

INITIAL TITLE V AIR PERMIT APPLICATION REVIEW

APPLICANT:	SITE LOCATION:	COUNTY:	
Liggett Group, Inc.	Mebane	Alamance	
TECHNICAL CONTACT:	PHONE:	RESPONSIBLE OFFICIAL:	TITLE:
Vince Fallon	(919) 304-7793	Greg Sulin	President
REVIEW ENGINEER:	SIGNATURE:	DATE:	
Rahul P. Thaker		February 13, 2004	
REGIONAL CONTACT:	REGIONAL OFFICE:	SIC CODE:	
Hilary King	Winston-Salem	2111	
APPLICATION NUMBER:	EXISTING PERMIT NUMBER:	NEW PERMIT NUMBER:	
0100276.02C, 0100276.03B	08823R04	08823T05	

I. Introduction

The U.S. Environmental Protection Agency (EPA) has given a full approval to North Carolina's Title V operating permits program effective on October 1, 2001. This EPA approval triggered the requirements for Title V facilities to submit permit applications to the Division of Air Quality (DAQ). Title V facilities are required to obtain an operating permit which addresses all applicable regulations under the State Implementation Plan, Federal Implementation Plan, and other provisions of the Clean Air Act (CAA). The Title V Operating Permit will define all of the facility's obligations under the CAA.

This Initial Title V Air Permit Application Review intends to convey all pertinent emissions data, rules, policies, and engineering assumptions used to construct the DRAFT Title V operating permit. The primary source of information used to construct the DRAFT permit is the above referenced air permit applications.

II. Background Information

The DRAFT Title V operating permit will replace an existing Air Quality Construction and Operation Permit 08823R04 which was issued on April 3, 2003 and is currently scheduled to expire on December 31, 2004.

Pursuant to 15A NCAC 2Q .0504 Liggett Group, Inc. submitted its initial Title V application to the DAQ on March 29, 2002. The application was considered complete for processing on May 28, 2002. The permittee also submitted an amendment to the original Title V application, application 0100276.03B, to include one additional cigarette making machine and one cartridge filter (5,255 ft² filter area). The DRAFT permit is required to go to public notice pursuant to 15A NCAC 2Q .0521.

III. Facility Description

This facility manufactures cigarettes.

IV. Statement of Compliance

The DAQ has reviewed the compliance status of this facility. Based on its latest inspection, the facility was in compliance with all applicable requirements. The applicant has certified that the facility will be in compliance with all applicable requirements at the time of permit issuance and will continue to comply with these requirements. The applicant has also certified that the facility will be in compliance with any applicable requirements taking effect during the term of the permit and will meet such requirements on a timely basis.

V. Summary of Emission Sources and Control Devices

The following table identifies all emission sources and associated control devices for which the Initial Title V Operating Permit is being issued.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-PB001 NSPS	one natural gas/No. 2 fuel oil-fired boiler (25.2 million BTU per hour heat input)	N/A	-
ES-PB002 NSPS	one natural gas/No. 2 fuel oil-fired boiler (16.8 million BTU per hour heat input)	N/A	-
ES-DCC001	one direct cylinder conditioner	N/A	-
ES-TF001	one tobacco top flavoring system	N/A	-
ES-CM001-A	one pneumatic feed conveyance system	CD-CM001-A1 CD-CM001-A2	one cartridge filter (5,255 square feet of filter area) and one bagfilter (517 square feet of filter area) in parallel
ES-CM001-B	eleven cigarette making machines	CD-CM001-B1 CD-CM001-B2	one cartridge filter (5,255 square feet of filter area) and one bagfilter (1,862 square feet of filter area) in parallel
ES-CDS001	a central dust collection system	CD-CDS001-A and CD-CDS001-B	one simple cyclone (24 inches in diameter) in series with one bagfilter (1,087 square feet of filter area)
ES-MA001, ES-MA002, and ES-MA003	three menthol applicators	N/A	-
ES-PB003 and ES-PB004	two No. 2 fuel oil/natural gas-fired hot water heaters (6.6 million BTU per hour each)	N/A	-

ES-LP001	one natural gas-fired, six color label press (2.014 million BTU per hour heat input rate)	N/A	-
ES-CP001	one natural gas-fired, eight-deck carton press (2.685 million BTU per hour heat input rate)	N/A	-
ES-HDT001	one steam expansion tobacco dryer fired with natural gas (5.356 million BTU per hour heat input rate)	CD-HDT001	one bagfilter (3,617 square feet of filter area) in series with a closed-loop collection cyclone

