-851-1 equipment are 10.808 lb/hour which converts to 1.0808 lb/hour after control by a wet scrubber with 90% control efficiency. Based on 8760 hours per year, the potential uncontrolled PM emissions are 47.34 tons/year, the potential controlled PM emissions are 4.734 tons/year.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-25-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 4.1 lb/hr. The source's 1.351 lb/hr controlled PM emissions are 33.0% of that limit. The source's combined 13.51lb/hr uncontrolled PM emissions are 330% of that limit. Consequently, particulate matter control by the wet scrubber is required for compliance with Sec. 3D-0515. The non-CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A), are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-25-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

## C. ES-25-851-1 – VOC Emissions

The emission factors (confidential) are based on past stack testing of a similar source. The uncontrolled VOC emissions from the ES-25-851-1 equipment are 0.3246 lb/hour which converts to 0.2272 lb/hour after control by a wet scrubber with 30% VOC control. Based on 8760 hours per year, the potential uncontrolled VOC emissions are 1.422 tons/year, and the potential controlled VOC emissions are 0.995 tons/year.

The 0.995 tons/year controlled potential VOC emissions do not reflect any production limitations based on PSD avoidance. Meeting the PSD avoidance limitation for VOC emissions will in practice require the facility to limit production on ES-25-851-1.

# XIX. ES-26-851-1: Small Batch – Casing and Drying

## A. ES-26-851-1 - Overview

Small Batch – Casing and Drying (ES-26-851-1) is analogous to the much larger Tobacco Strip Casing and Drying (ES-14-851-1). ES-26-851-1 includes a casing drum, apron dryer, bulker, scales, can filling stations, and conveyors. Emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only. From ES-26-851-1 emissions are derived from the casing drum (PM/VOC/HAP/TAP), the apron dryer (drying section, cooling section, and reorder section) (PM/VOC/HAP/TAP), can filling stations (PM), and casing drum ethanol usage for ethanol-based products (VOC). The can filling stations are listed as an insignificant source, but RJRT includes their PM emissions as part of ES-26. Emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only.

The casing drum and ethanol usage emissions are controlled by the same wet scrubber that is used for ES-25-851-1: 90% control efficiency for PM and 30% control efficiency for VOC. The apron dryer drying section PM emissions are controlled by a fabric filter with 99.9% control for PM. The apron dryer cooling section and reorder section emissions are uncontrolled.

For more detail see the “ES-26” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

## B. ES-26-851-1 – PM Emissions

The PM emission factors (confidential) are based on past stack testing of a similar source. Based on the nature of the source, emissions determinations assume that the PM10 and PM2.5 emissions are 80% of the PM emissions except for the apron dryer (drying section) and can filling stations where PM10 and PM2.5 are assumed to equal PM.

The combined uncontrolled PM emissions from the ES-26-851-1 processes are 32.315 lb/hour which converts to 0.0796 lb/hour after applicable controls. Based on 8760 hours per year, the potential uncontrolled PM emissions are 141.54 tons/year, the potential controlled PM emissions are 0.3488 tons/year.

The combined uncontrolled PM10 and PM2.5 emissions from the ES-26-851-1 processes are 32.294 lb/hour which converts to 0.0701 lb/hour after applicable controls. Based on 8760 hours per year, the potential uncontrolled PM10/PM2.5 emissions are 141.45 tons/year, the potential controlled PM10/PM2.5 emissions are 0.3072 tons/year.

Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”

Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-26-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 2.58 lb/hr. The source’s combined 0.0796 lb/hr controlled PM emissions are 3.1% of that limit. The source’s combined 32.315 lb/hr uncontrolled PM emissions are 1253% of that limit. Consequently, particulate matter control by the fabric filters and wet scrubber is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-26-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

### C. ES-26-851-1 – VOC Emissions

The emission factors (confidential) are based on past stack testing of similar sources and for ethanol emissions from mass balance calculations. Worst-case VOC emissions are from processing ethanol-based products. For ethanol-based products, the uncontrolled VOC emissions from the ES-26-851-1 processes are 1.764 lb/hour which converts to 1.584 lb/hour after applicable controls. Based on 8760 hours per year, the potential uncontrolled VOC emissions are 7.725 tons/year, and the potential controlled VOC emissions are 6.936 tons/year. The 6.936 tons/year controlled potential VOC emissions do not reflect any production limitations based on PSD avoidance. Meeting the PSD avoidance limitation for VOC emissions will in practice require the facility to limit production on ES-26-851-1.

For non-ethanol-based products, the uncontrolled VOC emissions from the ES-27-851-1 processes are 1.1637 lb/hour which converts to 1.1636 lb/hour after applicable controls (wet scrubber). Based on 8760 hours per year, the potential uncontrolled VOC emissions are 5.0968 tons/year, and the potential controlled VOC emissions are 5.0965 tons/year.

## XX. ES-27-851-1: Small Batch – Casing and Cutting

### A. ES-27-851-1 – Overview

Small Batch – Casing and Cutting (ES-27-851-1) is analogous to the much larger Tobacco Casing, Cutting and Storage (ES-15-851-1). ES-27-851-1 includes a casing drum, tobacco cutter, steam expansion chamber, tobacco dryer, tower separator, top dressing drums, bulkers, can filling stations, and conveyors. For ethanol-based products, ethanol is added in the top-dressing drums (controlled by RTO) with some fugitive ethanol from conveying. Emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only.

Control devices include: fabric filters with 99.9% control efficiency for PM, wet scrubbers with 90% control efficiency for PM plus 30% control efficiency for VOC, and a thermal incinerator (CD-RTO-851-1) with 98% control efficiency for VOC.

Small Batch – Casing and Cutting (ES-27-851-1) emissions also include natural gas combustion emissions from the regenerative thermal oxidizer (CD-RTO-851-1) with emissions vented to atmosphere via stack EP-60. The RTO is also used to control emissions from ES-15-851-1 (Tobacco Casing, Cutting, and Storage) with emissions vented out of the same stack, EP-60. Even though the RTO controls some ES-27-851-1 emissions, RJRT accounts for the RTO natural gas combustion emissions as part of ES-15-851-1. From stack testing, the RTO has been shown to offer 98% control for VOC. No control efficiency is assumed for PM and HAP/TAP pollutants.

For more detail see the "ES-27" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-27-851-1 – PM Emissions

The PM emission factors (confidential) are based on past stack testing of similar sources. Based on the nature of the sources, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions except for the Casing Drum and Steam Expansion Chamber where the PM10 and PM2.5

emissions are estimated to be 80% of the PM emissions.

The combined uncontrolled PM emissions from the ES-27-851-1 processes are 31.456 lb/hour which converts to 0.26965 lb/hour after applicable controls. Based on 8760 hours per year, the potential uncontrolled PM emissions are 137.78 tons/year, the potential controlled PM emissions are 1.811 tons/year.

The combined uncontrolled PM10 and PM2.5 emissions from the ES-27-851-1 processes are 30.989 lb/hour which converts to 0.22293 lb/hour after applicable controls. Based on 8760 hours per year, the potential uncontrolled PM10/PM2.5 emissions are 135.73 tons/year, the potential controlled PM10/PM2.5 emissions are 0.9764 tons/year.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-27-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 5.97 lb/hr. The source's combined 0.26965 lb/hr controlled PM emissions are 4.5% of that limit. The source's combined 31.456 lb/hr uncontrolled PM emissions are 527% of that limit. Consequently, particulate matter control by the fabric filters and wet scrubbers is required for compliance with Sec. 3D-0515. The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-27-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.6(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

### C. ES-27-851-1 – VOC Emissions

The emission factors (confidential) are based on past stack testing of similar sources and for ethanol emissions from mass balance calculations. Worst-case VOC emissions are from processing ethanol-based products. For ethanol-based products, the uncontrolled VOC emissions from the ES-27-851-1 processes are 66.29 lb/hour which converts to 27.20 lb/hour after applicable controls. Based on 8760 hours per year, the potential uncontrolled VOC emissions are 290.34 tons/year, and the potential controlled VOC emissions are 119.14 tons/year. The 119.14 tons/year controlled potential VOC emissions do not reflect any production limitations based on PSD avoidance. Meeting the PSD avoidance limitation for VOC emissions will in practice require the facility to limit production on ES-27-851-1.

For non-ethanol-based products, the uncontrolled VOC emissions from the ES-27-851-1 processes are 7.91 lb/hour which converts to 7.55 lb/hour after applicable controls (wet scrubbers). Based on 8760 hours per year, the potential uncontrolled VOC emissions are 34.63 tons/year, and the potential controlled VOC emissions are 33.09 tons/year.

## XXI. F-13-851-1: Casing Preparation Area

### A. F13-851-1 - Overview

The Casing Preparation Area includes all equipment used to perform the following activities:
Raw materials are combined, heated, and agitated, as needed, to produce tobacco casing material. The casing material is transferred to temporary holding tanks and then transferred to the casing drums where the material is applied to tobacco (ES-14-851-1 and ES-15-851-1). Other liquid materials in portable tote

tanks can enter this emission source via fixed or portable pumps. The main component of this fugitive emission source is the "kitchen" where various casing material formulations are created by adding different solid or liquid substances and mixing them. The mixtures may involve the use of glycerin, ethanol or propylene glycol (PG).

For more detail see the “F-13” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. F-13-851-1 – VOC Emissions

The only pollutant emitted from F-13-851-1 is fugitive VOC (including glycerin, propylene glycol (PG) and ethanol) with no TAP or HAP emissions known.

When processing materials for non-ethanol-based and non-PG-based products, some VOC emissions are based on glycerin loss and casing material concentrates. This is the worst-case VOC emissions scenario. Hourly emissions are: glycerin loss 0.9891 lb/hr and casing concentrates 0.8500 lb/hr. Based on 8760 hours/year, potential annual emissions are: glycerin loss 4.3325 tons/yr and casing concentrates 3.7230 tons/yr. When processing materials for non-ethanol-based and non-PG-based products, the combined potential VOC emissions from glycerin loss and casing material concentrates are 1.8391 lb/hr and 8.055 ton/year.

