217/782-2113

"REVISED"
TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

Sun Chemical - General Printing Ink Division
Attn: Ian Smille, Plant Manager
135 West Lake Street
Northlake, Illinois 60164

Application No.: 96030098 I.D. No.: 031471AAE
Applicant's Designation: NORTHLAKE Date Received: March 7, 1996
Operation of: Printing ink manufacturing
Date Issued: July 30, 1999 Expiration Date[2]: July 30, 2004
Source Location: 135 West Lake Street, Northlake, Cook County
Responsible Official: Brad W. Bergey, Vice President Operations Support

This permit is hereby granted to the above-designated Permittee to OPERATE a printing ink and coating manufacturing plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: May 8, 2000
Revision Date Issued: September 29, 2000
Purpose of Revision: Administrative Amendment, pursuant to Section 39.5(13) of the Act

This administrative amendment incorporates the construction and/or modification permitted in Construction Permit 00050090 and corrects the addresses in Condition 8.6.4. Because the changes in the permit were only administrative, no formal public notice was issued.

This document only contains those portions of the entire CAAPP permit that have been revised as a result of this administrative amendment. If a conflict exists between this document and previous versions of the CAAPP permit, this document supersedes those terms and conditions of the permit for which the conflict exists. The previous permit issued July 30, 1999 is incorporated herein by reference.

Please attach a copy of this amendment and the following revised pages to the front of the most recently issued entire permit.

If you have any questions concerning this permit, please contact Jonathan Sperry at 217/782-2113.

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

DES:JS:psj

cc: Illinois EPA, FOS, Region #1
USEPA

[1] This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the CAA and regulations promulgated thereunder, including 40 CFR 52.21 – federal PSD and 35 IAC Part 203 – Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within this permit.

[2] Except as provided in Condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Sun Chemical - General Printing Ink Division
135 West Lake Street
Northlake, Illinois 60164
708/562-0550

I.D. No.: 031471AAE
Standard Industrial Classification: 2893, Printing Ink Manufacturing

1.2 Owner/Parent Company

Sun Chemical Corporation
222 Bridge Plaza South
Fort Lee, New Jersey 07024

1.3 Operator

Sun Chemical - General Printing Ink Division
135 West Lake Street
Northlake, Illinois 60164

Adam R. Meister or Robert S. Kozak
708/562-0550

1.4 General Source Description

The Sun Chemical - General Printing Ink Division is located at 135 West Lake Street in Northlake, IL. The source manufactures printing inks, coatings, wax compounds, and varnish.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
Btu	British thermal unit
C	Celsius
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CFR	Code of Federal Regulations
cm	centimeter
ERMS	Emission Reduction Market System
F	Fahrenheit
gal	gallon
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
in	inch
kg	kilogram
kPa	kilopascal
kW	kilowatts
L	liter
LAER	Lowest Achievable Emission Rate
lb	pound
Mg	megagram (metric tonne)
mmBtu	Million British thermal units
mo	month
N/A	not applicable
NESHAP	National Emission Standards for Hazardous Air Pollutants
Nos.	numbers
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
psi	pounds per square inch
RMP	Risk Management Plan

SIP	State Implementation Plan
SO_2	Sulfur Dioxide
T1	Title I – identifies Title I conditions that have been carried over from an existing construction permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing construction permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
UV	ultraviolet
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Varnish Storage Tank Nos. 44, 45, and 46
Resin Storage Tank Nos. 38, 39, and 40
Solvent-based Material Storage Tank Nos. 61, 68, 69, 118, and 41
Solvent Storage Tank Nos. 106 and 110
Solvent Storage Tank Nos. 109 and 119
8 Natural Gas Combustion Units

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Non-VOM Storage Tank Nos. 26-28, 62-64, 70, 115, and 117
Storage Tank Nos. 35 and 121-123 (not currently in use)
Storage Tank Nos. 26, 37, 42, and 43
Storage Tank Nos. 60, 66, 101, and 102
Storage Tank Nos. 107, 108, 111, and 112
Storage Tank Nos. 113, 114, 116, 120, and 124

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline

or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Addition of Insignificant Activities

3.2.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

3.2.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

3.2.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit Group	Description	Date Constructed	Emission Control Equipment
Ball Mills			
01	2 Ball Mills (MBM20-21)	Prior to 1972	Dust Collector #2 (DC02)
02	11 Ball Mills (MBM 22-32)	Prior to 1972	Dust Collector #3 (DC03)
Regular Grinding			
03	3 Premixers (MPM1-3) and Basket Mill Premixer	Prior to 1972 (Basket Mill Premixer: 2000)	Dust Collector #2 (DC02)
04	6 Air Mixers (MAM1-6)	Prior to 1972	None
05	6 Horizontal Mills (MHM1-6)	Prior to 1972	None
06	6 Tubs (MT1-6)	Prior to 1972	None
07	3 Let Down Mixers (MLD1-3)	Prior to 1972	None
Bulk Grinding			
08	4 Premix Tanks (M1A-M4A)	1992	Dust Collector #1 (DC01)
09	5 Horizontal Mills (M1BA, M1B-M4B)	1992	None
10	4 Letdown Tanks (M1C-M4C)	1992	None
11	Drum Filler and Tote Filler (M5A-M5B)	1992	None
Cutters			
12	19 Cutters (MC1-19)	Prior to 1972 (modified in 1992)	Dust Collector #1 (DC01)
Blending			
13	10 Blending Mixers (MBL01-10)	Prior to 1972	Dust Collector #1 (DC01)
14	5 Carousel Air Mixers (MCM1-5)	Prior to 1972	None
Kady Mills			
15	3 Kady Mills (MK1-3)	Prior to 1972	None
Varnish Operations			
16	3 Cook Kettles (MCK1-3)	Prior to 1972 (modified in 1994)	Cook House Scrubber (SCRB01)
17	8 Thinning Tanks (MTR22-23, 28-33)	Prior to 1972	Butanol System (BS01)

