

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

**Permit Issue Date:**

**Region:** Winston-Salem Regional Office  
**County:** Wilkes  
**NC Facility ID:** 9700122  
**Inspector's Name:** Eric Hudson  
**Date of Last Inspection:** 03/24/2004  
**Compliance Code:** B/In Violation W/regard To Em & Compl  
**CDS Plant ID\* (10-digit)** 37-193-00122

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>		
<b>Applicant (Facility's Name):</b> The Interflex Group - Carolina Plant  <b>Facility Address:</b> The Interflex Group - Carolina Plant 3200 West NC Highway 268 Wilkesboro, NC 28697  <b>SIC:</b> 2759 / Commercial Printing, Nec <b>NAICS:</b> 323112 / Commercial Flexographic Printing  <b>Facility Classification: Before:</b> Title V <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V			<b>SIP:</b> n/a <b>NSPS:</b> n/a <b>NESHAP:</b> n/a <b>PSD:</b> n/a <b>PSD Avoidance:</b> Yes <b>NC Toxics:</b> n/a <b>112(r):</b> n/a <b>Other:</b> n/a		
<b>Contact Data</b>			<b>Application Data</b>		
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<b>Application Number:</b> 9700122.05A <b>Date Received:</b> 01/25/2005 <b>Application Type:</b> Modification <b>Application Schedule:</b> TV- Significant <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 04613/T14 <b>Existing Permit Issue Date:</b> 03/05/2004 <b>Existing Permit Expiration Date:</b> 04/30/2006		
Paul Douglas Director of Engineering (336) 921-3505 3200 West NC Highway 268 Wilkesboro NC, 28697	Eric Bumgarner Vice President (336) 921-3505 3200 West NC Highway 268 Wilkesboro NC, 28697	Paul Douglas Director of Engineering (336) 921-3505 3200 West NC Highway 268 Wilkesboro NC, 28697			
<b>Review Engineer:</b> Judy Lee  <b>Review Engineer's Signature:</b> _____ <b>Date:</b> _____			<b>Comments / Recommendations:</b> <b>Issue</b> 04613/T15 <b>Permit Issue Date:</b> <b>Permit Expiration Date:</b>		

**1. Purpose of Application**

The Interflex Group (Carolina Plant) is a flexographic printing facility located in Wilkesboro, Wilkes County North Carolina. The facility is a converter of flexible packaging material, which involves the flexographic printing of plastic wrapping for the food industry. The facility is currently classified as a major stationary source for the purpose of the Prevention of Significant Deterioration (PSD) permitting program (see 15A NCAC 2D .0530). The facility is currently operating under **Permit No. 04613T14**.

This permit modification is a consolidation of several outstanding permit modification requests. A couple of the modifications were placed on hold until the facility and DAQ resolved the facility's noncompliance issues through a Special Order by Consent (SOC) to help bring the facility back into compliance with their PSD Avoidance conditions. The SOC was not signed; therefore, this modification is to complete the existing permit modification requests and address the facility's CAM requirements. The facility is currently in compliance with their PSD Avoidance conditions; however, they are not in compliance with their CAM requirements. The facility is not able to monitor and record data as required under the current CAM requirements in the permit. We are modifying their CAM requirements to reflect the capabilities of their existing strip chart recorder and ensure that they can

demonstrate reasonable compliance assurance as required under CAM regulations through inspection and maintenance, as well as continuously monitoring the catalyst inlet bed temperature and temperature difference across the bed. The current permit also requires testing to determine the proper operating parameters and temperatures to be monitored in order to ensure compliance. The current operating parameters are based on a stack test performed on the oxidizer in September 2000 and manufacturers suggestions. The new permit will require testing no later than December 31, 2005 to ensure compliance with their PSD Avoidance condition and CAM requirements. If the operating parameters/temperatures placed in the permit need to be modified, the facility is required to request an administrative change within 60 days of approved test results.

