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

February 14, 2024

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
Whitaker Park Facility
Winston-Salem, NC
Permit #00339-TV-38

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 **March 15, 2024**, 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
00339-TV-38	TBD	TBD	TBD

Facility Name: R.J. Reynolds Tobacco Company

Mailing Address: P.O. Box 2959
City, State, ZIP Code: Winston-Salem, NC 27102

Facility Location: Whitaker Park Facilities
City: Winston-Salem, NC 27105

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., Manager
Compliance Assistance & Permitting Division

DATE:

R. J. Reynolds Tobacco Company
Air Quality Permit # 00339-TV-38
Zzzz XX, 2024

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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

		Applicable Standards						CAM		non-CAM		Visible Emissions		Source Specific Limits	
		PM	PM		SO2			Fabric Filter	Visual Observ.	Fabric Filter		40%	20%		
	Applicable Permit Condition	3.2(A)	3.2(B)	max. lb/hr	3.3(A)	3.3(B)		3.5(B) (1,3,4)	3.5(B) (2,3,4)	3.5(A)		3.4(A)	3.4(B)	3.1(A)	3.1(B)
ES#	**Emission Source**						**CD#**	**Controls**			**EP#**	**Emission Point**			
Building 603-5 Recovery															
ES-1	Thresher Line		X	3.47			3	X	X		3		X		
ES-2	Carton Cutting Line		X	3.40			1			X	1		X		
							2	X	X		2		X		
ES-3	TPO Line		X	5.59			1			X	1		X		
							3	X	X		3		X		
ES-4	Greasy Mill 1st		X	6.68			1			X	1		X		
							2	X	X		2		X		
ES-5	Greasy Mill 3rd		X	8.07			2	X	X		2		X		
Building 611-2															
ES-5	Cigarette Making						*Fugitive*							X	X

		Applicable Standards						CAM		non-CAM		Visible Emissions		Source Specific Limits	
		PM	PM		SO2			Fabric Filter	Visual Observ.	Fabric Filter		40%	20%		
	Applicable Permit Condition	3.2(A)	3.2(B)	max. lb/hr	3.3(A)	3.3(B)		3.5(B) (1,3,4)	3.5(B) (2,3,4)	3.5(A)		3.4(A)	3.4(B)	3.1(A)	3.1(B)
ES#	**Emission Source**						**CD#**	**Controls**			**EP#**	**Emission Point**			
Building 611-3															
ES-3	Casing & Cutting		X	8.17			1			X	10		X	X	X
							2 (611-4)			X	9 (611-4)		X		
							None				7		X		
							None				8		X		
							None				11		X		
							None				12		X		
							Fugitive								
Building 611-4															
ES-1	Blending & Conditioning		X	3.82			None				6		X	X	
							Fugitive								
ES-2	Casing & Drying		X	5.38			4	X	X		5		X	X	X
							None				2, 3, 4		X		
							Fugitive								
ES-3	Tobacco Milling		X	4.76			10	X	X		10		X	X	
Building 611-16															
ES-2	Smokeless Processing		X	0.587			None				1		X	X	

Shed 181															
ES-1	Reconstituted Tobacco		X	1.54			None				1, 2, 3		X		

		Applicable Standards						CAM		non-CAM		Visible Emissions		Source Specific Limits	
		PM	PM		SO2			Fabric Filter	Visual Observ.	Fabric Filter		40%	20%		
	Applicable Permit Condition	3.2(A)	3.2(B)	max. lb/hr	3.3(A)	3.3(B)		3.5(B) (1,3,4)	3.5(B) (2,3,4)	3.5(A)		3.4(A)	3.4(B)	3.1(A)	3.1(B)
ES#	Emission Source						CD#	Controls			EP#	Emission Point			
Building 602-1 Utilities															
ES-1	Union Ironworks Boiler: 135 mmBtu/hr No. 2 fuel oil 140 mmBtu/hr Natural Gas	X				X	None				1	X			
ES-2	Union Ironworks Boiler: 135 mmBtu/hr No. 2 fuel oil 140 mmBtu/hr Natural Gas	X				X	None				2	X			
ES-5	Erie City Boiler: 120.8 mmBtu/hr No. 2 fuel oil 125.5 mmBtu/hr Natural Gas	X				X	None				5	X			
ES-6	Erie City Boiler: 124.1 mmBtu/hr No. 2 fuel oil 129 mmBtu/hr Natural Gas	X				X	None				6		X		
Temporary Boiler(s)															
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 and with a combined maximum firing rate not to exceed 40.824 mmBtu/hr. OR	X			X		None				EP-T1 (plus EP-T2,and EP-T3, if applicable)		X		

	One, two, or three temporary boilers with low-NOx burners fired with natural gas, each with a maximum firing rate not to exceed 93 mmBtu/hr														

Note:
1. The "X" denotes the applicable conditions in Sections 3.1 - 3.5.
2. The four boilers in Building 602-1 may use propane to start fuel oil combustion if natural gas is unavailable.

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

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.

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.

2.42 **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.

2.43 **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).

2.44 **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.

2.45 **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.

2.46 **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

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

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.

2.47 **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.

2.48 **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.

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.

2.49 **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.

2.50 **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.

2.51 **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).

2.52 **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.

3.1 Source Specific Emission Limits/Conditions

A. Building Group 611 - Research and Development Activities [Sec. 3Q-0317]

The permittee shall maintain a log on-site of R&D activities documenting that the activity results in no changes to the applicable requirements. There are no reporting requirements associated with this monitoring requirement.

B. ES-3-611-3 (Casing & Cutting), ES-2-611-4 (Casing & Drying), and ES-5-611-2 (Cigarette Making) - Prevention of Significant Deterioration (PSD), Limit to Avoid PSD Review [Sec. 3D-0530 and 3Q-0317(b)]

In order for the 00339-TV-31 modification to avoid PSD review the facility must comply with the following:

1. **Emission limit**

   The combined emissions of VOC from Casing & Cutting (ES-3-611-3), Casing & Drying (ES-2-611-4), and Cigarette Making (ES-5-611-2) shall be limited to less than 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:

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

   where:

   A = monthly tons of tobacco processed in Casing & Cutting (ES-3-611-3);

   B = monthly millions of cigarettes made in Cigarette Making (ES-5-611-2);

   C = monthly tons of tobacco processed in Casing & Drying (ES-2-611-4);

   D = monthly pounds of menthol applied in Cigarette Making (ES-5-611-2);

   E = monthly combined pounds of ethanol applied in Casing & Cutting (ES-3-611-3) and Casing & Drying (ES-2-611-4);

   W = VOC emission factor (lb VOC/ton tobacco) for tobacco processed in Casing & Cutting (ES-3-611-3), from the permit application for the 00339-TV-31 permit;

   X = VOC emission factor (lb VOC/million cigarettes) for cigarettes made in Cigarette Making (ES-5-611-2), from the permit application for the 00339-TV-31 permit;

Y = VOC emission factor (lb VOC/ton tobacco) for tobacco processed in Casing & Drying (ES-2-611-4), from the permit application for the 00339-TV-31 permit; and

Z = VOC emission factor (lb VOC/lb menthol applied) for menthol applied in Cigarette Making (ES-5-611-2), from the permit application for the 00339-TV-31 permit.

(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 40 tons of VOC.

(d) The permittee shall keep a log of the cigarette makers in Cigarette Making (ES-5-611-2), documenting the make/model and maximum production rate of each cigarette maker.

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.

3.2 Particulate Emission Limits

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

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

(a) **Building 602-1 Boilers:**
ES-1-602-1, ES-2-602-1, ES-5-602-1, and ES-6-602-1 -
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-1-602-1	792.5 MMBtu/hr	0.19 lb/million Btu
ES-2-602-1	792.5 MMBtu/hr	0.19 lb/million Btu
ES-5-602-1	792.5 MMBtu/hr	0.19 lb/million Btu
ES-6-602-1	792.5 MMBtu/hr	0.19 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 requirement [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 inherently meet this 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 3.5 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.

3.3 Sulfur Dioxide Emission Limits

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

Emissions of sulfur dioxide from the temporary boiler(s) (ES-TEMP) shall not exceed 2.3 lb/MMBtu input.

B. Sulfur Dioxide Emission from Combustion Sources [Sec. 3D-0501(e)]

Emissions of sulfur dioxide from the Building 602-1 boilers (ES-1-602-1, ES-2-602-1, ES-5-602-1, and ES-6-602-1) shall not exceed 1.6 pounds per million Btu input which is a source specific SIP limit established in 1983.

C. Monitoring/Recordkeeping/Reporting requirement [Sec. 3Q-0508(f)]

No monitoring/recordkeeping/reporting is required for the specific purpose of demonstrating compliance with the above standards because the fuels being combusted inherently meet these standards. 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.

3.4 Control of Visible Emissions

A. Control of Visible Emissions [Sec. 3D-0521(c)]

Opacity Standard - Visible emissions from emission sources designated in condition 1.1 shall not exceed 40% opacity when averaged over a six-minute period. However, the six-minute averaging periods may exceed 40% opacity if:

1. no six-minute average exceeds 90%;
2. no more than one six-minute period exceeds 40% in any hour; and
3. no more than four six-minute periods exceed 40% in any 24 hours.

This standard shall apply at all times, except during periods of startup, shutdown, or malfunction.

B. Control of Visible Emissions [Sec. 3D-0521(d)]

Opacity Standard - Visible emissions from emission sources designated in condition 1.1 shall not exceed 20% opacity when averaged over a six-minute period. However, the six-minute averaging periods may exceed 20% opacity if:

1. no six-minute average exceeds 87%;
2. no more than one six-minute period exceeds 20% in any hour; and
3. no more than four six-minute periods exceed 20% in any 24 hours.

This standard shall apply at all times, except during periods of startup, shutdown, or malfunction.

C. Monitoring/Recordkeeping/Reporting Requirements [Sec. 3Q-0508(f)]

1. **Combustion Sources** - No monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the above standard because the fuels being combusted 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.

2. **Non-Combustion Sources** - For sources with particulate matter control, condition 3.5 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.

