

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date:

Region: Winston-Salem Regional Office
County: Surry
NC Facility ID: 8600006
Inspector's Name: Ray Stewart
Date of Last Inspection: 06/14/2007
Compliance Code: 3/In Compliance - Inspection

Facility Data			Permit Applicability (this application only)
Applicant (Facility's Name): InterfaceFABRIC Elkin, Inc. Facility Address: InterfaceFABRIC Elkin, Inc. 304 East Main Street Elkin, NC 28621 SIC: 2211 / Weaving Mills, Cotton NAICS: 31321 / Broadwoven Fabric Mills Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V			SIP: NSPS: NESHAP: PSD: PSD Avoidance: NC Toxics: 112(r): Other:
Contact Data			Application Data
Facility Contact	Authorized Contact	Technical Contact	Application Number: 8600006.07E consolidated: 8600006.07C Date Received: 10/29/2007 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 01315/T23 Existing Permit Issue Date: 02/21/2008 Existing Permit Expiration Date: 07/31/2008
Nicole Johnston Environmental Manager (336) 526-0383 304 East Main Street Elkin NC, 28621	Mike Rose Sr VP Operations, Design, Development (336) 526-0551 304 East Main Street Elkin NC, 28621	Stacie Beyer Environmental Manager (207) 262-6211 277 State Street Bangor ME, 04401	
Review Engineer: Gautam Patnaik Review Engineer's Signature: _____ Date: _____		Comments / Recommendations: Issue 01315/T24 Permit Issue Date: Permit Expiration Date:	

1. Facility Description.

Interface Fabric Elkin operates this textile mill at Surry County. Operations include yarn manufacture, weaving, dyeing, fabric treatment and finishing. The facility also operates several boilers for process steam and comfort heat. Interface produces upholstery fabric for the furniture and automotive industries. The materials used are nylon, acrylic, and polyester. The tenter frames are used to heat-set textile and apply treatments to textile including, but not limited to, stain resistant treatments, protective blockings, and fire resistant treatments.

2. Purpose of Application

This application is for the renewal for their Title V permit. The current Air Permit No. 01315T23, was scheduled to expire on July 31, 2008. However, the applicant submitted the required renewal application at least nine months prior to the expiration date and are therefore

covered under the Title V application shield pursuant to 15A NCAC 2Q .0512(b)(1). In accordance with 15A NCAC 2Q .0513(c) Permit No. 01315T23 shall not expire until the renewal permit has been issued or denied.

The applicant also requested to add the following to the list of insignificant sources.

Emission Source I.D.	Emission Source Description
ID No. IES51	Print transfer machine
ID No. IES52	Fulling Mills
ID No. IES53	Slitter
ID No. IES54	Decatur and vacuum pump
ID No. IES55	Air compressor (electric)
ID No. IES56	Fabric roll warper
ID No. IES57	Heat recovery equipment (finishing operations)``
ID No. IES58	40 KW Propane-fired emergency generator at water treatment plant
ID No. IES59	Open dye becks NOS. 21, 22 AND 23.

The previously permitted source NSPS Kb source (20,000 Gallon Horizontal No. 2 Fuel Oil Tank ID No. ES35) is now listed as an insignificant source IES35. The applicant verified that this source would be exempted as per 15A NCAC 2Q .0503(8)

The applicant in an e-mail on 3/25/08 stated “all new insignificant sources not currently listed in the Title V permit have potential emissions of particulate, sulfur dioxide, nitrogen oxides, volatile organic compounds, and carbon monoxide before air pollution control devices that are each no more than five tons per year and whose potential emissions of hazardous air pollutants before air pollution control devices, are each below 1000 pounds per year.” Thus, the above insignificant sources are exempted due to the 15A NCAC 2Q .0503(8) regulation.

The applicant requested the removal of the boilers (ID Nos. ES46 and ES47) and the regulations associated with these boilers from the permit since these boilers are no longer being used.

The applicant also requested that the reporting of HAP emission and fuel usage be changed from quarterly to semi annual reporting. The Regional Office concurs with this request.