The following modifications were consolidated into this permit modification and will be processed as a significant modification following the procedures in 15A NCAC 2Q .0516:

- Addition of three new presses (ID Nos. ES-09, ES-10, ES-11) controlled by a catalytic oxidizer as needed, were permitted during a significant modification (15A NCAC 2Q 501(c)(2)) to permit No. **04613T11**. Pursuant to NCAC 2Q .0501(c)(2), the facility was required to submit a full Title V application for the new equipment within 12 months of commencing operation. This modification request (Application Number 9700122.04A, received on February 18, 2004) serves as the second part of the significant modification for application 9700122.02B and satisfies Specific Condition 2.3, Part II of Permit Number **04613T12**.
- Addition of one new press (ID No. ES-12) and the removal of one existing press with a request for enforceable permit conditions that limit the VOC emissions increase to less than the PSD significance level via a 86 ton per year limit was permitted during a significant modification (15A NCAC 2Q 501(c)(2)) to permit No. **04613T12**. Pursuant to NCAC 2Q .0501(c)(2), the facility was required to submit a full Title V application for the new equipment within 12 months of commencing operation. This modification request (Application Number 9700122.04B, received on July 23, 2004) serves as the second part of the significant modification for application 9700122.03B and satisfies Specific Condition 2.3, Part II of Permit Number **04613T13**.
- Modification of Permit Number **04613T13** to provide VOC controls on two existing presses (ID Nos. ES-07 and ES-08) by routing VOC emissions to the existing catalytic oxidizer (ID No. CD-1) added during a permit modification to Permit No. 04613T11 were permitted during a significant modification (15A NCAC 2Q 501(c)(2)) to permit No. **04613T13**. Pursuant to NCAC 2Q .0501(c)(2), the facility was required to submit a full Title V application for the new equipment within 12 months of commencing operation. This modification request (Application Number 9700122.05A, received on January 25, 2005) serves as the second part of the significant modification for application 9700122.03C and satisfies Specific Condition 2.3, Part II of Permit Number **04613T14**.

The following table represents the changes to the current Title V permit as proposed to complete this permit modification:

<b>New Page Number</b>	<b>Old Page Number</b>	<b>Condition Number</b>	<b>Change</b>
Cover	Cover	Permit Information	Modified to reflect current permit number, issue and effective date, and associated application information
Attachment	Attachment	Insignificant Activities	Added Hole Punch Machine addressed during Regional Comments and Recommendations (received 9/18/2004)
3-4	3-4	Equipment List	Removed asterisks and footnote
4-17	5-15	2.1-A. & 2.1-B.	Removed asterisks and footnote Added 2Q .0317 Avoidance Condition to 2D .1111 in tables
7-12	8-11	2.1-A.5 & 6	Modified PSD Avoidance and CAM Conditions for Presses ES-07 and ES-08 due to link between PSD

			Avoidance and CAM. Replaced XX's with operating parameters and an inlet bed temperature with a testing requirement of no later than December 31, 2005.
15-17	14-15	2.1-B.4	Added inspection and maintenance requirements and testing for presses ES-09, ES-10 and ES-11 controlled by CD-1
20	17	2.2-C.1.d.	Added 2Q .0317 Avoidance Condition for 2D .1111.
21-29	18-25	Part I, Section 3	Updated General Conditions to current
--	27-29	Part II	Removed Part II of the permit

## 2. Application Chronology

The application chronology is detailed on the attached IMPAQ Comprehensive Application Report and attached email correspondence.

## 3. New Equipment/Change in Emission and Regulatory Review

This significant modification has no equipment modifications or change in emissions. This permit application involves modification of the existing PSD Avoidance Conditions to allow for the VOC emissions reductions achieved by routing VOC emissions from new and existing presses to the catalytic oxidizer. This modification also involves re-evaluating the CAM requirements placed in their current permit.