VI. Emission Source-by-Source Evaluation

A. One natural gas/No. 2 fuel oil-fired boiler (25.2 million BTU per hour heat input, ID No. ES-PB001), one natural gas/No. 2 fuel oil-fired boiler (16.8 million BTU per hour heat input, ID No. ES-PB002), two No. 2 fuel oil/natural gas-fired hot water heaters (6.6 million BTU per hour each, ID Nos. ES-PB003 and ES-PB004), one natural gas-fired six color label press (2.014 million BTU per hour heat input rate, ID No. ES-LP001), one natural gas-fired eight-deck carton press (2.685 million BTU per hour heat input rate, ID No. ES-CP001), and one steam expansion tobacco dryer fired with natural gas (5.356 million BTU per hour heat input rate, ID No. ES-HDT001) and associated bagfilter (3,617 square feet of filter area) in series with a closed-loop collection cyclone

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	0.37 lb/million Btu each (ID Nos. ES-PB001, ES-PB002, ES-PB003, ES-PB004, ES-LP001, ES-CP001, and ES-HDT001)	15 NCAC 2D .0503
particulate matter	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour (ID No. ES-HDT001)	15 NCAC 2D .0515
sulfur dioxide	2.3 lb per million Btu each (ID Nos. ES-PB003, ES-PB004, ES-LP001, ES-CP001, and ES-HDT001)	15 NCAC 2D .0516
opacity	20 percent each (ID Nos. ES-PB001, ES-PB002, ES-PB003, ES-PB004, ES-LP001, ES-CP001, and ES-HDT001)	15 NCAC 2D .0521

sulfur dioxide	fuel oil firing 0.5 percent sulfur content fuel oil (ES-PB001 and ES-PB002)	15A NCAC 2D .0524 (40 CFR Part 60 Subpart Dc)
volatile organic compounds	less than 250 tons per consecutive 12-month period (affected sources per Section VII. A.1.)	15 NCAC 2D .0530 (PSD Avoidance)
volatile organic compounds	work practice standards (affected sources per Section VII. A.2)	15A NCAC 2D .0958
toxic air pollutants	State-enforceable only (affected sources per Section VII. A.4.)	15A NCAC 2D .0711
toxic air pollutants	State-enforceable only (affected sources per Section VII. B.1)	15A NCAC 2D .1100
odors	State-enforceable only (affected sources per Section VII. A.3.)	15A NCAC 2D .1806

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

Regulatory Analysis

- a. Emissions of particulate matter from the combustion of a fuel that are discharged from any stack or chimney into the atmosphere shall not exceed the limits in the table above.

For a heat input between any two consecutive heat inputs stated in the preceding table, the allowable emissions of particulate matter shall be calculated by the equation $E = 1.090 \text{ times } Q \text{ to the } -0.2594 \text{ power}$. E = allowable emission limit for particulate matter in lb/million Btu. Q = maximum heat input in million Btu/hour.

$$E = 1.090 \times (Q \text{ mBtu/hr})^{-0.2594} = 1.090 \times (59.9)^{-0.2594} = 0.37 \text{ lb/mBTU for each combustion source}$$

Note that $Q = (25.2 + 16.8 + 2(6.6) + 2.014 + 2.685) \text{ million Btu/hr} = 59.9 \text{ million Btu/hr}$

Monitoring/Recordkeeping/Reporting Requirements

- b. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in these sources.

2. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

Regulatory Analysis

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10P^{0.67}$$

where E = allowable emission rate in pounds per hour
P = process weight in tons per hour (? 30 tons/hr)

$$E = 5.0P^{0.11} - 40$$

where E = allowable emission rate in pounds per hour
P = process weight in tons per hour (> 30 tons/hr)

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Monitoring/Recordkeeping

- b. Particulate matter emissions from the source (ID No. ES-HDT001) shall be controlled by the associated bagfilter and a closed loop cyclone. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.
 - iii. an annual (for each 12 month period following the initial inspection) inspection of the cyclone's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, bagfilter, and cyclone are not inspected and maintained.

- c. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilter and cyclone; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting

- d. The Permittee shall submit the results of any maintenance performed on the bagfilter and cyclone within 30 days of a written request by the DAQ.
- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. **Regulatory Analysis**

Based upon EMC Regulation 15A NCAC 2D .0516, the allowable SO₂ emissions for the any combustion equipment are 2.3 lbs/million Btu.