The rating for the natural gas fired boiler (ID No. ES49) in the current permit is 80.0 million Btu per hour maximum heat input capacity. The applicant requested to increase this rating to 84.09 million Btu per hour. The applicant in an e-mail on 3/29/08 notified that “the request to change the rated maximum heat input capacity for Boiler 11 (ES49) from the 80 MMBTu/hr currently contained in the Title V Operating Permit to 84.09 MMBTu/hr is not due to a modification of the boiler. This request is to correct an error in the listed maximum heat input capacity, which has been 84.09 since installation of the boiler occurred.” and further added “As we discussed, this

Boiler was originally permitted for installation in 2005 with a maximum heat input capacity of less than 100 MMBtu/hr. Subsequent to the approval of Boiler 11 (Permit # 01314T21), InterfaceFABRIC decided to install a Babcock & Wilcox boiler with a rated maximum heat input capacity of 84.09 MMBtu/hr. You have raised a question about the maximum heat input capacity of the boiler because Permit #01314T22 references 80 MMBtu/hr not 84.09 for the boiler. I apologize that InterfaceFABRIC did not notice that error in reviewing the draft permit.” The applicant also submitted a copy of the application for the permitting of Air permit No. 01315T22 (application # 8600006.07A) and this was verified by the copy in the ‘Central Files.’ Thus the boiler rating for this boiler (ID No. ES49) will be increased to 84.09 million Btu per hour maximum heat input capacity, in the new permit.

Applicant 8600006.07C was put on hold as per the request of the applicant and made part of the renewal process.

Another application (8600006.07B) was for change of ownership. There was no other changes associated with this application. This application was earlier incorporated into (8600006.07C) and the facility entity on IBEAM has been changed from “Interface FABRIC, Inc” to “Office Fabrics Holding Corp.”

On 4/10/08 Mr. Ray Stewart of the Regional Office e-mailed us stating “As a general note on this permit, there should be no annual internal inspection requirements on any of the facility's cyclones. There are no internal working parts of cyclones and the monthly external inspections should be sufficient. Please remove any reference to internal inspection requirements for the facility's cyclones out of the permit and let me review the draft when you have finished.” In discussion with the supervisors, the requirement of annual internal inspection of cyclone, in the Section 2.1 C. 1. c. i., and Section 2.1 I. 1. b. ii., of the current permit has been removed. These changes are noted in the table of changes below

See also applicant’s response under Section # 11 of this review.

3. Application Chronology

This renewal application was received on October 29, 2007. The table below outlines the modifications to their permit starting from their current title V permit (Based on documents on IBEAM)

Application #	Changes Made to the Permit	Permit Issued
8600006.07D	Addition of a new tenter frame	01315T23
8600006.07C	2Q .0501(c)(2) modification – Consolidated into this renewal (addressed above)	
8600006.07B	Ownership change – Consolidated into 8600006.07C (addressed above)	
8600006.07A	Modify a natural gas-fired tenter frame.	01315T22
8600006.05A	New natural gas fired boiler.	01315T21
8600006.05C	Modification of the piece dyeing operations and	

	addition of textile washer	
8600006.05D	Classification of changes for 8600006.05A.	
8600006.04A	Submittal of those testing results and subsequent request to include CAM requirements to satisfy the permit condition.	01315T20
8600006.03C	Install three natural gas fired boilers, Shut down of a boiler and multicyclones, and Removal of the ash handling system, water condenser, and fabric filter.	01315T19
8600006.02B	Include limits to ensure that the facility-wide HAP emissions remain below major source thresholds, Name change for the facility, and Add a Compliance Assurance Monitoring (CAM) schedule for two boilers.	01315T18
8600006.03B	Relocate a tenter frame from another facility, convert tenter frame from steam heat to natural gas, modify an existing slasher, relocate piece dye operations from another facility , convert existing Sanasoft range from propane to natural gas , relocate 36 weaving looms from another facility, and relocate various yarn processing equipment from another facility.	01315T17
8600006.03A	conversion of one tenter frame drying sections from steam-heated dryer to a natural gas-fired dryer.	01315T16

4. Regulatory Review

The review of some of the following regulations is abbreviated because of the recent comprehensive review of application 8600006.07D when Air Quality Permit No. 01315T23 was issued

The facility is subject to the following regulations:

- i. 15A NCAC 2D.0503: “Particulates from Fuel Burning Indirect Heat Exchangers” (except source ES49, which is addressed below)
- ii. 15A NCAC 2D .0512: “Particulates from Wood Products Finishing Plants”
- iii. 15A NCAC 2D .0515: “Particulates from Miscellaneous Industrial Processes.” (except source ES49, which is addressed below)

