

Facility Name: **Kimberly-Clark, LaGrange Mill**  
 City: LaGrange  
 County: Troup  
 AIRS #: 04-13-285-00048

Application #: TV-14221  
 Date Application Received: January 7, 2003  
 Date Application Deemed Administratively Complete: November 10, 2003  
 Date of Draft Permit:  
 Permit No: 2297-285-0048-V-02-0

Program	Review Engineers	Review Managers
<b>SSPP</b>	Irene Abraham	Heather Abrams
<b>ISMP</b>	Sid Stephens	Richard Taylor
<b>SSCP</b>	Chris Scott	Doug Waldron
<b>Toxics</b>	N/A	N/A

## 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 herein 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 Amendments of 1990. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Chapter I 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 Kimberly-Clark 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: Kimberly Clark, LaGrange Mill
2. Parent/Holding Company Name: Kimberly-Clark Corporation
3. Previous and/or Other Name(s): Not applicable
4. Facility Location

Kimberly-Clark, LaGrange Mill  
1300 Orchard Hill Road  
LaGrange, Georgia 30240

5. Attainment or Non-attainment Area Location

The facility is located in an attainment area.

6. Class I Area Impacts

The facility is not located within 100 km of a Class I 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: List of Current Permits as Amended**

Permit Number and/or Purpose of Issuance	Date of Issuance and Date of Amendments (if any)	Comments	
		Yes	No
2297-285-0048-V-01-0 – Initial Title V Permit	July 9, 1998		x
2297-285-0048-V-01-1 – Amendment	November 3, 1999	x	
2297-285-0048-V-01-2 – Amendment	January 24, 2000	x	
2297-285-0048-V-01-3 – Amendment	September 29, 2000	x	
Off-permit change	August 25, 2003	x	
Off-permit change	November 3, 1999	x	

Table 2: Comments on Specific Permits

Permit Number	Comments
2297-285-0048-V-01-1	This amendment was revoked by amendment number 2297-285-0048-V-01-2
2297-285-0048-V-01-2	Signifi cant modification for the replacement of gear boxes on lines SMS I, SMS II, and SMS III, which increased production and emissions
2297-285-0048-V-01-3	Added a new unit process to manufacture non-woven fabrics for use in disposable diapers. Increased VOC emissions to 21.28 tons/year
Off-permit change 8/25/03	Upgrade for VFL Process Tower HVAC System
Off-permit change 11/03/99	To replace WEKO treaters with spray boom treaters without changing emission limits

## D. Process Description

## 1. SIC Codes(s)

2297 – Non-woven Fabrics

## 2. Description of Product(s)

Kimberly-Clark produces a non-woven web material which is wound unto rolls for sale or further processed to produce hospital gowns, sheets, pillowcases, and disposable diapers.

## 3. Overall Facility Process Description

The raw material for this process is polymer pellets which are purchased from a different company. The polymer pellets are melted in an extruder and pumped to a spinning system where the polymer is cooled and stretched into continuous filaments by a process air system. The cooled filaments are collected and air-formed into a non-woven web on a moving form wire. The resulting material web is then bonded in an on-line hot oil filled calendar roll. It may be treated in an on-line web treater prior to being wound on rolls for sale. It can also be converted into finished products such as hospital gowns, sheets, pillowcases, and disposable diapers.

## 4. Overall Process Flow Diagram (optional)

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

## E. Regulatory Status

## 1. PSD/NSR

The facility is potentially a "major" source under PSD/NSR regulations, but has taken limits to remain as a "minor" source and avoid a PSD review. They have accepted a 250 ton of VOC per year limit.

The facility has also accepted a 100 ton of VOC per year limit on the Web Treater coating operation to avoid Georgia Rule 391-3-1-.02(x).

## 2. Title V Major Source Status by Pollutant

Table 3: 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	Y			x
PM <sub>10</sub>	Y			x
SO <sub>2</sub>	Y			x
VOC	Y	x		
NO <sub>x</sub>	Y			x
CO	Y			x
TRS	N			x
H <sub>2</sub> S	N			x
Individual HAP	Y			x
Total HAPs	Y			x

## 3. MACT Standards

Not applicable.

