

These limits are based on a VOM content of 8% from the UV Inks, and 10% evaporation of ethyl alcohol used as the clean-up solvent and the maximum hours of operation (7,488 hr/yr) indicated in the permit application.

b. Mixing Kettles:

<u>Item of Equipment</u>	<u>Operating Hours (Hr/Yr)</u>	<u>Process Weight Rate (Tons/Hr)</u>	<u>Emission Factor (Lb/Ton)</u>	<u>VOM Emissions (Lb/Mo)</u>	<u>(Ton/Yr)</u>
5 Mixing Kettles (West)	3,744	0.750	6.2	2176.2*	8.705
3 Mixing Kettles (Annex)	2,777	1.013	6.2	2180.2*	8.721

* Because of seasonal production variation, 12 x monthly rates exceed annual rates.

These limits are based on standard emission factors, maximum emission rate, and maximum hours of operation as indicated above.

c. Material Filling Operation:

<u>Item of Equipment</u>	<u>Operating Hours (Hr/Yr)</u>	<u>Process Weight Rate (Lbs/Hr)</u>	<u>Emission Factor (%)</u>	<u>VOM Emissions (Lb/Mo)</u>	<u>(Ton/Yr)</u>
42 Ink Filling Machines	7,488	1,500.0	0.01	140.4*	0.561

* Because of seasonal production variation, 12 x monthly rates exceed annual rates.

These limits are based on the above process weight rate data, measured emission factors presented in the permit application, and maximum operating hours.

d. 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 of data.

3. This permit is issued based on negligible emissions of volatile organic material from two underground storage tanks. For this purpose, emissions shall not exceed nominal emission rates of 0.44 ton/year.

4. Emissions and operation of all fuel combustion equipment (boilers and heaters) combined shall not exceed the following limits:

<u>(10⁶ scf/Month)</u>	Natural Gas Usage	<u>(10⁶ scf/Year)</u>
10.0		50.0

<u>Pollutant</u>	<u>Emission Factor</u> (Lb/10 ⁶ scf)	<u>Emissions</u>	
		<u>(Lb/Month)</u>	<u>(Tons/Year)</u>
NO _x	100	1,000	2.50
CO	84	840	2.10
PM	7.6	76	0.19
VOM	5.5	55	0.14
SO ₂	0.6	6.0	0.02

These limits are based on the maximum natural gas usage and standard emission factors (AP-42, 1.4, 3/98). Compliance with annual limits shall be determined from a running total of 12 months of data.

5. This permit is issued based on negligible emissions of particulate matter from six bulk material scales and eight mixing kettles. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
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. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
8. Permittee shall maintain monthly records of the following items for the UV printing presses, mixing kettles and material filling operation:
 - a. UV Printing Presses:
 - i. Name and identification number of each VOM and HAP containing UV inks and cleanup solvent used.
 - ii. VOM and HAP containing material usage (gallons/month and gallons/year).
 - iii. VOM and HAP content of UV inks and cleanup solvents (lb/gallon).
 - iv. VOM and HAP emissions from UV inks and cleanup solvent as calculated by assuming 100% VOM content is emitted (lbs/month and tons/year).

- b. Mixing Kettle Operations:
 - i. Name and identification number of each VOM containing material produced.
 - ii. Monthly material productions (gallons/month and gallons/year).
 - iii. Density of materials (lbs/gallon).
 - iv. VOM emissions as calculated using production and standard emission factors (6.2 lb/ton of ink produced) (lbs/month and tons/year).
 - v. HAP emissions (% of VOM emissions).
 - c. Material Filling Operations:
 - i. Name and identification number of each VOM-containing material used (i.e., inks, cement, etc);
 - ii. VOM and HAP containing material usage (gallons/month and gallons/year);
 - iii. VOM and HAP content (wt. % and/or lb/gallon);
 - iv. Density of material (lb/gallon); and
 - v. VOM and HAP emissions as calculated by assuming that 0.01% of the VOM and HAP content is emitted (0.02% for rubber cement) (lb/month and tons/year).
 - d. Natural gas consumption and emissions.
 - e. 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 and 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 request for records during the course of a source inspection.
9. 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.

- 10a. This permit is issued based on VOM emitting sources at Bellwood plant meeting the exemption level for exclusion from the requirement of 35 Ill. Adm. Code 218, Subparts AA and TT. This is a result of potential to emit of VOM emissions from these sources limited to less than 25 tons per year.
- b. Upon written request from the Illinois EPA, the Permittee shall promptly submit copies of records to the Illinois EPA which addresses applicability of Part 218, in accordance with 35 Ill. Adm. Code 218.620 and 218.980.
11. All reports, notifications, etc., required by this permit 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

Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
9511 West Harrison
Des Plaines, Illinois 60016

If you have any questions on this permit, please call John Blazis 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
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from operation of specialty pen and marker manufacturing 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 below the levels, i.e., 25 tons per year of VOM 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.

1. Emissions and operation of UV printing presses, mixing kettles, and material filling operations:

- a. UV Printing Presses:

<u>Item of Equipment</u>	<u>VOM Emissions (Ton/Yr)</u>
UV Inks	0.348
Clean-Up Solvent (86% EtOH)	5.400

- b. Mixing Kettles:

<u>Item of Equipment</u>	<u>VOM Emissions (Ton/Yr)</u>
5 Mixing Kettles (West)	8.705
3 Mixing Kettles (Annex)	8.721

- c. Material Filling Operation:

<u>Item of Equipment</u>	<u>VOM Emissions (Ton/Yr)</u>
42 Ink Filling Machines	0.561

2. Two underground storage tanks: 0.44 ton/year of VOM.

3. Fuel combustion equipments (boilers and heaters) combined:

<u>Pollutant</u>	<u>Emissions (Ton/Yr)</u>
NO _x	2.50
CO	2.10
SO ₂	0.02
VOM	0.14
PM	0.19

4. Six bulk material scales and eight mixing kettles: 0.44 ton/year of PM.

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