### The facility is subject to the following regulations:

2D .0515 "Particulates from Miscellaneous Industrial Processes"  
2D .0516 "Sulfur Dioxide Emissions from Combustion Sources"  
2D .0521 "Control Of Visible Emissions"  
2D .0530 "Prevention of Significant Deterioration"  
2D .0535 "Excess Emissions Reporting and Malfunctions"  
2D .0614 "Compliance Assurance Monitoring" (40 CFR 64)  
2D .0958 "Work Practices for Sources of Volatile Organic Compounds"  
2D .1111 "Maximum Achievable Control Technology" (40 CFR 63, Subpart KK Printing and Publishing NESHAP)  
2D .1806 "Control and Prohibition of Odorous Emissions"  
2Q .0317 "AVOIDANCE CONDITIONS"  
2Q .0711 "Emission Rates Requiring a Permit"

### Regulations applying to this modification are:

2D .0515 "Particulates from Miscellaneous Industrial Processes" - The allowable emission rate for particulate matter from any stack, vent, or outlet of any industrial process for which no other emissions control standards are applicable shall not exceed the level calculated with the following equation:

For process weights less than or equal to 60,000 pounds per hour (30 tons per hour):

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

where: E = allowable emission rate for particulate matter in pounds per hour, and  
P = process weight in tons per hour

Particulate matter emissions from the solids in the inks and combustion of natural gas/propane from the dryers are negligible; therefore, compliance with any allowable emission limit is expected for these emission sources.

2D .0516 “Sulfur Dioxide Emissions from Combustion Sources” - Sulfur dioxide emissions from any source of combustion that is discharged from any vent, stack or chimney (bake ovens on presses and associated control device) shall not exceed 2.3 pounds of sulfur dioxide per million BTU heat input.

Natural gas/propane is an inherently low sulfur emitting fuel. Emissions of sulfur dioxide from the combustion of natural gas will always be less than the emission limit. Therefore, compliance is demonstrated with this regulation since estimated emissions are less than the allowable.

2D .0521 “Control Of Visible Emissions” - The intent of this rule is to prevent, abate and control emissions generated from fuel burning operations and industrial processes where an emission is expected to occur, except during startups made according to procedures approved under 2D .0535. These presses and associated control device were operated after July 1, 1971, therefore visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period except that six-minute averaging not more than 87 percent opacity may occur not more than once any hour nor more than four times in any 24-hour period.

During the last inspection, no visible emissions were observed; therefore, the facility is expected to be in compliance with 2D .0521.

2Q .0317 Avoidance Condition for 2D .0530 “Prevention of Significant Deterioration”

This facility is a PSD major stationary source for VOC emissions. The facility currently has four PSD Avoidance Conditions in their permit. The 250 PSD Avoidance limit for presses (ID Nos. ES-06, ES-07, and ES-08) was exceeded prior to routing the VOC emissions to the control device; however, the facility is currently in compliance.

The current permit requires a minimum catalyst bed inlet temperature of 500 degrees F based on stack testing performed on September 19, 2000 and manufacturers suggestions. The stack test was performed on the catalytic oxidizer while it was operated at the Interflex facility in Ashland, VA, prior to being moved to the NC facility. The stack test report was reviewed by Ms Shannon Vogel, SSCB, to determine if the test data was sufficient to establish temporary operating parameters for the oxidizer at the Interflex facility in Wilkesboro, NC until VOC compliance testing is conducted at the NC facility. The test data was determined to be acceptable as background information to establish preliminary operating parameters pending compliance testing at the Wilkesboro facility.

Based on the information submitted with this permit modification and stack test data, compliance with 2D .0530 is expected. However, testing will be required to demonstrate compliance.

2D .0614 “Compliance Assurance Monitoring” (40 CFR 64)

This facility became subject to CAM requirements during the last permit modification. CAM requirements were placed in the permit with testing requirements to ensure compliance. The facility requested to delay CAM requirements through the SOC; however, since the SOC was never signed, they are required to comply with the VOC limits and CAM requirements in their current permit. Based on correspondence between the facility and the WSRO, the facility is not able to comply with the current CAM requirements in their permit. Specific Conditions 2.1-A.6.d.iii. & iv. were removed during this permit modification. Based on the facility’s letter dated December 13, 2004, their current strip chart recorder system cannot be modified to export individual temperature data points to a data processor to perform the temperature averaging calculations as required under 2.1-A.6.d.

#### **4. NSPS, NESHAPS, PSD, 112r, CAM**

##### **NPS, NESHAPS**

This facility is subject to the Maximum Achievable Control Technology (MACT) standards, in 40 CFR Part 63, Subpart KK entitled “National Emission Standards for the Printing and Publishing Industry” and have taken a limit to establish them as an area source of HAPs with respect to this MACT standard.