3.5 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 internal inspection shall be performed annually.

2. **Recordkeeping requirement** - A log shall be maintained on-site with the dates of inspection and maintenance activities, inspection results, and maintenance performed.

3. **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 internal inspection shall be performed of each control device at least on an annual basis.

   (b) When an inspection reveals 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 is when improper maintenance results in the improper operation of the control device.

2. **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 7:00:00 AM and ends at 6:59:59 AM the following calendar day.

(i) Visible emissions from each stack (except stack EP-5-611-4, serving emission source ES-2-611-4) 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.

(ii) Visible emissions from stack EP-5-611-4, serving emission source ES-2-611-4, shall be monitored for the presence of visible emissions, once per operational day for each plant operational day during which the ES-2-611-4 equipment runs for four continuous hours.

(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.

3. **Recordkeeping -** Records of the monitoring required under conditions 3.5(B)(1) and (2) 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) 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.

4. **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.

3.6 No. 2 Fuel Oil Use Limits to Avoid Applicability of 40 CFR Part 63, Subpart JJJJJJ

ES-1-602-1: Whitaker Park, Building 602-1, Boiler #1
ES-2-602-1: Whitaker Park, Building 602-1, Boiler #2
ES-5-602-1: Whitaker Park, Building 602-1, Boiler #5
ES-6-602-1: Whitaker Park, Building 602-1, Boiler #6

Limitation on the use of No. 2 fuel oil [Sec. 3Q-0308(a)(1) and 0317(5)] - Except as provided in condition 3.7, 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.

3.7 National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (40 CFR 63, Subpart JJJJJJ)

Specific emission source permit conditions for the following four boilers:

ES-1-602-1: Whitaker Park, Building 602-1, Boiler #1
ES-2-602-1: Whitaker Park, Building 602-1, Boiler #2
ES-5-602-1: Whitaker Park, Building 602-1, Boiler #5
ES-6-602-1: Whitaker Park, Building 602-1, Boiler #6

Upon start-up of a boiler with No. 2 fuel oil usage beyond the limitations in condition 3.6, 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 3.7(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 3.7(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 3.7(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 3.7(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 3.7(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 3.7(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.

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
1,4-dioxane (123-91-1)	12 lb/day
acetaldehyde (75-07-0)	6.8 lb/hr
benzo(a)pyrene (50-32-8)	2.2 lb/yr
chloroform (67-66-3)	290 lb/yr
cresol (1319-77-3)	0.56 lb/hr
fluorides	0.34 lb/day and 0.064 lb/hr
hydrogen chloride (7647-01-0)	0.18 lb/hr
manganese and compounds	0.63 lb/day
methyl chloroform (71-55-6)	250 lb/day and 64 lb/hr
methyl ethyl ketone (78-93-3)	78 lb/day and 22.4 lb/hr
mercury, vapor (7439-97-6)	0.013 lb/day

n-hexane (110-54-3)	23 lb/day
nickel metal (7440-02-0)	0.13 lb/day
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**
1,3-butadiene (106-99-0)	568.66 lb/yr	15181	01/04/2016
acetic acid (64-19-7)	47.65 lb/hr	15181	01/04/2016
acrolein (107-02-8)	0.33 lb/hr	15181	01/04/2016
ammonia (7664-41-7)	53.60 lb/hr	15181	01/04/2016
arsenic and inorganic arsenic compounds	4.40 lb/yr	15181	01/04/2016
beryllium (7440-41-7)	8.59 lb/yr	15181	01/04/2016
benzene (71-43-2)	116.04 lb/yr	07026	06/19/2007
cadmium (7440-43-9)	11.52 lb/yr	15181	01/04/2016
carbon disulfide (75-15-0)	24.05 lb/day	07026	06/19/2007
ethylene oxide (75-21-8)	19.5 lb/yr	15181	01/04/2016
formaldehyde (50-00-0)	2.01 lb/hr	15181	01/04/2016
phosphine (7803-51-2)	1.68 lb/hr	07026	06/19/2007

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 three 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	**Scenario 1**: One or two temporary boilers with low-NOx burners fired with diesel fuel with a sulfur content not to exceed 0.05% sulfur and with a combined maximum firing rate not to exceed 40.824 mmBtu/hr. Uncontrolled. OR **Scenario 2**: One, two, or three temporary boilers with low-NOx burners fired with natural gas, each with a maximum firing rate not to exceed 93 mmBtu/hr. Uncontrolled.	EP-T1 (plus EP-T2,and EP-T3, if applicable)

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 Whitaker Park facility's steam supply (received from the Building 602-1 boilers) is interrupted, one or more temporary boilers will be installed and operated at the Whitaker Park facility in accordance with one of two possible scenarios.

Scenario 1: One or two temporary boilers with low-NOx burners fired with diesel fuel with a sulfur content not to exceed 0.05% sulfur and with a combined maximum firing rate not to exceed 40.824 mmBtu/hr. Uncontrolled.

Scenario 2: One, two, or three temporary boilers with low-NOx burners fired with natural gas, each with a maximum firing rate not to exceed 93 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]

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 Title V permit applications and subsequent updates. 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**
602-1-(12-13)	(2) 500,900 gallon fuel oil tanks
IS-LABS-611-16	R & D Labs
IS-7-611-16	Pellet Extrusion Process (R&D facility)
IS-DIET-611-16	Tobacco Expansion Process (R&D)
IS-F2-611-16	Smokeless Pouching and Packing
IS-FP230-604-12	230 HP diesel engine for emergency use (fire pump), (Utilities outbuilding)
ES-4-611-16	Smokeless Tobacco Processing "D"
IS-1-611-16	NIP Extract filter cleaning, (R&D, 611-16)
IS-3-611-16	Spray dryer MS-150, (R&D, 611-16)
IS-5-611-16	Spray dryer process, (R&D, 611-16)
IS-6-611-16	X1/X7 process, (R&D, 611-16)
IS-10-611-16	Environmental Chamber
none	Spray Dryer (181), (Shed 181)
IS-F5-611-16	X5 dissolvable process, 611-6 Room 117
IS-F7-611-16	Strips Extrusion
IS-F5(1)-611-2	Cigarette Maker (TPCM #1), Building 611-2, (Insignificant even with menthol application)
IS-F5(2)-611-2	Cigarette Maker (TPCM #2), Building 611-2, (Insignificant even with menthol application)
IS-F5(5)-611-2	Cigarette Maker (TPCM #5), Building 611-2, (Insignificant even with menthol application)
IS-F5(9)-611-2	Cigarette Maker (TPCM #9), Building 611-2, (Insignificant even with menthol application)
IS-F5(10)-611-2	Cigarette Maker (TPCM #10), Building 611-2, (Insignificant even with menthol application)
IS-F5(11)-611-2	Cigarette Maker (TPCM #11), Building 611-2, (Insignificant even with menthol application)
IS-F5(12)-611-2	Cigarette Maker (TPCM #12), Building 611-2, (Insignificant even with menthol application)
IS-4(1)-611-2	Filter Maker (FMM#1), Building 611-2, (Insignificant even with menthol application)
IS-4(2)-611-6	Filter Maker (FMM#2), Building 611-6, (Insignificant even with menthol application)
IS-4(3)-611-6	Filter Maker (FMM#3), Building 611-6, (Insignificant even with menthol application)
IS-4(4)-611-6	Filter Maker (FMM#4), Building 611-6, (Insignificant even with menthol application)
IS-4(5)-611-6	Filter Maker (FMM#5), Building 611-6, (Insignificant even with menthol application)
IS-4(6)-611-6	Filter Maker (FMM#6), Building 611-6, (Insignificant even with menthol application)
IS-4(7)-611-6	Filter Maker (FMM#7), Building 611-6, (Insignificant even with menthol application)
IS-F6(1)-611-2	Packer (TPPM #1), Building 611-2
IS-F6(3)-611-2	Packer (TPPM #3), Building 611-2
IS-F6(4)-611-2	Packer (TPPM #4), Building 611-2

List continued on next page.

Insignificant because of size or production rate [Sec. 3Q-0503(8)]	
Emission Source ID.	**Emission Source Description**
IS-F6(11)-611-2	Packer (TPPM #11), Building 611-2
IS-9-611-16	Sterilization System
IS-BLEACH-611-16	Tobacco Bleaching
611-ISVUSE	VUSE testing labs - 5 smoking machines various locations in 611
611-2-IS-F5(8)	Cigarette maker - TPCM#8 (new)
611-3-IS-FLM	FabLab makers (3 existing)
611-4-IS-FLD	FabLab rotary dryer (1 existing)
611-4-IS-FLPC	FabLab pill coater (2 existing)
IS-COMB-611-3	Combiner
IS-GEN-602-2	Natural Gas Backup Generator 150 kW
IS-FP175-604-12	175 HP diesel engine for emergency use (fire pump)
IS-F2-611-9	Miscellaneous Hand Filling (Formerly: CLS Fill with E-liquid)
IS-Fibex-611	Fibex Machine
IS-STEM-611-7	Stem Searing
IS-CAP_REC-603-5	Capsule Reclaim

Insignificant because of category [Sec. 3Q-0503(7)]	
Emission Source ID.	**Emission Source Description**
IS-PW1-602-7	Parts washer, (Building 602)
IS-PW1-605-11	Parts washer, (Building 605)
6-611-4	Housekeeping

FORSYTH COUNTY
OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION

RENEWAL
STATEMENT OF BASIS
for Permit #00339-TV-38

R.J. Reynolds, Whitaker Park facility - Premise # 00339

Permit Tracking #: **1415**

Site Location:	Current (Pre-Renewal) Permit:	New Permit To Be Issued:
Winston-Salem, NC	**00339-TV-37**	**00339-TV-38**

Technical Contact:	Responsible Official:
Mr. Scott Snow: (336) 741-2236	**Mr. Gary Noble**
Sr. Manager Environmental	**Vice President Manufacturing**

Rob Russ _____ _____
Agency Reviewer — Signature — Date

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

Two Excel spreadsheet files are also part of this Statement of Basis. One of the spreadsheet files contains CONFIDENTIAL information (**00339-TV-38-SoB-CONFIDENTIAL.xlsx**) and is stored in this Office in hard-copy form with other confidential Whitaker Park files in a locked location and in electronic form on this Office's shared drive in a locked folder. The other spreadsheet file (**00339-TV-38-SoB-PUBLIC.xlsx**) does not contain any confidential information and is stored in this Office in hard-copy form with other public Whitaker Park 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 Title V permit renewal for the Whitaker Park facility owned by the R. J. Reynolds Tobacco Company (RJRT). The renewal request was received 3-10-2023. The due date for the renewal application was 3/11/2023 so the application was received on-time. The renewal request application was signed by Mr. Shahzeb F. Malik, Senior Vice President of Manufacturing, who was the facility's responsible official at that time. The current responsible official is Mr. Gary Noble, Vice President Manufacturing. The facility's current permit (prior to the renewal) is permit 00339-TV-37 with an effective date of 1-1-2024.

