

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Air Permit Review

Permit Issue Date:

Region: Wilmington Regional Office
County: Brunswick
NC Facility ID: 1000083
Inspector's Name: Ashby Armistead
Date of Last Inspection: 09/14/2007
Compliance Code: 3/In Compliance - Inspection

Facility Data			Permit Applicability (this application only)
Applicant (Facility's Name): Technical Coating International, Inc. Facility Address: Technical Coating International, Inc. 150 Backhoe Road Leland, NC 28451 SIC: 3089 / Plastics Products, Nec NAICS: 337215 / Showcase, Partition, Shelving, and Locker Manufacturing 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: 1000083.07A Date Received: 09/27/2007 Application Type: Modification Application Schedule: TV-Minor Existing Permit Data Existing Permit Number: 07436/T05 Existing Permit Issue Date: 06/05/2002 Existing Permit Expiration Date: 05/31/2007
Sean Moody Vice President (910) 371-0860 150-A Backhoe Road Leland NC, 28451	Burt Moody President (910) 371-0860 150 Backhoe Road Leland NC, 28451	Sean Moody Vice President (910) 371-0860 150-A Backhoe Road Leland NC, 28451	
Review Engineer: Mike Smithwick Review Engineer's Signature: _____ Date: _____		Comments / Recommendations: Issue 07436/T06 Permit Issue Date: Permit Expiration Date:	

I. Purpose of Application

This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513 and a minor modification to the Permit. The existing Title V permit has an expiration date of May 31, 2007. However, the application was submitted in a timely manner on August 23, 2006 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.

The WiRO was presented with a draft copy of the Permit.

II. Facility Description

Technical Coating International (TCI) manufactures spools of laminate material primarily for packaging in the electronics and computer industries. The main raw materials are rolls of polyethylene and

polypropylene. Tyvec, paper, aluminum, and other materials are sometimes laminated. Some of the laminate produced by TCI is sold to bag manufactures that produce anti-static bags for electrical components. They also produce specialty laminates for various uses such as the Anolight bags that some light sensitive printer cartridges / drums come in. In addition, the facility makes a product that involves gluing fabric on each side of a solid sheet. The final product is used to make window blinds. The rotogravure machines apply a precise amount of Aglue to one side of the material via small engraved channels. The two materials are then pressed together and cured (oven) by the machine. Coatings are applied the same way and then sent through the oven. Laminators S1, S3, and S4 have two cylinder heads and Laminator S2 has three. The third head on S2 is not a gravure head, but applies a thicker coating via a scraper blade / vat arrangement. Due to the oven configuration this head can only be used alone. The other two heads can be used simultaneously or alone. The rotogravure heads have enclosures that provide a controlled atmosphere for better quality control and capture emissions more efficiently.

The machines reportedly have not been used for printing, only laminating and lacquer coating. The facility is therefore exempt from the Printing and Publishing MACT.

III. Application Chronology

August 23, 2006 – Received application for renewal

September 27, 2007 – Received application for modification.

October 4, 2007 – Modification application not complete; clock stopped until submittal of fee, zoning consistency determination, and permitting forms.

October 31, 2007 – Facility provides notice they want to have a MACT avoidance Condition rather than be subject to MACT.

November 2, 2007 - Modification items received

November 5, 2007 - Modification consolidated with renewal.

November 12, 2007 - Facility provides their submission of CAM monitoring data

November 26, 2007 - Permit submitted for review.

- Draft Permit goes to public notice

IV. Permit Modifications/Changes and ESM Discussion

The facility notified this Office in a requested Permit modification received 9/27/2007 that they would be subject to 40 CFR 63, Subpart JJJJ – the Web Coatings MACT. They had not previously been subject because they didn't use any HAP containing solvent, but now use some HAP containing

solvents. They also stated they would comply with the MACT by using a thermal incinerator (already permitted as ID No. CD-1) with a control efficiency of 95% when using HAP containing solvents. Previously, only coaters/laminators, ID Nos. S2 and S4 could be controlled by the thermal oxidizer. In the modification, they requested that all four coaters/laminators, ID Nos. S1 – S4, be able to be controlled. However, at any given time, only one coater/laminator would be controlled.

After consideration, it was determined the facility could avoid MACT through the use of the thermal oxidizer. The avoidance Condition was added to the Permit.

The following is a summary of changes made to the Air Permit.