Emission Unit Group	Description	Date Constructed	Emission Control Equipment
18	Resin Conveying System	1994	Dust Collector #4 (DC04)
Compound Operations			
19	2 Compound Tanks (MCPD1-2)	Prior to 1972	None
UV Coating Operations			
20	5 UV Mixers (UV1-5)	1990	UV Wet Plate Scrubber (SCRB03)
Inkmaker System			
21	1 Inkmaker (IM)	1995	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM emissions.

5.1.2 This permit is issued based on the source not being a major source of HAPs.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

b. i. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].

ii. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].

iii. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied

on a regular basis, as needed, in accordance with the operating program [35 IAC 212.306].

c. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in Part 68, then the owner or operator shall submit a Risk Management Plan (RMP) by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70 or 71.

5.2.5 Should this stationary source, as defined in 40 CFR Part 63, become subject to 40 CFR Part 63, then the owner or operator shall comply with the applicable requirements of 40 CFR Part 63 by the date(s) specified in the NESHAP and shall certify compliance with the applicable requirements of 40 CFR Part 63 as part of the annual compliance certification as required by 40 CFR Part 70 or 71.

5.2.6 Storage Tank Requirements

a. The Permittee shall equip tanks storing VOL with a vapor pressure greater than 10 kPa (1.5 psi) at 20^{o}C (68^{o}F) with pressure/vacuum conservation vents set as a minimum at $\pm$0.2 kPa (0.029 psi). These controls

shall be operated at all times. An alternative air pollution control system may be used if it results in a greater emission reduction than these controls. Any alternative control system can be allowed only if approved by the Illinois and approved by the USEPA as a SIP revision [35 IAC 218.626(a)].

b. Except as provided in Condition 5.3, stationary VOL storage containers with a capacity greater than 946 L (250 gal) shall be equipped with a submerged-fill pipe or bottom fill. These controls shall be operated at all times. An alternative control system can be allowed only if approved by the Illinois EPA and approved by the USEPA as a SIP revision [35 IAC 218.626(b)].

c. As long as no odor nuisance exists at this source, the resin storage tanks identified in Adjusted Standard AS 99-4 are subject to the conditions of the Adjusted Standard, as summarized below:

i. The vapor pressures of materials stored in the 17 identified tanks (tanks no. 26, 27, 35, 36, 37, 42, 43, 44, 47, 48, 49, 53, 54, 55, 59, 60 and 67) shall remain less than 0.5 psia at 70 degrees Fahrenheit.

ii. Any existing or new storage tanks not explicitly listed within the Adjusted Standard shall remain subject to the control requirements of 35 IAC 218.626(b).

5.3 Non-Applicability of Regulations of Concern

Any stationary VOL storage containers for which an adjusted standard has been granted by the Illinois Pollution Control Board shall not be required to meet the requirements of 35 IAC 218.626(b) (see Condition 5.2.6(b)), pursuant to the conditions of the adjusted standard (see Condition 5.2.6(c)).

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

5.4.1 The Permittee shall, in accordance with the manufacturer(s) and/or vendors(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Act or regulations promulgated therein.

5.4.2 Monitoring Requirements for Leaks

The following work practice requirements shall apply to each emission unit subject to 35 IAC Part 218, Subpart AA, as further described in Section 7:

a. Each pump shall be checked by visual inspection each calendar week for indications of leaks, that is, liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, the pump shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected [35 IAC 218.628(a)].

b. Any pump, valve, pressure relief valve, sampling connection, open-ended valve and flange or connector containing a fluid which is at least 10 percent VOM by weight which appears to be leaking on the basis of sight, smell or sound shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected [35 IAC 218.628(b)].

c. A weather proof, readily visible tag, in bright colors such as red or yellow, bearing an identification number and the date on which the leak was detected shall be attached to leaking equipment. The tag may be removed upon repair, that is, when the equipment is adjusted or otherwise altered to allow operation without leaking [35 IAC 218.628(c)].

5.4.3 Clean Up Requirements

The following work practice requirements shall apply to each emission unit subject to 35 IAC Part 218, Subpart AA, as further described in Section 7:

a. No person shall clean paint or ink manufacturing equipment with organic solvent unless the equipment being cleaned is completely covered or enclosed except for an opening no larger than necessary to allow safe clearance for proper operation of the cleaning equipment, considering the method and materials being used [35 IAC 218.630(a)].

b. No person shall store organic wash solvent in other than closed containers, unless closed containers are demonstrated to be a safety hazard, or dispose of organic wash solvent in a manner such that more than 20 percent by weight is allowed to evaporate into the atmosphere [35 IAC 218.630(b)].

