

SIP CONSTRUCTION PERMIT AND TITLE V MINOR MODIFICATION APPLICATION REVIEW

Facility Name: Shaw Industries, Inc. – Plant 23

City: Dalton

County: Whitfield

AIRS #: 04-13-3130074

Application #: TV-14648

Date SIP Application Received: August 5, 2003

Date Title V Application Received: August 5, 2003

Permit No: 2273-313-0074-V-01-2

Program	Review Engineers	Review Managers
SSPP	Dan Abrams	Susan Jenkins
SSCP	N/a	N/a
ISMP	N/a	N/a
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 proposed 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 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 and minor and significant modifications and 502(b)(10) changes. Comments are listed in Table 2 below.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
2273-313-0074-V-01-0	April 27, 2000	X	
2273-313-0074-V-01-1	October 27, 2002	X	

Table 2: Comments on Specific Permits

Permit Number	Comments
2273-313-0074-V-01-0	Initial Title V permit
2273-313-0074-V-01-1	The reduction in the maximum allowable sulfur content of residual fuel oil burned in Boilers BL01, BL02, and BL03 from 2.5% to 1.8%.

B. Regulatory Status

1. PSD/NSR/RACT

This facility is a major source under PSD because it has potential to emit (PTE) of PSD regulated pollutants greater than 250 tpy (it is not one of the 28 named source categories under PSD).

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	✓	✓		
PM ₁₀	✓			✓
SO ₂	✓	✓		
VOC	✓			✓
NO _x	✓	✓		
CO	✓			✓
TRS				✓
H ₂ S				✓
Individual HAP	✓			✓

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
Total HAPs	✓			✓

II. Proposed Modification

A. Description of Modification

Shaw is proposing to add a new dryer zone, containing two burners, each rated at 480,000 Btu/hr, capable of burning natural gas and propane on Latex Coater #1 (Source Code LC01). The new total capacity of the Latex Coater is now 15.4 MMBtu/hr.

At the same time, Shaw is also proposing to convert four dryer zones from indirect steam heat to direct fired natural gas (or propane as backup) heat on the Kuster Dye Range. The new total connected load will be 21.5 MMBtu/hr.

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	✓	0.7	0.7
PM ₁₀	✓	0.7	0.7
SO ₂	✓	0	0.6
VOC	✓	0.5	0.5
NO _x	✓	9.0	20.4
CO	✓	8.1	8.1
TRS			
H ₂ S			
Individual HAP			
Total HAPs			

C. PSD/NSR Applicability

This modification will not cause a PSD review to occur.

IV. Regulated Equipment Requirements

A. Brief Process Description

Shaw Plant 23 is a typical carpet-manufacturing site, with tufting, continuous dyeing (source codes CD01-02), and SBR latex coating (source code LC01). Processed yarn is tufted into greige goods. These greige goods are then dyed in a continuous process. Once the greige goods have been dyed, they are coated with an adhesive backing that adds durability. During this process, the yarn fibers are sheared for consistent length. At the end of this process the finished carpet is inspected and cut to customer specific lengths. All in-line dryers and curing ovens are heated directly by burning natural gas at low fire conditions. Steam for the continuous dyeing operations is provided by three small boilers two 33 MMBtu (source codes BL01 and BL02), and a 35 MMBtu (source code BL03). All three steam-generating boilers are capable of firing on natural gas, and or No. 6 fuel oil.

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
LC01	Latex Coater #1	GA Rule 391-3-1-02(2)(b) GA Rule 391-3-1-02(2)(e)1(ii) GA Rule 391-3-1-02(2)(g)2	n/a	n/a	n/a
CD01	Kuster Dye Range	GA Rule 391-3-1-02(2)(b) GA Rule 391-3-1-02(2)(e)1(ii) GA Rule 391-3-1-02(2)(g)2	n/a	n/a	n/a

C. Equipment & Rule Applicability

Emission and Operating Caps –

Not applicable

Applicable Rules and Regulations -

The Latex Coater and Kuster Dye Range are subject to Georgia Rule (b) for visible emissions, (e) for particulate matter, and (g) for the limitation of sulfur content. Both of these processes burn natural gas or propane (as backup). Natural gas and propane are considered clean fuels; therefore, no additional monitoring is required.

D. Compliance Status

Not Applicable

E. Operational Flexibility

Not Applicable

F. Permit Condition

This permit does not change any conditions.

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

A. Individual Equipment:

Not applicable

B. Equipment Groups (all subject to the same test requirements):

Not applicable

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

A. Individual Equipment:

Not applicable

B. Equipment Groups (all subject to the same monitoring requirements):

Not applicable

Addendum to Narrative

The 30-day public review started on October 21, 2003 and ended on December 5, 2003. The Division did not receive comments from EPA. Therefore, no changes to the Title V permit were made.