### PSD

This facility is a major PSD source for VOC emissions because it has the potential to emit greater than 250 tons per year. The permit being modified (#04613T14) includes four PSD avoidance conditions for volatile organic compound (VOC) emissions:

- flexographic presses (ID Nos. ES-01, ES-02, ES-03, and ES-05) has a limit of 204 tons per year of VOC emissions
- flexographic presses (ID Nos. ES-06 through ES-08) has a limit of 250 tons per year of VOC emissions
- flexographic presses (ID No. ES-09 through ES-11) has a limit of 40 tons per year of VOC emissions
- flexographic press (ID No. ES-12) has a limit of 86 tons per year of VOC emissions

This significant permit modification will modify the existing PSD Avoidance Conditions (i.e. monitoring, recordkeeping and reporting requirements), but the PSD Avoidance limits will remain the same.

### Attainment Status

This facility is located in Wilkes County, which is in attainment according to US EPA's Boundary Designations for 8-hour Ozone Standard dated June 15, 2004.

### 112r

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 threshold quantities listed in the rule.

### CAM

Compliance Assurance Monitoring (CAM) (40 CFR Part 64) does apply since the equipment modified during the last Permit modification has potential post control emissions greater than 100 tons per year for criteria pollutants and required addition of a control device to meet the less than 250 tons per year VOC emission limit under the PSD avoidance condition. This permit modification will modify the CAM conditions to reflect the capabilities of the facilities existing strip chart recorder based on continuously monitoring the catalyst inlet bed temperature and the temperature difference across the catalyst bed based on a stack test performed on the unit in September 2000. The facility will be required to perform stack testing on the unit no later than December 31, 2005 to ensure compliance.

## **5. Facility Wide Air Toxics**

This facility is a Title V facility because the potential emissions of VOC exceed 100 tons per year; however, they are not major for hazardous air pollutants. The facility is subject to Subpart KK of 40 CFR Part 63, yet, has chosen to commit to, and meet the criteria of 40 CFR 63.820(a)(2)(i) and (a)(2)(ii) for the purposes of establishing the facility as an area source with respect to this MACT standard. ***The applicant shall use less than 10 tons per each rolling 12-month period of each HAP at the facility and use less than 25 tons per rolling 12-month period of any combination of HAP at the facility***, including materials used for source categories or purposes other than printing and publishing. Area sources are not subject to any of the MACT provisions except recordkeeping. Therefore, a toxics review was not triggered by this modification.

## **6. Facility Compliance Status**

The facility was last inspected on March 24, 2004 by Mr. Eric Hudson, WSRO and found to be out of compliance.

On February 1, 2005, the facility was given a civil penalty assessment (DAQ 2005-009) of \$29,957.

The facility was issued a Notice Of Violation (NOV) on 4/8/04 for violations of permit conditions 2.1.B.4.b and 3.P.

The facility was issued a Notice Of Violation and Notice of Recommendation for Enforcement (NOV/NORE) on July 13, 2004 for violation of Part II Section 2.5 of permit 04613T14 for not submitting a complete Title V application for Press 12. This application was received on July 23, 2004.

The Interflex Group, Inc. was issued an NOV/NORE on February 13, 2004 because VOC emissions from press Nos. 1, 2, 3 and 5 for the 12-month time period ending in December 2003 (207 tons) exceeded the limit of 204 tons, in violation of 2D .0530 and permit 04613T13 condition 2.1.A.4.a.

The following NOV/NORE dated November 7, September 5, May 28, and April 25, 2003 were included in enforcement case No. DAQ 2003-255. The company was assessed \$46,563.00.

The Interflex Group, Inc. was issued an NOV/NORE on November 7, 2003 because VOC emissions from press Nos. 6, 7, and 8 for the 12-month time periods ending in July, August, and September 2003 (285, 272, and 263 tons respectively) exceeded the limit of 250 tons, in violation of 2D .0530 and permit 04613T13 condition 2.1.A.5.a. The facility was also in violation of permit conditions 2.1.A.4.c, 2.1.A.5.c, 2.1.A.6.c, and 2.2.C.d for submitting a late semiannual report.