Because this draft permit (permit 00339-TV-38) is being processed as a renewal it will go through a 30-day public comment period and a concurrent 45-day review by the U.S. EPA prior to final issuance.

SECTION B:
General Facility Description

RJRT operates a manufacturing complex along with associated tobacco processing operations and a steam/electric utility plant in the northern part of Winston-Salem, North Carolina. This complex is referred to as the Whitaker Park facility.

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.

In the past, the Whitaker Park facility manufactured large quantities of cigarettes, but now cigarette making is only conducted in the Research and Development (R&D) part of the facility. RJRT has consolidated its cigarette manufacturing operations at its Tobaccoville facility in Tobaccoville, North Carolina.

The Whitaker Park facility also has four boilers (Boilers #1, #2, #5 and #6) permitted to combust either natural gas or No. 2 fuel oil. The boilers are used for generating process heat for the tobacco processing operations at the RJRT Whitaker Park facility, the nearby RJRT Shorefair facility, and the Alliance One North America – Recon facility which is a separate Title V facility located within the Whitaker Park complex. The boilers are designed to use flue gas recirculation (FGR) to reduce NOx emissions. The boilers are in the Utilities Building – Building 602-1. In addition, a natural gas fired emergency generator and two diesel-fired engines for fire-fighting water pumps are located at the facility. The facility's permit also allows for up to three temporary boilers to be installed if the steam supply from the main four boilers is interrupted. Because the temporary boilers are only permitted for use in the event of the permanent boilers being non-functional, the facility would not run the permanent boilers simultaneously with the temporary boilers. Worst-case boiler emissions are based on potential emissions of the four permanent boilers. For more detail regarding emissions from these sources, see the applicable worksheets in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

Also located at Whitaker Park are Product Recovery Operation (PRO) activities where cigarette cartons and packs containing off-spec, unsold, or out-dated cigarettes are torn apart. The packaging, cigarette filters, and paper on the cigarettes are separated from the actual tobacco. The collected tobacco is then sent to RJRT's Tobaccoville facility for refurbishing to be resold as long as it has remained in RJRT control. If the product has left RJRT's control (such as being at a store) it cannot be reused. The cigarettes are then destroyed in the greasy mills and brought to the land fill. Some empty packaging for non-cigarette tobacco products (like snuff) is also processed as part of PRO activities. For many years PRO activities were housed in Buildings 2-1 and 2-2 at Whitaker Park. During CY2016 PRO activities were modified, reconfigured and moved to Building 603-5 at Whitaker Park. RJRT no longer owns the property where Buildings 2-1 and 2-2 were located, and RJRT activity no longer occurs there.

RJRT's R&D activity is also housed at Whitaker Park in the Group 611 buildings and Shed 181. The R&D operations include small scale cigarette making, filter making, and reconstituted cast sheet operations, as well as activities associated with new smokeless tobacco products. The facility's air quality permit includes permitted sources in Buildings 611-2, 611-3, 611-4, 611-16, and in Shed 181. Shed 181 houses R&D activities related to cast sheet.

Building 603-1 is located within the Whitaker Park campus but is permitted as part of the Alliance One North America – Recon Facility (AONA-Recon, Premise 01095) instead of the RJRT Whitaker Park facility (Premise 00339). Effective 1-1-2024 with the Whitaker Park 00339-TV-37 permit and the AONA-Recon 01095-TV-1 permit, all manufacturing operations within Building 603-1 became the sole responsibility of AONA-Recon. Consequently, this Statement of Basis does not address manufacturing operations in Building 603-1. Building 603-1, has a process for making tobacco reconstituted cast sheet from tobacco leaf stems and pieces. The cast sheet (which is formed like a large sheet of paper in paper making) is then ground up and used in cigarettes in a manner similar to how regular tobacco leaves are used. The four RJRT Whitaker Park boilers provide steam for the AONA-Recon facility.

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

I. ES-1-603-5: Thresher Line

A. ES-1-603-5 - Overview

The thresher line can operate in two separate modes ("boxing out" and "strip"), but can only operate in one mode at a time. Strip mode involves tobacco milling and conveying. Boxing out mode involves the transfer of tobacco from can to box. The worst-case emissions occur while operating in strip mode due to the milling activity.

All emissions from the Thresher Line are vented to atmosphere via a stack with PM emissions controlled by a fabric filter with 99.9% control efficiency for PM.

For more detail see the "ES-1,2,3,4,5 603-5" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-1-603-5 – PM Emissions

The PM emission factors (confidential) are based on past stack testing of similar sources (conveying and milling). Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions. Potential emissions are based on operation in "worst-case" strip mode.

The uncontrolled potential hourly PM/PM10/PM2.5 emissions from the ES-1-603-5 equipment are 38.51 lb/hour which converts to 0.0385 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 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-1-603-5, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 3.47 lb/hr. The source's combined 0.0385 lb/hr controlled PM emissions are 1.1% of that limit. The source's combined 38.51 lb/hr uncontrolled PM emissions are 1,110% of that limit. Consequently, particulate matter control by the fabric filter is required for compliance with Sec. 3D-0515. The CAM monitoring, recordkeeping and reporting requirements listed in condition 3.5(B), are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-6-603-1.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The CAM monitoring, recordkeeping and reporting requirements listed in condition 3.5(B), are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 168.7 tons/year, and the potential controlled annual PM/PM10/PM2.5 emissions are 0.169 tons/year.

C. ES-1-603-5 – VOC Emissions

No VOC emissions are emitted from the Thresher Line (ES-1-603-5).

II. ES-2-603-5: Carton Cutting Line

A. ES-2-603-5 - Overview

In Carton Cutting, returned cigarette cartons are cut down and the packaging is separated from the cigarette "rods". Equipment includes a rotary drum screener, a waste cyclone, and conveyors. Particulate matter is the only pollutant emitted from this emission source.

All emissions from the Carton Cutting Line 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-1,2,3,4,5 603-5" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-2-603-5 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of the same equipment before it was relocated to Building 603-5. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The potential uncontrolled hourly PM/PM10/PM2.5 emissions from the ES-2-603-5 equipment are 94.03 lb/hour which converts to 0.094 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 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-2-603-5, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 3.40 lb/hr. The source's combined 0.094 lb/hr controlled PM emissions are 2.8% of that limit. The source's combined 94.03 lb/hr uncontrolled PM emissions are 2,766% 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 3.5(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-2-603-5.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.5(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 411.8 tons/year, and the potential controlled annual PM/PM10/PM2.5 emissions are 0.412 tons/year.

C. ES-2-603-5 – VOC Emissions

No VOC emissions are emitted from the Carton Cutting Line (ES-2-603-5).

III. ES-3-603-5: TPO Line (Total Pack Opening Line)

A. ES-3-603-5 - Overview

In TPO (Total Pack Opening), returned cigarette packs are cut down and the packaging is separated from the cigarette "rods". Equipment includes a rotary drum screener, vibrating screener, a waste cyclone, and conveyors. Particulate matter is the only pollutant emitted from this emission source.

All emissions from the TPO Line 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-1,2,3,4,5 603-5" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-3-603-5 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of the same equipment before it was relocated to Building 603-5. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The potential uncontrolled hourly PM/PM10/PM2.5 emissions from the ES-3-603-5 equipment are 392.4 lb/hour which converts to 0.392 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 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-3-603-5, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 5.59 lb/hr. The source's combined 0.392 lb/hr controlled PM emissions are 7.0% of that limit. The source's combined 392.4 lb/hr uncontrolled PM emissions are 7,019% 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 3.5(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-3-603-5.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.5(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 1,718.7 tons/year, and the potential controlled annual PM/PM10/PM2.5 emissions are 1.719 tons/year.

C. ES-3-603-5 – VOC Emissions

No VOC emissions are emitted from the TPO Line (ES-3-603-5).

IV. ES-4-603-5: Greasy Mill 1st

A. ES-4-603-5 - Overview

In the Greasy Mill 1st process, returned tobacco products (mostly cigarettes) are destroyed prior to disposal in the landfill. In this process, there are two possible paths for the tobacco products. In one path, product moves from can hoist to feeder to conveyor to greasy mill before being conveyed via cyclone to the dumpster. In the other path, product moves from can hoist to feeder to conveyor to milling to greasy mill before being conveyed via cyclone to the dumpster. The second path is worst-case due to the additional milling activity. Particulate matter is the only pollutant emitted from this emission source.

All emissions from the Greasy Mill 1st process 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-1,2,3,4,5 603-5" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-4-603-5 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of the same equipment before it was relocated to Building 603-5. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions. Potential emissions are based on operation in the "worst-case" path with the additional milling activity.

The potential uncontrolled hourly PM/PM10/PM2.5 emissions from the ES-4-603-5 equipment are 204.3 lb/hour which converts to 0.204 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 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-4-603-5, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 6.68 lb/hr. The source's combined 0.204 lb/hr controlled PM emissions are 3.1% of that limit. The source's combined 204.3 lb/hr uncontrolled PM emissions are 3,058% 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 3.5(A) and (B) respectively, are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-4-603-5.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM and CAM monitoring, recordkeeping and reporting requirements listed in conditions 3.5(A) and (B) respectively, are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 894.8 tons/year, and the potential controlled annual PM/PM10/PM2.5 emissions are 0.895 tons/year.