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	190.82
Sulfur Dioxide (SO_2)	0.00
Particulate Matter (PM)	4.96
Nitrogen Oxides (NO_x)	0.00
HAP, not included in VOM or PM	-
TOTAL	195.78

5.5.2 Emissions of Hazardous Air Pollutants

This permit is issued based on the emissions of HAPs as listed in Section 112(b) of the CAA not being equal to or exceeding 10 tons per year of a single HAP or 25 tons per year of any combination of such HAPs, so that this source is considered a minor source for HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.2 The Permittee shall keep records of the maintenance performed pursuant to Condition 5.4.1, including but not limited to the following:

a. Records for periodic inspection of the dust collectors with date, individual performing the inspection, and nature of inspection; and

b. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

5.6.3 Recordkeeping for Leaks

a. When a leak is detected, the owner or operator shall record the date of detection and repair and the record shall be retained at the source for at least two years from the date of each detection or each repair attempt, or for such longer period as may be required by this permit. The record shall be made available to any person upon verbal or written request during business hours [35 IAC 218.628(d)].

5.6.4 The Permittee shall maintain all records necessary to establish that the vapor pressures of the materials stored in the 17 identified tanks (see Condition 5.2.6(c)) are less than 0.5 psia at 70 degrees Fahrenheit. The records shall be maintained at the source for a period of no less than 3 years, or for such longer period as may be required by this permit (see Condition 5.6 and 9.6.3).

5.6.5 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.7.3 Upon request by the Illinois EPA, for any emission unit(s) which the Permittee claims to be exempt from the requirements of 35 IAC 218, Subpart AA, the Permittee shall submit records to the Illinois EPA within 30 calendar days from the date of the request which document that the emission unit(s) is in fact exempt from that Subpart. These records shall include (but are not limited to) the percent water (by weight) in the paint or ink being produced and the quantity of Magie oil, glycol, and other solvents in the ink being produced [35 IAC 218.637(a)].

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

a. For the purpose of estimating VOM emissions from the ink manufacturing processes, the following methods are to be used:

i. For closed processes, a BATCH ACT modeling program (or equivalent), per USEPA’s methodology outlined in “Control of Volatile Organic Compound Emissions From Batch Processes - Alternative Control Techniques Information Document” (EPA 450/R-94-020);

ii. For open processes, emission factors that were developed from stack testing using TTE around typical operations. For this purpose, information from "National Association of Printing Ink Manufacturers Guide to Estimating VOC Emissions from Printing Ink Manufacturing" is acceptable.

b. For the purpose of estimated VOM emissions from equipment leaks, the procedure in Protocol for Equipment Leak Emission Estimates (June 1993), EPA-453/R-93-026 is acceptable.

c. For the purpose of estimating HAP emissions from equipment at the source, the weight percent (based on a 1992 USEPA survey) of each HAP for each finished product times the VOM emissions contributed by that product is acceptable.

5.9.2 Compliance Plan/Schedule of Compliance

To meet compliance with applicable limitations of Condition 5.2.6, the Permittee shall fulfill the following actions within the certain timeframe:

a. On October 22, 1998, Sun Chemical Corporation filed a petition for an Adjusted Standard, which was docketed as AS 99-4, and granted on May 20, 1999. The Adjusted Standard is for seventeen resin storage tanks used to store materials used in the production of printing inks. These storage tanks are regulated under 35 IAC Part 218, Subpart AA (see Condition 5.2.6 of this permit), and the Adjusted Standard seeks relief from these requirements. The Permittee shall continue to meet any applicable requirements regarding the petition for an Adjusted Standard. The Permittee shall meet all terms and conditions of the adjusted standard as granted by the Illinois Pollution Control Board.

6.0 EMISSIONS REDUCTION MARKET SYSTEM (ERMS)

6.1 Description of ERMS

The ERMS is a “cap and trade” market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the CAA.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Once the ERMS begins, participating sources must hold “allotment trading units” (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set during initial issuance of the sources’ CAAPP permits. These allotments are established from historical VOM emissions or “baseline emissions” lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account’s balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources’ transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 35 IAC 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the “Alternative Compliance Market Account” (ACMA) (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630).

6.2 Applicability

This source is considered a “participating source” for purposes of the ERMS, 35 IAC Part 205.

6.3 Obligation to Hold Allotment Trading Units (ATUs)

a. Pursuant to 35 IAC 205.150(c)(1) and 35 IAC 205.720, and as further addressed by Condition 6.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 - September 30), not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.5.

i. VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;

ii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit as authorized in Section 7.0 of this permit, in accordance with 35 IAC 205.225;

iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);

iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and

v. VOM emissions from certain new and modified emission units as addressed by Condition 6.8(b), if applicable, in accordance with 35 IAC 205.320(f).

b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

6.4 Market Transactions

a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 IAC 205.610(a).

b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).

c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 IAC 205.620(a).

d. Any transfer of ATUs to or from the source from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA, in accordance with 35 IAC 205.620, and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

6.5 Emissions Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.3, it shall provide emissions excursion compensation in accordance with the following:

a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:

i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or

ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.

b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.

c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source’s next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

6.6 Quantification of Seasonal VOM Emissions

a. The methods and procedures specified in Sections 5 and 7 of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 IAC 205.315(b)]:

No exceptions

b. The Permittee shall report emergency conditions at the source to the Illinois EPA, in accordance with 35 IAC 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates normally achieved that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 IAC 205.750(a), and shall be submitted in accordance with the following:

i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and

ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

6.7 Annual Account Reporting

a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:

i. Actual seasonal emissions of VOM from the source;

ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;

iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337;

iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;

v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 IAC 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3); and

vi. If a source is operating a new or modified emission unit for which three years of operational data is not yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.

b. This report shall be submitted by November 30 of each year, for the preceding seasonal allotment period.

