

Facility Name: **King America Finishing Inc.**

City: Dover

County: Screven

AIRS #: 04-13-251-00008

Application #: 16271

Date SIP Application Received: July 1, 2005

Date Title V Application Received: July 1, 2005

Permit No: 2261-251-0008-V-02-3

Program	Review Engineers	Review Managers
SSPP	Anna Aponte	Michelle Keith
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TOXICS	N/a	N/a

Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft operating permit amendment. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1) and 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public comment period and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Existing Permits**

Table 1 below lists the current Title V permit, and all administrative amendments, minor and significant modifications to that permit, and 502(b)(10) attachments. Comments are listed in Table 2 below.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
2261-251-0008-V-02-0	March 11, 2002 (effective July 9, 2001)	X	
2261-251-0008-V-02-1	May 8, 2002	X	
2261-251-0008-V-02-2	August 28, 2002	X	

Table 2: Comments on Specific Permits

Permit Number	Comments
2261-251-0008-V-02-0	Processed as an Administrative Amendment for Name Change and Change in Ownership.
2261-251-0008-V-02-1	Minor Modification for the addition of a new condition number 8.23.1
2261-251-0008-V-02-2	Minor Modification for the clarification of Permit Condition No. 5.2.1(b) regarding the predictive emission monitoring system on Boiler B002

B. Regulatory Status**1. PSD/NSR/RACT**

The facility is considered a major source with respect to PSD rules.

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the Pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Yes	✓		
PM ₁₀	Yes	✓		
SO ₂	Yes	✓		
VOC	Yes	✓		
NO _x	Yes	✓		
CO	Yes	✓		
TRS	No			
H ₂ S	No			
Individual HAP	Yes		✓	
Total HAPs	Yes		✓	

The facility is requesting Synthetic Minor (SM) status for Hazardous Air Pollutants (HAPs) the applicable Permit Conditions are 2.1.1, 6.2.8 through 6.2.12

II. Proposed Modification

A. Description of Modification

The facility is requesting conditions limiting emissions of any single hazardous air pollutant (HAP) to less than 10 tons during any twelve consecutive month periods and emissions of any combination of HAPs to less than 25 tons during any twelve consecutive month periods. This limit is set to establish this facility as a synthetic minor source for the avoidance of 40 CFR 63, particularly the MACT standards for Fabric Coating and Industrial Boilers.

The facility plans to add two (2) new interchangeable flame retardant fabric finishing production lines (Source Codes: FRL1 and FRI2). Wet scrubber technology will be used to eliminate potential chemical-related odors from the new process, but the scrubber is not considered an emission control device and no credit is being taken for reduction of process VOC or HAP emissions.

B. Emissions Change

Table 4: Emissions Change Due to Modification

Pollutant	Is the Pollutant Emitted?	Net Actual Emissions Increase (Decrease) (tpy)	Net Potential Emissions Increase (Decrease) (tpy)
PM	No	0	0
PM ₁₀	No	0	0
SO ₂	No	0	0
VOC	Yes	39	39
NO _x	No	0	0
CO	No	0	0
TRS	No	0	0
H ₂ S	No	0	0
Individual HAP	Yes	6.5	6.5
Total HAPs	Yes	6.5	6.5

C. PSD/NSR Applicability

This modification is not subject to PSD or NSR due to the facility will be limited to less than 40 tons per year for VOC to avoid PSD.

III. Facility Wide Requirements

A. Emission and Operating Caps:

A facility-wide emission cap is set to limit emissions of any single hazardous air pollutant (HAP) to less than 10 tons during any twelve consecutive month periods and emissions of any combination of HAPs to less than 25 tons during any twelve consecutive month periods. This limit is set to establish this facility as a synthetic minor source for the avoidance of 40 CFR 63.

B. Applicable Rules and Regulations

The facility applicability toward any current federal and state rules will not change as a result of this modification.

C. Compliance Status

The facility has indicated compliance with all applicable rules and regulations.

