

Facility Name: **PPG Industries**

City: East Point

County: Fulton

AIRS #: 04-13-121-00254

Application #: 16377

Date SIP Application Received: N/A

Date Title V Application Received: September 12, 2005

Permit No: 2851-121-0254-V-02-2

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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 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 draft 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 public comment period and 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, minor and significant modifications to that permit, and 502(b)(10) attachments. Comments are listed in Table 2 below.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
2851-121-0254-V-02-1	September 2, 2004	✓	
2851-121-0254-V-02-0	May 22, 2002	✓	

Table 2: Comments on Specific Permits

Permit Number	Comments
2851-121-0254-V-02-0	Initial Title V permit
2851-121-0254-V-02-1	Minor modification for 20 parts washer units

B. Regulatory Status**1. PSD/NSR/RACT**

PPG Industries is a major source for VOC under NSR, but has taken limits in the past to avoid the modifications from being subject to NSR review. Using the current oil-based production limit of 7.5 million gallons, and the existing emission factor of 0.065 lb VOC per gallon of oil-based paint produced, the potential VOC emissions from oil based paint production alone is 253.4 tons per year. Water-based paints are produced in nearly equal volume as oil-based paints, but contribute much less VOC emissions (rough estimate is 20 tons per year). Actual plant-wide VOC emissions reported for the year 2004 were approximately 160 tons per year (using the existing emission factors).

In April of 1988, PPG was issued a permit for the expansion of its production of oil-based paints. In order to avoid review under NSR regulations, the facility was limited to a total of 7.5 million gallons of oil-based coatings a year so that the increase in VOC emissions from the expansion did not exceed 40 tons per year (the PSD major modification threshold level that applied at that time in the Atlanta NAA). In May of 1998, PPG was issued a permit for the addition of a new production line (Source Code D097 or TRIX). After netting, potential VOC emissions increased by approximately 1 ton per year. The increase was below the 25 tons over 5 consecutive calendar years allowed by NSR. Therefore, a VOC emissions increase of 1 ton for 1998 was recorded for netting purposes.

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	✓			✓
PM ₁₀	✓			✓
SO ₂	✓			✓
VOC	✓	✓		
NO _x	✓			✓
CO	✓			✓
TRS	✓			✓
H ₂ S	✓			✓
Individual HAP	✓			✓
Total HAPs	✓			✓

II. Proposed Modification

A. Description of Modification

The facility is requesting that Condition 2.1.1 of the current permit be modified from a production limit to an emission limit. Presently, Condition 2.1.1 limits oil-based production to 7.5 million gallons per year. This limit was established in 1988 for PSD avoidance purposes as explained in Section I.B of this narrative. Using the existing emission factor for oil-based paints provided in existing Condition 6.2.2 of 0.065 lb/gal, this limit equates to a 243.7 tpy VOC limit from oil-based paints. Emissions from water-based paints are not limited but actual emissions from water-based paints are roughly 20 tpy.

PPG requests that Condition 2.1.1 be removed and the addition of the following three conditions for the manufacturing process:

- for any consecutive 12-month period, less than 80 tons per year total VOC emissions (new PSD avoidance cap)
- for any consecutive 12-month period, less than 25 tons per year of total HAP emissions
- for any consecutive 12-month period, less than 10 tons per year of any individual HAP emissions (new NESHAP avoidance caps to avoid 40 CFR 63 Subpart HHHHH)

PPG expects significant reductions in VOC and HAP emissions due to a process change and a change in calculating emissions. The process change is a modification to the dust collector ducts of the mixing tanks of the paint production equipment to eliminate flow through dust pick-up. This change would reduce HAP emissions to a minor source level. PPG will track the plant's VOC and HAP emissions using EPA's Emission Inventory Improvement Process (EIIP) modeling equations.