6.8 Allotment of ATUs to the Source

a. i. The allotment of ATUs to this source is 320 ATUs per seasonal allotment period.

ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 36.296 tons per season.

A. This determination includes the use of 1994 and 1995 as baseline seasons.

B. This determination also includes adjustment to actual emissions to account for voluntary over-compliance at the source, e.g., VOM emissions from bulk grinding mills, cutters, varnish cooking kettles, and UV coating mixers that were lower than required, pursuant to 35 IAC 205.320(d), as further addressed in Section 7 of this permit.

iii. The source's allotment reflects 88% of the baseline emissions (12% reduction), except for the VOM emissions from specific emission units excluded from such reduction, pursuant to 35 IAC 205.405, including units complying with MACT or using BAT, as identified in Condition 6.11 of this permit.

iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal allotment period following issuance and, if not retired in this season, the next seasonal allotment period.

v. Condition 6.3(a) becomes effective beginning in the seasonal allotment period following the initial issuance of ATUs by the Illinois EPA into the Transaction Account for the source.

b. Contingent Allotments for New or Modified Emission Units

The source was issued a construction permit prior to January 1, 1998 for the following new or modified emission

units for which three years of operational data is not yet available:

Emission Unit	Construction Permit No.	Date Issued	Maximum Available Allotment	Explanation of Maximum Allotment
Inkmaker System	94120023	1/24/95	0.905 tps	5 times the monthly limit

In accordance with 35 IAC 205.310(h) and 35 IAC 205.320(f), the source shall submit a written request for, or an application for, a revised emissions baseline and allotment which address these emission units by December 1 of the year of the third complete seasonal allotment period in which each such newly constructed or modified emission unit is operational. Such submittal shall include information from the affected emission units on the seasonal emissions for these first three seasonal allotment periods.

c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 IAC Part 205, including:

i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 IAC 205.630;

ii. Deduction of ATUs as a consequence of emissions excursion compensation, in accordance with 35 IAC 205.720; and

iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 IAC 205.410.

6.9 Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of the ERMS [35 IAC 205.700(a)]:

a. Seasonal component of the Annual Emissions Report;

b. Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.6(a); and

c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

6.10 Federal Enforceability

Section 6 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois' State Implementation Plan.

6.11 Exclusions from Further Reductions

a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 IAC 205.400(c) and (e) as long as such emission units continue to satisfy the following [35 IAC 205.405(a)]:

i. Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;

ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and

iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because they meet the criteria as indicated above [35 IAC 205.405(a) and (c)]:

None

b. VOM emissions from emission units using BAT for controlling VOM emissions shall not be subject to the VOM emissions reductions requirement specified in 35 IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in its ERMS application and the Illinois EPA has determined that the following emission units qualify for exclusion from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 IAC 205.405(b) and (c)]:

None

7.0 UNIT SPECIFIC CONDITIONS

7.1 Emission Units 01-02: Ball Mills

7.1.1 Description

Ball Mills are a batch operation producing base or finished ink. In the Ball Mill Department, solvent, varnish, and pigment are added to a cylindrical vessel loaded with grinding media. The mill is then sealed and operated for approximately 24 hours. Following grinding, the finished product is packaged or transferred to bulk storage tanks.

7.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
01	2 Ball Mills (MBM20-21)	Dust Collector #2 (DC02)
02	11 Ball Mills (MBM22-32)	Dust Collector #3 (DC03)

7.1.3 Applicability Provisions and Applicable Regulations

a. The "affected ball mills" for the purpose of these unit specific conditions, are Ball Mills MBM20 through 32 (Emission Units 01-02) which produce ink or base through grinding of raw materials.

b. The affected ball mills are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.1.5(a).

c. The affected ball mills are subject to 35 IAC 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected ball mills are subject to 35 IAC 212.322, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing process emission unit, either alone or in combination with the emission of

particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 1) [35 IAC 212.322(a)].

e. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a dust collector for an affected ball mill, the Permittee is authorized to continue operation of the affected ball mill in violation of the applicable requirements of 35 IAC 212.322, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected ball mill or remove the affected ball mill from service as soon as practicable. This shall be accomplished within 7 days unless the feature(s) can not be repaired within 7 days and the affected ball mill can not be removed from service within 7 days, and the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that repair or replacement parts or maintenance service are unavailable and specify a schedule of actions the Permittee will take that will assure the feature(s) will be repaired or replaced as soon as possible.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.1.9(a) and 7.1.10(a).

7.1.4 Non-Applicability of Regulations of Concern

N/A

7.1.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. <u>Grinding mills</u>

i. No person shall operate a grinding mill for the production of paint or ink which is not maintained in accordance with the

manufacturer's specifications [35 IAC 218.625(a)].

ii. No person shall operate a grinding mill fabricated or modified after the effective date of this Subpart which is not equipped with fully enclosed screens [35 IAC 218.625(b)].

