

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

Permit Issue Date: **date, 2006**

**Region:** Asheville Regional Office  
**County:** Caldwell  
**NC Facility ID:** 1400100  
**Inspector's Name:** Mike Parkin  
**Date of Last Inspection:** 05/23/2006  
**Compliance Code:** 4/In Compliance - Certification

<b>Facility Data</b>			<b>Permit Applicability (this application only)</b>		
<b>Applicant (Facility's Name):</b> NEPTCO, Inc.  <b>Facility Address:</b> NEPTCO, Inc. Highway 321 South Lenoir, NC 28645  <b>SIC:</b> 2671 / Paper Coated And Laminated Packaging <b>NAICS:</b> 32613 / Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing  <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> <b>NSPS:</b> <b>NESHAP:</b> <b>PSD:</b> <b>PSD Avoidance:</b> <b>NC Toxics:</b> 15A NCAC 2Q .0705 <b>112(r):</b> <b>Other:</b>		
<b>Contact Data</b>			<b>Application Data</b>		
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<b>Application Number:</b> 1400100.06A <b>Date Received:</b> 05/15/2006 <b>Application Type:</b> Renewal <b>Application Schedule:</b> TV-Renewal <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 04180/T17 <b>Existing Permit Issue Date:</b> 08/30/2004 <b>Existing Permit Expiration Date:</b> 02/28/2007		
Chris Chance Plant Engineer (704) 728-5951 P O Box 1766 Lenoir NC, 28645	Lois Kilsey Vice President of Operations (401) 722-5500 P.O. Box 2323 Pawtucket RI, 02861	David Lloyd Manager of Regulatory Affairs (401) 722-5500 P.O. Box 2323 Pawtucket RI, 02861			
<b>Review Engineer:</b> Mark Cuilla  <b>Review Engineer's Signature:</b> <b>Date:</b> <b>date, 2006</b>			<b>Comments / Recommendations:</b> Issue 04180/T18 <b>Permit Issue Date:</b> <b>date, 2006</b> <b>Permit Expiration Date:</b> <b>date, 2011</b>		

**I. Purpose of Application**

This permitting action is a renewal of an existing Title V permit pursuant to 2Q .0513. The existing Title V permit (**04180T17**) was issued on August 30, 2004, and is currently scheduled to expire on February 28, 2007. The renewal application was received on May 15, 2006, 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.

**II. Facility Description**

The facility primarily operates as a polyester or polypropylene film laminator. The laminated foil and plastic films are used primarily for shielding of coaxial cable as well as cover tape in the production of antistatic packaging materials. The facility operates five polymer film and metal foil coating and laminating lines with natural gas-fired dryers. Each laminator is equipped with total enclosures around the application areas to ensure 100 percent capture of VOC emissions in accordance with EPA Method 204.

### III. History/Background/Application Chronology

**May 15, 2006** – Permit application **1400100.06A** received and deemed complete for processing.

**June 13, 2006** – Received email from Brendan Davey of ARO stating that “This company did not submit a last MACT toxics application, but appears to be fully toxics triggered already. All the toxics emitted from the facility (per the 2005 emissions inventory) are currently modeled and in a 2D .1100 permit condition. Please make sure to include a last MACT permit condition when you issue the permit.” See Section VII of this Document for a discussion.

**October 19, 2006** – DRAFT permit sent to Permittee, Regional Office, and Title V Coordinator for comment prior to public notice and EPA review. Received Permittee’s response of “no comments” on **October 31, 2006**. Finalized Regional Office comments on DRAFT via email on **October 18, 2006**.

**Date, 2006** – 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(s)	Section	Description of Change(s)
Attachment	Insignificant Activities	-put information into tabular format -added ID Nos. where needed using current ESM entries
Cover	-	-amended all permit revision numbers and dates
All	Header	-amended permit revision number
3	Equipment Table	-added NSPS and MACT Subpart designations to applicable equipment
4-5	2.1 A (table)	-corrected rule citation to reflect avoidance condition -added MACT Subpart designation -added last MACT/air toxics rule citation
5	2.1 A.1.a 2.1 A.1.b	-amended shell language -amended shall language
6	2.1 A.1.c 2.1 A.2.a 2.1 A.2.c 2.1 A.3.a 2.1 A.3.c	-amended shall language -amended shell language -added ID Nos. and amended shell language -added ID Nos. and amended shell language -added ID Nos. and amended shell language
10	2.1 A.5 2.1 A.5.a 2.1 A.5.c	-corrected rule citation to reflect avoidance condition -amended shell language -amended testing language per Regional Office suggestion
11	2.1 A.5.g 2.1 A.5.h	-added ID Nos. -changed reporting from quarterly to semi-annually
12	2.2 A (table)	-added last MACT/air toxics rule citation
14	2.2 A.3 2.2 B	-added last MACT/air toxics permit condition -modified applicable equipment descriptions -added emission limit summary table
22-30	General Conditions	-updated shell conditions