D. Operational Flexibility

The facility has not made an operation flexibility request for this amendment.

E. Permit Conditions

Condition 2.1.1 limits the facility's HAP emissions.

IV. Regulated Equipment Requirements

A. Brief Process Description

The facility plans to add two (2) new interchangeable flame retardant fabric finishing production lines (Source Codes: FRL1 and FRL2). Wet scrubber technology will be used to eliminate potential chemical-related odors from the new process, but the scrubber is not considered an emission control device and no credit is being taken for reduction of process VOC or HAP emissions.

B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
FRL1	Flame Retardant Fabric Finishing Line 1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g)	3.2.3, 3.4.13, 3.4.14, 3.4.15, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.12, 6.2.13, 6.2.14, 6.2.15	N/a	N/a
FRL2	Flame Retardant Fabric Finishing Line 2	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g)	3.2.3, 3.4.13, 3.4.14, 3.4.15, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.12, 6.2.13, 6.2.14, 6.2.15	N/a	N/a

C. Equipment & Rule Applicability

Emission and Operating Caps –

The addition of the flame retardant finishing lines causes an increase in VOC emissions of 39 tons per year. The PSD significant emissions level for VOC is 40 tons per year. To ensure that the facility does not exceed this level the appropriate monitoring, record keeping and reporting conditions have been added to ensure compliance with the 40 tons per year VOC limit on the new flame retardant finishing lines.

Applicable Rules and Regulations -

Flame Retardant Fabric Finishing Lines 1 & 2

Flame Retardant Fabric Finishing Lines FRL1 and FRL2 are used to apply a flame retardant finish to the fabric via a dip bath and not a coating process; the finish reacts with the fibers within the fabric and does not result in a continuous web surface polymeric coating. The finishing lines are comprised of dip bath application, drying, chemical treatment, wash boxes, softener application and final drying. All of these processes comprise one Georgia Rule 391-3-1-.02(2)(e) process. The allowable PM emission rate from the Process Group is expressed by Georgia Rule 391-3-1-.02(2)(e)1. which is stated as the following:

For process input weight rates up to 30 tons per hour:
 $E=4.1P^{0.67}$

For process input weight rates above 30 tons per hour:
 $E=55P^{0.11} - 40$

Where E equals the allowable PM emission rate in pounds per hour and P equals the maximum process input weight rate in tons per hour.

Georgia Rule 391-3-1-.02(2)(b) limits opacity from this process to forty (40) percent, and this rule applies because each process is subject to an emission limitation under Georgia Rule 391-3-1-.02(2).

Georgia Rule 391-3-1-.02(2)(g)2 limits the sulfur content of the fuel to 2.5%, by weight. They are subject because they burn fuel (natural gas).

D. Compliance Status

The facility has indicated compliance with all applicable rules and regulations.

E. Operational Flexibility

The facility has not made an operation flexibility request for this amendment.

F. Permit Conditions

Condition 3.4.13 establishes the requirements for Georgia Rule 391-3-1-.02(2)(b).

Condition 3.4.14 establishes the requirements for Georgia Rule 391-3-1-.02(2)(g).

Condition 3.4.15 establishes the requirements for Georgia Rule 391-3-1-.02(2)(e).

V. Testing Requirements (with Associated Record Keeping and Reporting)

A. Individual Equipment:

Condition 4.1.3.k - Method 24 - Determination of Volatile Matter Content, Water content, Density, Volume Solids, and Weight Solids of Surface Coatings was added to the Title V permit amendment.

Condition 4.1.3.1 – Method 311 - Analysis of Hazardous Air Pollutant Compounds in Paints and Coatings by Direct Injection into a Gas Chromatograph was added to the Title V permit amendment.

Condition 4.2.3 details test requirements to determine the mass fraction of “individual organic hazardous air pollutant” (IOHAP) for each material used in a textile coating, printing, slashing, dyeing, or finishing operation (including solvent blends) for the avoidance of 40 CFR 63 Subparts OOOO and DDDDD.

