

Facility Name: **Dolco Packaging**
 City: Lawrenceville
 County: Gwinnett
 AIRS #: 04-13-135-00139

Application #: TV-19582
 Date Application Received: April 2, 2010
 Permit No: 3086-135-0139-V-03-0

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Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Part 70 operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to **Dolco Packaging** and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, the applicable requirements and their significance, and the methods for determining compliance with those applicable requirements. This narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Facility Identification**

1. Facility Name: Dolco Packaging

2. Parent/Holding Company Name

Tekni-Plex, Inc.

3. Previous and/or Other Name(s)

N/A

4. Facility Location

252 Hosea Road
Lawrenceville, Georgia 30045
Gwinnett County

5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in a non-attainment area.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
Permit No. 3086-135-0139-V-02-0	April 4, 2006	Initial Title V issuance

D. Process Description

1. SIC Codes(s)

3086

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

The facility produces extruded polystyrene packaging products.

3. Overall Facility Process Description

Polystyrene foam products are manufactured using virgin and recycled polystyrene resin, which is heated, mixed with talc as a nucleating agent, and colorant as needed. The hot mix is extruded and expanded, using butane as blowing agent, into sheets. The resulting sheets are then thermoformed into desired shapes. Printing inks are used to place product information on the containers, according to client specifications. VOC emissions from the thermoforming, grinding (reclaim operations), and the curing operations (roll storage) are controlled using a thermal oxidizer. Bag houses control particulate matter emissions from the raw material storage silos.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

The facility is a major source for VOC emissions since the Atlanta non-attainment major source threshold decreased from 50 tons per year to 25 tons per year as non-attainment status moved from serious to severe. The facility currently has a 50-ton per year VOC limit from previous Title V/NSR avoidance. The facility's potential NO_x emissions are less than 25 tons per year.

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Yes			✓
PM ₁₀	Yes			✓

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
SO ₂	Yes			✓
VOC	Yes	✓		
NO _x	Yes			✓
CO	Yes			✓
TRS	Yes			✓
H ₂ S	Yes			✓
Individual HAP	Yes			✓
Total HAPs	Yes			✓

3. MACT Standards

Though potential HAP emissions are below the major source thresholds, an existing 10/25 tpy HAP limit has been carried over from a previous permit to ensure that the facility will not be subject to any MACT standards.

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	No
Program Code 8 – Part 61 NESHAP	No
Program Code 9 - NSPS	No
Program Code M – Part 63 NESHAP	No
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

There is a 50-ton per year VOC limit for NSR Avoidance, which was retained from a previous permit. Several emissions units at this facility were constructed and installed prior to November 1, 1992 when the NAA designation went from moderate to serious (dropping the major source threshold from 100 tpy to 50 tpy). In 1996, Dolco switched from a VOC-based blowing agent to a carbon-dioxide agent, and their permit was revoked as VOC emissions were drastically reduced. Shortly afterward, Dolco switched back to a VOC blowing agent (butane) without applying for an air quality permit. In the resulting enforcement action, EPA determined that Dolco should be permitted as a “new” source subject to the provisions of NAA NSR at that time. Therefore, the 50 tpy limit is considered an NSR avoidance limit.

The 10/25-ton per year HAP limit is carried over from the existing permit. While the current potential HAP emissions are below 10/25 tpy, this limit definitively ensures that the NESHAP 40 CFR 63 Subpart KK does not apply if changes in ink formulation ever result in increased HAP emissions.

B. Applicable Rules and Regulations

None applicable.

C. Compliance Status

There are no facility wide compliance issues noted in this application.

D. Operational Flexibility

None applicable.

E. Permit Conditions

Condition No. 2.1.1 limits the facility’s VOC emissions to 50 tons during any twelve consecutive month period.

Condition No. 2.1.2 limits the facility’s HAP emissions to 10 tons of any one HAP or 25 tons of all combined HAPs during any twelve consecutive month period.

III. Regulated Equipment Requirements

A. Brief Process Description

Polystyrene foam products are manufactured using virgin and recycled polystyrene resin, which is heated, mixed with talc as a nucleating agent, and colorant as needed. The hot mix is extruded and expanded, using butane as blowing agent, into sheets. The resulting sheets are then thermo-formed into desired shapes. Printing inks are used to place product information on the containers, according to client specifications. VOC emissions from the thermoforming, grinding (reclaim operations), and the curing operations (roll storage) are controlled using a thermal oxidizer. Bag houses control particulate matter emissions from the raw material storage silos.