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected ball mills are subject to the following:

None

7.1.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected ball mill shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.1.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected ball mill to demonstrate compliance with Conditions 5.5.1 and 7.1.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Malfunctions and Breakdowns of Affected Ball Mills

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected ball mill subject to 35 IAC 212.322 during

malfunctions and breakdown of the control features of the affected ball mill, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected ball mill removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

b. For each affected ball mill, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

c. The manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours [35 IAC 218.625(c)].

d. Monthly and annual records of the following items for all affected ball mills as a group:

i. Amount of ink and base production (ton/mo and ton/yr);

ii. VOM content for the ink and base production (weight percent);

iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.1.12

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected ball

mill with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Reporting of Malfunctions and Breakdowns for Affected Ball Mills

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected ball mill subject to Condition 7.1.3(e) during malfunction or breakdown of the control features of the affected ball mill.

i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected ball mill was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected ball mill was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected ball mill will be taken out of service.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected ball

mills without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.1.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.1.12 Compliance Procedures

a. Compliance with the PM emission limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected ball mill and associated control equipment.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.1.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected ball mill = the sum of VOM emissions from process operations, process equipment leaks, solvent cleaning, tanker loading, and filter openings.

ii. VOM emissions from process operations (including solvent cleaning) and filter openings:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

iv. VOM emissions from tanker loading:

VOM emissions = Number of Loads x Emission Factor (lb/load).

c. Compliance of the affected ball mills with the emission limitation in Condition 7.1.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected ball mills, so that no compliance procedures are set in this permit addressing this regulation.

7.2 Emission Units 03-07: Regular Grinding

7.2.1 Description

Regular Grinding is a batch operation that produces either a base or a finished ink. During regular grinding, the solvent, varnish, and pigment are combined in a mixing vessel. Following premixing, the base is air mixed and pumped through a horizontal mill for grinding. The base is then transferred to a mixing vessel and process at another mixer where it is adjusted to final specifications. Finally, the finished ink is passed through a filter and transferred to packaging for shipment.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
03	3 Premixers (MPM1-3) and Basket Mill Premixer	Dust Collector #2 (DC02)
04	6 Air Mixers (MAM1-6)	None
05	6 Horizontal Mills (MHM1-6)	None
06	6 Tubs (MT1-6)	None
07	3 Let Down Mixers (MLD1-3)	None

7.2.3 Applicability Provisions and Applicable Regulations

a. An "affected regular grinding line" for the purpose of these unit specific conditions, is a line which applies mixing and grinding during ink or base manufacturing. This includes Premixers MPM 1-3, Basket Mill Premixer, Air Mixers MAM1-6, Horizontal Mills MHM1-6, Tubs MT1-6, and Let Down Mixers MLD1-3 (Emission Units 03-07). The “affected basket mill premixer” for the purpose of these unit specific conditions, is a premixer constructed in 2000 which uses equal or less mechanical effort than the preceding premixers.

b. The affected regular grinding lines are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.2.5(a).

c. The affected regular grinding lines are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception:

if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected regular grinding lines are subject to 35 IAC 212.322, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 1) [35 IAC 212.322(a)].

e. The affected basket mill premixer is subject to 35 IAC 212.321, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 1) [35 IAC 212.321(a)].

f. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a dust collector or vessel cover for an affected regular grinding line, the Permittee is authorized to continue operation of the affected regular grinding line in violation of the applicable requirements of 35 IAC 212.322, 35 IAC 212.321, or 35 IAC 218.624, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected regular grinding line or remove the affected regular grinding line from service as soon as practicable. This shall be accomplished within 7 days unless the feature(s) can not be repaired within 7 days and the affected regular grinding line can not be removed from service within 7 days, and the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that

repair or replacement parts or maintenance service are unavailable and specify a schedule of actions the Permittee will take that will assure the feature(s) will be repaired or replaced as soon as possible.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.2.9(a) and 7.2.10(a).

7.2.4 Non-Applicability of Regulations of Concern

This permit is issued based on the affected basket mill premixer not being a major modification under state rules for Major Stationary Sources Construction and Modification (MSSCAM), 35 IAC Part 203. This is because the emissions of the affected basket mill premixer are limited to no more than 6.18 tons/year by this permit. In addition, as explained in the application for Permit 00050090, the affected basket mill premixer does not increase the throughput of the Regular Grinding department, which is limited by the capability of subsequent processing equipment. If other equipment is proposed to be replaced in or added to the Regular Grinding department in the future, the Permittee will have to demonstrate whether the department would be modified, and obtain an appropriate construction permit for such activity, in accordance with 35 IAC 201.142.

7.2.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. Open-top mills, tanks, vats or vessels

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent

of the circumference of the rim [35 IAC 218.624(c)].

b. Grinding mills

i. No person shall operate a grinding mill for the production of paint or ink which is not maintained in accordance with the manufacturer's specifications [35 IAC 218.625(a)].

ii. No person shall operate a grinding mill fabricated or modified after the effective date of this Subpart which is not equipped with fully enclosed screens [35 IAC 218.625(b)].

