

TITLE V MINOR MODIFICATION (without construction) APPLICATION REVIEW

Facility Name: **Kimberly-Clark, LaGrange Mill**

City: LaGrange

County: Troup

AIRS #: 04-13-285-00048

Application #: 16625

Date SIP Application Received: February 28, 2006

Date Title V Application Received: June 2, 2006

Permit No: 2297-285-0048-V-02-1

Program	Review Engineers	Review Managers
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Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft/proposed operating permit amendment. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1) and 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the proposed permit and is presented in the same general order as the permit. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Existing Permits

Table 1 below lists the current Title V permit, and all administrative amendments and minor and significant modifications and 502(b)(10) changes.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
2297-285-0048-V-02-0	April 5, 2004		X

B. Regulatory Status

1. PSD/NSR/RACT

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

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			✓
SO ₂	Yes			✓
VOC	Yes	✓		
NO _x	Yes			✓
CO	Yes			✓
TRS	No			
H ₂ S	No			
Individual HAP	Yes			✓
Total HAPs	Yes			✓

II. Proposed Modification

A. Description of Modification

Application No. 16625 was submitted by Kimberly-Clark on February 28, 2006 for the installation of a new natural-gas oven and the removal of existing Burnout Oven Nos. 1 and 2 (Source Codes: B001 and B002). Based on additional information provided by the facility on June 2, 2006, permission to install the new oven was given in an off-permit letter dated June 5, 2006. The facility also requested EPD to investigate the validity of the PSD Avoidance limit contained in Permit Condition 3.2.1 for the three existing electric ovens (Source Codes: B001, B002, and B003) and requested the removal of the existing Degreaser (no Source Code) from the Permit. Additionally, the two electric ovens must be removed from the Permit.

Application No. 16625 is being processed as a minor modification without construction to Title V Permit No. 2297-285-0048-V-02-0 since the modification does not involve significant changes to monitoring, reporting, or record keeping. The application was deemed to be complete on July 13, 2006 with the submittal of an updated electronic application.

B. Emissions Change

The facility provided emissions for the new oven as provided by the manufacturer. Emissions from natural gas combustion were also included to calculate total emissions from the new unit. Only VOC emissions from the existing 2 ovens that are being removed were provided; however, it is expected that the actual emission increases due to the modification will be less due to offsets with the shutdown of the 2 electric ovens.

Table 3: Emissions Change Due to Modification

Pollutant	Is the Pollutant Emitted?	Net Actual Emissions Increase (Decrease) (tpy)	Net Potential Emissions Increase (Decrease) (tpy)
PM	Yes	<0.23	0.23
PM ₁₀	Yes	<0.23	0.23
SO ₂	Yes	<0.1	0.1
VOC	Yes	0.01	0.01
NO _x	Yes	<1.57	1.57
CO	Yes	<0.7	0.7
TRS	No		
H ₂ S	No		
Individual HAP	No		
Total HAPs	No		

C. PSD/NSR Applicability

The facility has a 250 ton per year VOC cap in place to avoid a PSD review. This modification will not affect the facility's ability to comply with the limit.

III. Facility Wide Requirements

A. Emission and Operating Caps

There are no new facility-wide emission or operating caps associated with this modification.

B. Applicable Rules and Regulations

There are no new facility-wide rules and regulations associated with this modification.

C. Compliance Status

The facility did not indicate any facility-wide compliance issues in the application for this modification.

D. Operational Flexibility

The facility did not request any operational flexibility in the application for this modification.

E. Permit Conditions

There are no new or modified conditions in Section 2.0 of the Permit.

IV. Regulated Equipment Requirements

A. Brief Process Description

Kimberly-Clark submitted this application to replace two existing electrical Burnout ovens (Source Codes: B001 and B002, also called Beringer Ovens) with a new natural gas fired heat-cleaning oven. The ovens are used to clean process equipment that contains polymer residue. The new oven has a 0.69 MMBtu/hour primary burner and a 1.02 MMBtu/hr afterburner. There is no associated air pollution control equipment with the new oven.

The new oven is exempt from permitting under Georgia Rule 391-3-1-.03(6)(i)3 as all potential emission increases are less than the listed thresholds. Additionally, this new oven can be included in the Insignificant Activities Checklist per Georgia Rule 391-3-1-.03(10)(g)4(vi) – “Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.” The facility was issued an off-permit change letter for the installation of this new oven on June 5, 2006.