C. ES-4-603-5 – VOC Emissions

No VOC emissions are emitted from the Greasy Mill 1st process (ES-4-603-5).

V. ES-5-603-5: Greasy Mill 3rd

NOTE: The Whitaker Park facility has emissions sources named Greasy Mill 1st and Greasy Mill 3rd, but there is no Greasy Mill 2nd emission source at the facility.

A. ES-5-603-5 - Overview

In the Greasy Mill 3rd process, non-cigarette products brought back from market are destroyed prior to disposal in the landfill. The products being destroyed are moist products such as chewing tobacco. This moist product produces much less dust than product recovery processes involving cigarette tobacco products which are less moist. In the Greasy Mill 3rd process, the only emission source is the greasy mill itself. Particulate matter is the only pollutant emitted from this emission source.

All emissions from the Greasy Mill 3rd process are vented to atmosphere via a stack with PM emissions controlled by a fabric filter with 99.9% control efficiency for PM.

For more detail see the "ES-1,2,3,4,5 603-5" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-5-603-5 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of the same equipment before it was relocated to Building 603-5. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

The uncontrolled potential hourly PM/PM10/PM2.5 emissions from the ES-5-603-5 equipment are 135.7 lb/hour which converts to 0.136 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 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-5-603-5, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 8.07 lb/hr. The source's 0.136 lb/hr controlled PM emissions are 1.7% of that limit. The source's 135.7 lb/hr uncontrolled PM emissions are 1,681% of that limit. Consequently, particulate matter control by the fabric filter is required for compliance with Sec. 3D-0515. The CAM monitoring, recordkeeping and reporting requirements listed in condition 3.5(B), are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-5-603-5.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The CAM monitoring, recordkeeping and reporting requirements listed in condition 3.5(B), are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 594.2 tons/year, and the potential controlled annual PM/PM10/PM2.5 emissions are 0.594 tons/year.

C. ES-5-603-5 – VOC Emissions

No VOC emissions are emitted from the Greasy Mill 3rd process (ES-5-603-5).

VI. ES-5-611-2: Cigarette Making

A. ES-5-611-2 - Overview

In Cigarette Making, the cigarette maker machines use tobacco, filter rods, adhesives, paper, and ink to produce cigarette rods. For some cigarette products, menthol is added. For the production of some products, casing materials containing ethanol are applied. The only pollutants emitted from this source are VOC, acetic acid (a TAP but not a HAP), ammonia (a TAP but not a HAP), and vinyl acetate (a HAP but not a TAP) with no other TAP or HAP emissions known. Vinyl acetate comes from the use of adhesives. There are no particulate matter emissions from this source.

All of the emissions from this source are uncontrolled fugitive emissions.

For more detail (including HAP/TAP emissions) see the "ES-5-611-2" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-5-611-2 – VOC Emissions

The VOC, HAP, and TAP emission factors (confidential) are based on past stack testing of similar equipment or on mass balance techniques.

The overall potential hourly VOC emissions from the ES-5-611-2 equipment while only making non-ethanol based products are 4.35 lb/hour. In this production mode, based on 8760 hours per year, the potential annual VOC emissions are 19.05 tons/year.

The overall potential hourly VOC emissions from the ES-5-611-2 equipment while making ethanol-based products are 5.23 lb/hour. In this production mode, based on 8760 hours per year, the potential annual VOC emissions are 22.93 tons/year.

VII. ES-3-611-3: Casing & Cutting

A. ES-3-611-3 - Overview

In Tobacco Casing and Cutting, tobacco materials that have been received from other processes are weighed, cased, checked for metal debris, cut, conditioned, dried, sized, and top-dressed before being deposited in metal cans.

Emissions from ES-3-611-3 come from several different types of sources: conveying, cutters, feeders, a top-dressing drum (with and without ethanol usage), a rotary dryer, a casing drum, primary and secondary separators, and a flotation chamber.

ES-3-611-3 emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only. There is no control for VOC, HAPs, or TAPs, but some ES-3-611-3 equipment does have PM control. All emissions from the rotary dryer and separators are vented to atmosphere via stacks with PM emissions controlled by fabric filters with 99.9% control efficiency for PM. All emissions from the top dressing drum, casing drum, and flotation chamber are vented to atmosphere via stacks without control.

Fugitive VOC, HAP, and TAP emissions come from the cutters, feeders, and conveying.

For the other ES-3-611-3 equipment, VOC, HAP, and TAP emissions vent to atmosphere via stacks without control.

Some components of ES-3-611-3 (the primary and secondary separator) vent from a stack (EP-9-611-4) that is on the 611-4 building even though the emission source equipment is in the 611-3 building. That stack has a fabric filter (CD-2-611-4) with 99.9% PM control.

The ES-3-611-3 equipment is used to make non-ethanol-based products as well as ethanol-based products. VOC emissions are significantly higher when making the ethanol-based products due to the ethanol-based casing materials used to make the products. When ethanol is used, the ethanol emissions are emitted from the top dressing drum.

For more detail (including HAP/TAP emissions) see the “ES-3-611-3” worksheet in the “00339-TV-38-SoB-CONFIDENTIAL.xlsx” or “00339-TV-38-SoB-PUBLIC.xlsx” Excel spreadsheet.

B. ES-3-611-3 – 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 potential hourly PM/PM10/PM2.5 emissions from the ES-3-611-3 equipment are 34.84 lb/hour which converts to 2.856 lb/hour after applicable controls.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-3-611-3, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 8.17 lb/hr. The source's combined 2.856 lb/hr controlled PM emissions are 35.0% of that limit, and the source's combined 34.84 lb/hr uncontrolled PM emissions are 426% of that limit. Consequently, particulate matter control is required for compliance with Sec. 3D-0515. The non-CAM monitoring, recordkeeping and reporting requirements listed in permit condition 3.5(A) are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-3-611-3.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The non-CAM monitoring, recordkeeping and reporting requirements listed in permit condition 3.5(A) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 152.6 tons/year, and the potential annual PM/PM10/PM2.5 emissions, with applicable controls, are 12.51 tons/year.

C. ES-3-611-3 – VOC Emissions

The VOC emission factors (confidential) are based on past stack testing of a similar sources and mass balance.

The overall potential hourly VOC emissions from the ES-3-611-3 equipment while only making non-ethanol-based products are 4.66 lb/hour. In this production mode, based on 8760 hours per year, the potential annual VOC emissions are 20.40 tons/year.

The overall potential hourly VOC emissions from the ES-3-611-3 equipment while making only ethanol-based products are 78.78 lb/hour. In this production mode, based on 8760 hours per year, the potential annual VOC emissions are 345.05 tons/year.

VIII. ES-1-611-4: Blending & Conditioning

A. ES-1-611-4 - Overview

In Blending and Conditioning, various tobacco materials are weighed, conditioned, and conveyed to other processes. From ES-1-611-4, the emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only. There is no control for PM, VOCs, HAPs, or TAPs.

For more detail (including HAP/TAP emissions) see the "ES-1-611-4" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-1-611-4 – PM Emissions

The PM emission factor (confidential) is based on past stack testing of similar equipment. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions each equal 80% PM emissions. The particulate matter emissions come from a conditioning drum that is vented to atmosphere via a stack without control.

Overall, the potential hourly PM emissions from ES-1-611-4 are 1.792 lb/hour, and the potential hourly PM10/PM2.5 emissions are 1.434 lb/hour

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-1-611-4, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 3.82 lb/hr. The source's 1.792 lb/hr PM emissions are 47% of that limit. Compliance with Sec. 3D-0515 is therefore demonstrated without the need for PM control.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). Compliance with Sec. 3D-0521(d) is assured based on the nature of the emission source.

Based on 8760 hours per year, the potential annual PM emissions from Blending and Conditioning (ES-1-611-4) are 7.85 tons/year, and the potential annual PM10/PM2.5 emissions are 6.30 tons/year.

C. ES-1-611-4 – VOC Emissions

The VOC emission factor (confidential) is based on past stack testing of similar equipment. The VOC emissions come from a conditioning drum that is vented to atmosphere via a stack without control and from another conditioning drum that is unvented - resulting in fugitive VOC emissions.

Overall, the potential hourly VOC emissions from ES-1-611-4 are 0.141 lb/hour. Based on 8760 hours per year, the potential hourly VOC emissions from Blending and Conditioning (ES-1-611-4) are 0.618 tons/year.

IX. ES-2-611-4: Casing & Drying

A. ES-2-611-4 - Overview

In Tobacco Casing and Drying, tobacco materials are weighed, cased, dried, cooled, and canned out for inclusion in other processes.

Emissions from ES-2-611-4 come from several different types of sources: conveying, a casing drum, and three sections of a dryer (cooling, discharge, and heating).

ES-2-611-4 emissions include VOC and PM emissions as well as some federal HAPs and local TAPs. TAP regulations are locally-enforceable only. There is no control for PM, VOC, HAPs, or TAPs, except that the dryer heating section is controlled by a fabric filter with 99.9% control efficiency for PM.

The ES-2-611-4 equipment is used to make non-ethanol-based products as well as ethanol-based products. VOC emissions are higher when making the ethanol-based products due to the ethanol-based casing materials used to make the products. When ethanol is used, the ethanol emissions are emitted from the casing drum.

For more detail (including HAP/TAP emissions) see the "ES-2-611-4" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-2-611-4 – 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 potential hourly PM/PM10/PM2.5 emissions from the ES-2-611-4 equipment are 56.03 lb/hour which converts to 0.319 lb/hour after applicable controls.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-2-611-4, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 5.38 lb/hr. The source's combined 0.319 lb/hr controlled PM emissions are 5.9% of that limit, and the source's combined 56.03 lb/hr uncontrolled PM emissions are 1,041% of that limit. Consequently, particulate matter control is required for compliance with Sec. 3D-0515. The CAM monitoring, recordkeeping and reporting requirements listed in permit condition 3.5(B) are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-2-611-4.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The CAM monitoring, recordkeeping and reporting requirements listed in permit condition 3.5(B) are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 245.4 tons/year, and the potential annual PM/PM10/PM2.5 emissions, with applicable controls, are 1.40 tons/year.