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected regular grinding lines are subject to the following:

a. Emissions from the affected basket mill premixer shall not exceed the following limits:

Pollutant	Pollutant Emissions (Ton/Month)	(Ton/Year)
VOM	0.77	6.18
PM	0.01	0.09

These limits are based on the maximum operating rates, emission factors, dust collector efficiency, and maximum emissions from the affected basket mill premixer.

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 (running 12 month total) [T1].

The above limitations were established in Permit 00050090, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.2.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected regular grinding line shall be

determined in accordance Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.2.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected regular grinding line to demonstrate compliance with Conditions 5.5.1 and 7.2.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Malfunctions and Breakdowns of Affected Regular Grinding Lines

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected regular grinding line subject to 35 IAC 212.322 and 35 IAC 218.624 during malfunctions and breakdown of the control features of the affected regular grinding line, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected regular grinding line removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

b. For each affected regular grinding line, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

c. The manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours [35 IAC 218.625(c)].

d. Monthly and annual records of the following items for all affected regular grinding lines as a group and separately for the affected basket mill premixer:

i. Amount of ink and base production (ton/mo and ton/yr);

ii. VOM content for the ink and base production (weight percent);

iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.2.12

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected regular grinding line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Reporting of Malfunctions and Breakdowns for Affected Regular Grinding Lines

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected regular grinding line subject to Condition 7.2.3(e) during malfunction or breakdown of the control features of the affected regular grinding line.

i. The Permittee shall notify the Illinois EPA’s regional office by telephone as soon as

possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected regular grinding line was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected regular grinding line was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected regular grinding line will be taken out of service.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected regular grinding lines without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee’s obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.2.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment

and does not result in the emission of any specified air contaminant not previously emitted.

7.2.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected regular grinding line and associated control equipment.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.2.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected regular grinding line = the sum of VOM emissions from process operations, process equipment leaks, and solvent cleaning.

ii. VOM emissions from process operations and solvent cleaning:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

c. Compliance of the affected regular grinding lines with the emission limitation in Condition 7.2.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected regular grinding lines, so that no compliance procedures are set in this permit addressing this regulation.

7.3 Emission Units 08-11: Bulk Grinding

7.3.1 Description

Bulk Grinding is a batch operation producing base or finished ink. During bulk grinding, solvent, varnish, and pigment are added to a pre-mix vessel. The pre-mix vessel is a closed unit which operates approximately 3 hours. Following mixing, the base is pumped through a sealed grinding mill to a letdown tank, where it is adjusted to final specifications. The finished ink is filtered and packaged for shipping.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
08	4 Premix Tanks (M1A-M4A)	Dust Collector #1 (DC01)
09	5 Horizontal Mills (M1BA, M1B-M4B)	None
10	4 Letdown Tanks (M1C-M4C)	None
11	Drum Filler and Tote Filler (M5A-M5B)	None

7.3.3 Applicability Provisions and Applicable Regulations

a. An "affected bulk grinding line" for the purpose of these unit specific conditions, is a line which applies mixing and grinding during ink or base manufacturing. This includes Premix Tanks M1A-4A, Horizontal Mills M1BA and M1B-M4B, Letdown Tanks M1C-4C, Drum Filler M5A, and Tote Filler M5B (Emission Units 08-11).

b. The affected bulk grinding lines are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.3.5(a).

c. The affected bulk grinding lines are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected bulk grinding lines are subject to 35 IAC 212.321, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 1) [35 IAC 212.321(a)].

e. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a dust collector or tank cover for an affected bulk grinding line, the Permittee is authorized to continue operation of the affected bulk grinding line in violation of the applicable requirements of 35 IAC 212.321 or 35 IAC 218.624, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected bulk grinding line or remove the affected bulk grinding line from service as soon as practicable. This shall be accomplished within 7 days unless the feature(s) can not be repaired within 7 days and the affected bulk grinding line can not be removed from service within 7 days, and the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that repair or replacement parts or maintenance service are unavailable and specify a schedule of actions the Permittee will take that will assure the feature(s) will be repaired or replaced as soon as possible.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.3.9(a) and 7.3.10(a).

7.3.4 Non-Applicability of Regulations of Concern

N/A

7.3.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. Open-top mills, tanks, vats or vessels

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim [35 IAC 218.624(c)].

b. Grinding mills

i. No person shall operate a grinding mill for the production of paint or ink which is not maintained in accordance with the manufacturer's specifications [35 IAC 218.625(a)].

ii. No person shall operate a grinding mill fabricated or modified after the effective date of this Subpart which is not equipped with fully enclosed screens [35 IAC 218.625(b)].

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected bulk grinding lines are subject to the following:

a. VOM emissions and operations of all affected bulk grinding lines shall not exceed the following limits:

Ink Production Rate		VOM Emissions	
(Ton/Mo)	(Ton/Yr)	(Ton/Mo)	(Ton/Yr)
1,750	15,163.2	2.74	23.72

These limits are based on maximum operating rates, emission factors, and dust collector efficiencies, and maximum emissions from all emission points on each line. 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 (running 12 month total) [T1].

The above limitations contain revisions to previously issued Construction Permit 91120054. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this construction permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this construction permit (in conjunction with Construction Permit 91120056, see Condition 7.4.6) does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this construction permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, emission limits for each individual affected bulk grinding line have been removed, while the total annual emission limit for all affected bulk grinding lines remains the same [T1R].

b. This permit is issued based on negligible emissions of VOM from Dust Collector #1. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr.