The requested facility-wide limit of 80 tpy VOC equates to the facility's current potential emissions as estimated using the EIIP emission factors and accounting for the reduction in emissions due to minimizing airflow during mixing operations. The EIIP calculations are batch-style equations that are complex and take into account many process variables such as solvent vapor pressure, temperature, tank size and tank lid gap, air velocity across mixing area, etc.

B. Emissions Change

The facility's emissions would decrease due to the process change and the change in calculating emissions. Facility wide VOC emissions would be limited to less than 80 tons per year. Facility wide total HAP emissions would be limited to less than 25 tons per year. Facility wide individual HAP emissions would be limited to less than 10 tons per year. Current actual VOC emissions are 160 tpy using the existing emission factor; this translates to roughly 100 tons per year using the more complex and more accurate EIIP emissions equations. With the implementation of the improvements to the dust-collection system, actual VOC emissions will be reduced to approximately 30 tpy.

C. PSD/NSR Applicability

The proposed modification would not be classified as a major modification for NSR since it would reduce emissions.

III. Facility Wide Requirements

A. Emission and Operating Caps:

Facility wide VOC emissions are limited to less than 80 tons per year. Facility wide total HAP emissions are limited to less than 25 tons per year. Facility wide individual HAP limits are limited to less than 10 tons per year.

B. Applicable Rules and Regulations

Rules and Regulations Assessment – None applicable

Emission and Operating Standards – None applicable

C. Compliance Status

No noncompliance issues exist

D. Operational Flexibility

None applicable

E. Permit Conditions

The facility is requesting that condition 2.1.1 of the current permit be modified from a production limit to an emission limit. Presently, condition 2.1.1 limits oil-based production to 7.5 million gallons per year. PPG requests that condition 2.1.1 be removed and the addition of the following three conditions for the manufacturing process:

- for any consecutive 12-month period, less than 80 tons per year total VOC emissions
- for any consecutive 12-month period, less than 25 tons per year of total HAP emissions
- for any consecutive 12-month period, less than 10 tons per year of any individual HAP emissions

There would also be specific permit conditions pertaining to calculating and maintaining VOC and HAP emissions utilizing EPA's EIIP modeling equations.

IV. Regulated Equipment Requirements

A. Brief Process Description

PPG produces oil-based, water-based, and high performance paints. Paint manufacturing is the blending of pigments, resins, solvents, and additive to form a homogenous mixture that can be applied to a substrate. Products are batch produced and adjusted by addition or deletion of materials to meet specific client quality requirements. Products are strained and filled into containers for off site sale.

The only process change taking place is a modification to the dust collector ducts of the mixing tanks of the paint production equipment to eliminate flow through dust pick-up.

B. Updated Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
Process Group	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
EG01	Storage Tanks: T001-T008, T010-T012, T015-T018, T056-T058, T066-T074, T079-T084, T0A2, T0A3, T0164, TOW01	391-3-1-.02(2)(b), and 391-3-1-.02(2)(vv)	2.1.1, 2.1.2, 3.4.1, 3.4.3, 6.2.3, 6.2.7 through 6.2.13.	na	na
EG02	Boilers B001 and B003	391-3-1-.02(2)(b), 391-3-1-.02(2)(d), and 391-3-1-.02(2)(g)	2.1.1, 2.1.2, 3.4.3, 3.4.4, 3.4.6, 6.2.5, 6.2.6	na	na
P001- P002	Paint Production Equipment Controlled	391-3-1-.02(2)(b), 391-3-1-.02(2)(e), and 391-3-1-.02(2)(ccc)	2.1.1, 2.1.2, 3.4.2, 3.4.3, 3.4.5, 3.5.1, 3.5.2, 3.5.3, 3.5.4, 5.2.1, 5.2.2, 5.2.5, 5.2.6, 5.3.1, 6.2.7 through 6.2.13.	DC-3, DC- 4A, & DC- 4B	Dust Collector
P003	Paint Production Equipment Uncontrolled	391-3-1-.02(2)(b), 391-3-1-.02(2)(e), and 391-3-1-.02(2)(ccc)	2.1.1, 2.1.2, 3.4.2, 3.4.3, 3.4.5, 3.5.1, 3.5.4, 5.2.4, 5.2.5, 5.2.7, 5.3.1, 6.2.7 through 6.2.13	na	na
C001	Cold Cleaners Degreasers (not to exceed 20)**	391-3-1-.02(2)(ff)	2.1.1, 2.1.2, 3.2.1, 3.4.7, 5.2.3, 5.2.7, 6.2.7 through 6.2.13.	na	na

