

## 1<sup>st</sup> Time TITLE V AIR PERMIT APPLICATION REVIEW

<b>APPLICANT:</b> Color Ad Packaging Inc.	<b>SITE LOCATION:</b> Monroe	<b>COUNTY:</b> Union	
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<b>REVIEW ENGINEER:</b> Gautam Patnaik, P.E.	<b>SIGNATURE:</b>	<b>DATE:</b> 6/13/03	
<b>REGIONAL CONTACT:</b> William Bass	<b>REGIONAL OFFICE:</b> Mooresville	<b>SIC CODE:</b> 3081	
<b>APPLICATION NUMBER:</b> 9000159.02B	<b>EXISTING PERMIT NUMBER:</b> 0777R06	<b>NEW PERMIT NUMBER:</b> 0777T07	

### I. Introduction

The U.S. Environmental Protection Agency (EPA) has given interim approval to North Carolina's Title V operating permits program effective on December 15, 1995. This EPA approval triggered the requirements for Title V facilities to submit permit applications to the Division of Air Quality (DAQ). Title V facilities are required to obtain an operating permit which addresses all applicable regulations under the State Implementation Plan, Federal Implementation Plan, and other provisions of the Clean Air Act (CAA). The Title V Operating Permit will define all of the facility's obligations under the CAA.

This 1<sup>st</sup> time Title V Air Permit Application Review intends to convey all pertinent emissions data, rules, policies, and engineering assumptions used to construct the DRAFT Title V operating permit. The primary source of information used to construct the DRAFT permit is the above referenced air permit application.

### II. Background Information

The DRAFT Title V operating permit will replace an existing Air Quality Construction and Operation Permit No. 0777R06 which was issued on January 3, 2002 and is currently scheduled to expire on September 30, 2004.

Pursuant to 15A NCAC 2Q .0504 Color Ad Packaging Inc., submitted its initial Title V application to the DAQ on July 15, 2002. The application was considered complete for processing on June 12, 2003. The DRAFT permit is required to go to public notice pursuant to 15A NCAC 2Q .0521.

As per an e-mail from Tammie Watkins of the Regional Office to Laura Butler and Charlie Yirka send on 7/17/2002, this application was submitted on time.

### III. Facility Description

The facility is involved in printing and converting flexible film into bags. This involves printing/coating of plastic film utilizing flexographic printing presses.

#### IV. Statement of Compliance

The DAQ has reviewed the compliance status of this facility. Based on its latest inspection, the facility was in compliance with applicable requirements.

#### V. Summary of Emission Sources and Control Devices

The following table identifies all emission sources and associated control devices for which the Initial Title V Operating Permit is being issued:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
FP-1	one Bielloni-type natural gas-fired flexographic printing press	NA	NA
FP-2	one CMF-type natural gas-fired flexographic printing press	NA	NA
FP-3B	one Bielloni-type narrow web natural gas-fired flexographic printing press	NA	NA

#### VI. Emission Source-by-Source Evaluation

- A. **one Bielloni-type natural gas-fired flexographic printing press (ID No. FP-1, 1.2 million Btu per hour heat input rate)**
- one CMF-type natural gas-fired flexographic printing press (ID No. FP-2, 0.8 million Btu per hour heat input rate)**
- one Bielloni-type narrow web natural gas-fired flexographic printing press (ID No. FP-3B, 1.2 million Btu per hour heat input rate)**

##### 1. Applicable Regulatory Requirements

The following provides a summary of limits and/or standards for the emission source(s) described above. A review of the information in the application was performed to ensure the appropriate limits and associated calculations used to show compliance were correct.

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521
volatile organic compounds	less than 250 tons per year for FP-1 and FP-2 less than 250 tons per year for FP-3B	15A NCAC 2D .0530
volatile organic compounds	work practice standards	15A NCAC 2D .0958
toxic air pollutants	<b>State-enforceable only</b> - See Section VII A. 1	15A NCAC 2D .1100

HAPs	See Section VII A. 2	15A NCAC 2Q .0317
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a. 2D .0516 “Sulfur Dioxide Emissions from Combustion Sources”

i.) Regulatory Analysis

These presses are sources of sulfur dioxide which discharge through a vent and therefore are subject to 2D .0516(a). Allowable emissions of sulfur dioxide from these sources shall not exceed 2.3 pounds per million Btu heat input. Since natural gas is the only fuel combusted at these sources, it is very unlikely that the emissions of sulfur dioxide from these sources will exceed the allowable limits. Thus, these sources will always be in compliance.

ii.) Monitoring/Recordkeeping/Reporting Requirements

There are no testing, monitoring, recordkeeping, and reporting requirements because the potential emissions of sulfur dioxide will be less than the emission limit.

b. 2D .0521 “Control of Visible Emissions”

i.) Regulatory Analysis

The presses were constructed after July 1, 1971 and therefore are subject to 2D .0521(d). Per this regulation, visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period. The latest inspection report did not cite opacity exceedences for these sources.

ii.) Monitoring Requirements

The Permittee shall observe all emission points from these sources once a day for any visible emissions above normal operating conditions.

iii.) Recordkeeping Requirements

The Permittee shall record the results of the observations, along with any corrective actions taken to reduce visible emissions to permitted levels.

iv.) Reporting Requirements

Reporting requirements include a summary report of the records by January 30 and July 30 of each year.

c. 2D .0530 "PREVENTION OF SIGNIFICANT DETERIORATION"

i.) Regulation Analysis

In order to avoid applicability of this regulation, VOCs emissions from the Bielloni printing press (ID No. FP-1) and the CMF flexographic printing press (ID No. FP-2) must be less than 250 tons per year, and the VOCs emissions from the Bielloni flexographic printing press (ID No. FP-3B) must be less than 250 tons per year.

