

## Air Permit Review

Permit Issue Date: **date, 2011**

**Region:** Winston-Salem Regional Office  
**County:** Wilkes  
**NC Facility ID:** 9700122  
**Inspector's Name:** Eric Hudson  
**Date of Last Inspection:** 12/15/2010  
**Compliance Code:** 3 / Compliance - inspection

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>
<p><b>Applicant (Facility's Name):</b> The Interflex Group - Carolina Plant</p> <p><b>Facility Address:</b> The Interflex Group - Carolina Plant 3200 West NC Highway 268 Wilkesboro, NC 28697</p> <p><b>SIC:</b> 2759 / Commercial Printing, Nec <b>NAICS:</b> 323112 / Commercial Flexographic Printing</p> <p><b>Facility Classification: Before:</b> Title V    <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V    <b>After:</b> Title V</p>			<p><b>SIP:</b> <b>NSPS:</b> <b>NESHAP:</b> <b>PSD:</b> <b>PSD Avoidance:</b> <b>NC Toxics:</b> <b>112(r):</b> <b>Other:</b></p>
<b>Contact Data</b>			<b>Application Data</b>
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<p><b>Application Number:</b> 9700122.11A and 11B <b>Date Received:</b> 07/29/2011 and 10/12/2011 <b>Application Type:</b> Renewal and TV Sign. <b>Application Schedule:</b> TV-Renewal</p> <p style="text-align: center;"><b>Existing Permit Data</b></p> <p><b>Existing Permit Number:</b> 04613/T21 <b>Existing Permit Issue Date:</b> 10/15/2010 <b>Existing Permit Expiration Date:</b> 04/30/2012</p>
<p>Brian Frazier Maintenance Supervisor (336) 921-3505 3200 West NC Highway 268 Wilkesboro, NC 28697</p>	<p>Jeff Zeber Senior Vice President (336) 921-3505 3200 West NC Highway 268 Wilkesboro, NC 28697</p>	<p>Beverly Kershner Senior Environmental Specialist (215) 699-4800 215 Keystone Drive Montgomeryville, PA 18936</p>	
<p><b>Review Engineer:</b> Mark Cuilla</p> <p><b>Review Engineer's Signature:</b> <b>Date:</b> <b>date, 2011</b></p>		<p style="text-align: center;"><b>Comments / Recommendations:</b></p> <p><b>Issue</b> 04613/T22 <b>Permit Issue Date:</b> <b>date, 2011</b> <b>Permit Expiration Date:</b> <b>date, 2016</b></p>	

### I. Purpose of Application

This permitting action is for:

1. renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (**04613T21**) was issued on **October 15, 2010**, with an expiration date of **April 30, 2012**. The renewal application was received on **July 29, 2011**, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied; and
2. 15A NCAC 2D .0501(c)(2) second step of two-step significant modification for the addition of presses (**ID Nos. ES-13 and ES-15**) and removal of presses (**ID Nos. ES-1, ES-2, ES-3, ES-6, ES-7, and ES-10**). A regulatory review for these sources was completed for the issuance of permit **04613T20** (see Rahul Thakers's **September 3, 2009** permit review) indicating expected compliance with all applicable emission limits. This second step application takes these modifications to public notice and EPA review in order to extend the permit shield as described in General Condition R to this equipment. No modifications to the permitted equipment as originally submitted in the first step application are needed as part of this second step.

## II. Facility Description

The facility prints plastic wrapping for the food industry, particularly chicken and turkey products.

## III. History/Background/Application Chronology

**May 31, 2007** – Permit **04613T19** issued as a Title V renewal and significant modification.

**September 3, 2009** – Permit **04613T20** issued as the first step 15A NCAC 2D .0501(c)(2) modification for the addition of presses (**ID Nos. ES-13 and ES-15**) and removal of presses (**ID Nos. ES-1 through ES-3, ES-6, ES-7, and ES-10**).

**August 18, 2010** – Permit **04613T21** issued as an administrative amendment to modify the catalytic oxidizer operating temperature set points as required by the VOC PSD avoidance and CAM conditions per **March 16, 2010** source testing.

**July 29, 2011** – Permit application **9700122.11A** received as a Title V renewal application. Application was deemed complete for processing.