B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
PROG	Flexographic Printers P001-P009 (9 units)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 2.1.2, 3.2.1, 3.4.1, 3.4.2, 6.2.4, 6.2.5, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11	--	--
EXOG	Extrusion Operations (4 units)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	2.1.1, 2.1.2, 3.4.1, 3.4.2, 3.4.3, 5.2.5, 6.2.1, 6.2.2, 6.2.3, 6.2.6, 6.2.7, 6.2.9, 6.2.10, 6.2.11	--	--
FINI	Finished Goods Storage	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	2.1.1, 2.1.2, 3.4.1, 3.4.2, 3.4.3, 5.2.5, 6.2.1, 6.2.2, 6.2.3, 6.2.6, 6.2.7, 6.2.9, 6.2.10, 6.2.11	--	--
TFOG	Thermoforming Operations (10 units)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	2.1.1, 2.1.2, 3.4.1, 3.4.2, 3.4.3, 3.5.1, 3.5.2, 3.5.4, 3.5.5, 4.2.1, 5.2.1, 5.2.2, 5.2.5, 6.2.1, 6.2.2, 6.2.3, 6.2.6, 6.2.7, 6.2.9, 6.2.10, 6.2.11	Z001	Regenerative Thermal Oxidizer
SILG	Outdoor Silos for Polystyrene Resin Storage (10 units)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	2.1.1, 2.1.2, 3.4.1, 3.4.2, 3.4.3, 3.5.3, 3.5.4, 5.2.3, 5.2.4, 5.2.5, 6.2.1, 6.2.2, 6.2.3, 6.2.6, 6.2.7, 6.2.9, 6.2.10, 6.2.11	Z002-Z010	Baghouses
CURE	Curing Area (Roll Stock Storage)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	2.1.1, 2.1.2, 3.4.1, 3.4.2, 3.4.3, 3.5.1, 3.5.2, 3.5.4, 3.5.5, 4.2.1, 5.2.1, 5.2.2, 5.2.5, 6.2.1, 6.2.2, 6.2.3, 6.2.6, 6.2.7, 6.2.9, 6.2.10, 6.2.11	Z001	Regenerative Thermal Oxidizer
GROG	Regrind Operations	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	2.1.1, 2.1.2, 3.4.1, 3.4.2, 3.4.3, 3.5.1, 3.5.2, 3.5.4, 3.5.5, 4.2.1, 5.2.1, 5.2.2, 5.2.5, 6.2.1, 6.2.2, 6.2.3, 6.2.6, 6.2.7, 6.2.9, 6.2.10, 6.2.11	Z001	Regenerative Thermal Oxidizer

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

C. Equipment & Rule Applicability

Emission and Operating Caps:

The printing operation will continue to have a 25 tpy VOC limit to avoid the requirements of Georgia Rule 391-3-1-.02(2)(mm).

Rules and Regulations Assessment:

All equipment at the facility will continue to be subject to Georgia Rule 391-3-1-.02(2)(b) - Visible Emissions and Georgia Rule 391-3-1-.02(2)(e) - Particulate Emissions from Manufacturing Processes.

The Extrusion Operations, Finished Goods Storage, Thermoforming Operations, Outdoor Silos for Polystyrene Resin Storage, Curing Area and the Re grind Operations will continue to be subject to Georgia Rule 391-3-1-.02(2)(qqq) - VOC Emissions from Extruded Polystyrene Products Manufacturing Utilizing a Blowing Agent which applies to any facility involved in the manufacture of extruded polystyrene (XPS) products. In the non-attainment area, actual emissions of greater than 25 tons per year of VOC from XPS product manufacturing trigger applicability to this rule. Georgia Rule (qqq) requires that 3-month rolling average VOC emissions from XPS product manufacturing shall not exceed 0.8 lbs per 100 lbs of raw material process during any month.

D. Compliance Status

There are no equipment related compliance issues noted in this application.

E. Operational Flexibility

None applicable.

F. Permit Conditions

Condition No. 3.2.1 limits the VOC emissions from the printing operation to 25 tons during any 12 consecutive months.

Condition No. 3.4.1 limits the opacity of visible emissions from the facility to less than forty (40) percent, as specified by Georgia Rule (b).

Condition No. 3.4.2 limits the amount of particulate matter that can be emitted from the manufacturing processes using an equation which is applicable to any manufacturing process with a process input weight rate, as specified by Georgia Rule (e).

Condition No. 3.4.3 limits the 3-month rolling average VOC emissions from the XPS product manufacturing operation to 0.8 lb per 100 lbs of raw material processed. This condition also sets forth the method for determining compliance with the VOC limit.

Condition No. 3.5.1 requires the facility to operate the oxidizer in such a manner as to achieve compliance with the emission limits set forth in Condition Nos. 2.1.1 and 3.4.1.

Condition No. 3.5.2 requires the facility to operate the oxidizer at the temperature at which the last Division-approved performance test indicated compliance with Condition Nos. 2.1.1 and 3.4.3.

Condition No. 3.5.3 requires the facility to maintain an inventory of replacement bags for each of the baghouses that control particulate matter emissions from the raw material storage silos.