ii.) Monitoring Requirements and Recordkeeping Requirements

To applicant shall calculate VOC emissions at the end of each month. The calculations and the total amount of VOC emissions must be recorded in a log, and made available to officials of the DAQ. These logs must be kept on file for a minimum of five years.

iii.) Reporting Requirements

The applicant will report to the Regional Supervisor, Division of Air Quality, within thirty days of each calendar year quarter, the monthly VOC emissions for the previous fourteen months.

d. 15A NCAC 2D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS

i) Regulation Analysis

These sources use volatile organic compounds, and since, there is no operational limit on these sources they have the potential to emit more than 15 lbs of VOCs per day, each. And thus, they are not exempted from this regulation and will follow the work practices as outlined in this regulation.

Monitoring

ii) The applicant shall perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. The inspections shall be conducted during normal operations.

Recordkeeping

iii) Results of the inspections shall be maintained in a logbook and made available to DAQ upon request.

Reporting

iii) The applicant shall submit a semi-annual summary report of the observations . All instances of deviations from the requirements of this permit must be clearly identified.

**VII. Multiple Emission Source Limits:**

**A. one Li-SO<sub>2</sub> cathode paste drying oven (ID No. ES-02) and other emissions associated with the Li-SO<sub>2</sub> cathode paste manufacturing process (ID No. ES-01) such as the room exhaust, blotter paper emissions, and vacuum system emissions,**

**one packed-bed caustic wet scrubber (230 gallons per minute liquid injection rate, ID No. CD-03) installed on the sulfur dioxide storage area, the electrolyte mixing area, and the battery filling line (ID No. ES-03), and**

**one packed-bed caustic wet scrubber (75 gallons per minute liquid injection rate, ID No. CD-04) installed on the cell destruct room (ID No. ES-04).**

The following provides a summary of limits and/or standards for the emission source(s) described above. A review of the information in the application was performed to ensure the appropriate limits and associated calculations used to show compliance were correct.

Regulated Pollutant	Limits/Standards	Applicable Regulation
toxic air pollutants	State-enforceable only	15A NCAC 2D .1100
HAPs	less than 10 tons per year of any HAP and less than 25 tons per year of a combination of HAPs	15A NCAC 2Q .0317

STATE-ONLY REQUIREMENT:

1. 15A NCAC 2Q .1100 "TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT"

1. Regulation Analysis

To ensure compliance with this regulation the current permit stipulated the restrictions stated in the table below, for ethyl acetate, p-dichlorobenzene, formaldehyde, n-hexane, methyl isobutyl ketone, toluene and benzene for the entire facility. These limits are also included in the new permit. To ensure compliance with the above limits, the applicant shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

<b>TPERs Limitations</b>				
Pollutant (CAS Number)	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)		Acute Irritants (lb/hr)
			Acute Systemic Toxicants (lb/hr)	
ethyl acetate (141-78-6)			36	
p- dichlorobenzene (106-46-7)	8.1			
formaldehyde (50-00-0)				16.8
n-hexane (110-54-3)				0.04
methyl isobutyl ketone (108-10-1)		23		
toluene (108-88-3)		52		7.6
benzene (71-43-2)		98		14.4

2. 15A NCAC 2Q.0317 Avoidance Conditions

i) Regulation Analysis

As per this regulation the applicant may request that terms and conditions be placed in the permit to avoid the applicability of 15A NCAC 2D .1111, Maximum Achievable Control Technology (MACT), or the Director may require the monitoring, recordkeeping, and reporting necessary to assure compliance with the terms and conditions placed in the permit to remove the applicability of a rule. This facility was never subject to MACT and on 6/12/03 they submitted a statement stating that "our overall potential to emit hazardous air pollutants {HAPS} is less than 10 tons per twelve-month period for single {HAPS} and less than 25 tons per twelve month period of combined HAPs." Also, in order to avoid the applicability of the printing MACT, the emissions from the presses shall be less than 10/25 tons of HAPs for a year.

Monitoring

ii) Total emissions of HAPs shall be calculated at the end of each month.

Recordkeeping

iii) These calculations shall be recorded monthly in a logbook.

Reporting

iii) The applicant shall submit a summary report of monitoring and recordkeeping activities for each calendar year quarter.

**VIII. General Conditions**

The "General Conditions" section of the Title V Operating Permit lists additional applicable rule requirements that the permittee must adhere to, as with any other permit condition. These requirements in general are common to all Title V facilities. The general conditions include provisions such as annual fee payment, permit renewal and expiration, transfer of ownership or operation, property rights, submission of documents, inspections and entry procedures, reopen for cause, severability, etc.

**IX. Insignificant Activities**

This facility does not have any insignificant activities listed.

**X. Public Notice**

Pursuant to 15A NCAC 2Q. 0521, a notice of the draft Title V Operating Permit will 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 were sent to persons on the Title V mailing list, South Carolina, and EPA.

**XI. Regional Office Comments**

The Regional Office was given an opportunity to review the draft permit and review and their comments will be incorporated.

**XII. Recommendations**

Color Ad Packaging Inc., first time Title V application has been reviewed by the DAQ to determine compliance with all procedures and requirements under 15A NCAC 2Q .0500 and 40 CFR Part 70. The DAQ has made a preliminary determination that the facility is complying or will achieve compliance as specified in the draft permit with all applicable requirements. Therefore, the DAQ is proposing to issue the Title V Operating Permit upon completion of the public comment period and the EPA review.