The above limitations were established in Construction Permit 91120054, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to 35 IAC Part 203 [T1].

7.3.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected bulk grinding line shall be determined in accordance with Reference Method 18, 25 or

25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.3.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected bulk grinding line to demonstrate compliance with Conditions 5.5.1 and 7.3.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Malfunctions and Breakdowns of Affected Bulk Grinding Lines

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected bulk grinding line subject to 35 IAC 212.321 and 35 IAC 218.624 during malfunctions and breakdown of the control features of the affected bulk grinding line, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected bulk grinding line removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

b. For each affected bulk grinding line, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

c. The manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours [35 IAC 218.625(c)].

d. Monthly and annual records of the following items for all affected bulk grinding lines as a group:

i. Amount of ink and base production (ton/mo and ton/yr);

ii. VOM content for the ink and base production (weight percent);

ii. Total VOM emissions calculated based on the compliance procedures in Condition 7.3.12

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected bulk grinding line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Reporting of Malfunctions and Breakdowns for Affected Bulk Grinding Lines

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected bulk grinding line subject to Condition 7.3.3(e) during malfunction or breakdown of the control features of the affected bulk grinding line.

i. The Permittee shall notify the Illinois EPA’s regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence

of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected bulk grinding line was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected bulk grinding line was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected bulk grinding line will be taken out of service.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected bulk grinding lines without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee’s obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.3.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.3.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected bulk grinding line and associated control equipment.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.3.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected bulk grinding line = the sum of VOM emissions from process operations, process equipment leaks, solvent cleaning, tanker loading, and filter openings.

ii. VOM emissions from process operations, solvent cleaning, and filter openings:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

iv. VOM emissions from tanker loading:

VOM emissions = Number of Loads x Emission Factor (lb/load).

c. Compliance of the affected bulk grinding lines with the emission limitation in Condition 7.3.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected bulk grinding lines, so that no compliance procedures are set in this permit addressing this regulation.

7.4 Emission Unit 12: Cutters

7.4.1 Description

Cutters are a batch operation producing clear coatings or finished ink. In the Cutters Department, solvent, varnish, and other additives such as resin or pigment are added to a mixing vessel. The clear coating or ink is mixed, adjusted to final specifications, filtered, and packaged or transferred to bulk storage.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
12	19 Cutters (MC1-19)	Dust Collector #1 (DC01)

7.4.3 Applicability Provisions and Applicable Regulations

a. The “affected cutters” for the purpose of these unit specific conditions, are Cutters MC1 through 19 (Emission Unit 12) which produce ink or coating through mixing of raw materials.

b. The affected cutters are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.4.5(a).

c. The affected cutters are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected cutters are subject to 35 IAC 212.321, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 1) [35 IAC 212.321(a)].

e. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a dust collector or cover for an affected cutter, the Permittee is authorized to continue operation of the affected cutter in violation of the applicable requirements of 35 IAC 212.321 or 35 IAC 218.624, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected cutter or remove the affected cutter from service as soon as practicable. This shall be accomplished within 7 days unless the feature(s) can not be repaired within 7 days and the affected cutter can not be removed from service within 7 days, and the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that repair or replacement parts or maintenance service are unavailable and specify a schedule of actions the Permittee will take that will assure the feature(s) will be repaired or replaced as soon as possible.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.4.9(a) and 7.4.10(a).

7.4.4 Non-Applicability of Regulations of Concern

N/A

7.4.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. <u>Open-top mills, tanks, vats or vessels</u>

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim [35 IAC 218.624(c)].

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected cutters are subject to the following:

a. VOM emissions and operation of the Cutters #1 (1500 gallon capacity), Cutter #4 (2000 gallon capacity), Cutter #5 (3000 gallon capacity), Cutter #6 (3000 gallon capacity), Cutter #14 (700 gallon capacity), and Cutter #16 (700 gallon capacity) shall not exceed the following limits:

Total Production Rate		VOM Emissions	
(Ton/Mo)	(Ton/Yr)	(Ton/Mo)	(Ton/Yr)
2,535	25,560	2.83	28.50

These limits are based on the total maximum emission rate for the cutters and the maximum hours of operation (8760 hr/yr). This limit is based on a net increase of 15.0 ton/yr in VOM emissions in 1992 compared to historical emissions. The increase in VOM emission is due to the replacement of motors and installation of stack condensers.

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 (running 12 month total) [T1].

The above limitations contain revisions to previously issued Construction Permit 91120056. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this construction permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or

modification addressed in this construction permit (in conjunction with Construction Permit 91120054, see Condition 7.3.6) does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this construction permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, emission limits for each individual affected cutter have been removed, while the total annual emission limit for all affected cutters remains the same [T1R].

b. This permit is issued based on negligible emissions of VOM from Dust Collector #1. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr.

The above limitations were established in Construction Permit 91120054, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to 35 IAC Part 203 [T1].