C. ES-2-611-4 – VOC Emissions

The VOC emission factors (confidential) are based on past stack testing of similar equipment. The VOC emissions come from a casing drum, and three sections of a dryer (cooling, discharge, and heating) that are vented to atmosphere via a stack without control and from conveyors that are unvented - resulting in fugitive VOC emissions.

The overall potential hourly VOC emissions from the ES-2-611-4 equipment while only making non-ethanol-based products are 3.48 lb/hour. In this production mode, based on 8760 hours per year, the potential annual VOC emissions are 15.25 tons/year.

The overall potential hourly VOC emissions from the ES-2-611-4 equipment while making only ethanol based products are 6.33 lb/hour. In this production mode, based on 8760 hours per year, the potential annual VOC emissions are 27.73 tons/year.

X. ES-3-611-4: Tobacco Milling

A. ES-3-611-4 - Overview

In the Tobacco Milling process at Building 611-4, tobacco is milled into fine particles.

All emissions from the tobacco mill are vented to atmosphere via a stack with PM emissions controlled by a fabric filter with 99% control efficiency for PM. Particulate matter is the only pollutant emitted from this emission source.

For more detail see the “ES-3-611-4” worksheet in the “00339-TV-38-SoB-CONFIDENTIAL.xlsx” or “00339-TV-38-SoB-PUBLIC.xlsx” Excel spreadsheet.

B. ES-3-611-4 – 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 potential hourly PM/PM10/PM2.5 emissions from the ES-3-611-4 equipment are 157.4 lb/hour which converts to 1.574 lb/hour after control by the fabric filter with 99% control efficiency for particulate matter.

Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”
Condition 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-3-611-4 the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 4.76 lb/hr. The source’s 1.574 lb/hr controlled PM emissions are 33.1% of that limit. The source’s combined 157.4 lb/hr uncontrolled PM emissions are 3,306% of that limit. Consequently, particulate matter control by the fabric filter is required for compliance with Sec. 3D-0515. The CAM monitoring, recordkeeping and reporting requirements listed in condition 3.5(B), are sufficient to assure compliance with the Sec. 3D-0515 PM limit for ES-3-611-4.

Sec. 3D-0521(d), “Control of Visible Emissions”
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). The CAM monitoring, recordkeeping and reporting requirements listed in condition 3.5(B), are sufficient to assure compliance with Sec. 3D-0521(d).

Based on 8760 hours per year, the potential uncontrolled annual PM/PM10/PM2.5 emissions are 689.3 tons/year, and the potential controlled annual PM/PM10/PM2.5 emissions are 6.893 tons/year.

C. ES-3-611-1 – VOC Emissions

No VOC emissions are emitted from Tobacco Milling in Building 611-4 (ES-3-611-4).

XI. ES-2-611-16: Smokeless Processing

A. ES-2-611-16 - Overview

In Smokeless Processing, tobacco materials are placed in mixers along with various flavorings and water. The mixture is then heated for an extended period of time during which additional flavorings are periodically added. Smokeless processing is a batch process. Air from the mixers is vented to the atmosphere via a stack.

From ES-2-611-16, the emissions are only VOC and PM. RJRT uses a wet scrubber to remove steam vapors from the working space in Building 611-16. The wet scrubber is not needed for compliance purposes, and RJRT has agreed not to take credit for any pollution control efficiency. In the permit, ES-2-611-16 is listed as uncontrolled so no periodic monitoring requirements apply to the wet scrubber.

For more detail see the “ES-2-611-16” worksheet in the “00339-TV-38-SoB-CONFIDENTIAL.xlsx” or “00339-TV-38-SoB-PUBLIC.xlsx” Excel spreadsheet.

B. ES-2-611-16 – PM Emissions

The PM emission factor (confidential) is based on mass balance and conservative engineering estimations. Based on the nature of the source, emissions determinations assume that PM10 and PM2.5 emissions equal PM emissions.

Overall, the potential hourly PM/PM10/PM2.5 emissions from ES-2-611-16 are 0.275 lb/hour.

Sec. 3D-0515, “Particulates from Miscellaneous Industrial Processes”
Condition 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-2-611-16, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 0.587 lb/hr. The source’s 0.275 lb/hr PM emissions are 47% of that limit. Compliance with Sec. 3D-0515 is therefore demonstrated without the need for PM control.

Sec. 3D-0521(d), “Control of Visible Emissions”
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). Compliance with Sec. 3D-0521(d) is assured based on the nature of the emission source.

Based on 8760 hours per year, the potential annual PM/PM10/PM2.5 emissions from Smokeless Processing (ES-2-611-16) are 1.20 tons/year.

C. ES-2-611-16 – VOC Emissions

The VOC emission factor (confidential) is based on mass balance and conservative engineering estimations.

Overall, the potential hourly VOC emissions from ES-2-611-16 are 2.31 lb/hour. Based on 8760 hours per year, the potential annual VOC emissions from Smokeless Processing (ES-2-611-16) are 10.12 tons/year.

XII. ES-1-181: Reconstituted Tobacco

A. ES-1-181 - Overview

This Reconstituted Tobacco process at the Whitaker Park facility is housed in a building named “Shed 181”. In the Reconstituted Tobacco process, tobacco materials are blended and mixed with water, centrifuged to remove water solubles, and then refined. Water solubles are sent to an evaporator. The refined materials enter a forming machine where a paper-like tobacco sheet is created. Some of the water solubles from the evaporator may be mixed with other ingredients and reapplied to the tobacco sheet. The sheet is then directed to a dryer. The remaining water solubles may be applied during the drying process. The final dried product may then be sent to a dicer for sizing, or left in roll form, and then directed through a scale and into storage containers.

Pollutants emitted from the Reconstituted Tobacco process include particulate matter, VOC, federal HAPs, and local TAPs. TAP regulations are locally-enforceable only. All emissions are ducted to atmosphere via stacks without control. All of the emissions come from the dryers.

For more detail (including HAP/TAP emissions) see the "ES-1-181" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet.

B. ES-1-181 – PM Emissions

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

Overall, the potential hourly PM/PM10/PM2.5 emissions from ES-1-181 are 0.0868 lb/hour.

Sec. 3D-0515, "Particulates from Miscellaneous Industrial Processes"
Condition 3.2(B) includes requirements pertaining to Sec. 3D-0515. Based on the confidential maximum throughput rate for ES-1-181, the maximum allowable PM emission rate from the source according to Sec. 3D-0515 is 1.54 lb/hr. The source's 0.0868 lb/hr PM emissions are 5.6% of that limit. Compliance with Sec. 3D-0515 is therefore demonstrated without the need for PM control.

Sec. 3D-0521(d), "Control of Visible Emissions"
Condition 3.4(A) includes requirements pertaining to Sec. 3D-0521(d). Compliance with Sec. 3D-0521(d) is assured based on the nature of the emission source.

Based on 8760 hours per year, the potential annual PM/PM10/PM2.5 emissions from the Reconstituted Tobacco process, (ES-1-181) are 0.380 tons/year.

C. ES-1-181 – VOC Emissions

The VOC emission factor (confidential) is based on past stack testing of similar equipment.

Overall, the potential hourly VOC emissions from ES-1-181 are 2.922 lb/hour. Based on 8760 hours per year, the potential annual VOC emissions from the Reconstituted Tobacco process, (ES-1-181) are 12.80 tons/year.

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. Emission points are identified by Emission Point ID number (EP#).

Condition 1.2
Operating Conditions Not Covered Under the Permit Shield

Permit Condition 1.2 is used to list any conditions in Part 1, AIR QUALITY OPERATING PERMIT that have been revised or added to the permit following procedures for minor permit modifications in Section 3Q-0500 of the FCAQTC. Permit changes made using minor permit modifications are not eligible for coverage under the permit shield because they have not gone through public participation and EPA review. These changes become shielded after the next significant modification or renewal.

Because this permit (permit 00339-TV-38) is being processed as a renewal, 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. Since the renewal subjects all permit conditions in Part I to public participation and EPA review, all of the conditions are covered by the permit shield and the table (Operating Conditions Not Covered Under the Permit Shield) 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 National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Parts 61 and 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
Source Specific Emission Limits:

3.1(A)
Building Group 611 - Research and Development Activities
[Sec. 3Q-0317]

RJRT must maintain records on each process modification involving the R&D equipment to document that the modification does not require a permit application. This provides RJRT flexibility for making insignificant changes in the processes. This requirement was first added to the Whitaker Park permit in permit 00339-TV-14 (Effective date: July 1, 2004). Past inspections have verified that RJRT maintains the applicable records and documentation.

3.1(B)
Prevention of Significant Deterioration: PSD Avoidance
ES-3-611-3 (Casing & Cutting), ES-2-611-4 (Casing & Drying), and ES-5-611-2 (Cigarette Making)
[Sec. 3D-0530 and 3Q-0317]

The combined emissions of VOC from Casing & Cutting (ES-3-611-3), Casing & Drying (ES-2-611-4), and Cigarette Making (ES-5-611-2) shall be limited to less than 40 tons in any consecutive 12-month period. Compliance with this limit is determined as follows:

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) / 2000 = monthly VOC emissions (tons)

where:

A = monthly tons of tobacco processed in Casing & Cutting (ES-3-611-3);

B = monthly millions of cigarettes made in Cigarette Making (ES-5-611-2);

C = monthly tons of tobacco processed in Casing & Drying (ES-2-611-4);

D = monthly pounds of menthol applied in Cigarette Making (ES-5-611-2);

E = monthly combined pounds of ethanol applied in Casing & Cutting (ES-3-611-3) and Casing & Drying (ES-2-611-4);

W = VOC emission factor (lb VOC/ton tobacco) for tobacco processed in Casing & Cutting (ES-3-611-3), from the permit application for the 00339-TV-31 permit;

X = VOC emission factor (lb VOC/million cigarettes) for cigarettes made in Cigarette Making (ES-5-611-2), from the permit application for the 00339-TV-31 permit;

Y = VOC emission factor (lb VOC/ton tobacco) for tobacco processed in Casing & Drying (ES-2-611-4), from the permit application for the 00339-TV-31 permit; and

Z = VOC emission factor (lb VOC/lb menthol applied) for menthol applied in Cigarette Making (ES-5-611-2), from the permit application for the 00339-TV-31 permit.