**December 15, 2010** – Eric Hudson of the WSRO completed the annual compliance inspection of the facility.

**September 26, 2011** – Received WSRO “Comments and Recommendations on Air Permit Applications” document from Eric Hudson.

**October 12, 2011** – Permit application **9700122.11B** received as a second step significant modification under the two-step process of 15A NCAC 2D .0501(c)(2). Press 15 had been placed into operation on **October 19, 2009**. The Permittee should have submitted a permit application completing the two-step process within 12 months of this startup. However, it was received late (Permittee incorrectly thought the administrative amendment noted above completed this requirement). A NOV was issued on **September 28, 2011** for the late submittal.

**date, 2011** – Draft permit sent to regional office and Permittee for review prior to public notice and EPA review.

**date, 2011** – Draft permit sent to 30-day public notice and 45-day EPA review.

#### IV. Permit Modifications/Changes and ESM Discussion

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

Page	Section	Description of Change
Attachment	Insignificant activities	-amended permit revision number -removed Slitter/Perforator ( <b>ID No. IES-2</b> ) and Solventless Laminator ( <b>ID No. IES-3</b> ) per renewal application -added Solvent recovery still ( <b>ID No. IES-9</b> ) per renewal application -added shell asterisk language
Cover	-	-amended permit revision number and all dates
All	Header	-amended permit revision number
3	Equipment table	-removed Presses ( <b>ID Nos. ES-5, ES-9, and ES-11</b> ) per renewal application -added Press equipment description clarifications ( <b>ID Nos. ES-13 and ES-15</b> ) per renewal application -removed 501(c)(2) asterisk language as being complete
4	2.1 A  2.1 A (table)	-added equipment description clarifications matching equipment table -removed reference to presses ( <b>ID Nos. ES-5, ES-9, and ES-11</b> ) -added equipment designations to applicable emission limits -removed CAM requirement
5	2.1 A.1.a 2.1 A.1.b 2.1 A.1.d 2.1 A.2.a 2.1 A.2.b 2.1 A.2.c 2.1 A.3.a	-amended ID numbers removing presses 5, 9, and 11 -corrected testing rule cross reference -added “no reporting” shell language -amended ID numbers removing presses 5, 9, and 11 -corrected testing rule cross reference -updated shell language and added ID numbers -amended ID numbers removing presses 5, 9, and 11
6	2.1 A.3.b 2.1 A.3.c  2.1 A.4.a	-corrected testing rule cross reference -amended monitoring period from monthly to semiannual per regional office request -amended ID numbers removing presses 5, 9, and 11 -removed press 15 from requirement to establish “normal” as this requirement has been completed -updated shell VE language -amended ID numbers removing presses 5, 9, and 11
7	2.1 A.4.c 2.1 A.4.d.i 2.1 A.4.d.ii	-corrected testing rule cross reference -amended shell testing language -added testing requirement for catalytic oxidizer ( <b>ID No. CD-01</b> ) to be completed within the next five year permit cycle (unless testing is completed as part of initial startup of press 13) per regional office request
7-8	2.1 A.4.e	-amended ID number removing presses 5, 9, and 11 -removed reference to CAM condition A.5 as CAM is no longer included in the permit
8	2.1 A.4.f 2.1 A.4.h	-amended ID numbers removing presses 5, 9, and 11 -amended ID numbers removing presses 5, 9, and 11

Page	Section	Description of Change
9	2.1 A.4.j 2.1 A.4.k.i 2.1 A.5	-amended ID numbers removing presses 5, 9, and 11 -amended ID numbers removing presses 5, 9, and 11 -removed permit condition for CAM applicability
10	2.2 A.1.a	-modified 2D .0958 language to remove “15 pound per day” requirement per September 2010 rule change
11	2.2 A.1.e	-updated shell reporting language
12	2.2 A.4 2.2 A.5.a	-updated shell TPER language including placing limits within a table format -added specific MACT title to reference
14-24	General Conditions	-updated shell conditions (v3.5)

The title V equipment editor (TVEE) was updated to match the renewed permit as necessary.