The facility has requested EPD to investigate the validity of the PSD Avoidance limit contained in Permit Condition 3.2.1 for the three existing electric ovens (Source Codes: B001, B002, and B003) and requested the removal of

the existing Degreaser (no Source Code) from the Permit.

B. Equipment List for the Process

Burnout Oven Nos. 1 and 2 and Degreaser have been removed from Table 3.1.

3.1 Emission Units

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	--
B003	Burnout Oven No. 3	None	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	--
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

Ovens History

Permit Condition 3.2.1 contains a PSD avoidance limit of 2.54 lb/hour VOC emissions from each existing electric oven, which equates to 11.13 tpy of VOC for each oven. The facility has indicated in the past that this limit might be erroneous and possibly unnecessary, as the permit also has a 250 tpy VOC cap for the facility. The facility recently provided the actual emissions from each of these existing ovens at 0.03 lb/hour based on emissions testing.

Application No. 1456 dated May 1, 1984 for the initial construction of the facility included 2 Beringer ovens (Source Codes: B01 and B02). In the emissions section, maximum VOC emissions from each oven is listed at 2.54 lb/hour. However, no restriction on emissions from the 2 ovens was included in Permit No. 2297-141-8880 dated July 18, 1984. The facility was limited to less than 250 tpy VOC in order to avoid PSD review.

Application No. 2477 dated September 3, 1986 requested the removal of an operational limitation due to lower-than-expected emissions based on stack tests. Permit No. 2297-141-8880 was amended on December 8, 1986. In this application, the ovens' VOC emissions are estimated at 1 lb/hour each (4.38 tpy each).

Application No. 5066 received July 18, 1991 included a request for new Beringer Oven No. 3 (Source Code: B03). In the emissions section, maximum VOC emissions from the new oven are listed at 2.54 lb/hour (11.13 tpy); however, the Engineering Report associated with the application lists maximum VOC emissions at 1 lb/hour

(4.38 tpy) from the B03 oven. Amendment to Permit No. 2297-141-8880 dated December 23, 1991, Condition No. 20.b includes a limit of 2.54 lb/hour from the new B03 oven.

Application No. 6423 dated November 16, 1993 resulted in a new permit being issued - Permit No. 2297-141-11391 dated July 17, 1994. This new permit included all three Beringer Ovens limited to 2.54 lb/hour VOC emissions.

Additional information included in the initial Title V Application TV-9004 listed VOC emissions from each oven at 0.54 lb/cycle, with a cycle lasting 24 hours (0.023 lb/hour). This provides potential emissions of 0.1 tpy from each oven, based on 365 cycles per year. Actual cycles per year ranged from 71 to 131 per year in 1995. According to the narrative for the initial Title V Permit, the 2.54 lb/hour per oven limit was classified as a PSD Avoidance limit and “was put in to assure the facility remained below the 250 tpy cap on VOCs for the facility.” This logic was carried over in the Title V renewal (TV-14221).

Recommendation

It appears that the PSD avoidance limit for the 3 ovens was put in place to help ensure compliance with the site-wide VOC emission cap, but does not actually affect the facility’s ability to meet the site-wide limit. Estimated potential VOC emissions from the new natural-gas oven and remaining existing electric oven are 0.38 tpy (based on 548 cycles per year, as the facility now runs 16-hour cycles), which is negligible when calculating the facility-wide 12-month rolling total VOC emissions. The latest 12-month rolling VOC emissions from the facility were 149.3 tons through March 2006, with 0.095 tons contributed by the 3 existing electric ovens. This amounts to less than 0.1% of the facility-wide emissions. As noted earlier, the net VOC emission increase for the installation of the new oven and removal of 2 existing ovens was 0.01 tpy, which still is a small fraction of facility-wide emissions.

The PSD avoidance limit in Condition 3.2.1 can be removed from the permit without affecting the facility’s ability to meet the 250 tons per year VOC limit. There are no associated recordkeeping or reporting requirements for this condition. Monitoring was accomplished by monitoring the scrubbant spray flow rate from the associated spray chamber scrubbing systems once per shift. The facility will still be required to monitor the remaining spray chamber system. Per Condition 6.2.2, the VOC emissions from the electric ovens must be included in calculating site-wide emissions, which will still be required for the remaining oven.

