

**Air Pollution Control District
Jefferson County, Ky
25 February 2002**

TITLE V PERMIT SUMMARY

Company: Noveon, Inc.

Plant Location: 4200 Bells Lane, Louisville, Kentucky 40211

Date App. Received: 21 February 1997 **Date Admin. Complete:** 17 April 1997

Date of Draft Permit: 28 January 2001 **Date of Proposed Permit:** Initial - 28 January 2001
Final - 22 February 2002

District Engineer: Darrell T. Poff **Permit No.:** 129-97-TV

Plant ID: 0082 **SIC Code:** 2821 **NAICS:** 325211 **AFS:** 00082

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as of the date above as an attainment area for lead (Pb), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM), particulate matter less than 10 microns (PM₁₀), and ozone (O₃) (1 hour standard); unclassifiable for particulate matter less than 2.5 microns (PM_{2.5}) and ozone (O₃) (8 hour standard).

Application Type/Permit Activity:

- Initial Issuance
- Permit Revision
 - Administrative
 - Minor
 - Significant
- Permit Renewal

Compliance Summary:

- Compliance certification signed
- Compliance schedule included
- Source is out of compliance

I. Source Description

1. **Class I Area Impacts:** This source is not located in or near a Class I area.
2. **Product Description:** The source manufactures synthetic resins (chlorinated resin, polyvinyl chloride latex and co-polymer latex) and resin compounds.
3. **Overall Source Process Description:** This source produces synthetic resins and compounds. Raw materials are reacted and/or mixed to make these products. Final products can be temporarily stored on-site or shipped off-site in either packaged or bulk form.
4. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
5. **Emission Unit Summary**
 - a. **Resin (U-RES):** Resin is slurried and then reacted with chlorine to produce a chlorinated resin slurry. This slurried material is further processed, then dried into a chlorinated resin which is either consumed internally (by U-CMP) or shipped off-site. Chlorine emissions are controlled by a scrubber system.
 - b. **Compounding (U-CMP):** Resin and various additives are mixed (i.e., compounded) into either powder or pellet form.
 - c. **Latex (U-LTX):** Various monomers, including vinyl chloride monomer (VCM), are polymerized into latex. The latex is not dried, but remains in liquid form throughout the process, and is shipped off-site in this form. Approximately 80 to 85% of the latex produced in this Emission Unit is made with vinyl chloride as one of its monomers. When these products are produced, VCM emissions are controlled by the Recovery System and the Flameless Thermal Oxidizer (FTO). Hydrogen chloride/hydrochloric acid emissions are controlled by the Scrubber associated with the FTO. All VCM subject operations are performed in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) Standard for Vinyl Chloride. The source has been granted two equivalencies, as follows:
 - i. The source may, pursuant to an equivalency granted for 40 CFR 61.70 (c)(2)(i), composite individual batch samples only if the batches are the same grade latex resin; have approximately the same yield and total solids content; and have an expected residual vinyl chloride content of less than 250 ppm. Composite samples shall then be analyzed per EPA Test Method 107, Determination of Vinyl Chloride Content of Polyvinyl Chloride Resin, within 36 hours of taking the first sample. Additionally, the compositing procedure shall be compared with the reference procedure once per month. (Approved 1 December 1983.)

ii. The source may continuously monitor the FTO's oxidation chamber temperature in lieu of the requirement for vinyl chloride emissions monitoring under 40 CFR 61.68. (Approved 2 November 1998.) See Item II.3, below.

d. **Unleaded Gasoline Storage (U-GAS):** The Emission Unit consists of an above-ground unleaded gasoline storage tank.

6. **Fugitive Sources:** The source reports quarterly on fugitive VCM emissions pursuant to 40 CFR 61, Subpart F.

7. **Title V Major Source Status by Pollutant**

Pollutant	Actual Emissions (tpy) 1999 Data	Major Source Status (based on PTE)
CO	Negligible	No
NO _x	Negligible	No
SO ₂	Negligible	No
PM	33.3	Yes
VOCs	2.55	Yes
Total HAPs (VOC and Non-VOC)	2.33	Yes

8. **MACT Standards:** The source is major for HAPs, but the source is not currently subject to any proposed or final MACT standards. There are MACT standards being developed which may apply to this source in the future, as follows: Organic Liquids Distribution (Non-Gasoline); Polymerized Vinylidene Chloride Production; Polymethyl Methacrylate Resins Production; and Polyvinyl Chloride and Co-Polymers Production.

9. **Applicable Requirements**

PSD NSPS SIP NSR NESHAPS
 District-Origin MACT Other

10. **Referenced Federal Regulations in Permit**

40 CFR 61 Subparts A, F, and V; and 40 CFR 68 Subparts A, B, and D through H are referenced in the permit.

II. **Regulatory Analysis**

1. **Emission and Operating Caps:** The source is not subject to any plant-wide emission or operating caps.