When processing materials for ethanol-based and PG-based products VOC emissions are based on emissions from tank losses from propylene glycol mix tanks, propylene glycol day tanks, ethanol mix tanks, and ethanol day tanks. Hourly emissions are: propylene glycol mix tanks 0.04 lb/hr, propylene glycol day tanks 0.02 lb/hr, ethanol mix tanks 3.47 lb/hr, and ethanol day tanks 3.47 lb/hr. Potential annual emissions are based on the amount of propylene glycol and ethanol to be processed and the resulting number of tank turnovers required. Potential annual emissions are: propylene glycol mix tanks 0.0054 ton/yr, propylene glycol day tanks 0.0054 ton/yr, ethanol mix tanks 0.0049 ton/yr, and ethanol day tanks 0.0049 ton/yr. These four ton/yr values are also BACT limits.

## XXII. F-16-851-1: Packing Equipment

### A. F16-851-1 - Overview

This emissions source includes equipment required to package cigarettes. The packaging of cigarettes primarily consists of the following activities: Cigarettes are placed into a pack. Stamps and coupons are attached, as needed. Cigarette packs are wrapped and then placed into a carton. Ink is used to print information on the pack or carton, as needed. Cartons are wrapped, if required, and then placed into cases. Ink is used to print information on the case, as required. Cases are stacked on pallets and then sent to the stretch wrap operation.

The only pollutants emitted from this source are VOC, including vinyl acetate ( a HAP but not a TAP) with no other TAP or HAP emissions known. Vinyl acetate comes from the use of adhesives. All of the emissions from this source are uncontrolled fugitive emissions.

For more detail see the “F-16” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. F-16-851-1 – VOC Emissions

Packing Equipment VOC emissions come from these five activities: Menthol Loss, Adhesives, Carton Code Ink, Video Jet Ink for Pack Printing, and Video Jet Ink for Carton Coding.

Hourly emissions are: Menthol Loss 0.1961 lb/hr, Adhesives 3.858 lb/hr, Carton Code Ink 0.00929 lb/hr, Video Jet Ink for Pack Printing 0.9006 lb/hr, and Video Jet Ink for Carton Coding 0.7205 lb/hr for a total of 5.6845 lb/hr. Based on 8760 hours/year, potential annual emissions are: Menthol Loss 0.859 ton/yr, Adhesives 16.898 ton/yr, Carton Code Ink 0.041 ton/yr, Video Jet Ink for Pack Printing 3.945 ton/yr, and Video Jet Ink for Carton Coding 3.156 ton/yr for a total of 24.898 ton/yr.

### C. F-16-851-1 – HAP Emissions (vinyl acetate only)

All of the HAP emitted from adhesive use in the Packing Equipment is in the form of vinyl acetate (also called vinyl acetate monomer, VAM). Consequently, vinyl acetate hourly emissions are 3.858 lb/hr and potential annual emissions are 16.898 ton/yr. Vinyl acetate is a federal HAP, but not a local TAP.

## XXIII. ES-28-851-1: MSP Processing

### A. ES-28-851-1 - Overview

MSP (Moist Snuff Pouch) blends tobacco with various casings and flavorings to manufacture smokeless tobacco products which are then packaged in pouches. The MSP process includes an integrated wet scrubber and indoor baghouses without external exhausts to atmosphere. Moist snuff casing process is an unheated batch process where tobacco, casing materials, and water are mixed in a blender in batches. Casing materials are flavoring additives and solid non-volatile ingredients. After mixing and before packaging, the blended tobacco is stored in partially closed tubs from several hours to several days where fugitive off-gassing of potentially volatile flavor additives may occur. There are no external exhausts from the moist snuff casing process. No HAPs or TAPs are driven off from these operations because the natural tobacco is not heated. Since emissions are not vented to atmosphere, the source has no PM emissions. The only pollutant emitted is fugitive VOC.

For more detail see the “ES-28” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. ES-28-851-1 – VOC Emissions

The VOC emission factors were developed by comparing the amount of flavor additive added to a batch with the amount measured in end products. Due to differing moisture contents of incoming tobacco, flavor added was calculated on a dry tobacco basis from knowledge of incoming tobacco moisture content. A certified lab took multiple samples from several batches to determine flavor and moisture content. These results were averaged for each additive and each blend and were converted to a dry tobacco basis to allow direct comparison with the recipe amount.

The VOC emissions from the ES-28-851-1 equipment are 42.20 lb/hour.

Based on 8760 hours per year, the potential VOC emissions are 184.85 tons/year.

Together with ES-30-851-1, ES-31-851-1, and ES-34-851-1, emission source ES-28-851-1 has a PSD Avoidance limit for VOC that limits VOC emissions to less than 40 tons per consecutive 12-month period. This requirement is included in permit condition 3.6(D).

## XXIV. ES-29-851-1: MSP Packaging

MSP Packaging involves the packaging of the finished MSP tobacco into pouches and packaging the filled pouches into other packaging. The only pollutant generated from this activity is PM, but the emissions are vented inside the building so do not count as emitted pollutant emissions. ES-29-851-1 was included in the permit application for completeness sake, but since ES-29-851-1 has no emissions, it is not considered to be an emissions source at all. Consequently, it is not included in the permit.

## XXV. ES-30-851-1: MOP Processing 1

### A. ES-30-851-1 - Overview

MOP (Modern Oral Pouch) blends tobacco with various casings and flavorings to manufacture smokeless tobacco products which are then packaged in pouches. MOP is a batch process. There are no external exhausts from the MOP process. No HAPs or TAPs are driven off from these operations because the natural tobacco is not heated. Since emissions are not vented to atmosphere, the source has no PM emissions. The only pollutant emitted is fugitive VOC.

For more detail see the "ES-30" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

### B. ES-30-851-1 – VOC Emissions

The VOC emission factors were developed by comparing the amount of flavor additive added to a batch with the amount measured in end products. Due to differing moisture contents of incoming tobacco, flavor added was calculated on a dry tobacco basis from knowledge of incoming tobacco moisture content. A certified lab took multiple samples from several batches to determine flavor and moisture content. These results were averaged for each additive and each blend and were converted to a dry tobacco basis to allow direct comparison with the recipe amount.

The VOC emissions from the ES-30-851-1 equipment are 0.99 lb/hour.

Based on 8760 hours per year, the potential VOC emissions are 4.33 tons/year.

Together with ES-28-851-1, ES-31-851-1, and ES-34-851-1, emission source ES-30-851-1 has a PSD Avoidance limit for VOC that limits VOC emissions to less than 40 tons per consecutive 12-month period. This requirement is included in permit condition 3.6(D).

## XXVI. ES-31-851-1: MOP Processing 2

### A. ES-31-851-1 - Overview

MOP (Modern Oral Pouch) blends tobacco with various casings and flavorings to manufacture smokeless tobacco products which are then packaged in pouches. MOP is a batch process. There are no external exhausts from the MOP process. No HAPs or TAPs are driven off from these operations because the natural tobacco is not heated. Since emissions are not vented to atmosphere, the source has no PM emissions. The only pollutant emitted is fugitive VOC.

For more detail see the “ES-31” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. ES-31-851-1 – VOC Emissions

The VOC emission factors were developed by comparing the amount of flavor additive added to a batch with the amount measured in end products. Due to differing moisture contents of incoming tobacco, flavor added was calculated on a dry tobacco basis from knowledge of incoming tobacco moisture content. A certified lab took multiple samples from several batches to determine flavor and moisture content. These results were averaged for each additive and each blend and were converted to a dry tobacco basis to allow direct comparison with the recipe amount.

The VOC emissions from the ES-31-851-1 equipment are 6.97 lb/hour.

Based on 8760 hours per year, the potential VOC emissions are 30.51 tons/year.

Together with ES-28-851-1, ES-30-851-1, and ES-34-851-1, emission source ES-31-851-1 has a PSD Avoidance limit for VOC that limits VOC emissions to less than 40 tons per consecutive 12-month period. This requirement is included in permit condition 3.6(D).

## XXVII. ES-32-851-1: MOP Packaging

### A. ES-32-851-1 - Overview

MOP Packaging involves the packaging of the finished MOP tobacco into pouches and packaging the filled pouches into other packaging. The only pollutant generated from this activity is PM. There are no emissions of VOC, TAPs, or HAPs.

For more detail see the “ES-32” worksheet in the “00745-TV-43-SoB-CONFIDENTIAL.xlsx” or “00745-TV-43-SoB-PUBLIC.xlsx” Excel spreadsheet.

### B. ES-32-851-1 – PM Emissions

The PM emission factor (confidential) is based on emissions from MOP packaging at the RAI American Snuff Company (ASC) facility in Forsyth County, NC. The MOP equipment is being relocated from ASC to RJRT’s Tobaccoville facility. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The combined uncontrolled PM emissions from the ES-32-851-1 processes are 0.0952 lb/hour which converts to 0.0000952 lb/hour after 99.9% control by two fabric filters: CD-134 with emissions venting from stack EP-68, and CD-135 with emissions venting from stack EP-69. Based on 8760 hours per year, the potential uncontrolled PM emissions are 0.417 tons/year, the potential controlled PM emissions are 0.000417 tons/year.

Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”

Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-32-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 2.49 lb/hr. The source’s combined 0.000417 lb/hr controlled

PM emissions are 0.0038% of that limit. The source's combined 0.417 lb/hr uncontrolled PM emissions are only 3.8% of that limit. Consequently, particulate matter control by the fabric filters is not required for compliance with Sec. 3D-0515. The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-32-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

# XXVIII. ES-33-851-1: Snus Primary

## A. ES-33-851-1 - Overview

In Snus Primary, tobacco is prepared in batches for further Snus processing. The only pollutant generated from this activity is PM. There are no emissions of VOC, TAPs, or HAPs.

For more detail see the "ES-33" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

## B. ES-33-851-1 – PM Emissions

The PM emission factors (confidential) are based on emissions from Snus production at the RAI American Snuff Company (ASC) facility in Forsyth County, NC. The Snus Primary equipment is being relocated from ASC to RJRT's Tobaccoville facility. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The combined uncontrolled PM emissions from the ES-33-851-1 processes are 1.34 lb/hour which converts to 0.00134 lb/hour after 99.9% control by fabric filter CD-89 with emissions venting from stack EP-1/1:2A. Based on maximum production, the potential uncontrolled PM emissions are 5.860 tons/year, the potential controlled PM emissions are 0.00586 tons/year.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-33-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 1.13 lb/hr. The source's combined 0.00134 lb/hr controlled PM emissions are 0.118% of that limit. The source's combined 1.34 lb/hr uncontrolled PM emissions are 118.7% of that limit. Consequently, particulate matter control by the fabric filter is required for compliance with Sec. 3D-0515. The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-33-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

# XXIX. ES-34-851-1: Snus Processing

## A. ES-34-851-1 - Overview

In Snus Processing, tobacco is blended in batches with various casings and flavorings to manufacture smokeless tobacco products before being packaged in pouches. There are no external exhausts from Snus Processing. Since emissions are not vented to atmosphere, the source has no PM emissions. The only pollutants emitted are fugitive VOC and ammonia.