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

Each 12-month VOC total shall not exceed 40 tons of VOC.

The permittee shall keep a log of the cigarette makers in Cigarette Making (ES-5-611-2), documenting the make/model and maximum production rate of each cigarette maker.

A semi-annual report must be submitted by January 30 and July 30 which includes the total VOC emissions (tons) emitted each month and the total VOC emissions (tons) emitted each 12-month period. Past semi-annual reports have consistently shown compliance with the applicable VOC limit.

Condition 3.2
Particulate Emission Limits

This permit condition includes PM limits for the facility's boilers and the facility's other industrial processes.

3.2(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 four existing boilers. It also includes Sec. 3D-0503 PM limits for the temporary boilers in the event that they are ever needed and installed.

Four Existing Boilers

RJRT currently operates four boilers at the Whitaker Park facility: ES-1-602-1, ES-2-602-1, ES-5-602-1, ES-6-602-1 (Boilers #1, #2, #5, and #6, respectively). All four boilers are permitted to combust natural gas or No. 2 fuel oil. In the past, Boilers #1 and #2 were fired with coal or a coal/waste pellet mixture, and Boilers #5 and #6 with coal. All coal or coal/waste pellet combustion at Whitaker Park ceased on April 8, 2007. Three other boilers (#3, #4, and #7) have also been removed leaving just the four currently existing boilers.

According to Sec. 3D-0503(c), the 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).

RJRT originally had four boilers (#1, #2, #3, #4) prior to air quality regulations. The Q value was first established based on boilers #1-4.

According to Sec. 3D-0503(e), boilers added after February 1, 1983 do not change a Q value previously set. Also, boilers shut down (except during a replacement) do not change an established Q value.

Boilers #5 and #6 were both added prior to 1983 (1968 and 1975 respectively) therefore the Q value was updated to include boilers #1-6. Boiler #7 was permitted in 1985 and did not change the Q value of existing boilers. Boiler #7 was shut down prior to the issuance of permit 00339-TV-13 on July 5, 2003. In addition, the temporary boilers (ES-TEMP) were initially permitted in permit 00339-TV-33 with an effective date of July 28, 2017 (after 2/1/1983), so they do not change the Q value of the four existing boilers.

Boilers 3 and 4 were both shut down in 2008, but the shutdown did not change the existing Q value.

Consequently, the Q values for Boilers #1, #2, #5 and #6 are all the same (792.5 mmBtu/hr) and are based on the total mmBtu/hr maximum heat input of current and former Boilers #1, #2, #3, #4, #5, and #6. The boilers have a higher firing rate on a MMBtu/hr basis while combusting natural gas than while combusting fuel oil – so the higher natural gas based firing rates are used to set the Q values.

The firing rates are as follows:

Boiler #	MMBtu/hr
1	140
2	140
3	129

4	129
5	125.5
6	129
Total	**792.5**

According to Sec. 3D-0503(c), the 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).

Based on the equation ($E = 1.09 * Q^{-0.2594}$) in Sec. 3D-0503(c) and a Q value of 792.5 MMBtu/hr, the allowable PM emissions for each of the four existing boilers is 0.19 lb/MMBtu.

No. 2 fuel oil combustion results in higher PM emissions than natural gas combustion according to the EPA's AP-42 document. The fuel oil combustion emission factor for total PM (filterable + condensible) is 3.3 lb PM/1000 gallons from AP-42 Tables 1.3-1 and 1.3-2. Based on 137,700 Btu/gal (or 137.7mmBtu/1000 gal) this converts to 0.0240 lb/mmBtu which is less than 13% of the 0.19 lb/mmBtu limit in Sec. 3D-0503.

Temporary Boilers

As stated in Part II, Condition 3(C) of the permit, one or more temporary boilers may be installed and operated at the Whitaker Park facility in the event that the facility's steam supply (received from the Building 602-1 boilers) is interrupted. To date, no temporary boilers have been installed, but the permit allows for their use if it is ever needed. The installation and operation is limited to two scenarios:

> Scenario 1: One or two temporary boilers with low-NOx burners fired with diesel fuel with a sulfur content not to exceed 0.05% sulfur and with a combined maximum firing rate not to exceed 40.824 mmBtu/hr. Uncontrolled.
>
> Scenario 2: One, two, or three temporary boilers with low-NOx burners fired with natural gas, each with a maximum firing rate not to exceed 93 mmBtu/hr. Uncontrolled.

For the temporary boilers, the actual fuel to be combusted and the actual Q values will not be known until the boilers are actually needed. According to the permit, the maximum possible Q value would be based on three temporary boilers firing natural gas each with a maximum firing rate of 93 MMBtu/hr plus the maximum firing rates of the existing four boilers. The firing rates are as follows:

Boiler #	**MMBtu/hr**
1	140
2	140
5	125.5
6	129
Temp Boiler 1	93
Temp Boiler 2	93
Temp Boiler 3	93
Total	**813.5**

The allowable PM emissions for each of the three temporary boilers would therefore be 0.19 lb/MMBtu based on the equation in Sec. 3D-0503(c). Operating three temporary boilers at 93 MMBtu/hr each is only permitted for the combustion of natural gas. From AP-42, Table 1.4-2, the natural gas combustion emission factor for total PM (filterable + condensible) is 7.6 lb PM/million scf. Based on 1,020 Btu/million scf this converts to 0.00745 lb/mmBtu which is less than 4% of the 0.19

lb/mmBtu limit in Sec. 3D-0503.

For temporary boilers combusting diesel fuel (fuel oil), the maximum possible Q value would be based on one or two boilers with a combined maximum firing rate of 40.824 MMBtu/hr plus the maximum firing rates of the existing four boilers.

The firing rates are as follows:

Boiler #	MMBtu/hr
1	140
2	140
5	125.5
6	129
Temp Boiler(s)	40.824
Total	**575.324**

The allowable PM emissions for the temporary boiler(s) would therefore be 0.21 lb/MMBtu each. As described above, the PM emission factor for fuel oil combustion converts to 0.0240 lb/mmBtu which is less than 13% of the 0.21 lb/mmBtu limit in Sec. 3D-0503.

For both the four existing boilers and the temporary boilers(s), no monitoring/recordkeeping/reporting is required for the specific purpose of demonstrating compliance with the Sec. 3D-0503 PM standard because the fuels being combusted are natural gas and No. 2 fuel oil which inherently meet this standard. However, as stated in permit condition 3.2(A)(2), 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.

3.2(B)
Particulates from Industrial Processes

Condition 3.2(B) includes PM limits based on Sec. 3D-0515 of the FCAQTC for the facility's particulate emissions sources other than the boilers, the insignificant source emergency generator, and the two insignificant source emergency fire protection water pump engines. The boilers are subject to the PM limit in Sec. 3D-0503. The emergency generator and the two emergency fire protection water pump engines are not subject to a PM standard.

Sec. 3D-0515 states that emissions of particulate matter shall not exceed the allowable emission rate calculated by the equation, $E = 4.10 \times P^{0.67}$, for process weight rates up to 30 tons/hr or by the equation, $(55.0 \times P^{0.11}) - 40$, for process weight rates greater than 30 tons/hr; where E = allowable PM emission rate in lb/hr, and P = process weight in tons/hr.

The allowable emission rate is dependent on the throughput at any point in time. For comparison to the standard, the potential emission rate is compared to the allowable emission rate at maximum throughput.

In 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 either without controls or when utilizing required controls.

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 3.5. The

requirements include monitoring and recordkeeping requirements for fabric filters - plus requirements to submit reports of the monitoring requirements twice each year. Also in condition 3.5 is a CAM 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. Past semi-annual reports have shown compliance with this monitoring requirement. 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.

Condition 3.3
Sulfur Dioxide Emission Limits

This permit condition includes sulfur dioxide (SO2) limits for the facility's permitted combustion processes.

3.3(A)
Sulfur dioxide emissions from combustion sources [Sec. 3D-0516]

Condition 3.3(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 the temporary boiler(s) (ES-TEMP).

As explained further below, Sec. 3D-0516 does not apply to the four existing boilers at the Whitaker Park facility.

ES-TEMP (Temporary Boiler(s))

Sec. 3D-0516 limits the amount of sulfur dioxide emitted from any temporary boilers to no more than 2.3 pounds of sulfur dioxide per million Btu input. As described above, any temporary boilers would be required to combust either natural gas or diesel fuel with a sulfur content not to exceed 0.05% sulfur (500 ppmw sulfur).

The fuel oil combustion emission factor, from AP-42 Table 1.3-1, is 142S lb/1000 gallons (S = sulfur content). With 0.05% sulfur the emissions would be 7.1 lb SO2/1000 gallons. Based on 137,700 Btu/gal (or 137.7mmBtu/1000 gal) this converts to 0.0516 lb/mmBtu which is less than 3% of the 2.3 lb SO2/MMBtu standard. When combusting No. 2 diesel fuel the allowable emissions rate cannot be exceeded.

From AP-42, Table 1.4-2, the natural gas combustion emission factor for SO2 is 0.6 lb SO2/million scf. Based on 1,020 Btu/million scf this converts to 0.000588 lb/mmBtu which is less than 0.03% of the 2.3 lb SO2/MMBtu standard. When combusting natural gas the allowable emissions rate cannot be exceeded.

Insignificant Sources

Sec. 3D-0516 also applies to the insignificant source natural gas fired emergency generator (IS-GEN-602-2) and two insignificant source emergency fire protection water pump engines that are not listed on the permit.

One of the two emergency fire protection water pump engines (the newer one, IS-FP175-604-12, 175 HP) is subject to both 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 60 Subpart IIII, and is permitted to burn only ULSD fuel that is no more than 15 ppmw sulfur (0.0015% sulfur by weight).