2. **Compliance Status:** The source signed and submitted a Title V compliance certification in its permit application.
3. **Operational Flexibility:** The source did request three Alternative Operating Scenarios (AOS) in its Title V Permit Application. The District has determined two of these, for raw materials use and equipment use, do not fit the definition of an AOS, an option by which a source has defined a *specific*, alternative mode of operation. Nonetheless, this language has been incorporated in the source's Title V Permit under the U-RES, U-CMP, and U-LTX Additional Conditions sections to accommodate the source's wish for operational flexibility.

The third AOS, approved by the District, addresses alternate control for VCM in U-LTX. In lieu of the FTO, secondary emissions control may also be provided by the Vent Gas Absorber System, C-LPA-VGA, of Oxy Vinyls, LP. When operating under the AOS, a log entry indicating the date and time of each change in operation made is required. Additionally, specific operational and communication procedures (applicable to both sources) are included in the permit in Appendix A. Compliance certification is incumbent upon each source for *all* emissions handled by its respective control device, *regardless of the origin of the emissions*. Therefore, while operating under this AOS, neither source can circumvent compliance certification for any period (or otherwise not account for emissions).

4. **Testing Requirements:** None at this time.

5. **Monitoring, Record Keeping and Reporting Requirements:**

- a. The source is required to monitor, maintain records of, and report on various operating parameters to demonstrate ongoing compliance with all applicable requirements, as follows:
 - i. PM: In addition to daily parametric monitoring of control devices required to meet PM standards, the source has chosen to implement a Preventive Maintenance Program (PMP) to monitor proper operation of required control devices.

Stack testing will be performed on representative equipment once during the initial permit term at five locations approved by the District, each representing one of the five emission factors, to verify the control efficiencies and emission factors used in the one-time compliance demonstrations for PM. Said testing will be conducted per the specifications of 40 CFR 60, Appendix A, Methods 1 through 5.

- ii. Opacity - Visible emission surveys are required of most PM Emission Points. At Emission Points where visible emissions are observed, the source is required to initiate corrective action within eight hours of the initial observation. If the visible emissions persist, a Method 9 (or Method 22, as appropriate) will be performed within 24 hours of the initial observation. If the opacity standard is exceeded, the source is required to report the exceedance to the District and to take all practicable steps to eliminate the exceedance. Because the source operates without visible emissions, as confirmed during compliance inspections, the visible emissions surveys

begin on a weekly basis and are allowed to be stepped down to monthly if no visible emissions are observed for twelve consecutive operating weeks. Notwithstanding this, however, PM Emissions Points with required control devices have visible emission surveys beginning on a daily basis. After twelve consecutive weeks, the surveys are allowed to be stepped down to weekly if no visible emissions are observed.

- iii. TAPs: In lieu of monitoring, the source has opted to demonstrate ongoing compliance with District only enforceable Regulations 5.11 and 5.12 by implementing a Management of Change System (MOCS). This system will track changes in operation (including raw materials use) that might affect compliance with these regulations.
 - iv. Compliance reporting is required semi-annually, except where underlying applicable regulations or permit conditions require more frequent reporting. Additionally, 40 CFR 61 Subparts A, F, and V are applicable to certain U-LTX Emission Points as referenced in the permit, and the monitoring, record keeping and reporting requirements therein shall apply, unless more frequent reporting is stipulated by another applicable requirement, including, but not limited to, Regulation 1.07, Emissions During Shutdowns, Malfunctions, Startups, and Emergencies.
- b. Monitoring, record keeping, and reporting are not required for the following regulations for the reasons indicated:
- i. VOC: Regulation 7.25, section 2.1 - The source has demonstrated its potential, source-wide, VOC emissions are less than five tons per year for Emission Points subject to this regulation. Since the source's demonstration is based on uncontrolled VOC emissions, no monitoring, record keeping, or reporting are required.
 - ii. VOC: Regulation 6.24, section 3.3 - The source has demonstrated its potential VOC emissions are less than 450 pounds per hour and 3000 pounds per day for each Emission Point subject to this regulation. Since the source's demonstration is based on uncontrolled VOC emissions, no monitoring, record keeping, or reporting are required.
 - iii. Opacity: Opacity monitoring is not required for PM Emission Points (equipment) handling *only* pellets, as the likelihood of PM emissions from these, e.g., from attrition by abrasion, is nil. The pellets handled at these Emission Points are various polymeric materials which, by the nature of their physical characteristics, are not friable and, otherwise, are generally conveyed in closed systems.
6. **Off-permit Documents:** The District has approved the following off-permit documents for this source: MOCS, approved by the District on 7 June 2000; and a revised RMP (Risk Management Plan), submitted on 28 February 2001. Note, the original RMP for this source was submitted by The BFGoodrich Company on 18 June 1999, meeting the required RMP submittal date of 21 June 1999.