## 4. Program Applicability

Program Code	Applicable (y/n)
Program Code 6 - PSD	n
Program Code 8 – Part 61 NESHAP	n
Program Code 9 - NSPS	n
Program Code M – Part 63 NESHAP	n
Program Code V – Title V	y

## Regulatory Analysis

## II. Facility Wide Requirements

## A. Emission and Operating Caps:

Kimberly-Clark has accepted a 250 tpy limit on VOCs. This limit is for PSD avoidance. The facility has the potential to emit approximately 470 tpy of VOC. The facility lists their actual as 190.33 tpy in their Title V application. The anticipated actual for the next five years is 190.33 of VOC. Kimberly-Clark is only major for VOC emissions.

B. Applicable Rules and Regulations

There are no applicable rules or regulations pertaining to the facility as a whole other than the PSD avoidance limit.

C. Compliance Status

The facility has indicated in their Title V application that they are in compliance.

D. Operational Flexibility

Not applicable

E. Permit Conditions

Part 2.0 of the permit specifies the emission limits from the facility. Condition 2.1.1, carried over from Permit No. 2297-285-0048-V-01-0, limits the facility to 250 tpy VOC to avoid PSD.

### III. Regulated Equipment Requirements

#### A. Brief Process Description

The existing operation at Kimberly-Clark consists of four spunbound and meltblown processes (SMS I – Source Code SMS1, SMS II – Source Code SMS2, SMS III – Source Code SMS3, and VFL – Source Code VFL1). The only difference in the processes is that SMS III will have four spunbound extruders, SMS I and II will have three spunbound extruders, and VFL will have one extruder.

In the first section of the process (spunbound), polymer pellets are melted in an extruder system and pumped into a spinning system where the polymer is cooled and stretched into continuous filaments by process air systems. The cooled, stretched filaments are collected and air formed into a web on a moving forming wire.

In the second section of the process (meltblown), polymer pellets are melted in an extruder system and pumped through dies, stretched into fine filaments, chopped into short, non-continuous lengths and collected/air formed on the moving forming wire which is carrying the spunbound web from the previous section.

The third forming section is identical to the first in that an additional spunbound layer is formed on the web from the previous sections.

The composite web is then bonded in a calendar and a treatment solution applied with a print treater to impart improved and/or additional physical attributes. The solution treatment is a highly active ingredient formulation with a low application rate so no drying of the web prior to winding into rolls is required.

#### 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
GB01	Main Process Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.4.3, 3.4.4 3.4.5	None	--
PST1	Propane Storage Tank	None	None	None	--
B001	Burnout Oven No. 1	None	3.2.1, 5.2.1, 6.1.4, 6.2.2	SC1	Spray Chamber
B002	Burnout Oven No. 2	None	3.2.1, 5.2.1, 6.1.4, 6.2.2	SC2	Spray Chamber
B003	Burnout Oven No. 3	None	3.2.1, 5.2.1, 6.1.4, 6.2.2	SC3	Spray Chamber
SBT1	SMS I Spray Boom Treater	None	3.2.2, 6.2.2, 6.2.3	None	--
SBT3	SMS III Spray Boom Treater	None	3.2.2, 6.2.2, 6.2.3	None	--
DST1	Dip and Squeeze Treater	None	3.2.2, 6.2.2, 6.2.3	None	--
	Degreaser	391-3-1-.02(2)(ff)	3.4.1, 3.4.2, 5.2.2, 6.1.4, 6.2.4, 6.2.5	None	--
SMS1	SMS I Process	None	6.2.2, 6.2.3	None	--
SMS2	SMS II Process	None	6.2.2, 6.2.3	None	--
SMS3	SMS III Process	None	6.2.2, 6.2.3	None	--
VFL1	VFL Process	None	6.2.2, 6.2.3	None	--

\* Generally applicable requirements contained in this permit may also apply to emission units listed above.

C. Equipment & Rule Applicability

The Gas Boiler (GB01) is not subject to NSPS Dc since the boiler was constructed prior to the NSPS construction date. It is subject to Georgia Rule 391-3-1-.02(2)(d)2(ii) – Fuel Burning Equipment and 391-3-1-.02(2)(g) – Sulfur Dioxide. The boiler is rated at 12.6 million BTU/hr and was constructed in 1983. However, since it only burns either natural gas or propane, no monitoring requirements are necessary. This boiler was previously named the Main Process Boiler under the initial Title V Permit.