No. 2 Fuel Oil

Based upon EPA Publication AP-42, Table 1.3-2, the SO₂ emission factor for No. 2 Fuel Oil Combustion is 142S lbs/1000 gallons (S: sulfur content). Assuming the maximum No. 2 fuel oil sulfur content of 0.5 percent, and a heat content of 141,000 Btu per gallon (ref: Exxon's Flash Notes), the estimated actual SO₂ emissions from the boilers are calculated as follows:

$$\begin{aligned} E &= 142 \times 0.5 \text{ lbs/1000 gallons divided by } 141 \text{ million Btu/1000 gallons} \\ &= 0.504 \text{ lbs/million Btu} < 2.3 \text{ lbs/million Btu (allowable SO}_2\text{ emissions)} \end{aligned}$$

Therefore, this facility is considered to be in compliance with 15A NCAC 2D .0516 while burning distillate fuel oil.

Natural Gas

Based upon EPA Publication AP-42, Table 1.4-2, the uncontrolled SO₂ emission factor for natural gas is 0.6 lbs/10⁶ ft³. The heat value of natural gas is 1020 Btu/scf (ref: AP-42). Therefore, the uncontrolled emissions are calculated as follows:

$$\begin{aligned} E_{uc} &= 0.6 \text{ lbs/ million scf divided by } 1020 \text{ million Btu/million scf} \\ &= 0.0006 \text{ lbs./million Btu} < 2.3 \text{ lbs/million Btu} \end{aligned}$$

Based on the above comparison, compliance is indicated.

Monitoring/Recordkeeping Requirements

- b. No monitoring or recordkeeping is required for sulfur dioxide emissions from the firing of natural gas or No. 2 fuel oil in these sources.

Reporting Requirements

- c. The Permittee shall submit a summary report of the fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

Regulatory Analysis

- a. These sources were installed after 1971 and are subject to the 20 percent opacity requirement. No violations of visible emissions have been observed at this facility so compliance has been indicated. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. It should be noted that this is a state-only requirement. Similar federal-only requirement per 40 CFR 52 Subpart II will also be included in the permit.

Monitoring/Recordkeeping/Reporting Requirements

- b. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in this source.

5. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART Dc

Regulatory Analysis

- a. For the two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-PB001 and ES-PB002), the Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions."

Emission Limitations

- b. The maximum sulfur content of any fuel oil received and burned in the boiler shall not exceed 0.5 percent by weight.

Monitoring/Recordkeeping Requirements

- c. In addition to any other recordkeeping required by 40 CFR § 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

Reporting Requirements

- d. In addition to any other reporting required by 40 CFR § 60.48c or notification requirements to the EPA, the Permittee is required to NOTIFY the DAQ in writing of the following:
 - i. a summary report , acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate or residual fuel oil fired, by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June as follows:
 - Distillate Oil - Fuel supplier certification shall include the following information:
 - (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR § 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.
 - ii. All instances of deviations from the requirements of this permit must be clearly identified.

B. One direct cylinder conditioner (ID No. ES-DCC001), one tobacco top flavoring system (ID No. ES-TF001), one pneumatic feed conveyance system (ID No. ES-CM001-A) and associated cartridge filter (5,255 square feet of filter area, CD-CM001-A1) and bagfilter (517 square feet of filter area, CD-CM001-A2) in parallel, eleven cigarette making machines (ID Nos. ES-CM001-B) and associated cartridge filter (5,255 square feet of filter area, CD-CM001-B1) and bagfilter (1,862 square feet of filter area, CD-CM001-B2) in parallel, one central dust collection system (ID No. ES-CDS001) and associated simple cyclone (ID No. CD-CDS001-A, 24 inches in diameter) installed in series with one bagfilter (ID No. CD-CDS001-B, 1,087 square feet of filter area), and three menthol applicators (ID Nos. ES-MA001, ES-MA002, and ES-MA003)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour (ID Nos. ES-CM001-A, ES-CM001-B, and ES-CDS001)	15A NCAC 2D .0515
opacity	20 percent each (ID Nos. ES-ES-CM001-A, ES-CM001-B, and ES-CDS001)	15 NCAC 2D .0521
volatile organic compounds	less than 250 tons per consecutive 12-month period (affected sources per Section VII. A.1.)	15 NCAC 2D .0530 (PSD Avoidance)
volatile organic compounds	work practice standards (affected sources per Section VII. A.2.)	15A NCAC 2D .0958
toxic air pollutants	State-enforceable only (affected sources per Section VII. A.4.)	15A NCAC 2D .0711
toxic air pollutants	State-enforceable only (affected sources per Section VII.B.1.)	15A NCAC 2D .1100
odors	State-enforceable only (affected sources per Section VII.A.3.)	15A NCAC 2D .1806

