

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT  
REVISED

PERMITTEE

Clariant-Master Batches Division  
Attn: Maria Race  
1515 Miller Parkway  
McHenry, Illinois 60050

Application No.: 91100091

I.D. No.: 111060ABG

Applicant's Designation: SILOS

Date Received: February 10, 2000

Subject: Color and Additive Production Plant

Date Issued: May 26, 2000

Expiration Date: May 26, 2005

Location: 1515 Miller Parkway, McHenry

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of seven cold cleaning degreasers, four resin storage silos controlled by baghouses, laboratory operations, and extruders and mixers controlled by weigh-up booths, baghouse, and vacuum baghouse pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 25 tons/year for volatile organic material (VOM) and 10 tons/year for any single HAP and 25 tons/year for combination of HAPs). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
2. This permit is issued based upon the color and additive manufacturing operation not being subject to the requirements of Subpart TT of 35 Ill. Adm. Code Part 218. This is a consequence of the voluntary limits placed on the VOM emissions as contained in this federally enforceable permit.
- 3a. Emissions and operation of the seven cold cleaning degreasers shall not exceed the following limits:

Solvent Consumed  
Emissions  
(Gal/Month) (Gal/Year)  
(Tons/Year)

VOM  
(Tons/Month)

88.5            680  
2.31

0.30

These limits are based on maximum solvent consumed, solvent density and VOM content of 6.8 lb/gal, and emissions determined by material balance. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

Solvent consumption shall be determined from the following equation:

$$U = V - W \times C/100$$

Where:

U = Solvent consumed

V = Virgin solvent added to the process (gal)

W = Certified amount of waste shipped off for recycling (gal)

C = Certified VOM content of waste solvent (wt. %)

- b. Emissions and operation of the extruders and mixers shall not exceed the following limits:

VOM Material (Ton/Mo) (Ton/Yr)	Usage		Emission Factor (Lb VOM/1,000 Lb)
	(Ton/Mo)	(Ton/Yr)	
Polymer	1,400	8,500	0.2
0.28 1.7			
Clean-Up Solvent	2.7	16	1,000
<u>2.70</u> <u>16.0</u>			
			Total
2.98 17.7			

These limits define the potential emissions of VOM are based on maximum usages, maximum clean-up solvent VOM content, and polymer usage emission factors as indicated in the application. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

4. This permit is issued based on negligible emissions of VOM from the laboratory operations. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

5. This permit is issued based on negligible emissions of particulate matter from the extruders/misers and four resin storage tanks. For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
  
6. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would

require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

7. Pursuant to 35 Ill. Adm. Code 218.182(c), the Permittee shall not operate a cold cleaning degreaser with a solvent vapor pressure which exceeds 2.0 mmHg (0.038 psi) measured at 20EC (68EF).
8. The Permittee shall comply with the following operating requirements for cold cleaning degreasers, pursuant to 35 Ill. Adm. Code 218.182:
  - a. Waste solvent shall be stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
  - b. The cover of the degreaser shall be closed when parts are not being handled and parts are drained until dripping ceases;
  - c. The degreaser must be equipped with a cover which is closed whenever parts are not being handled in the cleaner;
  - d. The degreaser shall be equipped with a device for draining cleaned parts;
  - e. A permanent conspicuous label summarizing the operating procedure must be affixed to the degreaser; and
  - f. If a solvent spray is used, the degreaser must be equipped with a solid fluid stream spray, rather than a fine, atomized or shower spray.
9. The Permittee shall maintain monthly records of the following for cold cleaning degreasers, pursuant to 35 Ill. Adm. Code 218.182:
  - a. The name and address of the solvent supplier;
  - b. The date of purchase;
  - c. The type of solvent; and

- d. The vapor pressure of the solvent measured in mmHg at 20EC (68EF).

10.

The Permittee shall maintain monthly records of the following items:

- a. Amount of solvent consumed in the degreasers by keeping records of the virgin solvent added to the process (gal), certified amount of waste shipped off for recycling (gal), certified VOM content of waste solvent (wt. %), and using the equation in Condition 2a (gal/month and gal/year);

- b. VOM emissions from the degreasers (ton/month and ton/year);
- c. Amount of polymer and clean-up solvent used in all the extruders/mixers (ton/month and ton/year);
- d. VOM and HAP content of each clean-up solvent used in the extruders/mixers (lb/gal or weight %); and
- e. VOM and HAP emissions from the extruders/mixers (ton/month and ton/year).

11. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

12. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

13. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control

Eisenhower Tower  
1701 South First Avenue  
Maywood, Illinois 60153

14. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
- a. Amount of solvent consumed in the degreasers by keeping records of the virgin solvent added to the process (gal), certified amount of waste shipped off for recycling (gal), certified VOM content of waste solvent (wt. %), and using the equation in Condition 2a (gal/month and gal/year);
  - b. VOM emissions from the degreasers (ton/month and ton/year);
  - c. Amount of polymer and clean-up solvent used in all the extruders/mixers (ton/month and ton/year);
  - d. VOM and HAP content of each clean-up solvent used in the extruders/mixers (lb/gal or weight %); and
  - e. VOM and HAP emissions from the extruders/mixers (ton/month and ton/year).

It should be noted that the vacuum baghouse and gas-fired heaters are exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146(rr) and (c), respectively.

It should be noted that this permit has been revised to include the operation of the laboratory operations and the seven degreasers.

It should be noted that the usage limit for the individual polymers for the extruders/mixers has been combined into one usage limit and that the emission factor has been changed to 0.2 lb VOM/1,000 lb for each type of polymer based on information provided in the application.

If you have any questions on this, please call Tara T. Nguyen-Ede at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

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cc: Illinois EPA, FOS Region 1  
Illinois EPA, Compliance Section  
Lotus Notes



Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from color and additive production plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of VOM, 10 tons per year for any single HAP and 25 tons per year for combination of HAPs, at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

- 1a. Emissions and operation of the seven cold cleaning degreasers shall not exceed the following limits:

Solvent Consumed		VOM
Emissions		
<u>(Gal/Month)</u>	<u>(Gal/Year)</u>	<u>(Tons/Month)</u>
<u>(Tons/Year)</u>		
88.5	680	0.30
2.31		

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Solvent consumption shall be determined from the following equation:

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Where:

U = Solvent consumed

V = Virgin solvent added to the process (gal)

W = Certified amount of waste shipped off for recycling (gal)

C = Certified VOM content of waste solvent (wt. %)

- b. Emissions and operation of the extruders and mixers shall not exceed the following limits:

Usage	Emission Factor
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VOM				
<u>Material</u>		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Lb VOM/1,000 Lb)</u>
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>		
Polymer		1,400	8,500	0.2
0.28	1.7			
Clean-Up Solvent		2.7	16	1,000
<u>2.70</u>	<u>16.0</u>			
				Total
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4. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

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