The three primary air furnaces (PF01 – 03) listed under "Significant Emission Units" in the application are rated 6 MMBtu/hr and were constructed in 1984. They are subject to Georgia Rule 391-3-1-.02(2)(d). However, since they only burn either natural gas or propane, no limits are necessary and they are not listed in the table of Condition 3.1. These furnaces are covered under "Generic Fuel Burning Equipment".

The Burnout Ovens (B001, B002, and B003) are not subject to any rules or regulations. The ovens are electric and the only emissions are VOCs produced during the heating of the polymer residue on the parts. The ovens are used as cleaning devices for process equipment. The ovens are limited to 2.54 pounds VOC per hour from each oven. This limit was put in place to help the facility avoid PSD review. Compliance is determined by the scrubber parameters for the ovens. These burnout ovens were previously named the Beringer Ovens under the initial Title V Permit.

The Web Treater coating operations (SBT1, SBT3, and DST1) are processes SMS I, SMS II, SMS III, and VFL. The coating operations are limited to 100 tpy of VOC to avoid Georgia Rule 391-3-1-.02(2)(x). The Web Treater operations are also subject to Georgia Rule 391-3-1-.02(2)(e). The WEKO treaters that were previously listed in the initial Title V Permit have been replaced by spray boom treatments. An off-permit change was issued on November 3, 1999 to implement these changes (Note: the 100 tpy VOC limit remains). The emission unit table in Condition 3.1 and the corresponding permit conditions are modified accordingly to reflect the new spray boom treaters. In addition, the treatment operations (SBT1, SBT3, and DST1) are mentioned in Condition 6.2.3 but were not listed as applicable in the table. The Emission Units table 3.1 was updated to include Condition 6.2.3 in the three treatment operations.

The Degreaser is subject to Georgia Rule 391-3-1-.02(2)(ff) – Solvent Metal Cleaning. No changes to the rule have been made since the issuance of the initial Title V Permit. The degreaser is an open top vapor degreaser and has a 30 gallon capacity. It uses "ZEP – Dyna 143" (CAS #: 64742-88-7). Under the initial Title V Permit, the degreaser used "Safety Kleen Premium Solvent". The degreaser does not use a listed solvent; therefore it is not subject to 40 CFR 63 Subpart T.

D. Compliance Status

The facility has indicated in their Title V application that they are in compliance.

E. Operational Flexibility

Not applicable.

F. Permit Conditions

Condition 3.2.1 - Refer to the original narrative for Condition 3.2.1 of the initial Title V Permit Number 2297-285-0048-V-01-0. The only change made is that the Beringer Ovens are now named the Burnout Ovens as indicated in the Title V application.

Condition 3.2.2 - Refer to the original narrative for Condition 3.2.2 of the initial Title V Permit Number 2297-285-0048-V-01-0. The only change made is that the web coating operations WKT1 and 2 are replaced by SBT1 and 3 as listed in the Title V application. The limit of 100 tons VOC per year from the treatment operations remains in effect.

Condition 3.4.1 - Refer to Condition 3.4.1 of the initial Title V Permit Number 2297-285-0048-V-01-0. There are no changes from the existing permit.

Condition 3.4.2 - Refer to Condition 3.4.2 of the initial Title V Permit Number 2297-285-0048-V-01-0. There are no changes from the existing permit.

Condition 3.4.3 limits the emission of particulate matter from the Gas Boiler (Source Code GB01) to the rate calculated by the equation found in Georgia Rule (d)(2)(ii). This condition is added to the permit since the rule is still applicable even though there are no monitoring requirements for the boiler.

Condition 3.4.4 limits the opacity of emission from the Gas Boiler (Source Code GB01) to equal to or less than twenty (20) percent opacity, except for one six minute period per hour of not more than twenty-seven (27) percent. This is a requirement of Georgia Rule (d). This condition is added to the permit since the rule is still applicable even though there are no monitoring requirements for the boiler.

Condition 3.4.5 limits the sulfur content of fuel burned in the Gas Boiler (Source Code GB01) to 2.5 percent as required under Georgia Rule (g). This condition is added to the permit since the rule is still applicable even though there are no monitoring requirements for the boiler.