For more detail see the "ES-34" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

## B. ES-34-851-1 – VOC Emissions

The VOC emission factor was developed for Snus processing at RAI's American Snuff Company facility by comparing the amount of flavor additive added to a batch with the amount measured in end products. The Snus processing equipment is being relocated from ASC to RJRT's Tobaccoville facility. Due to differing moisture contents of incoming tobacco, flavor added was calculated on a dry tobacco basis from knowledge of incoming tobacco moisture content. A certified lab took multiple samples from several batches to determine flavor and moisture content. These results were averaged for each additive and each blend and were converted to a dry tobacco basis to allow direct comparison with the recipe amount. The Snus processing emission factor used in the application is conservatively based on the worst-case blend from ASC.

The VOC emissions from the ES-34-851-1 equipment are 4.68 lb/hour.

Based on maximum production, the potential VOC emissions are 20.49 tons/year.

Together with ES-28-851-1, ES-30-851-1, and ES-31-851-1, emission source ES-34-851-1 has a PSD Avoidance limit for VOC that limits VOC emissions to less than 40 tons per consecutive 12-month period. This requirement is included in permit condition 3.6(D).

## C. ES-34-851-1 – Ammonia Emissions

Similar to the VOC emission factor, the ammonia emission factor was developed for Snus processing at RAI's American Snuff Company facility by comparing the amount of ammonia added to a batch with the amount measured in end products. The Snus processing equipment is being relocated from ASC to RJRT's Tobaccoville facility. Ammonia is a TAP, but not a VOC or HAP.

The ammonia emissions from the ES-34-851-1 equipment are 0.777 lb/hour.

Based on maximum production, the potential ammonia emissions are 3.40 tons/year.

# XXX. ES-35-851-1: Snus Packaging

## A. ES-35-851-1 - Overview

Snus Packaging involves the packaging of the finished Snus into pouches and packaging the filled pouches into other packaging. The only pollutant generated from this activity is PM. There are no emissions of VOC, TAPs, or HAPs.

For more detail see the "ES-35" worksheet in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

**B. ES-35-851-1 – PM Emissions**

The PM emission factor (confidential) is based on emissions from Snus packaging at the RAI American Snuff Company (ASC) facility in Forsyth County, NC. The Snus equipment is being relocated from ASC to RJRT's Tobaccoville facility. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled PM emissions from the ES-35-851-1 processes are 0.00281 lb/hour which converts to 0.00000281 lb/hour after 99.9% control by fabric filter CD-89 with emissions venting from stack EP-1/1:2A. Based on maximum batch production, the potential uncontrolled PM emissions are 0.0123 tons/year, the potential controlled PM emissions are 0.0000123 tons/year.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.3(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-35-851-1, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 1.55 lb/hr. The source's 0.00000281 lb/hr controlled PM emissions are 0.0002% of that limit. The source's 0.00281 lb/hr uncontrolled PM emissions are only 0.2% of that limit. Consequently, particulate matter control by the fabric filters is not required for compliance with Sec. 3D-0515. The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-35-851-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.5(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in condition 3.6(A) are sufficient to assure compliance with Sec. 3D-0521(d).

# SECTION D:
# Permit Conditions

## PART I, SECTION 1:
## PERMITTED EQUIPMENT AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S)

## Condition 1.1
## Equipment List and Applicable Conditions

The equipment list shows the permitted emission sources at the facility. The list is organized as a chart with control devices and emissions points identified. The chart header also lists various permit conditions that appear in the permit, and "x" marks are used to show which permit conditions apply to each source. Control devices are identified by Control Device ID number (CD#), and the chart indicates with "x" marks the applicable CAM or non-CAM permit conditions that apply to each control device. Emission points are

identified by Emission Point ID number (EP#). At the Tobaccoville facility, all of the permitted equipment is in Building 851-1 except for the three existing boilers and the emergency generator which are in Building 854-8. The permit allows for one or two temporary boilers to be brought on site in the event that the four main boilers are down. The temporary boilers have not been needed to date - so have never been installed.

## Condition 1.2
## Operating Conditions Not Covered Under the Permit Shield

Permit Condition 1.2 is used to list any conditions in the permit that have been revised or added to the permit following procedures other than the permit renewal, or significant modification, procedures in Section 3Q-0500 of the FCAQTC. Since this 00745-TV-42 permit is being processed as a Renewal, this table in Permit Condition 1.2 contains no entries.

# PART I, SECTION 2:
# FACILITY GENERAL ADMINISTRATIVE CONDITIONS

This section contains general conditions including conditions pertaining to New Source Performance Standards (NSPS, 40 CFR Part 60) General Provisions, National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63) General Conditions, and Compliance Assurance Monitoring (CAM, 40 CFR Part 64) General Conditions.

# PART I, SECTION 3:
# SPECIFIC LIMITATIONS AND CONDITIONS

## Condition 3.1
## Facility-Wide Emissions Source Conditions

This permit condition includes two limits that apply facility-wide.

### 3.1(A)
### Prevention of Significant Deterioration (PSD) [Sec. 3D-0530]

This condition originally included the BACT requirements for VOC established when the facility was initially permitted in 1983. The original 1983 BACT for emissions of VOCs from the cigarette manufacturing equipment included a work practice standard that prohibited the use of ethyl alcohol (ethanol) as a vehicle for introducing flavoring agents into tobacco and thereby reduced emissions of volatile organic compounds. There were later exclusions to this work practice standard for some equipment installed in ES-15-851-1 in 2005.

PSD applications in 2014 and 2015 involved the manufacture of former Lorillard cigarette brands. Most Lorillard cigarette products (such as Newport) differ from original RJRT cigarette products in that the Lorillard cigarettes use ethanol-based flavorings while the RJRT cigarette products do not. Permit condition 3.11 includes the individual BACT limits for the emissions sources modified to allow for the manufacture of former Lorillard cigarette brands. As part of this past permitting activity, permit condition 3.1(A) was modified to allow for the use of ethanol in the production of former Lorillard cigarette brands.

The 00745-TV-41 permit included an administrative amendment to this permit condition. Prior to the 00745-TV-41 permit, in permit 00745-TV-40, the wording of the BACT requirements, where it allowed for the processing of ethanol-based tobacco products, used the term "former Lorillard brands" in permit condition 3.1 and the term former Lorillard products" in permit condition 3.11. These terms misrepresent

the 2014 BACT analysis as only valid for ethanol-based tobacco products that were formerly made by Lorillard. However, the BACT analysis performed is applicable to any ethanol-based tobacco products whether or not Lorillard ever produced them. Using the terms "former Lorillard brands" and "former Lorillard products" was really a "tunnel vision" artifact. For the sake of simplicity, the PSD permit application referred to the old RJR products (no ethanol) and newly acquired ethanol-based products from Lorillard. Those terms were also used in the Statement of Basis for permit 00745-TV-40, and ultimately that language unnecessarily ended up in the permit. The administrative amendment changed the inaccurate references to “former Lorillard products” or “former Lorillard brands” to the more generic language of “tobacco products with ethanol-based flavorings” that is consistent with the 2014 BACT analysis. The specific BACT limits related to the manufacture of tobacco products with ethanol-based flavorings are in Conditions 3.1(A) and 3.11(A)-(G). All of the BACT limits are for VOC.

## 3.1(B)
## Limitation to Avoid Being Major for Hazardous Air Pollutants [Sec. 3D-1111 and 3Q-0317(a)(5)]

This condition includes an emissions limitation that allows the facility to avoid being a major source of HAPs under Sec. 3D-1111 of the FCAQTC and thereby avoid regulatory requirements of future NESHAP regulations. Without restrictions, the Tobaccoville facility only has the potential to emit one HAP (vinyl acetate) at a rate of more than 10 tons per year (TPY). Current unrestricted potential emissions of vinyl acetate are 53.00 TPY. The unrestricted potential emissions of all HAPs combined is 63.68 TPY - so the total unrestricted HAP emissions not counting vinyl acetate are only 10.68 TPY. The second highest HAP is acetaldehyde with unrestricted potential emissions of 4.11 TPY. Permit condition 3.1(B) limits the emissions of vinyl acetate to no more than 9.9 tons in any 12-month period. With that vinyl acetate limit, the potential emissions of all HAPs combined is less than the 25 TPY major source threshold (9.9 TPY + 10.68 TPY = 20.58 TPY). No other limits are required for the facility to avoid being a major source for HAPs. This permit condition includes monitoring and recordkeeping requirements, plus a requirement to submit a report of the facility’s vinyl acetate emissions to this Office twice each year.

## Condition 3.2
## Source Specific Emission Limits: Prevention of Significant Deterioration (PSD) - Limits to Avoid PSD Review

This permit condition includes limits to remain below the significant levels established for exemption from further regulation under PSD for four separate permitting activities. All four have a VOC limit, and the first one, 3.2(A), also includes a PM limit.

## 3.2(A)
## Prevention of Significant Deterioration:
## ES-1-851-1
## [Sec. 3D-0530 and 3Q-0317]

This condition includes a 40 ton per 12-month VOC limit and a 25 ton per 12-month PM limit. Compliance with these emission limits is demonstrated by limiting the tobacco throughput in ES-1-851-1, Strip Receiving and Blending. The throughput rate shall not exceed 216,705 tons of tobacco (dry weight) per monthly rolling 12-month total. The permit condition includes monitoring and recordkeeping requirements, plus a requirement to submit a report of the monitoring requirements twice each year. These limits were initially established in the facility’s first Title V permit (permit 00745-TV-1, effective date November 27, 1998). Semi-annual reports applicable to this requirement have all showed compliance with the limit of 216,705 tons of tobacco (dry weight) per monthly rolling 12-month total.