- iv. 15A NCAC 2D .0516: “Sulfur Dioxide Emissions from Combustion Sources.” (except source ES49, which is addressed below)
- v. 15A NCAC 2D .0614: “Compliance Assurance Monitoring.” (For ES-02)
The justification portion of the CAM plan in the current permit, Section 2.1 A. 4. d., for source (For ES-02) provides the background, rationale for the selection of performance indicators and the rationale for the indicator ranges. It does not provide any additional information for monitoring, recordkeeping, or reporting requirements. Thus, this section of the permit is removed in the new permit.
- vi. 15A NCAC 2D .0524: “New Source Performance Standards” and Subpart Kb. (Subpart Dc addressed below)
- vii. 15A NCAC 2D .0530(v): “Prevention of Significant Deterioration.” (Recordkeeping Requirement for Future-Projected Actual for the emissions of VOCs)
- viii. 15A NCAC 2D .0958: “Work Practices for Sources of Volatile Organic Compounds”
- ix. 15A NCAC 2Q .0317 (PSD Avoidance for PM, PM10 and VOC)
- x. 15A NCAC 2Q .0317 (HAP Avoidance) - Less than 10 tons per year of any HAP and Less than 25 tons per year of a combination of HAPs (MACT Avoidance)
- State-enforceable only
- xi. 15A NCAC 2D .1100 (Avoidance) - Toxic Air Pollutants - Formaldehyde emission restrictions.

Renewal of the permit does not change any stipulations for the above regulations.

As mentioned above the rating for the natural gas fired boiler (ID No. ES49) is increased from 80.0 to 84.09 million Btu per hour maximum heat input capacity. This source is being reviewed to determine compliance because of the increase. This source is subject to the following regulations.

- i. 15A NCAC 2D.0503: “Particulates from Fuel Burning Indirect Heat Exchangers

This rule applies to installations in which fuel is burned for the purpose of producing heat or power by indirect heat transfer. This regulation is applicable to the natural gas-fired boiler (ID No. ES49) and as per this regulation the allowable emission rate of particulate matter from this source is determined using the following equation:

$$E = 1.09 * Q^{-0.2594}$$

where

E = allowable particulate emission rate (lb/million Btu)

Q = maximum heat input (million Btu/hr).

Based on the maximum permitted heat input for the facility and rounding of the above equation the allowable emission rate of particulate matter still remains at 0.26 pounds per million Btu heat input for boiler ES49. The emission of particulate matter estimated by the spreadsheet (attached) based on most current AP-42 emission factor, appear to be low and this source is expected to be in compliance with this regulation with the higher heat input. There are no monitoring, recordkeeping and reporting for this source for the combustion of natural gas.

ii. 15A NCAC 2D .0516 “Sulfur Dioxide Emissions from Combustion Sources”

This regulation limits the SO₂ emissions from this source to 2.3 lb per million Btu heat input. The emission of SO₂ estimated by the spreadsheet (attached) appear to be low since the sulfur content in natural gas is low and this source is expected to be in compliance with this regulation. There are no monitoring, recordkeeping and reporting for this source for compliance with this regulation.

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

To comply with this regulation the applicant shall maintain records for the daily amount of natural gas fired and maintain records of the amounts of natural gas fired during each month. The applicant shall also submit a semi annual summary report of the natural gas monthly usage to DAQ.

iv. 15A NCAC 2D .0521: “Control of Visible Emissions.”

This boiler was manufactured after July 1, 1971 and is therefore limited by this regulation to a 20% opacity standard when averaged over a 6-minute period. The latest inspection report does not cite any exceedences of the standard. Thus, continued compliance is expected from this source while firing natural gas. .

There are no monitoring, recordkeeping and reporting for this source for compliance with this regulation. However few other sources subject to this regulation and having monitoring requirements are now required to incorporate “(Method 9) for 12 minutes” into their monitoring requirement. These monitoring for sources are references in Section 12., of this review under the table describing the changes to the current permit.

5. NESHAPS, PSD, Attainment Status, Toxics, 112(r), CAM, Last MACT/Air Toxics Demonstration

PSD

The minor source baseline dates for PM-10, NO_x and SO₂ have been triggered for Surry County.

Attainment Status

Surry County is in attainment for 8-hr ozone standard.

NESHAP/MACT

The facility has a HAP emission limit of less than 10 tons per year of any HAP and less than 25 tons per year of a combination of HAPs to avoid being a major source of HAP emissions and thus avoids the applicability of any MACTs.