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

Regulatory Analysis

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation:

$$E=4.10P^{0.67}$$

where E = allowable emission rate in pounds per hour

P = process weight in tons per hour (? 30 tons/hr)

$$E = 5.0P^{0.11} - 40$$

where E = allowable emission rate in pounds per hour

P = process weight in tons per hour (> 30 tons/hr)

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Facility-wide (excluding combustion sources) worst-case particulate emissions are 21.16 tons/yr (**4.84 lb/hr**).

Facility process rate = 10,391 lbs tobacco/hr [5,904,000 cig/hr * 0.00176 lbs tobacco/cig]

Facility process rate = 5.2 tons/hr

Allowable emission rate = $4.10 (5.2)^{0.67} = 12.37 \text{ lb/hr}$

Allowable emissions are greater than potential emissions, therefore, compliance with this regulation is expected.

Monitoring/Recordkeeping Requirements

- b. Particulate matter emissions from the pneumatic feed conveyance system (ID No. ES-CM001-A), eleven cigarette making machines (ID Nos. ES-CM001-B), and central dust collection system (ID No. ES-CDS001) shall be controlled by the associated cartridge filters, bagfilters and a cyclone. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12 month period following the initial inspection) internal inspection of the cartridge filters and bagfilters' structural integrity.
 - iii. an annual (for each 12 month period following the initial inspection) inspection of the cyclone's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, cartridge filters, bagfilters, and cyclone are not inspected and maintained.

- c. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the cartridge filters, bagfilters and cyclone; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting Requirements

- d. The Permittee shall submit the results of any maintenance performed on the cartridge filters, bagfilters, and cyclone within 30 days of a written request by the DAQ.
- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances

of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

Regulatory Analysis

- a. These sources were installed after 1971 and are subject to the 20 percent opacity requirement. No violations of visible emissions have been observed at this facility so compliance has been indicated. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. It should be noted that this is a state-only requirement. Similar federal-only requirement per 40 CFR 52 Subpart II will also be included in the permit.

Monitoring Requirements

- b. To assure compliance, once a week the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish “normal” for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section VI. B. 2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping Requirements

- c. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

Reporting Requirements

- d. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

VII. - Multiple Emission Source Limits

A. Facility-wide sources

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
---------------------	------------------	-----------------------

volatile organic compounds	less than 250 tons per consecutive 12-month period (ID Nos. ES-HDT001, ES-DCC001, ES-CM001-B, ES-TF001, ES-MA001, ES-MA002, and ES-MA003)	15A NCAC 2D .0530 (PSD Avoidance)
	less than 250 tons per consecutive 12-month period (ID Nos. ES-LP001 and ES-CP001)	15A NCAC 2D .0530 (PSD Avoidance)
volatile organic compounds	work practice standards (ID Nos. ES-LP001, ES-CP001, ES-TF001, ES-MA001, ES-MA002, and ES-MA003)	15A NCAC 2D .0958
odors	State-enforceable only - odorous emissions must be controlled	15A NCAC 2D .1806
toxic air pollutants	See Section VII. A. 4. - State-enforceable only	15A NCAC 2Q .0711

1. 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

Regulatory Analysis

- a. In order to avoid applicability of this regulation, the emission sources (ID Nos. ES-HDT001, ES-DCC001, ES-CM001-B, ES-TF001, ES-MA001, ES-MA002, and ES-MA003) shall discharge into the atmosphere less than 250 tons of VOCs per consecutive 12-month period.
- b. In order to avoid applicability of this regulation, the emission sources (ID Nos. ES-LP001 and ES-CP001) shall discharge into the atmosphere less than 250 tons of VOCs per consecutive 12-month period.

The facility's 2002 Emissions summary showed a facilitywide actual VOC emissions of 99 tons, thus compliance is demonstrated.

Monitoring/Recordkeeping Requirements

- c. Calculations of VOC emissions per month shall be made at the end of each month. VOC emissions shall be determined by multiplying the total amount of each type of VOC-containing material consumed during the month by the VOC content of the material¹. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amounts of VOC containing materials or the VOC emissions are not monitored and recorded.
- d. Calculations and the total amount of VOC emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed this limit.