## 3.2(B)
## Prevention of Significant Deterioration:
## ES-18-851-1, ES-19-851-1, and F-16-851-1
## [Sec. 3D-0530 and 3Q-0317]

This condition includes a 100.1 ton per 12-month VOC limit for the combined VOC emissions from Filter Making (ES-18-851-1), Cigarette Making (ES-19-851-1), and Packing Equipment (F-16-851-1). Compliance with these emission limits is demonstrated by limiting the actual VOC emissions from the applicable emissions sources. The permit condition includes monitoring and recordkeeping requirements, plus a requirement to submit a report of the monitoring requirements twice each year. This limit was initially established in the 00745-TV-38 permit (effective date December 19, 2017). Semi-annual reports applicable to this requirement have all showed compliance with the limit of 100.1 tons of VOC in any consecutive 12-month period.

## 3.2(C)
## Prevention of Significant Deterioration:
## ES-25-851-1, ES-26-851-1, and ES-27-851-1
## [Sec. 3D-0530 and 3Q-0317(b)]

This condition includes a 39.5 ton per 12-month VOC limit for the combined VOC emissions from Small Batch Receiving and Blending (ES-25-851-1), Small Batch Casing and Drying (ES-26-851-1), and Small batch Casing and Cutting (ES-27-851-1). Compliance with these emission limits is demonstrated by limiting the actual VOC emissions from the applicable emissions sources. The monthly VOC emissions calculation includes a 14.2 ton/month VOC contribution from boiler fuel combustion associated with production in ES-25-851-1, ES-26-851-1, and ES-27-851-1. The permit condition includes monitoring and recordkeeping requirements, plus a requirement to submit a report of the monitoring requirements twice each year. This limit was initially established in the 00745-TV-39 permit (effective date July 1, 2018). Semi-annual reports applicable to this requirement have all showed compliance with the limit of 39.5 tons of VOC in any consecutive 12-month period.

## 3.2(D)
## Prevention of Significant Deterioration:
## ES-28-851-1, ES-30-851-1, ES-31-851-1, and ES-34-851-1
## [Sec. 3D-0530 and 3Q-0317(b)]

This condition includes a 40 ton per 12-month VOC limit for the combined VOC emissions from MSP Processing (ES-28-851-1), MOP Processing 1 (ES-30-851-1), MOP Processing 2 (ES-31-851-1), and Snus processing (ES-34-851-1). Compliance with these emission limits is demonstrated by limiting the actual VOC emissions from the applicable emissions sources. The emissions are calculated by multiplying various confidential VOC emissions factors by the usage of respective flavor additives. The permit condition includes monitoring and recordkeeping requirements, plus a requirement to submit a report of the monitoring requirements twice each year. This limit is being established for the first time in this 00745-TV-42 permit. Semi-annual reports applicable to this requirement have all showed compliance with the limit of 40 tons of VOC in any consecutive 12-month period.

## Condition 3.3
## Particulate Emission Limits

This permit condition includes PM limits for the facility's boilers and the facility's other industrial processes.

## 3.3(A)
## Particulates from Fuel Burning Indirect Heat Exchangers [Sec. 3D-0503]

This condition includes PM limits based on Sec. 3D-0503 of the FCAQTC for the three existing boilers. It also includes Sec. 3D-0503 PM limits for the temporary boilers in the event that they are ever needed and installed. No monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the PM standard because the fuels being combusted are natural gas, No. 2 fuel oil, or diesel fuel which inherently meet this standard.

## 3.3(B)
## Particulates from Industrial Processes [Sec. 3D-0515]

Condition 3.3(B)(1) includes PM limits based on Sec. 3D-0515 of the FCAQTC for the facility's non-boiler emissions sources. For sources with particulate control, 40 CFR Part 64 Compliance Assurance Monitoring (CAM) and non-CAM periodic monitoring requirements for PM are located in permit condition 3.6. The requirements include monitoring and recordkeeping requirements for fabric filters, wet scrubbers, and the fume incinerator - plus requirements to submit reports of the monitoring requirements twice each year. Also in condition 3.6 is a requirement to conduct daily stack observations for visible emissions. The daily stack observations permit condition includes monitoring and recordkeeping requirements, plus a requirement to submit a report of the monitoring requirements twice each year. For sources without particulate matter control, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the Sec. 3D-0515 PM standard because each of those sources inherently meets the standard based on the nature of the source.

In the Section C of this Statement of Basis, the potential controlled and uncontrolled PM emissions of each emissions source are compared to the applicable Sec. 3D-0515 PM standard. In all cases, the sources are shown to be in compliance with Sec. 3D-0515 when utilizing required controls.

## 3.3(C)
## Control of Particulates from Processes Subject to BACT [Sec. 3D-0530]

Condition 3.3(C) includes a particulate matter BACT requirement established in the 1983 PSD permit. The permit condition requires that sources of particulate matter be controlled by properly operated and maintained fabric filters or wet scrubbers where such controls are present. The CAM and non-CAM monitoring requirements in condition 3.6 assure compliance with this BACT requirement.

# Condition 3.4
# Sulfur Dioxide Emission Limits

This permit condition includes sulfur dioxide (SO2) limits for the facility's combustion processes.

## 3.4(A)
## Sulfur dioxide emissions from combustion sources (non-NSPS Subpart Dc) [Sec. 3D-0516]

Condition 3.4(A) addresses the 2.3 lb/million Btu SO2 limit in Sec. 3D-0516 of the FCAQTC. As specified in the equipment list in condition 1.1, this limit applies to all combustion sources at the Tobaccoville facility except for the three boilers (ES-1-854-8, ES-2-854-8, ES-3-854-8) when they are combusting fuel oil. Sec. 3D-0516 does apply to those three boilers when they are combusting natural gas. Compliance with this limit is assured because the applicable combustion sources all combust fuel that inherently meets the standard based on the amount of sulfur in the fuel: natural gas or fuel oil with no more than 0.5 weight percent sulfur. Because the permitted fuels all inherently meet the standard, no monitoring, recordkeeping, or reporting is required.

## 3.4(B)
## New Source Performance Standards (NSPS, Subpart Dc) for Sulfur Dioxide <40 CFR 60.42c(d)> [Sec. 3D-0524]

This condition includes SO2 limits for the facility's three boilers that are subject to NSPS Subpart Dc: Boiler #5 (ES-1-854-8), Boiler #6 (ES-2-854-8), and Boiler #7 (ES-3-854-8). The NSPS Subpart Dc SO2 limit only applies to the boilers when they are firing No. 2 fuel oil – not when they are firing natural gas. 40 CFR 60.42c(d) requires that sulfur dioxide emissions from the boilers shall not exceed 0.50 lb/million Btu heat input from fuel oil. To comply with this standard the permittee shall not combust oil that contains greater than 0.5 weight percent sulfur. For fuel oil combustion, this requirement is met by combusting only fuel oil which is certified as meeting the American Society for Testing and Materials (ASTM) specifications for No. 2 fuel oil. Those ASTM No. 2 fuel oil specifications include the requirement that the fuel oil contains no greater than 0.5% by weight sulfur (5000 ppmw sulfur). Some versions of No. 2 fuel oil contain less than 5000 ppmw sulfur such as Low Sulfur No. 2 Fuel Oil which has no more than 500 ppmw sulfur (0.05% by weight sulfur), and Ultra Low Sulfur No. Fuel Oil (also called Ultra Low Sulfur Diesel, ULSD) which has no more than 15 ppmw sulfur (0.0015% by weight sulfur).

During the September 2024 inspection of the Tobaccoville facility, records indicated that the most recent shipment of fuel oil for the boilers was ULSD at 15 ppmw sulfur (15,659 gallons on 1-17-2017). Although it is not required, the facility uses that fuel type for the emergency generator (ES-4-854-8) that is subject to 40 CFR 63,Subpart ZZZZ. Since that generator and the three boilers share the same fuel tanks, the boilers now use ULSD at 15 ppmw sulfur when they are not combusting natural gas.

Permit condition 3.4(B) includes NSPS recordkeeping requirements and the requirement to submit a semi-annual report pertaining to those NSPS records. The applicable semi-annual reports for this reporting requirement have all shown the facility to be in compliance.

# Condition 3.5
# Opacity (Visible Emissions) Limits

This permit condition includes opacity (visible emissions) limits for the facility's non-fugitive emissions sources.

## 3.5(A)
## Control of Visible Emissions (non-NSPS Subpart Dc)

Condition 3.5(A) addresses the opacity limits in Sec. 3D-0521(d) of the FCAQTC. The opacity limit requires that visible emissions shall not exceed 20% opacity when averaged over a six-minute period with the following exceptions: (a) No six-minute period exceeds 87% opacity; (b) No more than one six-minute period exceeds 20% opacity in any hour; and (c) No more than four six-minute periods exceed 20% opacity in any 24-hour period. As specified in the equipment list in condition 1.1, this limit applies to all non-fugitive sources at the Tobaccoville facility except for the three boilers (ES-1-854-8, ES-2-854-8, ES-3-854-8) when they are combusting fuel oil. Sec. 3D-0521(d) does apply to those three boilers when they are combusting natural gas. All sources at the Tobaccoville facility were manufactured after July 1, 1971 so the opacity limits of Sec. 3D-0521(d) are applicable rather than the opacity limits of Sec. 3D-0521(c) which are for sources manufactured on or before July 1, 1971.

Most non-combustion particulate matter sources at the Tobaccoville facility are controlled. For sources with particulate control, 40 CFR Part 64 Compliance Assurance Monitoring (CAM) and non-CAM periodic monitoring requirements for PM are located in permit condition 3.6. The requirements include monitoring and recordkeeping requirements for fabric filters, wet scrubbers, the fume incinerator (CD-130), and thermal incinerator (CD-RTO) - plus requirements to submit reports of the monitoring requirements twice

each year. Also in condition 3.6(A)(4) is a requirement to conduct daily stack observations for visible emissions. The daily stack observations permit condition includes monitoring and recordkeeping requirements, plus a requirement to submit a report of the monitoring requirements twice each year. The applicable semi-annual reports for this reporting requirement have all shown the facility to be in compliance with the daily VE observation requirement for at least 90 percent of the facility's operating days during the six-month reporting period . For non-combustion sources without particulate matter control, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the 3D-0515 opacity standard because each of those sources inherently meets the standard based on the nature of the source.