112(r)

This facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule.

Air Toxics

The current permit avoids the facility being subject to the DAQ toxics requirements by prohibiting the processing of materials containing formaldehyde in the existing sources (ID Nos. ES07b, ES07e, and ES07f). This renewal does not subject the facility to any toxic review.

Last MACT/air toxics demonstration

The facility is a minor for HAP emissions and not subject to the State only toxics rule as mentioned above and thus this facility is not subject to the 2D .0705 ("Existing Sources and SIC Calls") rule.

6. Part II of Current Permit

The current permit does have a Part II, and there were many emission sources modified during the five year permit term that were flagged in the permit as not being shielded in accordance with General Condition R. These references were taken out since this permit will provide for a 30-day public comment period and 45-day EPA review period.

8. Statement of Compliance and Emissions summary

The DAQ has reviewed the compliance status of this facility. The Regional Office did inform us that as per the latest inspection done on 06/14/2007 the facility was in likely 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.

There is no change in emissions for this renewal

9. Public Notice / EPA and Affected State Review

Pursuant to 2Q. 0521, a notice of the draft Title V Permit was [will be] placed in a newspaper of general circulation in the area where the facility is located. The notice did provide for a 30 day comment period, with an opportunity for a public hearing. Copies of the public notice was [will be] sent to persons on the Title V mailing list and EPA. Pursuant to 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant was [will be] provided to EPA. Also pursuant to 2Q .0522, a notice of the draft Title V Permit was [will be] provided to each affected State at or before the time notice provided to the public under 2Q .0521 above.

11. Conclusions, Comments, and Recommendations

A professional engineer's seal was not required for this renewal.

A consistency determination was not required for this renewal.

Regional Office and the applicant were provided a draft of this permit for their comments. The Regional Office did not have any significant comments and the Regional Office concurs with RCO recommendation to renew air permit. The applicant sent us their comments on 4/21/08 and the significant comments are addressed below:

1. The Attachment for Insignificant Activities is missing one emitting unit- ID No. IES50-Textile Washer.
 - Response: This insignificant activities was added to the Insignificant Activities list of the permit
2. There are several places in the draft where there is a typographical error in the maximum heat input capacity for the emitting unit ES49. The maximum heat input capacity should read 84.09. (Several places in the draft list the heat input capacity as 84.9)
 - Response: Corrected.
3. InterfaceFABRIC recommends removing the 20,000 gallon fuel tank from the table in Section 1 -Permitted Emission Sources, as this unit meets the criteria and is listed as an insignificant source.
 - Response: Done.
4. We also recommend changing the language on page 14 of the draft as follows.
" The Permittee shall establish normal for the source (ID No. ES07f) in the first 30 days following startup."
 - Response: Done.

12. Permit Modification/Changes

The following table describes the changes to the current permit as part of the renewal process.

Page(s)	Section	Description of Change(s)
	Insignificant Activities List	Added sources (ID No. IES50 through IES59)
-	-	boilers (ID Nos ES46 and ES47) and associated regulations removed from new permit.
4	Source Table	Boiler (ES49) rating was increased from 80 to 84.09 million Btu per hour maximum heat input capacity
8	2.1 B.	Boiler (ES49) rating was increased from 80 to 84.9 million Btu per hour maximum heat input capacity
7	2.1 A. 3. c. ii	Monitoring includes method 9 for 12 minutes
10	2.1 C. 1. c.	Removed annual internal inspection of cyclone.
11	2.1 C. 2. c. ii	Monitoring includes method 9 for 12 minutes
13	2.1 C. 2. c. ii	Monitoring includes method 9 for 12 minutes
14	2.1 E. 2. c. ii	Monitoring includes method 9 for 12 minutes
17	2.1 F. 3. c. ii	Monitoring includes method 9 for 12 minutes
19	2.1 G. 2. c. ii	Monitoring includes method 9 for 12 minutes
21	2.1 H. 3. c. ii	Monitoring includes method 9 for 12 minutes
21	2.1 I. 1. b.	Removed annual internal inspection of cyclone.
22	2.1 I. 2. c. ii	Monitoring includes method 9 for 12 minutes
25	2.2 B. 1. d.	Reporting frequency changed from quarterly to semi-annual.
27 – 36	General Conditions	Updated