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

A. General Testing Requirements

The permit does not presently contain any requirements for testing. The permit does specify that a performance test may be required at anytime upon request by EPD to determine compliance with the emission limits contained in Section 3.0 and test methods for measuring emissions are listed in Condition 4.1.3. Should the Division at any time require an emission test to comply with the emission limits identified in Conditions 3.2.1 and 3.2.2, the test methods specified under Condition 4.1.3 are to be used for the purpose of quantifying emissions.

B. Specific Testing Requirements

Not applicable.

**V. Monitoring Requirements (with Associated Record Keeping and Reporting)**

A. General Monitoring Requirements

Condition 5.1.1 – Refer to Condition 5.1.1 of the initial Title V Permit Number 2297-285-0048-V-01-0. There are no changes from the existing permit.

B. Specific Monitoring Requirements

Condition 5.2.1 - Refer to Condition 5.2.1 of the initial Title V Permit Number 2297-285-0048-V-01-0. The only change made is that the Beringer Ovens are now named the Burnout Ovens as indicated in the Title V application. Also, Condition 5.2.1 is worded according to most updated standard language used for the monitoring requirement.

Condition 5.2.2 is added to require the facility to conduct a weekly inspection on the degreaser to ensure compliance with the work practices per Rule (ff).

Conditions 5.3.1, 5.3.2, and 5.3.3 in the initial Title V Permit have been moved to Section 6.0 of the Permit and listed as Conditions 6.1.4, 6.1.5, and 6.1.6 respectively. There are no record keeping and reporting requirements listed under Section 5.0.

## **VI. Other 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 equipment. The Permittee is required to notify the Division within seven days of any deviations from the applicable requirements.

Condition 6.1.3 is added as a standard general requirement. Conditions 6.1.4, 6.1.5, and 6.1.6 are new conditions in this section from the previously listed conditions 5.3.1, 5.3.2, and 5.3.3 in the initial Title V Permit. 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.

Condition 6.1.7 is added as a standard format of the Title V Permit. Excess emission is added to the permit and is defined as when the facility fails to use a non-HAP based solvent for the degreaser. Exceedances are added to the permit and are defined as any VOC emissions exceeding 250 tpy from the entire facility and 100 tpy from the treatment operations for any 12 consecutive month. Another exceedance is defined for when the facility fails to comply with the work practices required by Condition 3.4.1. Excursions are added to the permit and are defined as any three consecutive determinations for which the scrubbant flow rate from each spray chamber scrubber is outside the range of 0.3 – 0.6 gpm.

### **B. Specific Record Keeping and Reporting Requirements**

1. Plant wide: The Permittee is required to keep records on a daily basis of all materials containing volatile organic compounds used.
2. Individual Equipment: The degreaser is subject to Georgia Rule 391-3-1-.02(ff) – Solvent Metal Cleaning. The Permittee is required to keep a weekly inspection log to assure compliance with those applicable sections of Condition 3.4.1 of the Permit. Any operation not meeting with these requirement shall be considered a deviation and must be recorded.
3. Equipment Groups: The Permittee is required to calculate VOC emissions on a monthly basis for the meltblown/spunbound laminating processes (Source Codes SMS1, SMS2, SMS3, and VFL1) by using the daily operating parameters and VOC containing materials usages for the meltblown/spunbound laminating processes to assure compliance with Condition 3.2.2 of the Permit. The facility is also required to calculate the total monthly VOC emissions including the burnout ovens.

## **VII. Specific Requirements**

### **A. Operational Flexibility**

Not applicable

B. Alternative Requirements

Not applicable

C. Insignificant Activities

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

Not applicable

E. Short-Term Activities

Refer to Form D.5 in the Title V permit application.

F. Compliance Schedule/Progress Reports

Not applicable

G. Emissions Trading

Not applicable

H. Acid Rain Requirements

Not applicable

I. Prevention of Accidental Releases

The facility indicated applicability for propane (CAS 74-98-6).

J. Stratospheric Ozone Protection Requirements

The facility indicated applicability to 40 CFR 82.

K. Pollution Prevention

Not applicable

L. Specific Conditions

Not applicable

**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.

**Addendum to Narrative**

The 30-day public review started on February 20, 2004 and ended on March 21, 2004. Comments were not received by the Division.