The other engine (IS-FP230-604-12, 230 HP) is subject to only 40 CFR Part 63 Subpart ZZZZ and is permitted to burn No. 2 fuel oil that with a maximum sulfur content of 0.5% by weight (5,000 ppmw). RJRT currently combusts only ULSD fuel in both of these engines. The large margin of compliance with the Sec. 3D-0516 SO2 standard demonstrated above for the Caterpillar emergency generator, indicates that these two emergency fire protection water pump engines are not capable of exceeding the SO2 emissions limit in Sec. 3D-0516.

The insignificant source natural gas fired emergency generator (IS-GEN-602-2) is subject to both 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 60 Subpart IIII. As stated in 40 CFR 63.6590(c), the generator engine meets the requirements of Part 63 Subpart ZZZZ by meeting the requirements of Part 60 Subpart JJJJ. The generator engine is EPA certified as meeting the emission standards in Part 60 Subpart JJJJ: Certificate Number JGNXB08.92O3-064. RJRT is complying with the requirements of Part 60 Subpart JJJJ by operating and maintaining the emergency generator in accordance with the manufacturer's instructions. From AP-42, Table 3.2-3 (Uncontrolled Emission Factors for 4-Stroke Rich-Burn Engines), the natural gas combustion emission factor for SO2 is 0.000588 lb/mmBtu which is less than 0.03% of the 2.3 lb SO2/MMBtu standard. When combusting natural gas the allowable emissions rate cannot be exceeded.

For the temporary boilers, emergency generator, and emergency engines, no monitoring/recordkeeping/reporting is required for the specific purpose of demonstrating compliance with the Sec. 3D-0516 SO2 standard because the fuels being combusted are natural gas and No. 2 fuel oil which inherently meet this standard. However, as stated in permit condition 3.3(C), the permittee is required to 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.

3.3(B)
SIP based SO2 limit for the four existing boilers [Sec. 3D-0501(e)]

Applicable sources: Four Existing Boilers (ES-1-602-1, ES-2-602-1, ES-5-602-1, ES-6-602-1)

Sec. 3D-0501(e) of the FCAQTC requires the four boilers to be operated with such control or in such a manner as to not cause the ambient air quality standard to be exceeded. The ambient air quality standard for SO2 is contained in Sec. 3D-0402(a).

In condition 3.3(B), the sulfur dioxide emission limit (1.6 lb SO_2/MMBtu input) is a source specific SIP limit, which remains in place from the original North Carolina SIP in 1972. A revised standard of 2.3 lb SO2/MMBtu became effective January 6, 1983 (47 FR 54934, December 7, 1982) as part of a SIP revision for many combustion sources, but the Whitaker Park boilers were specifically listed as sources that still had to meet the old 1.6 lb SO_2/MMBtu standard. The approval of the Forsyth County local implementation plan is codified in 40 CFR 52.1770 in Table 2 of the North Carolina State Implementation Plan.

The U.S. EPA approved Forsyth County's portion of the North Carolina SIP effective July 1, 1991 (56 FR 20140, May 2, 1991). In that Federal Register final rule "R.J. Reynolds-Whitaker Park" is specifically listed along with two sources outside Forsyth County as sources that were required to remain subject to the 1.6 lb SO_2/MMBtu standard.

With respect to SO2 emissions, the worst case fuel for the boilers is combusting No. 2 fuel oil even though the firing rates with fuel oil are slightly less than with natural gas.

No. 2 fuel oil is, by ASTM specification, formulated with a maximum sulfur content of 0.5% by weight (5,000 ppmw). The emission factor for No. 2 fuel oil combustion , from AP-42 Table 1.3-1, is 1.42S lb/1000 gallons (S = sulfur content). With 0.5% sulfur the emissions would be 71 lb SO2/1000 gallons. Based on 137,700 Btu/gal (or 137.7 mmBtu/1000 gal) this converts to 0.516 lb/mmBtu which is less than 33% of the 1.6 lb SO2/MMBtu standard. When combusting No. 2 diesel fuel the allowable emissions rate of 1.6 lb SO2/MMBtu cannot be exceeded.

For natural gas combustion, the SO2 emission factor from AP-42 table 1.4-2 is 0.6 lb SO2 per million cubic feet of natural gas which converts to 0.000588 lb/MMBtu based on the 1020 Btu/ft3 heat content of the natural gas. When combusting natural gas the allowable emissions rate of 1.6 lb SO2/MMBtu cannot be exceeded.

For the four existing boilers, no monitoring/recordkeeping/reporting is required for the specific purpose of demonstrating compliance with the Sec. 3D-0516 SO2 standard because the fuels being combusted are natural gas and No. 2 fuel oil which inherently meet this standard. However, as stated in permit condition 3.3(C), the permittee is required to 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.

NOTE: All four of the existing boilers were constructed prior to the 6/19/1984 effective date of 40 CFR Part 60, Subpart Db – so they are not subject to any Subpart Db standards (including SO2 standards) or to Sec. 3D-0524. Boilers ES-1-602-1, ES-2-602-1, ES-5-602-1, and ES-6-602-1 began operation in 1960, 1960, 1968, and 1975, respectively. Boilers ES-1-602-1, ES-2-602-1, ES-5-602-1, and ES-6-602-1 originally combusted coal, but were modified to combust natural gas and No. 2 fuel oil. Permit 00339-TV-5 (Effective Date 5/12/1999) was the first permit allowing combustion of natural gas or No. 2 fuel oil in Boiler ES-6-602-1. Permit 00339-TV-13 (Effective Date 7/5/2003) was the first permit allowing combustion of natural gas or No. 2 fuel oil in Boilers ES-1-602-1, ES-2-602-1, and ES-5-602-1. NSPS requirements for the boilers were not triggered at those times because under Part 60, Standards for Stationary Sources, General Provisions, 60.14 “Modifications” means any physical or operational change which results in an increase in the emission rate of any pollutant to which a standard applies shall be considered a modification. No emissions increase is expected except for VOC, however, Db standards do not apply to VOC, therefore, no modification occurred per NSPS applicability. By the time of the 8/1/2007 inspection, all four boilers had been converted to natural gas or No. fuel oil combustion, and all coal combustion at the facility had ceased.

Condition 3.4
Opacity (Visible Emissions) Limits [Sec. 3D-0516]

This permit condition includes opacity (visible emissions) limits for the facility’s non-fugitive emissions sources. According to Sec. 3D-0521(b), the rule applies to “all fuel burning sources and to other processes that may have a visible emission. However, sources subject to a visible emission standard in Sec. 3D-0506, 0508, 0524, 0543, 0544, 1110, 1111, 1205, 1206, 1210, 1211 or 1212 shall meet that standard instead of the standard contained in this Rule.”

Sec. 3D-0521 includes two sets of visible emissions (VE) standards: Sec. 3D-0521(c) for sources manufactured as of July 1, 1971; and Sec. 3D-0521(d) for sources manufactured after July 1, 1971.

At the Whitaker Park facility, only three sources were manufactured on or before July 1, 1971: Boilers ES-1-602-1, ES-2-602-1, and ES-5-602-1. These three boilers began operation in 1960, 1960, and 1968, respectively. They are subject to the VE standard in Sec. 3D-0521(c).

All other non-fugitive emissions sources at the facility, including Boiler ES-6-602-1, were constructed after 7/1/1971 and are subject to the VE standard in Sec. 3D-0521(d). Boiler ES-6-602-1 was

constructed after 7/1/1971 and began operation in 1975.

NOTE: All four of the existing boilers were constructed prior to the 6/19/1984 effective date of 40 CFR Part 60, Subpart Db – so they are not subject to any Subpart Db standards (including visible emissions standards) or to Sec. 3D-0524.

3.4(A)
Control of Visible Emissions [Sec. 3D-0521(c)]

Condition 3.4(A) addresses the opacity limits in Sec. 3D-0521(c) of the FCAQTC. This rule applies to Boilers ES-1-602-1, ES-2-602-1, and ES-5-602-1. The opacity limit requires that visible emissions shall not exceed 40% opacity when averaged over a six-minute period with the following exceptions: (a) No six-minute period exceeds 90% opacity; (b) No more than one six-minute period exceeds 40% opacity in any hour; and (c) No more than four six-minute periods exceed 40% opacity in any 24-hour period.

For combustion sources, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the Sec. 3D-0521(c) opacity standard because the fuels being combusted are natural gas and No. 2 fuel oil which inherently meet the standard.

3.4(B)
Control of Visible Emissions [Sec. 3D-0521(d)]

Condition 3.4(B) addresses the opacity limits in Sec. 3D-0521(d) of the FCAQTC. This rule applies to all non-fugitive emissions sources at the facility – except for Boilers ES-1-602-1, ES-2-602-1, and ES-5-602-1. 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.

Most non-combustion particulate matter sources at the Whitaker Park 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 3.5. The requirements include monitoring and recordkeeping requirements for fabric filters - plus requirements to submit reports of the monitoring requirements twice each year. In condition 3.5(B) is a requirement to conduct daily stack observations for visible emissions for sources subject to CAM. 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 non-combustion sources without particulate matter control, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the 3D-0521(d) opacity standard because each of those sources inherently meets the standard based on the nature of the source.

For combustion sources, no monitoring, recordkeeping, or reporting is required for the specific purpose of demonstrating compliance with the Sec. 3D-0521(d) opacity standard because the fuels being combusted are natural gas and No. 2 fuel oil which inherently meet the standard.

NOTE: When the boilers switch from natural gas to No. 2 fuel oil combustion, natural gas is used as the pilot light to ignite the fuel oil. If natural gas is not available (due to curtailment, etc.), then propane from a small portable propane tank can be used for the pilot light to ignite the fuel oil. Propane is never used to actually fuel the boilers.

Condition 3.5
Monitoring, Recordkeeping, and Reporting

This permit condition includes 40 CFR Part 64 Compliance Assurance Monitoring (CAM) requirements along with non-CAM periodic monitoring requirements. The only permitted control devices for permitted equipment at the Whitaker Park facility are fabric filters for particulate matter control.