The following table indicates the modifications to ESM as a result of this permit renewal:

Current Description	Change resulting from permit renewal
NA	<i>Four Corona treaters (ID Nos. 11 through 14)</i>
NA	<i>Two organic liquid underground storage tanks (5,000 gallons each; ID Nos. 15 and 16)</i>

Current Description	Change resulting from permit renewal
Five polymer film and metal foil coating and laminating operations with natural gas-fired dryers (ID Nos. ES101 through ES105)	Five polymer film and metal foil coating and laminating operations with natural gas-fired dryers (ID Nos. ES101 through ES105) and permanent total enclosures

## 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 .0524, New Source Performance Standards (40 CFR 60, Subpart RR)  
 15A NCAC 2D .0958, Work Practices for Sources of Volatile Organic Compounds  
 15A NCAC 2D .1100, Toxic Air Pollutant Emissions Limitation and Reporting Requirement  
 15A NCAC 2D .1111, Maximum Achievable Control Technology (40 CFR 63, Subpart JJJJ)  
 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)

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

As a result of this permit renewal, the following regulations have been added:

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

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

**NSPS** – The facility’s five polymer film and metal foil coating and laminating operations (ID Nos. ES101 through ES105) are each subject to 40 CFR 60, Subpart RR, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations. This Subpart establishes levels of compliance requirements based on the amount of VOC input per 12-month period when manufacturing pressure sensitive tape and/or label material. For levels of VOC input less than or equal to 45Mg per 12-month period, the Permittee is only required to maintain records of solvents applied by each coating line and submit semiannual summary reports of monitoring and recordkeeping activities. For levels of VOC input greater than 45 Mg per 12-month period, the Permittee is required to meet emission limits, complete performance tests, perform monitoring and recordkeeping as well as submit semiannual summary reports of all activities. It should be noted that per 60.440(b), once the VOC input for a production line exceeds this threshold, it becomes subject and is required to remain subject to the emission standards. The latest inspection report indicates that the facility is in compliance with these requirements. No modifications to the permitted language are necessary for this permit renewal.

**NESHAPS/MACT** – The facility’s five polymer film and metal foil coating and laminating operations (ID Nos. ES101 through ES105) are each subject to 40 CFR 63, Subpart JJJJ, National Emission Standards for Hazardous Air Pollutants for Paper and Other Web Coatings. This Subpart applies to the collection of all web coating lines at the facility including lines engaged in the coating of metal webs that are used in flexible packaging, and web coating lines engaged in the coating of fabric substrates for use in pressure sensitive tape and abrasive materials. The current permit condition lists emission standards, operating limits, monitoring requirements, performance test requirements, compliance demonstration requirements, notification, reporting, and recordkeeping requirements. The latest inspection report indicates that the facility is in compliance with these requirements. No modifications to the permitted language are necessary for this permit renewal.

**PSD** – The facility’s five polymer film and metal foil coating and laminating operations (**ID Nos. ES101 through ES105**) and mixing room (**ID No. F1**) are collectively subject to a 250 tons per year volatile organic compound PSD avoidance limit. The Permittee is required to calculate VOC emissions on a monthly basis to ensure compliance with this limit taking into account the total amount of each type of VOC-containing material consumed, the VOC content of the material, and capture and control efficiencies of the control devices. The Permittee is also required to perform periodic inspections and maintenance on the control devices and monitor the operating temperatures of the control devices by using continuous temperature monitors. Recordkeeping and reporting are also required. The latest inspection report indicates that the facility is in compliance with these requirements.

It should be noted that Section 2.1 A.5.c requires that the Permittee test each oxidizer (**ID Nos. CD1 through CD4**) for VOC destruction efficiency and capture efficiency and also determine the average operating temperature of each device. These tests were to be completed by June 3, 2006. Mike Parkin, of ARO writes that *“the facility has completed testing of all oxidizers but one. The testing of oxidizer (ID No. CD2) installed on coater/laminator (ID No. ES103) was scrubbed because the oxidizer has problems with the heat exchanger. The reason this is not a concern at this time is that a HAPs/VOC free material is being processed in this coater/laminator exclusively. DAQ ARO has agreed that the testing will be postponed until the resumption of the use of a VOC coating. I suggest rewording the permit to require destruction efficiency testing of oxidizer (ID No. CD2) within 90 days of resuming use of a VOC based coating.”* Therefore, Section 2.1 A.5.c has been modified to read:

- c. *Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits above by testing the control device (ID No. CD2) for VOC destruction efficiency and capture efficiency in accordance with a testing protocol approved by the DAQ within 90 days of resuming use of VOC based coating in the polymer film and metal foil coating and laminating operation (ID No. ES103). The Permittee shall also determine the average operating temperatures of the control device during this test. Details of the emissions testing and requirements can be found in Section 3 – General Condition JJ.*

**112(r)** – In the renewal application, the Permittee states that the facility is not subject to the 112(r) “Prevention of Accidental Releases” requirements because he does not store any chemicals in amounts greater than the applicability threshold.