Parts Washer

The Degreaser (no Source Code listed) was not permitted until the initial Title V Permit, which was issued July 9, 1998. The facility checked Georgia Rule 391-3-1-.02(2)(ff) – “Solvent Metal Cleaning” as “applicable” in the application. The degreaser is not listed as an emission source in the application, but was included by EPD in the narrative and Title V Permit as subject to Georgia Rule (ff). According to the initial Title V narrative, this is a 30-gallon capacity, open top vapor degreaser that does not use a listed solvent; it is not subject to 40 CFR 63 Subpart T.

For Troup County, per Georgia Rule 391-3-1-.02(2)(a)6(i)(I), sources whose VOC emissions are less than 100 tpy are not subject to Georgia Rule (ff). The emissions from this small degreaser do not exceed 100 tpy.

The facility was issued a Letter of Noncompliance (LON) on May 8, 2006 in part for not conducting weekly inspections of the Degreaser from March 20 until April 10, 2006. The facility responded on May 22, 2006 with a letter that describes the Degreaser as a “small stand-alone parts cleaner, using non-regulated solvent and has less than 10 sq ft of air/vapor interface,” which meets the requirement as an Insignificant Activity. A “1” actually appears in Attachment B to the Permit, which represents this degreaser in question, as it is the only such piece of equipment on site.

Recommendation

The Degreaser is not subject to Georgia Rule (ff) and should not be included in the Permit as a Significant Emission Source. It also appears that the Degreaser does meet the requirements of an Insignificant Activity. Conditions 3.4.1, 3.4.2, 5.2.2, 6.1.7.a.i, 6.1.7.b.iii, 6.2.4, and 6.2.5 should be removed from the permit. Additionally, references to the Degreaser should be removed from the Equipment Table.

D. Compliance Status

The facility was issued a LON on May 8, 2006 in part for not conducting weekly inspections of the Degreaser from March 20 - April 10, 2006.

E. Operational Flexibility

The facility did not request any operational flexibility in the application for this modification.

F. Permit Conditions

Conditions Removed or Modified

Equipment Emission Caps and Operating Limits

Permit Condition 3.2.1 is removed from the Permit. As shown above, the PSD Avoidance limit that is contained in this Condition is unnecessary for the facility to comply with the site-wide PSD avoidance limit. The facility has to account for VOC emissions from the remaining electric oven in Permit Condition 6.2.2.

Equipment SIP Rule Standards

Permit Conditions 3.4.1 and 3.4.2 are removed from the Permit. As shown above, the Degreaser is not subject to Georgia Rule (ff) and should not be included in the Permit.

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

There are no new testing requirements associated with this modification.

VI. Monitoring Requirements (with Associated Record Keeping and Reporting)

There are no new monitoring requirements associated with this modification.

Conditions Removed or Modified

Permit Condition 5.2.1.a is modified to remove references to Burnout Ovens Nos. 1 and 2 and their associated Spray Chambers (Source Codes: SC1, SC2, B001, and B002). This equipment has been removed from the site.

Permit Condition 5.2.2 is removed from the Permit since Degreaser is not subject to Georgia Rule (ff) and should not be included in the Permit.

VI. Other Record Keeping and Reporting Requirements

There are no new recordkeeping and reporting requirements associated with this modification.

Conditions Removed or Modified

Permit Conditions 6.1.7.a.i, 6.1.7.b.iii, 6.2.4 and 6.2.5 are removed from the Permit since the Degreaser is not subject to Georgia Rule (ff) and should not be included in the Permit.

Permit Conditions 6.1.7.c.i and 6.2.2 are modified to removed Spray Chambers SC1 and SC2. This equipment has been removed from the site.

VII. Specific Requirements

- A. Operational Flexibility – Not Applicable
- B. Alternative Requirements – Not Applicable
- C. Insignificant Activities – Attachment B has been updated to include the new natural gas oven.
- D. Temporary Sources – Not Applicable
- E. Short-Term Activities – Not Applicable
- F. Compliance Schedule/Progress Reports – Not Applicable
- G. Emissions Trading – Not Applicable
- H. Acid Rain Requirements – Not Applicable
- I. Prevention of Accidental Releases – Not Applicable
- J. Stratospheric Ozone Protection Requirements – Not Applicable
- K. Pollution Prevention – Not Applicable
- L. Specific Conditions – Not Applicable

Addendum to Narrative

The 45-day EPA review started on July 27, 2006 and ended on September 11, 2006. Comments were not received by the Division.