3.5(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. Condition 3.5(A)(3) requires that a semi-annual report be submitted summarizing the fabric filter monitoring requirements.

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

This condition includes CAM requirements for sources controlled by some of the facility's fabric filters. The condition also includes CAM requirements to perform visual stack observations for stacks associated with sources subject to CAM. Condition 3.5(B)(4) requires that a semi-annual report be submitted summarizing the fabric filter monitoring and visual stack observation requirements.

CAM applicability is based on a "pollutant specific emission unit" (PSEU). There are many individual pieces of process equipment at the Whitaker Park facility. In order to streamline the permit process, RJRT has grouped process equipment into "emission sources" for listing in the permit. 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 many 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. 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 needed is to calculate the potential pre-control PM10 emissions from each fabric filter within a particular emission source. If those emissions exceed 100 TPY - then CAM applies.

None of the PSEUs at the Whitaker Park facility have potential controlled PM10 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).

Condition 3.6
No. 2 Fuel Oil Use Limits to Avoid Applicability of 40 CFR Part 63, Subpart JJJJJJ

This condition applies to the facility's four existing boilers: ES-1-602-1, ES-2-602-1, ES-5-602-1, ES-6-602-1. The condition specifies criteria that must be met in order for the boilers to avoid triggering the applicability of the Area Source Boiler GACT. 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 3.6 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 Subpart JJJJJJ. 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. Permit condition 3.7 addresses the applicable requirements of 40 CFR Part 63, Subpart JJJJJJ.

NOTE: The Whitaker Park facility is an area source for HAPs because it has potential emissions of no single HAP above the 10 ton/12-month major source threshold, and the potential emissions of all its HAPs combined is less than the 25 ton/12-month major source threshold. A review of potential HAP emissions from permitted sources shows that the potential emissions are less than 10 tons/year for all HAPs combined. The individual HAP with the highest emissions is hexane with potential emissions of less than 5 tons/year. For more detail see the "Facility-Wide Totals" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet. The Whitaker Park facility does emit very small quantities of HAPs from non-permitted Insignificant Activities. However, the amount of HAP emissions from those insignificant activities is so minimal that the facility's area source status with respect to HAPs is assured.

Condition 3.7
National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (Subpart JJJJJJ)

This condition applies to the facility's four existing boilers: ES-1-602-1, ES-2-602-1, ES-5-602-1, ES-6-602-1. 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 3.6. Condition 3.7 includes applicable requirements of 40 CFR Part 63, Subpart JJJJJJ. Condition 3.7(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 four boilers has become subject to Subpart JJJJJJ.

PART I, SECTION 4:
CONTROL OF TOXIC AIR POLLUTANTS - LOCALLY ENFORCEABLE ONLY

Condition 4.1
Facility-Wide Toxic Air Pollutant Conditions

A facility-wide air toxics review was last performed in January 2016 in association with the Temporary Boiler Project that was incorporated in the 00339-TV-33 permit. That permit also included modeling-based limits associated with an earlier air toxics review from June 2007. The statement of basis for the Temporary Boiler minor modification contains a detailed analysis of the associated air toxics review including air toxic pollutant modeling. The issuance of the following four permits (00339-TV-34, 00339-TV-35, 00339-TV-36, and 00339-TV-37) did not involve an official air toxics review, and this current renewal activity for the issuance of permit 00339-TV-38 does not trigger an official air toxics review. Consequently, no changes have been made to any air toxics requirements in the renewed 00339-TV-38 permit compared to the 00339-TV-37 permit.

Nonetheless, the 00339-TV-37 permit did include changes for some of the TAPs included in the permit in Section 4. The changes resulted from Building 603-1 becoming a new Title V facility (Alliance One North America – Recon Facility [AONA-Recon], premise 01095) as part of an ownership change. With the ownership change, the Building 603-1 emissions sources that had previously been associated with the RJRT Whitaker Park facility (premise 00339), became associated instead with AONA-Recon.

With the removal of Building 603-1 as part of the 00339 Whitaker Park facility and its subsequent new ownership as part of the new AONA-Recon Title V facility (permit 01095-TV-1), the TAP emissions were examined and the amount of TAP emissions were apportioned to the facility from which they are emitted – either the new AONA-Recon facility or the altered RJRT Whitaker Park facility now without Building 603-1. Whitaker Park permit 00339-TV-37 only included triggered TAPs that are emitted from the Whitaker Park facility. A detailed explanation of the TAP reapportionment is given the Statements of Basis for the 00339-TV-37 permit for Whitaker Park and the 01095-TV-1 permit for the AONA-Recon facility. No changes to Section 4 have been made from permit 00339-TV-37 to permit 00339-TV-38.

The four existing boilers in Whitaker Building 602-1 are exempt from the air toxics analysis in accordance with Sec. 3Q-0702(a)(18) which exempts combustion sources “except new or modified combustion sources permitted on or after July 10, 2010.” Combustion source is defined in Sec. 3Q-0703 as follows: “Combustion sources” means boilers, space heaters, process heaters, internal combustion engines, and combustion turbines, which burn only wood or unadulterated fossil fuel. It does not include incinerators, waste combustors, kilns, dryers, or direct heat exchange industrial processes. The temporary boilers have never been installed, but there use (if needed) was permitted after July 10, 2010. Consequently, the temporary boilers are not exempt from air toxics regulations.

Sec. 3Q-0702(a)(27)(B) also provides an air toxics exemption for any air emission source that is “an affected source under 40 CFR Part 63, as amended.” This rule exempts the natural gas fired emergency generator and two fire protection water pump engines at Whitaker Park because they are all subject to 40 CFR 63, Subpart ZZZZ (the RICE MACT). The following three sources are exempt from air toxics review by means of Sec. 3Q-0702(a)(27)(B): The 175 HP Diesel fire pump (IS-FP175-604-12); the 230 HP Diesel fire pump (IS-FP230-604-12); and the 150 kW natural gas fired emergency generator (IS-GEN-602-2).

Condition 4.1(A)(2) includes a list of 19 non-modeled TAPs. The facility-wide potential emissions of each of these TAPs (disregarding sources exempt from the air toxics regulations) are below the *de*

minimis levels or Toxic Pollutant Emission Rates (TPERs) listed in Sec. 3Q-0711(a). The Whitaker Park facility has no controls for any TAPs.

Condition 4.1(A)(3) includes a list of 12 modeled TAPs. The original 2007 and 2016 modeling was performed based on the facility-wide potential emissions of each of the TAPs (not including sources exempt from the air toxics regulations). 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 in the 2016 modeling (but not the 2007 modeling) was then proportionally adjusted to a level corresponding to 98% of the AAL and the model was rerun.

The maximum facility-wide emissions rates that were included in condition 4.1(A)(3) of the resulting 00339-TV-33 Whitaker Park permit for the 2016 modeling were the emission rates corresponding to 98% of the AAL for each pollutant.

The facility's most recent emissions inventory report was for CY2023. The actual TAP emissions emitted for that year did not exceed any of the annual limits in permit conditions 4.1(A)(2) or (3).

Because the uncontrolled potential emissions of all non-modeled TAPs from the facility are below the respective Sec. 3Q-0711(a) TPER values and the modeling demonstrates that the respective AALs are not exceeded even at 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.

A review of potential TAP emissions from permitted sources subject to air toxics regulations determined that the emissions are all below the permitted limits in permit conditions 4.1(A)(2) or (3). For more detail see the "TAP Totals" worksheet in the "00339-TV-38-SoB-CONFIDENTIAL.xlsx" or "00339-TV-38-SoB-PUBLIC.xlsx" Excel spreadsheet. The Whitaker Park facility does emit very small quantities of TAPs from non-permitted Insignificant Activities that are subject to air toxics regulations. However, the amount of TAP emissions from those insignificant activities is so minimal that compliance with the applicable facility-wide TAP limits is assured.

SECTION E:
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, "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." An updated list of the insignificant activities is attached to the permit but is not an official part of the permit.

SECTION F:
Changes to the Permit

1. Modified the Permit Number to 00339-TV-38 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. Upon permit issuance, the permit effective date, permit expiration date, and renewal application due date will be updated on the permit page with the Forsyth County Seal

2. Upon permit issuance, the permit's effective date will be added to the first Table of Contents page and the page headers.

3. In permit conditions 3.2(B)(2) and 3.4(C)(2) corrected an incorrect reference. Those permit conditions included an incorrect reference to permit condition 3.6 which should be permit condition 3.5.

4. Clarified the intention of permit condition 3.6 by changing the condition's title from "Specific emission source permit condition for the following four boilers" to "No. 2 Fuel Oil Use Limits to Avoid Applicability of 40 CFR Part 63, Subpart JJJJJJ". Made a corresponding change to the page footer.

SECTION G:
Permit Processing Notes

3/10/2023
A Title V permit renewal application was received at this Office pertaining to the RJRT Whitaker Park facility. The application did not include any confidential information. At that time, the current permit was permit #00339-TV-36 which had been issued with an effective date of 3/13/2019. The due date for the renewal application was 3/11/2023 – so the 3/10/2023 application was received on-time.

12/20/2023
Permit 00339-TV-37 was issued with an effective date of 1/1/2024. The permit was process as an off-permit change pursuant to Sec. 3Q-0523(b) of the FCAQTC.

1/31/2024
I completed the DRAFT 00339-TV-38 permit and Statement of Basis for the renewal of the permit. I also completed a DRAFT public notice document. I sent an email to Peter Lloyd asking him to review those documents.

2/7/2024
Peter Lloyd completed his review and after some edits to the Statement of Basis approved the DRAFT 00339-TV-38 permit and Statement of Basis. He also prepared the associated public notice document for issuance on 2/14/2024.

SECTION H:
Statement of Basis Conclusions

This Office, upon completion of its review of the renewal application, has concluded that the facility will be in compliance with all applicable regulations and has drafted permit number 00339-TV-38 which details all the necessary requirements to ensure compliance. This Office recommends approval of the renewed permit for the Whitaker Park facility.