Reporting Requirements

- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities within 30 days after

¹ The permittee may take into consideration of any retention of VOC in the product or any recovery of VOC for calculating VOC emissions. Any assumption included in the calculations needs to be supported by the adequate basis.

each calendar year quarter, due and postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period between July and September. The report shall contain the following:

- i. The monthly VOC emissions for the previous 14 months. The emissions shall be calculated for each of the 12-month periods over the previous 14 months.

2. 15A NCAC 2D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:

- (1) store all material, including waste material, containing volatile organic compounds in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
- (2) clean up spills of volatile organic compounds as soon as possible following proper safety procedures,
- (3) store wipe rags containing volatile organic compounds in closed containers,
- (4) not clean sponges, fabric, wood, paper products, and other absorbent materials with volatile organic compounds,
- (5) transfer solvents containing volatile organic compounds used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of the Clean Water Act,
- (6) clean mixing, blending, and manufacturing vats and containers containing volatile organic compounds by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act. [15A NCAC 2D .0958(c)]

- b. When cleaning parts with a solvent containing a volatile organic compound, the Permittee shall:

- (1) flush parts in the freeboard area,
- (2) take precautions to reduce the pooling of solvent on and in the parts,
- (3) tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
- (4) not fill cleaning machines above the fill line,
- (5) not agitate solvent to the point of causing splashing. [15A NCAC 2D .0958(d)]

Monitoring Requirements

- c. To assure compliance with paragraphs (a) and (b) above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. The inspections shall be conducted during normal operations. If the required inspections are not conducted the permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

Recordkeeping Requirements

- d. The results of the inspections shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each inspection; and
 - ii. the results of each inspection noting whether or not noncompliant conditions were observed.If the required records are not maintained the permittee shall be deemed to be in noncompliance with 15A

NCAC 2D .0958.

Reporting Requirements

- e. The Permittee shall submit a summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. STATE-ONLY REQUIREMENT:

15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

STATE-ONLY REQUIREMENT:

4. 15A NCAC 2Q .0711: EMISSION RATES REQUIRING A PERMIT

Pursuant to 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit," for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 2Q .0711.

- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
- c. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant (CAS Number)	TPERs Limitations			
	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
acetaldehyde (75-07-0)				6.8
ammonia (7664-41-7)				0.68
benzene (71-43-2)	8.1			
carbon disulfide (75-15-0)		3.9		
cresol (1319-77-3)			0.56	

TPERs Limitations				
Pollutant (CAS Number)	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
ethyl acetate (141-78-6)			36	
phenol (108-95-2)			0.24	
toluene (108-88-3)		98		14.4

B. One direct cylinder conditioner (ID No. ES-DCC001), and one steam expansion tobacco dryer (ID No. ES-HDT001) and associated bagfilter (ID No. CD-HDT001, 3617 square feet of filter area) in series with a closed-loop collection cyclone

The following table provides a summary of limits and standards for the emission source(s) describe above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
toxic air pollutants	State-enforceable only	15A NCAC 2D .1100

STATE-ONLY REQUIREMENT:

1. **TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT** - Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
one direct cylinder conditioner (ID No. ES-DCC001)	acetic acid	0.61 lbs/hour
one direct cylinder conditioner (ID No. ES-DCC001)	formaldehyde	0.0028 lbs/hour
steam expansion tobacco dryer (ID No. ES-HDT001)	acetic acid	2.81 lbs/hour
steam expansion tobacco dryer (ID No. ES-HDT001)	formaldehyde	0.06 lbs/hour

- a. To ensure compliance with the above limits, the following restrictions shall apply:
 - i. the total process capacity for the direct cylinder conditioner (ID No. ES-DCC001) shall not exceed 20,000 pounds of tobacco per hour; and
 - ii. the dryer throughput rate for the steam expansion tobacco dryer (ID No. ES-HDT001) shall not exceed 19,800 pounds of tobacco blend per hour.
- b. For compliance purposes, within 30 days after each calendar year quarter the following shall be reported to the Regional Supervisor, DAQ:

- i. the pounds of tobacco conditioned in the direct cylinder conditioner (ID No. ES-CDD001) per month and the number of hours of operation of the conditioner per month; and
- ii. the pounds of tobacco blend dried and conditioned in the steam expansion tobacco dryer (ID No. ES-HDT001) per month and the number of hours of operation of the steam expansion tobacco dryer per month.