B. Equipment Groups (all subject to the same test requirements): Not Applicable

VI. Monitoring Requirements (with Associated Record Keeping and Reporting)

- A. Individual Equipment: None Applicable
- B. Equipment Groups (all subject to the same monitoring requirements): None Applicable

VII. Other Record Keeping and Reporting Requirements

Condition No. 6.1.7 defines the excess emissions, exceedances, and the excursions for the facility. This is an existing condition in which the exceedances threshold for hazardous air pollutants and volatile organic compounds has been added. Added exceedances are as follows:

Any twelve-consecutive month period during which emissions of a single HAP from the facility are equal to or greater than 10 tons or during which emissions of any combination of HAPS from the facility are equal to or greater than 25 tons.

Any twelve-consecutive month period during which emissions of Volatile Organic Compounds from Flame Retardant Finishing Lines (Source Codes: FRL1 and FRL2) equals or exceeds 40 tons.

Condition 6.2.8 requires the facility to maintain usage records of all materials containing hazardous air pollutants (HAPs) utilized at the facility for each calendar month. These records shall include the total weight of each material used and the hazardous air pollutants content of each material (expressed as a weight percentage).

Condition 6.2.9 requires the facility to record and maintain records of the amounts of natural gas and fuel oil combusted each calendar month in boilers B001 and B002.

Conditions 6.2.10 and 6.2.11 require the facility to use the usage records required in Condition Nos. 6.2.8 and 6.2.9 to calculate, each calendar month, total individual and combined HAP emissions from the entire facility and notify the Division when the monthly totals of individual HAP emissions or combined HAP emissions exceed 1/12 of the allowable in Condition 2.1.1. The facility is required to calculate the 12-month rolling totals and notify the Division when individual HAP 12-month rolling total limit of 10 tons (or any lesser quantity for a single hazardous air pollutant that the U.S. EPA may establish by rule) is exceeded or when the combined HAP 12-month rolling total limit of 25 tons is exceeded.

Condition 6.2.12 requires the facility to submit as a part of their quarterly reports a report prepared from records retained in Condition Nos. 6.2.9 and 6.2.11.

Condition 6.2.13 requires the facility to maintain usage records of all materials containing volatile organic compounds (VOC) utilized in Flame Retardant Finishing lines FRL1 and FRL2 for each calendar month. These records shall include the total weight of each material used and the hazardous air pollutants content of each material (expressed as a weight percentage).

Condition 6.2.14 requires the facility to calculate monthly emission of VOCs from Flame Retardant Finishing Lines and submit with the quarterly reports.

Condition 6.2.15 requires the facility notify the Division when the monthly totals of VOC emissions exceed 3.33 tons during any calendar month. The facility is required to calculate the 12-month rolling totals and notify the Division when the VOC limit of 40 tons per year is reached or exceeded.

VIII. Specific Requirements

Discuss any of the following specific requirements as they apply to the modification.

A. Operational Flexibility

Not Applicable

B. Alternative Requirements

Not Applicable

C. Insignificant Activities

Not Applicable

D. Temporary Sources

Not Applicable

E. Short-Term Activities

Not Applicable

F. Compliance Schedule/Progress Reports

Not Applicable

G. Emissions Trading

Not Applicable

H. Acid Rain Requirements

Not Applicable

I. Prevention of Accidental Releases

The 40 CFR 68 Risk Management Plan (RMP) requirements are applicable based on the 15,000-gallon anhydrous ammonia storage tank to be added as part of the new lines and the required RMP will be developed for the process at the time of startup.

J. Stratospheric Ozone Protection Requirements

Not Applicable

K. Pollution Prevention

Not Applicable

L. Specific Conditions

Not Applicable

Addendum to Narrative

The 30-day public review started on January 5, 2006 and ended on February 4, 2006. Comments were not received by the Division.