Condition No. 3.5.4 requires the facility to maintain a spare parts inventory for all control equipment in use at the facility.

Condition No. 3.5.5 requires the facility to maintain a spare parts inventory for any emission monitoring system installed at the facility.

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements

1. Individual Equipment

None applicable.

2. Equipment Groups (all subject to the same test requirements):

Condition No. 4.2.1 had previously stated that the facility was to conduct a performance test to establish the destruction efficiency no later than October 20, 2009. This test was performed on October 1, 2008. These parameters are measured to allow the facility to calculate the VOC emissions from the extruded polystyrene process via the equations of Georgia Rule (qqq). This condition was modified to remove the specific date and to require a performance test once every 48 months.

V. Monitoring Requirements

A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

1. Individual Equipment:

None applicable.

2. Equipment Groups (all subject to the same monitoring requirements):

Condition No. 5.2.1 requires a continuous monitoring system be installed, calibrated, maintained, and operated to monitor the temperature of the regenerative thermal oxidizer combustion bed, the butane capture system fan speed and the butane concentration of the air stream in the capture system prior to the RTO. These will be used to calculate VOC routed to the RTO. A mass balance is used to estimate emission for compliance with Condition Nos. 2.1.1 and 3.4.1.

Condition No. 5.2.2 requires a continuous monitoring system be installed, calibrated, maintained, and operated to monitor the pressure drop across the prefilter on the oxidizer inlet.

Condition No. 5.2.3 requires the facility to verify that each of the baghouse filters is in good working condition once every two weeks and to change the bag filters per the manufacturer's specifications.

Condition No. 5.2.4 requires the facility to inspect each of the baghouse filters once per week of operation and record any problems and corrective actions taken.

Condition No. 5.2.5 requires the facility to conduct yearly sampling of the final product to determine VOC retention. This retention determination is to be used in the VOC calculation required by Condition No. 6.2.3.

C. Compliance Assurance Monitoring (CAM)

Not Applicable

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

B. Specific Record Keeping and Reporting Requirements

Condition No. 6.2.1 requires the facility to maintain records of the amount of VOC used in the extruder lines.

Condition No. 6.2.2 requires the facility to maintain records of the amount of raw materials processed on the XPS lines, the equipment used, the type of blowing agent used, and operation and maintenance records of the associated VOC control systems.

Condition No. 6.2.3 requires the facility to calculate the rolling three-month VOC emissions from the XPS production as required in Condition Nos. 3.4.3 and 3.4.4.

Condition No. 6.2.4 requires the facility to maintain records of all VOC-containing materials used in the printing operations.

Condition No. 6.2.5 requires the facility to calculate the monthly VOC emissions from the printing operations. The Permittee is required to notify the Division if the monthly VOC emissions from the printing operations exceed 2.08 tons.

Condition No. 6.2.6 requires the facility to calculate the monthly VOC emissions from the entire facility. The Permittee is required to notify the Division if the monthly VOC emissions from the entire facility exceed 4.16 tons.

Condition No. 6.2.7 requires the facility to calculate the 12-month rolling total VOC emissions from the entire facility. The Permittee is required to notify the Division if the 12-month rolling total VOC emissions from the entire facility equal or exceed 50 tons.

Condition No. 6.2.8 requires the facility to calculate the 12-month rolling total VOC emissions from the printing operations. The Permittee is required to notify the Division if the 12-month rolling total VOC emissions from the printing operations equal or exceed 25 tons.

Condition No. 6.2.9 requires the facility to maintain records of all HAP-containing records used at the facility.

Condition No. 6.2.10 requires the facility to calculate the monthly HAP emissions from the entire facility. The Permittee is required to notify the Division if the monthly emissions of HAP from the entire facility exceed 0.83 tons of any individual HAP or 2.08 tons of any combination of HAP.

Condition No. 6.2.11 requires the facility to calculate the 12-month rolling total HAP emissions from the entire facility. The Permittee is required to notify the Division if the 12-month rolling total HAP emissions from the entire facility equal or exceed 10 tons of any individual HAP or 25 tons of any combination of HAP during any 12 consecutive month period.

VII. Specific Requirements

A. Operational Flexibility

- None applicable.

B. Alternative Requirements

- None applicable.

C. Insignificant Activities

Refer to <http://airpermit.dnr.state.ga.us/GATV/default.asp> for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

D. Temporary Sources

- None applicable.

E. Short-Term Activities

- None applicable.

F. Compliance Schedule/Progress Reports

- The facility is currently operating in compliance with all applicable rules and standards.

G. Emissions Trading

- Not applicable.

H. Acid Rain Requirements

- Not applicable.

I. Stratospheric Ozone Protection Requirements

- Not applicable.

J. Pollution Prevention

- Not applicable.

K. Specific Conditions

- There are no additional facility-specific conditions that are not covered elsewhere.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.