VIII. MACT Applicability and Requirements

Based on the review of the facility's current operations and emission sources, it is currently not subject to any promulgated MACT regulations.

IX. Permit Shield (including non-applicable requirements)

In accordance with 2Q .0512 the permit will contain a provision stating that compliance with the terms, conditions, and limitations of the Title V permit shall be deemed in compliance with applicable requirements specifically identified in the permit, as of the date of permit issuance. If the permit does not expressly state that a permit shield exists then it shall be presumed not to provide such a shield.

X. Other Applicable Requirements

None.

XI. General Conditions

The "General Conditions" section of the Title V Operating Permit lists additional applicable rule requirements that the permittee must adhere to, as with any other permit condition. These requirements in general are common to all Title V facilities. The general conditions include provisions such as annual fee payment, permit renewal and expiration, transfer of ownership or operation, property rights, submission of documents, inspections and entry procedures, reopen for cause, severability, etc.

XII. Insignificant Activities

The insignificant activities listed in the application have been reviewed and verified. Those sources which qualify for exemption from permitting under regulation 2Q .0503(8) will be attached to the cover letter of the permit.

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.

XIII. Public Notice

Pursuant to 15A NCAC 2Q. 0521, a notice of the draft Title V Operating Permit was placed in Durham Herald; a newspaper of general circulation in the area where the facility is located, on January 9, 2004. The notice provided a 30 day comment period, with an opportunity for a public hearing. Copies of the public notice was sent to persons on the Title V mailing list and EPA. In addition, notice of the draft permit and opportunity for participation was also given to affected state(s) on or before the time that the notice is provided to the public. Affected states as specified by 15A NCAC 2Q .0503(1) and 40 CFR 70.8(b) are South Carolina, Tennessee and Virginia; North Carolina local air pollution control programs for Mecklenburg County and Forsyth County; and the Catawba Indian Nation in York County South Carolina.

Company Comments

The company sent their comments on the draft permit through a letter dated February 2, 2004 which was received on February 5, 2004 by DAQ. The main comments from the permittee and the DAQ response are as below:

Company Comment 1:

Specify emissions separately in Section 2.1 A for combustion sources only and in Section 2.1 B for non-combustion sources.

DAQ Response:

DAQ does not agree with this comment. DAQ believes that Section 2.1 A. includes all equipment which emit combustion products emissions. Some of the equipment included in Section 2.1 A also have emissions which are not combustion related. Also Section 2.1 B include all sources which do not have any combustion related emissions.

However, DAQ does agree with the company to provide more clarity to each applicable requirement. In brief, DAQ will modify both applicable requirements and the regulatory applicability tables to indicate explicitly the affected sources.

Company Comment 2:

In Section 2.2 A.1c., per permittee, it is incorrect to state that VOC calculations are to be performed assuming that all (100%) of VOC content would be lost to atmosphere. Permittee requests that VOC calculations are to be done using the assumed 10% loss to the atmosphere for all menthol applicators as the remaining amount (90%) is retained in the product.

DAQ Response:

DAQ believes that the language of this condition does not state or imply that the permittee has to assume 100% of VOCs as a loss to the atmosphere. However, DAQ will modify the condition to allow the permittee to make VOC calculations taking into consideration any retention of VOCs in the product.

Company Comment 3:

Include odorous emissions requirement in the permit.

DAQ Response:

DAQ will include this requirement for all permitted sources.

Appalachian Voices Comments

This company has provided comments on the draft permit through an e-mail dated February 9, 2004 which includes a total of 16 pages (the original copy was received in mail on February 11, 2004). It should be noted that the company has earlier commented on Duke Energy's Dan River and Belews Creek permits among other electric utility and non-utility permits. The majority of the issues identified for this permit are the same as those identified for Dan River and Belews Creek permits. It should be noted that some comments are very broad, specifically on TV program content. Please refer to Dan River permit review for

resolutions on Appalachian Voices comments on this permit. The DAQ does not see any reason to respond to these comments as a part of this report.

XIV. Recommendations

The initial Title V application for this facility has been reviewed by the DAQ to determine compliance with all procedures and requirements under 15A NCAC 2Q .0500 and 40 CFR Part 70. The DAQ has made a preliminary determination that the facility is complying or will achieve compliance as specified in the proposed permit with all applicable requirements. The DAQ will propose to issue the Title V Operating Permit upon completion of the EPA review and public comment periods.