Page(s)	Section	Description of Change(s)
Cover	-	Amended all dates and permit revision numbers.
Insignificant Activities	-	Added two footnotes clarifying requirements for insignificant activities. Assigned ID Nos. for insignificant activities.
3	2.1. Table	Changed the equipment list to note that the laminator/coaters ID Nos. S1 and S3 are controlled by the thermal oxidizer. Added a footnote noting that only one coater/laminator can be controlled at a time.
4 10	2.1.A. Table 2.1.A.8	Added the State-enforceable only requirement to control odorous emissions under 15A NCAC 2D .1806.
5	2.1.A.1.c	Added the requirement under 15A NCAC 2D .0515 for the Permittee to maintain production records such that the process rates "P" in tons per hour, as specified by the formulas contained in 15A NCAC 2D .0515 can be derived, and to make these records available to a DAQ authorized representative upon request.
6	2.1 A.4	Updated the PSD avoidance Condition such that it includes a CCDM and the facility can be exempted from CAM.
7	2.1.A.4.h	Reduced reporting frequency for PSD avoidance from quarterly to every six months.
9 - 10	2.1.A.7	Added MACT avoidance Condition to avoid the National Emission Standards for Hazardous Air Pollutants for Paper and Other Web Coatings, 15A NCAC 2D .1111 (40 CFR 63, Subpart JJJJ) which included a CCDM so the facility can also be exempted from CAM.
11 - 19	3	Updated the general conditions to Permit Shell No 2.19.

ESM

Removed the references to MACT, Subpart JJJJ.

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 .1100, Control of Toxic Air Pollutants
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 2D .1111, Maximum Achievable Control Technology)

No changes have occurred which would indicate non-compliance with these Rules. The last compliance inspection (08/29/06) noted compliance with the Rules

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

NSPS – The facility is not currently subject to any New Source Performance Standards.

NESHAPS/MACT – The facility had notified us that they were subject to 40 CFR 63, Subpart JJJJ: National Emission Standards for Hazardous Air Pollutants for Paper and Other Web Coatings on a modification submitted on 9/27/2007. They had been avoiding the use of any HAP containing solvents, and thus avoided the MACT, previously. They are now using some HAP containing solvents and concluded the MACT was now applicable. The facility submitted their Notification of Compliance Status for Subpart JJJJ (Paper and Other Web Coating) the Region on 06/01/06. They also submitted the required semi-annual Subpart JJJJ report for the first half of '06. No deviations were reported. They used the “as purchased” compliance option.

After review, it was determined that the facility could avoid the MACT when it uses solvents containing HAPs by the use of the thermal oxidizer. Only one coater/laminator will be controlled by the thermal oxidizer at any given time. Solvents not containing HAPs will not be controlled by the thermal oxidizer. They will make monthly calculations to demonstrate that emissions of each single HAP are less than 10 tons/yr and that total HAP emissions are less than 25 tons/yr to avoid MACT applicability. The following method is used to make these calculations:

For single HAP emissions:

$$E_i = \text{SUM}(A_j \times B_j \times (1-C))$$

For all HAP emissions

$$E = \text{SUM}(E_i)$$

where: E is the emission rate per month of all HAPs
E_i is emission rate per month of each single HAP
A_j is the total amount of each type of HAP-containing material consumed during the month
B_j is the HAP content of the material

C is the control efficiency of the thermal oxidizer according to vendor specifications for the corresponding combustion temperature

They must submit semi-annual reports indicating that for each 12 month period, HAP emissions are below the required levels.

PSD – The facility is subject to an emissions limit of 250 tons/yr of VOCs from coater laminators, ID Nos. S1 and S2 and an emissions limit of 250 tons/yr of VOCs from coater laminators, ID Nos. S3 and S4 limit of less than 250 tons per year. The language is included as Section 2.1 A.4 of the Permit. The language was modified such that this Condition can also serve to avoid separate CAM requirements.

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.

CAM – 40 CFR 64 requires that a continuous compliance 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.

However, the Permit Conditions for the avoidance of the PSD and MACT requirements includes continuous compliance demonstration method (CCDM), the facility is exempt from the CAM requirements under 15A NCAC 2D .0614(b)(1)(E) and F.

VII. Facility Wide Air Toxics

The facility has previously modeled for the following TAPs and complies with the AALs at the listed emission rates below:

Toxic Air Pollutant (CAS No.)	Modeled Emission Limit (lb/yr)	Modeled Emission Limit (lb/day)	Modeled Emission Limit (lb/hr)
ethyl acetate (141-78-6)	NA	NA	600
methyl ethyl ketone (78-93-3)	NA	3488	436
toluene (108-88-3)	NA	4448	560
toluene-2,4-diisocyanate (584-84-9)	NA	0.512	0.064
xylene (1330-20-7)	NA	2536	317

They are required to keep monthly records and submit quarterly reports indicating compliance. No changes to Toxics requirements are associated with this renewal.

VIII. Public Notice/EPA and Affected State(s) Review

Pursuant to 15A NCAC 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 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit 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.

IX. Compliance History

This facility was inspected by Ashby G. Armistead of the WiRO on 8/29/2006 and appeared to be in compliance with Air Quality Regulations.

X. Emissions Summary

Emissions are taken from the IBEAM Fees Module. Actual Emissions are from the 2006 Emissions Inventory .

Pollutant	Actual Emissions (tons/yr)	Potential Emissions (tons/yr)
TSP	0.01	0.1
PM-10	0.01	0.1
SO2	--	--
NOX	0.27	2
CO	0.04	
VOC	188.11	2738
Largest single HAP (toluene)	0	482
Total HAPs	0	~482

XI. Conclusions, Comments, and Recommendations

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

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