The Interflex Group, Inc. was issued an NOV/NORE on September 5, 2003 because VOC emissions from press Nos. 6, 7, and 8 for the 12-month time periods ending in May and June 2003 (266 and 277 tons respectively) exceeded the limit of 250 tons, in violation of 2D .0530 and permit 04613T13 condition 2.1.A.5.a.

The Interflex Group, Inc. was issued an NOV/NORE on May 28, 2003 because VOC emissions from press Nos. 6, 7, and 8 for the 12-month time period ending in April 2003 (259 tons) exceeded the limit of 250 tons, in violation of 2D .0530 and permit 04613T12 condition 2.1.A.5.a.

The Interflex Group, Inc. was issued an NOV/NORE on April 25, 2003 for 1) failing to perform monthly VOC calculations in violation of permit 04613T12 condition 2.1.A.4.b, 2.1.A.5.b, 2.1.B.4.b; 2) failing to maintain monthly VOC work practice inspections logbook in violation of condition 2.2.B.1.d and 2D .0958; 3) failing to perform monthly HAP calculations in violation of condition 2.2.C.1; 4) failing to submit startup notification for press Nos. 9 and 10 in violation of Part II condition 2.2.

## 7. Facility Emissions Review

### *Facility-wide Emissions*

Emissions listed below are based on data submitted with the permit applications.

Pollutant	Actual Emissions (tpy)	Potential Emissions (tpy)
PM	0.0465	0.0664
PM <sub>10</sub>	0.0465	0.0664
PM <sub>2.5</sub>	0.0465	0.0664
SO <sub>2</sub>	0.0011	0.0016
NO <sub>x</sub>	1.62	2.31
CO	0.22	0.3144
VOC	305.1	320.5
HAP	0.644	0.999

## 8. Stipulation Review

Based on the regional review, the region would like to add recordkeeping/inspection/maintenance requirements for the oxidizer. Also, add test condition for the oxidizer to validate control efficiency. It is a used piece of equipment and DAQ is unclear of previous maintenance. In addition, VOC loading will increase and WSRO wants testing to confirm compliance.

Based on comments received from Mr. Hudson on January 21, 2004, the region wants testing, inspection and maintenance and recordkeeping requirements added for presses ES-09, ES-10, and ES-11, in addition to presses ES-07 and ES-08. Since this is a significant modification the previous request for testing will be added to the permit during this permit modification.

## 9. Public Notice / EPA and Affected State Review

Pursuant to 2Q .0521, a notice of the draft Title V Permit shall be placed in a newspaper of general circulation in the area where the facility is located. 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 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.

*Public Notice of the DRAFT Title V Permit was published in the XXXX on XXXX and the public comment period ran from XXXX to XXXX.*

Comments Received on the Draft Permit – XXXXXX.

*EPA's 45 Day Review period ran concurrent with the 30 day Public Notice from XXXX to XXXX.*

## 10. Conclusions, Comments, and Recommendations

This application did not require a PE seal because the construction and operation permit processed previously as a 501(c)(2) was sealed on July 16, 2003 by Mr. Frank J. M. Taracido, PE Seal Number 8899.

A consistency determination was not required for this permit application.

The WSRO review contained the following:

1. Recommend issuance of Permit.
2. Include a table of facility-wide emissions in review.
3. A draft permit was requested.

The WSRO recommends issuance of the permit per Mr. Hudson's comments dated February 15, 2005. All of Mr. Hudson's recommendations were taken into consideration in this review.

A draft permit and review were emailed to Mr. Hudson on February 4, 2005 for review and comments received on February 8 & 15, 2005.

A revised draft permit and review were emailed to Mr. Hudson on March 18, 2005 for review and comments received on March 18, 2005.

A draft permit was emailed to Mr. Paul Douglas, Interflex, on February 11, 2005 for review and comments received on March 11, 2005 via teleconference.

A revised draft permit was emailed to Mr. Paul Douglas, Interflex, on March 18, 2005 for review and comments received on April 5, 2005 via email.

RCO concurs with WSRO's recommendation to issue air permit No. **04613T15**.