C. Equipment & Rule Applicability

Emission and Operating Caps –

Facility wide VOC emissions are limited to less than 80 tons per year. Facility wide total HAP emissions are limited to less than 25 tons per year. Facility wide individual HAP limits are limited to less than 10 tons per year.

Applicable Rules and Regulations -

No new applicable Rules and Regulations associated with this modification.

D. Compliance Status

No noncompliance issues exist.

E. Operational Flexibility

The facility did not indicate that the process or equipment is involved in an alternate operating scenario

F. Permit Conditions

Condition No. 2.1.1 is modified to replace the 7.5 million gallon oil based paint limit with a facilitywide VOC emission limit of 80 tpy. This new limit is much less than the calculated VOC emissions using the current emission factor and PSD-avoidance production limit.

Condition 2.1.2 is added to limit HAPs to 10/25 tpy to avoid 40 CFR 63 Subpart HHHHH.

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

A. Individual Equipment: None applicable

B. Equipment Groups (all subject to the same test requirements): None applicable

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

No changes

VII. Other Record Keeping and Reporting Requirements

Equipment Groups: The facility is required to maintain records calculating monthly VOC and HAP emissions using EPA's EIIP modeling equations. Records of monthly usage of all VOC containing materials and all HAP containing materials used in the entire facility should be maintained. The 12-month rolling total of all VOC and HAP emissions should also be kept at the facility.

Existing Conditions 6.2.1, 6.2.2, and 6.2.4 relating to tracking oil-based paint production and calculating emissions using the old emission factor have been deleted. To calculate VOC and HAP emissions now, usage records will be kept and the EIIP equations will be used to estimate emissions. PPG is required to maintain records of all process variables used in the equations.

Condition 6.2.7 regarding the annual emissions statement has been updated using the latest version from the Title V template.

New Conditions 6.2.8 through 6.2.13 are added to track VOC and HAP emissions.

VIII. Specific Requirements

- A. **Operational Flexibility**
No operational flexibility has been added as a part of this modification.
- B. **Alternative Requirements**
There are no alternative requirements indicated as a part of this modification.
- C. **Insignificant Activities**
No insignificant activities have been added as part of this modification.
- D. **Temporary Sources**
The facility has not requested to operate any temporary sources.
- E. **Short-Term Activities**
The facility did not report any short-term activities.
- F. **Compliance Schedule/Progress Reports**
Based on all presently available information, no compliance or progress reports are necessary.
- G. **Emissions Trading**
The facility is not involved in any emissions trading.
- H. **Acid Rain Requirements**
The facility is not subject to any requirements in Title IV of the Clean Air Act.
- I. **Prevention of Accidental Releases**
The facility is not subject to the Accidental Release Prevention Program.
- J. **Stratospheric Ozone Protection Requirements**
The standard permit condition pursuant to 40 CFR 82 Subpart F has already been included in the Title V Permit.
- K. **Pollution Prevention**
There are no pollution prevention provisions incorporated into this Title V Permit.
- L. **Specific Conditions**
None.

Addendum to Narrative

The 30-day public review started on April 6, 2006 and ended on May 6, 2006. Comments were received by the Division. The comment, submitted by PPG, requested that the word “eliminate” in describing the flow through dust pick-up be changed to “significantly reduce.” The requested change in wording reflects the fact that a small amount of flow through ventilation is necessary to provide adequate industrial hygiene ventilation during specific operations. The request has been noted and the change has been applied to the permit.