The District considers an "off-permit document" as a document on which a source's compliance with given regulation(s) is contingent or which contains regulatory requirement(s), but is only referenced in a source's Title V Operating Permit. The designation "off-permit document" shall be made at the District's discretion, and may include, but not be limited to, documents such as Regulation 1.05 VOC compliance plans, PMPs, MOCS; or other documents which are too voluminous to be included in a source's Title V Operating Permit, as determined by the District.

III. Other Requirements:

1. **Temporary Facilities:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Compliance Schedule/Progress Reports:** The source has certified compliance with all applicable requirements; therefore, no compliance schedule or progress reports are necessary. Additionally, the source identified in its original permit application, and subsequent addenda, applicable and non-applicable Federal and District regulations in effect at the time of the permit application. This permit grants a permit shield based upon the District's review of the source's permit application, and the source's request for this permit shield.

Note that the source is not subject to Regulation 2.04, Construction or Modification of Major Sources in or Impacting upon Non-Attainment Areas (Emission Offset Requirements) as construction of the affected major source facilities occurred prior to the applicability date of 21 April 1982 and no Major Modifications have been made by the source since that date.

4. **Emissions Trading:** The source does participate in emissions trading, and has an existing Emissions Bank credit of 443.3 tpy for particulate matter.
5. **Acid Rain Requirements:** The source is not subject to the Acid Rain Program.
6. **Stratospheric Ozone Protection Requirements:** Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any source that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's only use of a listed chemical is that of Halon 1301 in a fire extinguishing system.
7. **Prevention of Accidental Releases 112(r):** The source does manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR 68 Subpart F in a quantity in excess of the corresponding specified threshold amount, including chlorine, vinyl acetate, vinylidene chloride, and vinyl chloride; therefore, the source is required to develop and implement a Risk Management Plan pursuant to 40 CFR 68 Subpart G and Regulation 5.15, Chemical Accident Prevention Provisions. Said plan was submitted on 28 February 2001. Note, the original RMP for this source was submitted by The

BFGoodrich Company on 18 June 1999, meeting the required RMP submittal date of 21 June 1999.

- 8. Insignificant Activities:** The following activities, as referenced in the source's Title V Permit Application, have been determined by the District to be insignificant.

Insignificant Activities		
Description	Quantity	Basis
Emergency Relief Vents or Ventilating Systems not otherwise regulated.	Various	Regulation 2.02, section 2.3.10
Indoor PM Collectors Venting Indoors	Various	Regulation 2.02, section 2.3.21
Internal Combustion Engines, Fixed or Mobile	Various	Regulation 2.02, section 2.2
Brazing, Soldering, or Welding Equipment	Various	Regulation 2.02, section 2.3.4
Woodworking, Except Conveying, Hogging, or Burning Wood/Sawdust	Various	Regulation 2.02, section 2.3.5
Lab Ventilating and Exhausting Systems, Non-radioactive Materials	Various	Regulation 2.02, section 2.3.11
Blast Cleaning, Abrasives in Water	Various	Regulation 2.02, section 2.3.13
Soil or Groundwater Contamination Remediation, Passive or Total Removal	As needed	Regulation 2.02, section 2.3.20
Emergency Generators and associated propane tanks	Various	USEPA White Papers. (Uses propane as fuel.)
Miscellaneous Drums and Totes	Various	No known underlying applicable requirement.
Miscellaneous Tote Bin Station(s)	Various	No known regulated emissions to the atmosphere.
Pressurized Storage Vessels (VOC and non-regulated/non-VOC materials)	Various	Regulation 2.02, section 2.3.26 (VOC) or no known underlying applicable requirement (non-regulated/non-VOC)
Settling Pits	Various	No known underlying applicable requirement.
Cooling Towers	Various	No known underlying applicable requirement. No Cr-based additives.
VOC Storage Vessels ≤ 250 gallons	Various	Regulation 2.02, section 2.3.24

Insignificant Activities		
Description	Quantity	Basis
Bulk Unloading and Loading	Various	No known regulated emissions to the atmosphere. (For loading/unloading involving particulate materials, negligible PM may be discharged to the ground when loading/unloading hoses are disconnected.)
Miscellaneous PM Containers/Equipment	Various	No known regulated emissions to the atmosphere.

- a. Insignificant Activities are only those activities or processes falling into the general categories defined in Regulation 2.02, Section 2, and not associated with a specific operation or process for which there is a specific regulation. Equipment associated with a specific operation or process (Emission Unit) shall be listed with the specific process even though there may be no applicable requirements. Information contained in the permit and permit summary shall clearly indicate that those items identified with negligible emissions have no applicable requirements.
- b. Activities identified in Regulation 2.02, Section 2, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the Title V permit.
 - i. No facility, having been designated as an insignificant activity, shall be exempt from any generally applicable requirement which shall include a 20% opacity limit for facilities not otherwise regulated.
 - ii. No periodic monitoring shall be required for facilities designated as insignificant activities.