For combustion sources not subject to NSPS Subpart Dc, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the Sec. 3D-0521(d) VE standard because the fuels being combusted are natural gas, No. 2 fuel oil, diesel fuel with a sulfur content not to exceed 0.05% sulfur by weight, or propane which inherently meet the standard.

## 3.5(B)
## New Source Performance Standards (NSPS, Subpart Dc) for Opacity <40 CFR 60.42c(c)> [Sec. 3D-0524]

Condition 3.5(B) addresses the opacity (visible emissions) limits for the facility's three boilers that are subject to NSPS Subpart Dc: Boiler #5 (ES-1-854-8), Boiler #6 (ES-2-854-8), and Boiler #7 (ES-3-854-8). The NSPS Subpart Dc opacity limit only applies to the boilers when they are firing No. 2 fuel oil – not when they are firing natural gas. The NSPS opacity standard requires that visible emissions shall not exceed 20% opacity when averaged over a six-minute period , except for one six-minute period per hour of not more than 27% opacity. Proper combustion of No. 2 fuel oil in the boilers assures compliance with this NSPS Subpart Dc opacity standard – so no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance.

# Condition 3.6
# Monitoring, Recordkeeping, and Reporting

This permit condition includes 40 CFR Part 64 Compliance Assurance Monitoring (CAM) requirements along with non-CAM periodic monitoring requirements.

## 3.6(A)
## Periodic Monitoring (non-CAM) for Sources Not Subject to 40 CFR Part 64 Compliance Assurance Monitoring (CAM)

This condition includes periodic monitoring for non-CAM equipment controlled by fabric filters and by wet scrubbers. There is also a requirement for recordkeeping and semi-annual reporting. Semi-annual reports related to this requirement have all showed the facility to be in compliance with the applicable requirements.

## 3.6(B)
## Compliance Assurance Monitoring (CAM) [Sec. 3D-0614, 40 CFR Part 64]

This condition includes CAM requirements for sources controlled by the following control devices: fabric filters, the fume incinerator (CD-130-851-1), and the thermal incinerator (CD-RTO-851-1). The condition also includes CAM requirements to perform visual stack observations for all stacks associated with sources subject to CAM. There are also requirements for recordkeeping and semi-annual reporting. Semi-annual reports related to these requirements have all showed the facility to be in compliance with the applicable requirements.

CAM applicability is based on a “pollutant specific emission unit” (PSEU). There are many individual pieces of process equipment at the Tobaccoville facility. In order to streamline the permit process, RJRT has grouped process equipment into "emission sources". In most cases the "emission source" is one line of process equipment, all with similar regulatory requirements.

An "emission source" may be comprised of a few pieces of equipment, and in other cases it may be comprised of 70+ individual pieces of equipment. Even though the permit specifies an emission limit for the entire "emission source", each individual piece of equipment, comprising the "emission source", is subject to the Sec. 3D-0515 particulate standard based on the process rate of the individual piece of equipment.

For the purposes of CAM applicability, each individual piece of equipment is the appropriate emission source to be considered the PSEU for purposes of CAM.

There are many "emission sources" that have several individual PSEUs being controlled by the same control device. When determining the potential pre-control emission rate RJRT has added together the pre-control emissions from all PSEUs within an "emission source" that are controlled by the same control device. This method has been used to simplify the CAM applicability process. Again this is a conservative approach that has the potential to include more control devices under CAM requirements than are necessary. The only thing that is necessary is to calculate the potential pre-control emissions from each control device within an emission source. If it exceeds 100 TPY then CAM applies.

Except for PSEUs with VOC controlled by the thermal incinerator (CD-RTO), none of the PSEUs at the Tobaccoville facility have potential controlled PM10 or VOC emissions at or above 100 TPY – so none of those PSEUs are “large PSEUs” that trigger the need for the collection of four or more data values equally spaced over each hour as specified in 40 CFR 64.3(b)(4)(ii). Permit condition 3.6(B)(3) incorporates “large PSEU” requirements for the thermal incinerator including the collection of four or more data values equally spaced over each hour.

## Condition 3.7
## Reserved for Future Use

Formerly, this condition included VOC work practice standards from Sec. 3D-0958(c) of the FCAQTC. The rule applied to all facilities that used volatile organic compounds as solvents, carriers, material processing media, or industrial chemical reactants, or in other similar uses or that mixed, blended, or manufactured volatile organic compounds, or emitted volatile organic compounds as a product of chemical reactions.

Recent amendments to the FCAQTC that were adopted on 7-14-2022 by the Forsyth County Board of Commissioners removed the applicability of Sec. 3D-0958 in Forsyth County, NC. In particular, Sec. 3D-0902(e)(9) was deleted from the FCAQTC. Prior to its deletion, Sec. 3D-0902(e)(9) had indicated that Sec. 3D-0958 applied in Forsyth County, NC. With Sec. 3D-0902(e)(9) no longer existing, the requirements of 3D-0958 are no longer applicable to the Tobaccoville facility which is located in Forsyth County, NC. In the Project Shoehorn significant modification package, RJRT requested that the former 3D-0958(c) VOC work practice requirements be removed from the facility’s Title V operating permit. To simplify permitting and reporting, condition 3.7 has been left in the permit but only in a “reserved” status. Permit 00745-TV-41 was the last permit to include the VOC work practice requirements.

## Condition 3.8
## NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63, Subpart ZZZZ

This condition includes Part 63, Subpart ZZZZ, requirements for ES-854-8-4, the facility's 3,210 HP (2,250 kW) diesel-fired emergency generator (19.92 mmBtu/hr) that was manufactured in 2003. The condition includes the following specification about the generator's fuel: "The diesel fuel shall be No. 2 fuel oil with a sulfur content no greater than 0.5 weight percent sulfur unless the requirement to use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel has been triggered in accordance with condition 3.8(C)". 40 CFR 80.510(b) requires that the sulfur content of the fuel not exceed 15 ppmw (0.0015% by weight). The generator has not yet triggered that requirement, and RJRT currently has no plans to use the generator in a manner that would trigger the 15 ppmw sulfur requirement. If the facility ever does trigger the 15 ppm sulfur requirement during a calendar year, pursuant to 40 CFR 63.6650(h) condition 3.8(E) requires that the facility submit an annual report no later than March 31$^{st}$ of the following calendar year.

During the most recent inspection of the facility in September 2024, the facility was using fuel oil with no more than 15 ppm sulfur for the ES-854-8-4 generator and for the three boilers (ES-1-854-8, ES-2-854-8, and ES-3-854-8) but the facility is not obligated to. The generator and the boilers are all permitted to use fuel oil with up to 0.5% by weight sulfur (5000 ppm sulfur).

NOTE: The facility does have a 237 HP (177 kW) diesel engine that is used to power an emergency fire water pump. The engine's model year is 2011 according to its EPA certification sheet. Its total displacement is 6.8 liters with 6 cylinders, or about 1.13 liters per cylinder. The engine is an insignificant activity by size or production rate per Sec. 3Q-0503(8) so is not listed in the permit. The engine was manufactured in June 2015 and is subject to both 40 CFR Part 60 Subpart IIII and Part 63 Subpart ZZZZ - but complies with Subpart ZZZZ by satisfying Subpart IIII. According to 40 CFR 60.4207(b) of Subpart IIII, it must use fuel oil that meets the requirements of 40 CFR 80.510(b) which limits sulfur content to 15 ppm. So the fire pump engine is currently the only fuel oil combustion source at the Tobaccoville facility that is actually required to burn fuel oil that is no more than 15 ppmw sulfur. During the most recent inspection of the facility in September 2024, it was verified that the fire pump engine is combusting fuel oil that is no more than 15 ppmw sulfur.

## Condition 3.9
## Limitation on the use of No. 2 fuel oil to avoid the applicability of 40 CFR Part 63, Subpart JJJJ (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources)

This condition applies to the facility's three existing boilers: Boiler #5 (ES-1-854-8), Boiler #6 (ES-2-854-8), and Boiler #7 (ES-3-854-8). The condition specifies criteria that must be met in order for the boilers to avoid triggering the applicability of the Area Source Boiler NESHAP. In particular, if a boiler combusts fuel oil *except during periodic testing not to exceed 48 hours per calendar year per boiler, gas supply emergencies, or periods of gas curtailment pursuant to a contract with the natural gas supplier*, that boiler triggers the applicability of 40 CFR Part 63, Subpart JJJJJJ. The condition also requires that the facility maintain various records related to fuel oil combustion to document whether or not Subpart JJJJJJ was triggered.

Condition 3.9 does not specifically forbid any boiler from triggering the applicability of Subpart JJJJJJ. It merely specifies criteria that must be met to avoid triggering the applicability of the rule. If a boiler does not meet the Subpart JJJJJJ avoidance criteria, that boiler becomes subject to Subpart JJJJJJ. The triggering of Subpart JJJJJJ is on an individual boiler basis. One boiler becoming subject to Subpart JJJJJJ, does not affect the applicability of Subpart JJJJJJ to any of the other boilers. During the most recent inspection

of the facility in September 2024, it was verified that none of the three applicable boilers had combusted fuel oil for more than 48 hours per calendar year. Permit condition 3.10 addresses the applicable requirements of 40 CFR Part 63, Subpart JJJJJJ.

NOTE: The Tobaccoville facility is an area source for HAPs because it has accepted a federally enforceable limit to avoid being major for HAPs. That limit is in permit condition 3.1(B).

## Condition 3.10
## National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (Subpart JJJJJJ)

This condition applies to the facility's three existing boilers: Boiler #5 (ES-1-854-8), Boiler #6 (ES-2-854-8), and Boiler #7 (ES-3-854-8). The condition specifies that the permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart JJJJJJ, upon start-up of a boiler with No. 2 fuel oil usage beyond the limitations listed in condition 3.9. Condition 3.10 includes applicable requirements of 40 CFR Part 63, Subpart JJJJJJ. Condition 3.10(A) requires the permittee to notify this Office no more than 30 days after any of the boilers does become subject to Subpart JJJJJJ. To date, none of the three boilers has become subject to Subpart JJJJJJ. During the most recent inspection of the facility in September 2024, it was verified that none of the three applicable boilers had combusted fuel oil for more than 48 hours per calendar year. 40 CFR Part 63, Subpart JJJJJJ, applies generally available control technologies (GACT) for fuel oil combustion sources such as the Tobaccoville facility's three existing boilers.