## V. Regulatory Review

The facility is currently subject to the following regulations:

15A NCAC 2D .0515, Particulates from Miscellaneous Industrial Processes

15A NCAC 2D .0516, Sulfur Dioxide Emissions from Combustion Sources

15A NCAC 2D .0521, Control of Visible Emissions

15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds

15A NCAC 2D .1806, Control and Prohibition of Odorous Emissions

15A NCAC 2Q .0317, Avoidance Conditions (for 15A NCAC 2D .0530, Prevention of Significant Deterioration and 15A NCAC 2D .1111, Maximum Achievable Control Technology)

15A NCAC 2Q .0705, Existing Facilities and SIC Calls

15A NCAC 2Q .0711, Emission Rates Requiring a Permit

A regulatory review for these existing requirements will not be included in this document.

## VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

**NSPS** – The Permittee is not currently subject to any New Source Performance Standards. This permit renewal does not affect this status.

**NESHAPS/MACT/112j** – The Permittee is subject to 40 CFR 63, Subpart KK “National Emission Standards for the Printing and Publishing Industry.” However, the Permittee has chosen to commit to, and meet the criteria of 40 CFR 63.820(a)(2)(i) and (ii) for the purpose of establishing the facility to be an area source with respect to the MACT. In order to remain classified as a minor source of HAPS, emissions of HAPs are limited to less than 10 tons per year of any individual HAP and to less than 25 tons per year of any combination of HAPs. The current permit includes monitoring, recordkeeping, and reporting requirements (See Judy Lee’s **May 31, 2007** permit review for **04613T19** for additional detailed discussion). This permit renewal does not affect this status.

**PSD** – The facility is classified as a PSD major facility; however, the Permittee currently operates under two facility-wide volatile organic compound (VOC) prevention of significant deterioration (PSD) avoidance limits of 250 tons per year each in order to avoid applicability of this regulation. The permit includes requirements to calculate VOC emissions monthly using equations taking into account the operation with and without an associated catalytic oxidizer and to submit semi-annual reports of the monthly and yearly totals. This permit renewal does not affect this status. However, per WSRO request, additional testing requirements have been included with this renewal. Specifically, the Permittee is required to test the control device for capture and destruction efficiencies at least once in the next five year permit cycle. This testing requirement will be satisfied in the event that press (**ID No. ES-13**) is placed into service and tested per 2.1 A.4.d.i.

**112(r)** – The 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. This permit renewal does not affect this status.

**CAM** – 40 CFR 64 requires that a continuous assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold, and use a control device to meet an applicable standard. The following table indicates the current equipment/control device relationships:

<b>Emission Source I.D. No.</b>	<b>Emission Source Description</b>	<b>Control Device I.D. No.</b>	<b>Control Device Description</b>
<b>ES-08</b>	One 50” wide web flexographic printing press with ten printing stations and an all electric drying system operating within an enclosed pressroom (PTE)	<b>CD-01</b>	One natural gas/propane-fired catalytic oxidizer (5.64 million Btu per hour heat input rate)
<b>ES-13</b>	One 67” wide web flexographic printing press with ten printing stations and ten direct natural gas/propane-fired bake ovens (1.13 million Btu per hour total maximum heat input rate) operating within an enclosed pressroom (PTE)		
<b>ES-14</b>	One 60” wide web flexographic printing press with ten printing stations and an all electric drying system operating within an enclosed pressroom (PTE)		
<b>ES-15</b>	One 67” wide web flexographic printing press with ten printing stations and ten direct natural gas/propane-fired bake ovens (1.13 million Btu per hour total maximum heat input rate) operating within an enclosed pressroom (PTE)		

The current permit includes a requirement to comply with CAM for the operation of this catalytic oxidizer (**ID No. CD-01**) because potential uncontrolled emissions of volatile organic compounds (VOCs) are greater than the applicability threshold of this regulation. The applicable sources are subject to the following VOC emission limits (control device is installed only to control VOC emissions from the presses):

1. 15A NCAC 2Q .0317, Avoidance Conditions for 15A NCAC 2D .0530, Prevention of Significant Deterioration. Emissions of VOCs are limited to less than 250 tons per year from presses (**ID Nos. ES-8 and ES-14**) and less than 250 tons per year from presses (**ID Nos. ES-13 and ES-15**). These emission caps are exempt from CAM applicability per 15A NCAC 2D .0614(b)(1)(E); therefore as part of this permit renewal, CAM is being removed from the permit as a non-applicable requirement.
2. 15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds. This regulation identifies specific work practices and does not represent an emission limit subject to CAM applicability. This permit renewal does not affect this status.