**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 facility operates five polymer film and metal foil coating and laminating operations (**ID Nos. ES101 through ES105**) controlled by natural gas-fired thermal oxidizers (**ID Nos. CD1 through CD4**). This equipment is subject to the following regulations:

Particulate matter – 15A NCAC 2D .0515

Sulfur dioxide – 15A NCAC 2D .0516

Visible emissions – 15A NCAC 2D .0521

Odorous emissions – 15A NCAC 2D .1806

Volatile organic compounds – 15A NCAC 2D .0524

Volatile organic compounds – 15A NCAC 2D .0958

Volatile organic compounds – 15A NCAC 2Q .0317 (PSD Avoidance)

Toxic air pollutants – 15A NCAC 2D .1100

Hazardous air pollutants – 15A NCAC 2D .1111 (Maximum Achievable Control Technology).

Of these regulations, the control device is installed for the purpose of controlling VOCs, Toxic air pollutants, and Hazardous air pollutants. 15A NCAC 2D .0614(b)(1)(A), Compliance Assurance Monitoring, and 40 CFR 64.2(b)(1)(i) both exempt control devices from compliance assurance monitoring requirements by being subject to “emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to Section 111 or 112 of the Act.” 40 CFR 63, Subpart JJJJ was proposed on September 13, 2000; therefore, CAM does not apply to these MACT effected sources and control devices.

## VII. Facility Wide Air Toxics

The facility's five polymer film and metal foil coating and laminating operations (**ID Nos. ES101 through ES105**) are subject to modeled emission rates for methyl ethyl ketone, toluene, ethyl acetate, and hexane (**ID No. ES103 only**) per 15A NCAC 2D .1100. To ensure compliance with these limits, the Permittee is required to operate the thermal oxidizers (**ID Nos. CD1 through CD4**) whenever coatings containing these toxics air pollutants OR any other toxic air pollutant listed in 15A NCAC 2D .1104 are used. In addition, the Permittee is required to maintain the oxidizer operating temperatures at a 1-hour average operating temperature of no less than 50 degrees Fahrenheit below the average temperature measured from the most recent test of the control device. The latest inspection report indicates that the facility is in compliance with these requirements. No modifications to the permitted language are necessary for this permit renewal.

As stated above, the Permittee is required to comply with the National Emission Standards for Hazardous Air Pollutants for Pressure Sensitive Tape and Label Surface Coating Operations. The compliance date for this MACT was December 5, 2005. Per 15A NCAC 2Q .0705, the Permittee was also required to be in compliance with NC Air Toxics. In a January 22, 2004 modeling demonstration, the facility adequately demonstrated compliance with this requirement; therefore, the following language has been added as Section 2.2 A.3:

### *State-enforceable only*

#### **3. 15A NCAC 2Q .0705: EXISTING FACILITIES AND SIC CALLS**

- a. *As of January 22, 2004, emissions of toxic air pollutants have been demonstrated on a facility-wide basis (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions"), that each of the toxic air pollutants (TAPs) emitted from all sources at the facility are either below its respective toxic permit emission rates (TPERs) listed in 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit", or the TAPs are in compliance with 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" as described in Section 2.1 A.6 above.*
- b. *The facility shall be operated and maintained in such a manner that any new, existing, or increased actual emissions of any TAP listed in 15A NCAC 2Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TPER listed in 15A NCAC 2Q .0711 without first obtaining an air permit to construct or operate.*
- c. *PRIOR to exceeding any of the TPERs listed in 15A NCAC 2Q .0711, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".*
- d. *The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs are less than the rate listed in 15A NCAC 2Q .0711.*

## VIII. Facility Emissions Review

There is no change in emissions for this renewal.

The following table represents the latest years emission inventory from the facility:

<b>Pollutant(s)</b>	<b>2004 Actual Emissions (tpy)</b>
CO	1.08
NO <sub>x</sub>	5.40
PM <sub>10</sub>	0.16
SO <sub>2</sub>	0.03
VOC	85.73
Total HAP/TAP	43.43

**IX. Stipulation Review**

There are no noted stipulation modifications necessary at this time.

**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 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. Tennessee is an affected State and Mecklenburg and Buncombe Counties are Local Programs within 50 miles of this facility.

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

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

A consistency determination was not required for his renewal.

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

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