## Condition 3.11
## BACT - Source Specific Emission Limits

Condition 3.11 includes Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) limits for several manufacturing emissions sources at the Tobaccoville facility.

History:

In 2014, RJRT planned to acquire another cigarette manufacturing company, Lorillard Inc. Most Lorillard cigarette products (such as Newport) differ from RJRT cigarette products in that the Lorillard cigarettes use ethanol-based flavorings while the current RJRT cigarette products do not. In late 2014, RJRT submitted a PSD permit application related to the manufacturing of Lorillard cigarette brands at the Tobaccoville facility.

That application was received on November 25, 2014 and amended in a revised application that was received on December 19, 2014. The project was only subject to PSD permitting regulations for VOC. This Office issued the resultant PSD construction permit (permit # 00745-TV-33) on May 7, 2015. The permit included BACT requirements for VOC and incorporated authorization to operate the new and modified emissions sources.

In July 2015, RJRT submitted a second PSD permit application related to the production of Lorillard products at the Tobaccoville facility. The July 2015 application addressed additional modifications needed for the production of Lorillard products beyond the 2014 applications. The new project was only subject to PSD permitting regulations for VOC. This Office issued the resultant PSD construction permit (permit # 00745-TV-35) on August 31, 2015. The permit included BACT requirements for VOC and incorporated authorization to operate the new and modified emissions sources.

The 00745-TV-41 permit included an administrative amendment to permit condition 3.11. Prior to the 00745-TV-41 permit, in permit 00745-TV-40, the wording of the BACT requirements, where it allowed for the processing of ethanol-based tobacco products, used the term "former Lorillard brands" in permit condition 3.1 and the term former Lorillard products" in permit condition 3.11. These terms misrepresent the 2014 BACT analysis as only valid for ethanol-based tobacco products that were formerly made by Lorillard. However, the BACT analysis performed is applicable to any ethanol-based tobacco products whether or not Lorillard ever produced them. For the sake of simplicity, the PSD permit application referred to the old RJR products (no ethanol) and newly acquired ethanol-based products from Lorillard. Those terms were also used in the Statement of Basis for permit 00745-TV-40, and ultimately that language unnecessarily ended up in the permit. The administrative amendment changed the inaccurate references to "former Lorillard products" or "former Lorillard brands" to the more generic language of "tobacco products with ethanol-based flavorings" that is consistent with the 2014 BACT analysis.

On July 25, 2016, RJRT submitted a Title V operating permit application for the PSD projects described above. As required, the Title V operating permit application was received within 12-months after the July 27, 2015 initial start-up of the initial PSD project in the 00745-TV-33 permit. That Title V operating permit application represented a significant modification and was processed in conjunction with the permit renewal that resulted in permit 00745-TV-40.

The specific BACT limits related to the manufacture of tobacco products with ethanol-based flavorings are in Conditions 3.1(A) and 3.11(A)-(G). All of the BACT limits are for VOC.

## 3.11(A)
## Conveyor Systems: Part of ES-1-851-1, ES-10-851-1, and ES-21-851-1

The permittee shall limit the uncontrolled VOC emission rate from the following conveyor systems to no more than:
(a) 0.60 lb/hr for the new conveyor system serving ES-1-851-1;
(b) 0.20 lb/hr for the new conveyor system serving ES-10-851-1; and
(c) 0.05 lb/hr for the new conveyor system serving ES-21-851-1.

Compliance with the three limits is demonstrated by maintaining a list of the new conveyors (including conveyor identification numbers) installed for each of the three emissions sources described above. No reporting is required for the specific purpose of demonstrating compliance with the limits because the limits are derived from throughputs that exceed the maximum throughputs achievable based on the number of new conveyors installed in each of the emissions sources. During the most recent inspection in September 2024, the required list of conveyors was verified to reflect the current configuration of applicable conveyors.

## 3.11(B)
## Manufacture of tobacco products with ethanol-based flavoring using ethanol-based top dressing materials in the top dressing drums and downstream conveyors (Part of ES-15-851-1)

The permittee shall limit the VOC emissions as follows:
(a) The permittee shall limit the VOC emission rate from this emission source to no more than 0.54 lb VOC per ton of wet tobacco.
(b) The permittee shall control the VOC emissions by means of a thermal incinerator (CD-RTO-851-1) operated with at least 98% destruction efficiency. Compliance with the destruction efficiency requirement for the thermal incinerator shall be based upon the 3-hour block average of the incinerator combustion chamber temperature.

Compliance is demonstrated by performing the applicable thermal incinerator operational, monitoring and recordkeeping activities as stated in condition 3.6(B)(3) and (5). A semiannual report is also required as described in condition 3.6(B)(6). All of the semi-annual reports have indicated compliance with the applicable BACT limits.

## 3.11(C)
## Cigarette Production Floor Fugitives (ES-18-851-1, ES-19-851-1, F-16-851-1, and Part of ES-15-851-1)

The permittee shall limit the combined uncontrolled VOC emission rate from these emission sources to no more than 271.81 tons per monthly rolling 12-month total.

Compliance is demonstrated by maintaining records and calculating monthly and 12-month total VOC emissions in accordance with the equation in condition 3.11(C)(2)(a). A semiannual report is also required. All of the semi-annual reports have indicated compliance with the applicable BACT limit.

## 3.11(D)
## Part of ES-15-851-1 Casing Drums: Propylene Glycol-based Casing Materials

1. The permittee shall limit the uncontrolled VOC emission rate from the casing drums while manufacturing tobacco products with propylene glycol-based casing material to:

(a) no more than 13.35 lb/hr, and
(b) 3.7 tons per monthly rolling 12-month total.

No monitoring, recordkeeping, or reporting is required to demonstrate compliance with the limit specified in condition 3.11(D)(1)(a) because the 13.35 lb/hr limit is greater than the potential uncontrolled VOC emissions of the applicable installed equipment.

Compliance with the limit specified in condition 3.11(D)(1)(b) is demonstrated by maintaining records and calculating monthly and 12-month total VOC emissions in accordance with the equation in condition 3.11(D)(2)(a). A semiannual report is also required. All of the semi-annual reports have indicated compliance with the applicable BACT limit.

## 3.11(E)
## Part of ES-15-851-1 Flotation Chambers, Dryers, and Separators: Propylene Glycol-based Casing Materials

1. The permittee shall limit the uncontrolled VOC emission rate from the flotation chambers, dryers, and separators to
(a) no more than 219.2 lb/hr, and
(b) 97.5 tons per monthly rolling 12-month total.

No monitoring, recordkeeping, or reporting is required to demonstrate compliance with the limit specified in condition 3.11(E)(1)(a) because the 219.2 lb/hr limit is greater than the potential uncontrolled VOC emissions of the applicable installed equipment.

Compliance with the limit specified in condition 3.11(E)(1)(b) is demonstrated by maintaining records and calculating monthly and 12-month total VOC emissions in accordance with the equation in condition

3.11(E)(2)(a). A semiannual report is also required. All of the semi-annual reports have indicated compliance with the applicable BACT limit.

## 3.11(F)
## Part of ES-14-851-1 Casing Drums: Ethanol-based Casing Materials

1. The permittee shall limit the uncontrolled VOC emission rate from the casing drums while using ethanol-based casing materials to manufacture tobacco products with ethanol-based flavoring to no more than 1.2 lb VOC per ton wet tobacco.

Compliance with the limit specified in condition 3.11(F)(1) is demonstrated by maintaining records and calculating monthly and 12-month total VOC emissions in accordance with the equation in condition 3.11(F)(2). A semiannual report is also required. All of the semi-annual reports have indicated compliance with the applicable BACT limit.

## 3.11(G)
## F-13-851-1 Casing Preparation Area: Mix Tanks and Day Tanks

1. The permittee shall limit the uncontrolled VOC emission rate from the casing preparation area mix tanks and day tanks as described below:

(a) **Mix Tanks** - Propylene Glycol casing preparation area: No more than 0.0054 tons VOC per monthly rolling 12-month total.
(b) **Day Tanks** - Propylene Glycol casing preparation area: No more than 0.0054 tons VOC per monthly rolling 12-month total.
(c) **Mix Tanks** - Ethanol casing preparation area: No more than 0.0049 tons VOC per monthly rolling 12-month total.
(d) **Day Tanks** - Ethanol casing preparation area: No more than 0.0049 tons VOC per monthly rolling 12-month total.

Compliance with the limits specified in conditions 3.11(G)(1)(a) through (d) is demonstrated by maintaining records and calculating monthly and 12-month total VOC emissions in accordance with the equations in conditions 3.11(G)(2)(a) through (d). Semiannual reports are also required. All of the semi-annual reports have indicated compliance with the applicable BACT limits.

# SECTION E:
# Compliance with Air Toxics Requirements (Locally Enforceable Only)

A facility-wide air toxics review was last performed in April 2018 in association with the Small Batch Project that was incorporated in the 00745-TV-39 permit. The review also incorporated all of the emissions changes associated with the Title V Integration Project modification. The review included all TAPs emitted by all sources at the facility except for TAPs emitted by sources specifically exempted from air toxics regulation. The exempt sources are the existing three 87.9 mmBtu/hr boilers and the diesel engines associated with the emergency generator and the emergency fire water pump. The engines are exempt pursuant to FCAQTC Sec. 3Q-0702(a)(27)(B) because they are affected sources under 40 CFR Part 63 –

specifically 40 CFR Part 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines). The three boilers are exempt pursuant to Sec. 3Q-0702(a)(18) because they are combustion sources as defined in Sec. 3Q-0703 and are not new or modified combustion sources permitted on or after July 10, 2010. The temporary boilers (which have not yet been installed) were included in the air toxics review because they were permitted after July 10, 2010.