## VII. Facility Wide Air Toxics

The Permittee is subject to the following NC air toxics regulations:

1. 15A NCAC 2Q .0711. This regulation lists the toxic permitting emission rates (TPERs) for each regulated TAP. The Permittee has made a demonstration that emissions of the listed pollutants are each below their respective TPERs. A permit modification is required prior to exceeding any of these limits. The current permit requires that the Permittee maintain records indicating continued compliance with these emission rates. This permit renewal does not affect this status.
2. 15A NCAC 2Q .0705. This regulation requires that the Permittee demonstrate compliance with NC Air Toxics for each of the regulated toxic pollutants from all non-exempt sources at the same time that it is compliance with the last known MACT standard applicable to the facility (excluding the MACT for combustion sources). 40 CFR 63, Subpart KK is the last MACT applicable to the facility. The Permittee submitted a modeling demonstration on October 10, 2005 indicating compliance with this requirement (See Judy Lee's **May 31, 2007** permit review for **04613T19** for additional detailed discussion). This permit renewal does not affect this status.

## VIII. Facility Emissions Review

There is no change in emissions for this renewal.

The following table represents the latest years' emission inventories from the facility:

Pollutant(s)	2009 Actual Emissions (tpy)	2010 Actual Emissions (tpy)
CO	0.17	0.19
NO <sub>x</sub>	0.21	0.23
PM <sub>10</sub>	0.01	0.01
VOC	144.36	39.21
Total HAP/TAP	2.28	2.62

## **IX. Stipulation Review**

The facility was last inspected by Eric Hudson of the WSRO on **December 15, 2010**. Based on his visual observations and records review, the facility appeared to be in compliance with the permit and applicable DAQ regulations. He did note the following items that should be addressed at the next permit modification (*DAQ response in italics*):

1. The existing CAM condition 2.1 A.5 is very long. Mr. Hudson has reviewed other permits that contain more concise CAM for catalytic oxidizers. The CAM condition should be updated accordingly. *As noted above, the applicable control device was re-evaluated for CAM applicability. It was determined that CAM no longer applies because the source operates under an emission cap for VOCs (the pollutant for which the control device is installed). Therefore, CAM has been removed from the permit as part of this permit renewal.*
2. The solventless laminator (**ID No. IES-3**) and slitter-winder (**ID No. IES-2**) have been removed from the facility. *Agree; this removal was described in the permit application with a request that the applicable sources be removed at this permit renewal. This permit modification has been done as requested.*
3. Condition 2.1 A.3 (2D .0521) requires monthly visible emissions observations for the printing presses. The monthly records and DAQ inspection records have never recorded visible emissions. The monitoring frequency should be changed to once every semiannual period. *Agree; monitoring period has been replaced as requested.*
4. At the next permit renewal, DAQ should require additional testing of the oxidizer because the likely reason for the temperature set point increase is to compensate for an aging catalyst bed. The oxidizer should be tested by the time the renewed permit expires. *Agree; testing has been included as requested. Testing is now required when (1) press (**ID No. ES-13**) is placed into service, or (2) prior to the expiration of the renewed permit per the regional office request.*

## **X. Public Notice/EPA and Affected State(s) Review**

Pursuant to 15A NCAC 2Q .0521, a notice of the DRAFT Title V Permit shall be made (via DAQ website). The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 2Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 2Q .0521 above. The states of Tennessee and Virginia and the Forsyth County Local Program and Mecklenburg County Department of Environmental Protection are each affected areas within 50 miles of the facility.

## **XI. Conclusions, Comments, and Recommendations**

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

A consistency determination was not required for this renewal.

WSRO recommends issuance of the permit and was presented with a DRAFT permit prior to notice and issuance.

RCO concurs with WSRO's recommendation to issue the renewed air permit.