Overall, the April 2018 air toxics review included 30 TAPs.

| | | ***Facility-Wide Uncontrolled Potential** | | | **3Q .0711(a) TPERs** | | | **Percent of TPER** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TAP | Modeled? | lb/hr | lb/day | lb/yr | lb/hr | lb/day | lb/yr | lb/hr | lb/day | lb/yr |
| Acetaldehyde | No | 0.9415 | | | 6.8 | | | 13.85% | | |
| **Acetic acid** | **Yes** | 14.505 | | | 0.96 | | | **1511%** | | |
| Acrolein | No | 0.0183 | | | 0.02 | | | 91.42% | | |
| **Ammonia** | **Yes** | 12.72 | | | 0.68 | | | **1871%** | | |
| **Arsenic** | **Yes** | | | 3.482 | | | 0.053 | | | **6570%** |
| **Benzene** | **Yes** | | | 53.934 | | | 8.1 | | | **666%** |
| Benzo(a)pyrene | No | | | 0.0013 | | | 2.2 | | | 0.060% |
| **Beryllium** | **Yes** | | | 2.5783 | | | 0.28 | | | **921%** |
| **Cadmium** | **Yes** | | | 2.8397 | | | 0.37 | | | **767%** |
| Carbon disulfide | No | | 0.00006 | | | 3.9 | | | 0.001% | |
| Chloroform | No | | | 119.51 | | | 290 | | | 41.21% |
| Chromic acid | No | | 0.008 | | | 0.013 | | | 61.4% | |
| Cresol | No | 0.0907 | | | 0.56 | | | 16.20% | | |
| Dichlorobenzene** | No | 0.00002 | | | 16.8 | | | 0.0001% | | |
| Dioxane | No | | 0.3313 | | | 12 | | | 2.76% | |
| **Ethylene oxide** | **Yes** | | | 121.25 | | | 1.8 | | | **6736%** |
| **Fluorides** | **Yes** | 0.0261 | 0.6266 | | 0.064 | 0.34 | | 40.8% | **184%** | |
| **Formaldehyde** | **Yes** | 0.3225 | | | 0.04 | | | **806%** | | |
| **HCl** | **Yes** | 0.1998 | | | 0.18 | | | **111%** | | |
| Hexane, n- | No | | 5.4183 | | | 23 | | | 23.6% | |
| Manganese | No | | 0.0144 | | | 0.63 | | | 2.28% | |
| MEK | No | 0.0385 | 0.9236 | | 22.4 | 78 | | 0.172% | 1.184% | |
| Methyl chloroform | No | 0.0002 | 0.004 | | 64 | 250 | | 0.0003% | 0.002% | |
| Mercury | No | | 0.0072 | | | 0.013 | | | 55.6% | |
| Nickel | No | | 0.0084 | | | 0.13 | | | 6.49% | |
| Phenol | No | 0.0147 | | | 0.24 | | | 6.108% | | |
| Styrene | No | 1E-05 | | | 2.7 | | | 0.0004% | | |
| Toluene | No | 0.0613 | 1.471 | | 14.4 | 98 | | 0.43% | 1.50% | |
| Trichlorofluoromethane | No | 0.2352 | | | 140 | | | 0.1680% | | |
| Xylene | No | 0.0018 | 0.0439 | | 16.4 | 57 | | 0.0112% | 0.077% | |

* No TAP pollutants are controlled. Facility-wide rates do not include TAPs from sources exempt from air toxics review.

** The dichlorobenzene emissions are conservatively assumed to be 1,4-dichlorobenzene (p-dichlorobenzene).

Of those TAPs, ten have facility-wide potential emissions that are above the applicable TAP Permitting Emission Rates (TPERs) listed in FCAQTC Sec. 3Q-0711(a). RJRT chose to model those ten TAPs. The other 20 TAPs were not modeled. They are listed in the de minimis limits table in permit condition 4.1(A)(2) along with their respective TPER values from Sec. 3Q-0711(a).

For each pollutant that was modeled, the maximum modeled ambient concentration was less than the respective Acceptable Ambient Level (AAL) listed in FCAQTC Sec. 3D-1104. The overall emission rate for

each pollutant was adjusted up to a level corresponding to 98% of the AAL and the model was rerun.

Acetic acid, ammonia, fluorides, formaldehyde, and hydrogen chloride are hourly TAPs so the adjusted facility-wide hourly emission rates for these TAPs were added as facility-wide limits in the table in condition 4.1(A)(3). Fluorides is also a daily TAP so the adjusted facility-wide hourly emission rate for fluorides was multiplied by 24 hrs/day, and the resulting daily emission rate was added as a facility-wide limit in the table in permit condition 4.1(A)(3).

Arsenic, benzene, beryllium, cadmium, and ethylene oxide, are yearly TAPs so the "adjusted facility-wide hourly emission rates for these TAPs were multiplied by 8760 hrs/yr, and the resulting yearly emission rates were added as facility-wide limits in the table in permit condition 4.1(A)(3).

The list of modeled TAPs in condition 4.1(A)(3) is shown below.

| Pollutant (CAS Number) | Maximum facility-wide emission rate | AERMOD EPA version | Date of model output file |
|---|---|---|---|
| acetic acid (64-19-7) | 438.30 lb/hour | 16216r | 04/23/2018 |
| ammonia (7664-41-7) | 349.31 lb/hour | 16216r | 04/23/2018 |
| Not arsenic and inorganic arsenic compounds | 73.47 lb/year | 16216r | 04/23/2018 |
| benzene (71-43-2) | 9,119 lb/year | 16216r | 04/23/2018 |
| beryllium (7440-41-7) | 142.3 lb/year | 16216r | 04/23/2018 |
| cadmium (7440-43-9) | 203.5 lb/year | 16216r | 04/23/2018 |
| ethylene oxide (75-21-8) | 1,029 lb/year | 16216r | 04/23/2018 |
| fluorides | 3.80 lb/hour and 91.15 lb/day | 16216r | 04/23/2018 |
| formaldehyde (50-00-0) | 20.81 lb/hour | 16216r | 04/23/2018 |
| hydrogen chloride (7647-01-1) | 236.71 lb/hour | 16216r | 04/23/2018 |

Detailed information regarding the modeling analysis is presented in the "Air Compliance Analysis Summary Sheet" that is on file on this Office's server.

The list of 21 reviewed but not modeled TAPs in condition 4.1(A)(2) is shown below.

| **Pollutant (CAS Number)** | **De minimis level** |
|---|---|
| acetaldehyde (75-07-0) | 6.8 lb/hr |
| acrolein (107-02-8) | 0.02 lb/hr |
| benzo(a)pyrene (50-32-8) | 2.2 lb/yr |
| 1,3-butadiene (106-99-0) | 11 lb/yr |
| carbon disulfide (75-15-0) | 3.9 lb/day |
| chloroform (67-66-3) | 290 lb/yr |
| cresol (1319-77-3) | 0.56 lb/hr |

| | |
|---|---|
| p-dichlorobenzene (106-46-7) | 16.8 lb/hr |
| 1,4-dioxane (123-91-1) | 12 lb/day |
| n-hexane (110-54-3) | 23 lb/day |
| manganese and compounds | 0.63 lb/day |
| mercury, vapor (7439-97-6) | 0.013 lb/day |
| methyl chloroform (71-55-6) | 250 lb/day |
| nickel metal (7440-02-0) | 0.13 lb/day |
| methyl ethyl ketone (78-93-3) | 78 lb/day and 22.4 lb/hr |
| phenol (108-95-2) | 0.24 lb/hr |
| soluble chromate compounds, as chromium (VI) equivalent | 0.013 lb/day |
| styrene (100-42-5) | 2.7 lb/hr |
| toluene (108-88-3) | 98 lb/day and 14.4 lb/hr |
| trichlorofluoromethane (75-69-4) | 140 lb/hr |
| xylene (1330-20-7) | 57 lb/day and 16.4 lb/hr |

The facility's most recent emissions inventory report was for CY2023. The actual TAP emissions emitted for that year do not exceed any of the limits in permit conditions 4.1(A)(2) or (3).

Deferred Modeling:

The rerouting of some emissions from EP-23 to EP-24 (based on a June 2018 application update for the Small Batch Project) involved reduced quantities of three TAPs (acetic acid, ammonia and formaldehyde) being emitted from EP-23 with a corresponding increase of those emissions from EP-24. This shift in TAP emissions was investigated with respect to the previously submitted TAP modeling demonstration. The change was deemed to be insignificant such that a new modeling demonstration was not warranted at that time. Instead, the modeling of the change was deferred until the next modification requiring a modeling review. The allowance for a deferral on the modeling was based on the fact that no increase in TAP emissions was occurring, and the number of TAPs and the quantities of TAPs being relocated from one stack to another was relatively minor. Also, important is the fact that the original modeling was based on potential emissions that were then optimized to reflect 98% of the AALs - so the facility-wide limits in the permit in condition 4.1(A)(3) are very conservative. This provides a comfortable margin of compliance in that the minor changes would not result in an exceedance of those limits.

The Snus process (ES-34) has potential ammonia emissions of 0.78 pounds per hour. The March 2018 facility-wide TAP air dispersion modeling analysis resulted in a maximum ambient concentration of 0.096 mg/m3 (1-hour average), compared to the acceptable ambient level of 2.7 mg/m3 (approximately 4% of the allowable concentration). The facility-wide ammonia emissions rate in the prior TAP modeling was 12.72 pounds per hour. The prior TAP modeling included an optimized emissions rate for ammonia of 349.31 pounds per hour. The updated facility-wide ammonia emissions after the project are expected to be 13.49 pounds per hour, less than 4 percent of the optimized emissions rate. Therefore, an air dispersion modeling analysis for the small increase ammonia emissions (approximately 6 percent) due to the project is not necessary.

As part of the updated renewal application for the 00745-TV-43 permit, RJRT underwent an extensive review of all of their emissions calculations. This review resulted in some changes to the facility-wide uncontrolled potential TAP emissions form sources subject to the local TAP regulations. Except for acrolein, the revised emissions still show that the uncontrolled potential emissions of all non-modeled TAPs from the facility are below the respective FCAQTC Sec. 3Q-0711(a) TPER values and the modeling demonstrates that the respective AALs are not exceeded even at emission rates greater than the facility's

uncontrolled potential emission rates. For acrolein, the uncontrolled potential emissions are 140.6% of the 0.02 lb/hr TPER value in Sec. 3Q-0711(a). However, based on the CY2023 emissions inventory, the CY2023 actual acrolein emissions are less than 9.9% of the Sec. 3Q-0711(a) TPER value based on 17.227 lb/yr which converts to 0.0019666 lb/hr based on 8760 hr/yr.

For more detail see the "Potential TAPs" and CY2023 TAPs" worksheets in the "00745-TV-43-SoB-CONFIDENTIAL.xlsx" or "00745-TV-43-SoB-PUBLIC.xlsx" Excel spreadsheet.

**TAP monitoring and recordkeeping requirements**

Because the uncontrolled potential emissions of all non-modeled TAPs from the facility are below the respective FCAQTC Sec. 3Q-0711(a) TPER values (except for acrolein whose actual emissions are less than 75% of the TPER limit) and the modeling demonstrates that the respective AALs are not exceeded even at emission rates greater than the facility's uncontrolled potential emission rates, only the basic TAP monitoring and recordkeeping requirements are included in condition 4.1(A)(4) of the permit with no TAP reporting required in accordance with this Office's Air Toxics Evaluation Flow Chart.

# SECTION F:
# Insignificant Activities

The facility's insignificant activities have been reviewed and verified. The activities are insignificant in accordance with either Sec. 3Q-0503(7) "Insignificant activities because of category" or Sec. 3Q-0503(8) "Insignificant activities because of size or production rate". Although the insignificant activities are not listed in the Title V permit, a general permit condition (condition 2.30) is placed in the Title V permit stating that all insignificant activities shall comply with all applicable requirements.

# SECTION G:
# Changes to the Permit

1. Modified the Permit Number to 00745-TV-43 on the permit page with the Forsyth County Seal, on the first page of the permit's Table of Contents, and in the page headers.

2. Once the permit is finally issued, the permit's effective date will be added to the permit page with the Forsyth County Seal, the first Table of Contents page, and the page headers.

3. In permit condition 1.1 (Equipment List and Applicable conditions), the 3D-0515 particulate matter limit for three sources was corrected based on corrected maximum throughputs rates for the associated equipment. The errors were discovered during communications with RJRT s part of the renewal process. The changes to the limits are as follows: Cut Tobacco Silo Discharge (ES-16-85101) changed from 43.6 lb/hr to 44.4 lb/hr, Filter Making (ES-18-851-1) changed from 18.7 lb/hr to 21.4 lb/hr, and Cigarette Making (ES-19-851-1) changed from 43.3lb/hr to 45.5 lb/hr.

4. Updated some control device and emission point information in permit condition 1.1 (Equipment List and Applicable conditions). For Strip Receiving/Blending (ES-1-851-1) and Tobacco Strip Conveying/Blending (ES-11-851-1) removed control device CD-91 (EP-4/4:47A), control device CD-95 (EP-2/1:2A), and control device CD-105 (EP-47/4:47A). Also, deleted the line item for sources previously served by CD-91 and vented to atmosphere via EP-4/4:47A. Those sources are now vented uncontrolled inside the building. Since those sources only emit particulate matter, they are no longer considered to be regulated emissions sources.

5. Corrected the applicability of CAM requirements to several fabric filter control devices listed in permit condition 1.1 (Equipment List and Applicable conditions). Control device CD-75-851-1 was updated from CAM to non-CAM. The following six control devices were updated from non-CAM to CAM: CD-14-851-1, CD-15-851-1, CD-16-851-1, CD-18-851-1, CD-19-851-1, and CD-20-851-1. Control device CD-70-851-1 serving ES-12-851-1 was corrected from CAM to non-CAM.

6. In Part II, Section 1, deleted the listings for MOP Processing 2 (ES-31-851-1), MOP Packaging (ES-32-851-1), Snus Primary (ES-33-851-1), Snus Processing (ES-34-851-1), and Snus Packaging (ES-35 – 851-1) that had been in Condition B. According to communications from RJRT, those five sources have begun operation.

7. In Part II, Section 4, deleted the listings for MOP Processing 2 (ES-31-851-1), MOP Packaging (ES-32-851-1), Snus Primary (ES-33-851-1), Snus Processing (ES-34-851-1), and Snus Packaging (ES-35 – 851-1) that had been in Condition C. According to communications from RJRT, those five sources have begun operation.

8. In Part II, Section 4, Condition (C)(1), changed the phrase “completed project components (a)-(g)” to “completed project components (a)-(b)”.

# SECTION H:
# Permit Processing Notes

2/24/2023
A Title V permit renewal application was received at this Office pertaining to the RJRT Tobaccoville facility. The renewal application was received 2-24-2023 prior to the 2-27-2023 due date. At that time the current permit was permit #00745-TV-41.

4/13/2023
A Title V permit significant modification application was received at this Office pertaining to “Project Shoehorn” at the RJRT Tobaccoville facility.

5/5/2023
An updated Title V permit renewal application was received at this Office pertaining to the RJRT Tobaccoville facility. RJRT has decided to do a major long-term review of emissions factors and emissions calculations for the Tobaccoville facility. An additional revised renewal application will need to be submitted at a future date to incorporate the results of the long-term review.

8/11/2023
Received the CY2022 emission inventory report for the Tobaccoville facility. The facility had been granted an extension from 6/30/2023 until 8/11/2023 to submit the report. The primary reason for extension request involved emission calculation inconsistencies found in the Tobaccoville Title V Permit renewal application, “Project Shoehorn” permit modification application, and the Tobaccoville emissions inventory calculation spreadsheet. RJRT requested the additional time to investigate these issues and make any necessary updates.

11/22/2023
Received the an updated CY2022 emission inventory report for the Tobaccoville facility.

12/13/2023
Received the final updated CY2022 emission inventory report for the Tobaccoville facility.

12/27/2023
Permit 00745-TV-42 was issued with effective date of 1/1/2024. The permit was for a significant Title V modification pertaining to “Project Shoehorn” at the RJRT Tobaccoville facility.

4/9/2024
Met with RJRT via Teams to discuss the Title V permit renewal application for the RJRT Tobaccoville facility and the on-going work to update/correct various emissions calculations. Also, received an updated draft spreadsheet file of emissions calculations. This draft spreadsheet did not include emissions calculations for “Project Shoehorn”.

5/62024
Met with RJRT via Teams to discuss the Title V permit renewal application for the RJRT Tobaccoville facility and the on-going work to update/correct various emissions calculations.

6/7/2024
Met with RJRT via Teams to discuss the Title V permit renewal application for the RJRT Tobaccoville facility and the on-going work to update/correct various emissions calculations. Also, received an updated draft spreadsheet file of emissions calculations. This draft spreadsheet included emissions calculations for “Project Shoehorn”.

7/12/2024
Via email, I send some questions/comments to RJRT regarding the Tobaccoville facility draft emissions calculations spreadsheet.

6/18/2024
Met with RJRT via Teams to discuss the Title V permit renewal application for the RJRT Tobaccoville facility and the on-going work to update/correct various emissions calculations.

7/9/2024
Received an updated draft spreadsheet file of emissions calculations. This draft spreadsheet included emissions calculations for “Project Shoehorn”.

7/19/2024
Via email, I send some questions/comments to RJRT regarding the Tobaccoville facility draft emissions calculations spreadsheet.

7/23/2024
Via email, I send some questions/comments to RJRT regarding the Tobaccoville facility draft emissions calculations spreadsheet.

7/25/2024
Via email, I send some questions/comments to RJRT regarding the Tobaccoville facility draft emissions calculations spreadsheet. Met with RJRT via Teams to discuss the Title V permit renewal application for the RJRT Tobaccoville facility and the on-going work to update/correct various emissions calculations.

8/13/2024
Met with RJRT via Teams to discuss the Title V permit renewal application for the RJRT Tobaccoville facility and the on-going work to update/correct various emissions calculations. Also, received an updated draft spreadsheet file of emissions calculations.

8/29/2024
Received the CY2023 emission inventory report for the Tobaccoville facility. The facility had been granted an extension from 6/30/2024 until 8/30/2024 to submit the report. The primary reason for extension request involved the on-going review of emission factors and emissions calculations for the Tobaccoville facility.

9/4/2024
Performed the FCE inspection of the Tobaccoville facility.

9/26/2024
Completed the overall facility inspection review including a review of various requested documents for the Tobaccoville facility. No compliance concerns were found.

10/22/2024
Via email, submitted a draft copy of the Tobaccoville insignificant activities list to RJRT for their review and comments. Also via email submitted some questions/comments to RJRT regarding the Tobaccoville facility draft emissions calculations spreadsheet.

12/30/2024
Via email from RJRT, received an updated Excel spreadsheet with emissions calculations for the Tobaccoville facility.

12/31/2024
Via email, I sent a copy of the DRAFT 00745-TV-43 permit to RJRT staff for their review.

1/8/2025
Completed updates to the 00745-TV-43 Statement of Basis and In-House Database Form based on the most recent emissions calculation spreadsheet.

1/31/2025
After a few email back-and-forth email communications, received final comments from RJRT on the DRAFT 00745-TV-43 permit.

3/7/2025
Via email, received updated public and confidential electronic versions of the permit application forms for the renewal application for the Tobaccoville facility.

3/10/2025
Received updated public and confidential hardcopy versions of the permit application forms for the renewal application for the Tobaccoville facility.

3/11/2025
Participated in a Teams meeting with RJRT staff to discuss updates to CAM applicability for various fabric filters at the Tobaccoville facility.

3/19/2025
I completed my review of the updated permit renewal application. I updated the DRAFT 00745-TV-43 permit and accompanying DRAFT Statement of Basis files, as needed. I sent a copy of the draft permit to RJRT staff for their review.

3/21/2025
I received comments from RJRT on the DRAFT 00745-TV-43 permit. RJRT identified an error in the CAM applicability listing in the DRAFT 00745-TV-43 permit. I corrected the error.

3/24/2025
I sent an email to Peter Lloyd asking him to review the DRAFT 00745-TV-43 permit, the accompanying DRAFT Statement of Basis files, the In-House Database Form, and the associated DRAFT public notice With his approval, the DRAFT permit is ready to go to public notice.

3/25/2025
Peter Lloyd completed his review of the draft documents, and after correcting a few typographical errors in the Statement of Basis, he approved the documents. The renewal permit will go to public notice on 3/28/2025 with a 30-day public comment period and a concurrent 45-day review by the U.S. EPA prior to final approval.

## SECTION I:
## Statement of Basis Conclusions

This Office, upon completion of its review of these modifications, has concluded that the facility will be in compliance with all applicable regulations and has drafted permit number 00745-TV-43 which details all the necessary requirements to ensure compliance. This Office recommends approval of the renewed permit.