7.4.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected cutter shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.4.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected cutter to demonstrate compliance with

Conditions 5.5.1 and 7.4.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Malfunctions and Breakdowns of Affected Cutters

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected cutter subject to 35 IAC 212.321 and 35 IAC 218.624 during malfunctions and breakdown of the control features of the affected cutter, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected cutter removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

b. For each affected cutter, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

c. The manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours [35 IAC 218.625(c)].

d. Monthly and annual records of the following items for all affected cutters as a group:

i. Amount of ink, base, and coating production (ton/mo and ton/yr);

ii. Amount of ink, base, and coating production for Cutters #1, 4, 5, 6, 14, and 16 (ton/mo and ton/yr);

iii. VOM content for the ink, base, and coating production (weight percent);

iv. Total VOM emissions calculated based on the compliance procedures in Condition 7.4.12. If the total VOM emissions for all cutters are less than the emission limit in Condition 7.4.6(a), then the separate records for the six cutters in (ii) above are not required.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected cutter with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Reporting of Malfunctions and Breakdowns for Affected Cutters

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected cutter subject to Condition 7.4.3(e) during malfunction or breakdown of the control features of the affected cutter.

i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected cutter was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected cutter was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected cutter will be taken out of service.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected cutters without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.4.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.4.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected cutter and associated control equipment.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.4.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected cutter, = the sum of VOM emissions from process operations, process equipment leaks, solvent cleaning, tanker loading, and filter openings.

ii. VOM emissions from process operations, solvent cleaning, and filter openings:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

iv. VOM emissions from tanker loading:

VOM emissions = Number of Loads x Emission Factor (lb/load).

c. Compliance of the affected cutters with the emission limitation in Condition 7.4.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected cutters, so that no compliance procedures are set in this permit addressing this regulation.

7.5 Emission Units 13-14: Blending

7.5.1 Description

Blending is a batch operation that produces finished ink or base. During blending, solvent, bases, resin, varnish, and pigment are added to a mixer. Following mixing, the ink or base is adjusted to final specifications and packaged.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
13	10 Blending Mixers (MBL01-10)	Dust Collector #1 (DC01)
14	5 Carousel Air Mixers (MCM1-5)	None

7.5.3 Applicability Provisions and Applicable Regulations

a. The “affected blenders” for the purpose of these unit specific conditions, are Blending Mixers MBL01 through 10 and Air Mixers MCM1 through 5 (Emission Units 13-14) which produce ink or base through blending and mixing of raw materials.

b. The affected blenders are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.5.5(a).

c. The affected blenders are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected blenders are subject to 35 IAC 212.322, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or

premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 1) [35 IAC 212.322(a)].

e. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a dust collector or cover for an affected blender, the Permittee is authorized to continue operation of the affected blender in violation of the applicable requirements of 35 IAC 212.322 or 35 IAC 218.624, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected blender or remove the affected blender from service as soon as practicable. This shall be accomplished within 7 days unless the feature(s) can not be repaired within 7 days and the affected blender can not be removed from service within 7 days, and the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that repair or replacement parts or maintenance service are unavailable and specify a schedule of actions the Permittee will take that will assure the feature(s) will be repaired or replaced as soon as possible.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.5.9(a) and 7.5.10(a).

7.5.4 Non-Applicability of Regulations of Concern

N/A

7.5.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. <u>Open-top mills, tanks, vats or vessels</u>

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond

the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim [35 IAC 218.624(c)].

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected blenders are subject to the following:

a. This permit is issued based on negligible emissions of VOM from Dust Collector #1. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr [T1].

The above limitations were established in Construction Permit 91120054, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.5.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected blender shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.5.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected blender to demonstrate compliance with Conditions 5.5.1 and 7.5.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Malfunctions and Breakdowns of Affected Blenders

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected blender subject to 35 IAC 212.322 and 35 IAC 218.624 during malfunctions and breakdown of the control features of the affected blender, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected blender removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

b. For each affected blender, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

c. The manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours [35 IAC 218.625(c)].

d. Monthly and annual records of the following items for all affected blenders as a group:

i. Amount of ink and base production (ton/mo and ton/yr);

ii. VOM content for the ink and base production (weight percent);

iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.5.12

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected blender with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Reporting of Malfunctions and Breakdowns for Affected Blenders

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected blender subject to Condition 7.5.3(e) during malfunction or breakdown of the control features of the affected blender.

i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected blender was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected blender was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall

submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected blender will be taken out of service.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected blenders without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.5.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.5.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected blender and associated control equipment.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.5.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected blender = the sum of VOM emissions from process

operations, process equipment leaks, solvent cleaning, tanker loading, and filter openings.

ii. VOM emissions from process operations, solvent cleaning, and filter openings:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

iv. VOM emissions from tanker loading:

VOM emissions = Number of Loads x Emission Factor (lb/load).

c. Compliance of the affected blenders with the emission limitation in Condition 7.5.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected blenders, so that no compliance procedures are set in this permit addressing this regulation.

7.6 Emission Unit 15: Kady Mills

7.6.1 Description

Kady Mills are a batch operation producing finished ink. In the Kady Mill Department, solvent, varnish, and pigment are added to a high-speed dispersion mixer. The ink is mixed, adjusted to final specifications, and packaged in drums.

7.6.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
15	3 Kady Mills (MK1-3)	None

7.6.3 Applicability Provisions and Applicable Regulations

a. The "affected Kady mills" for the purpose of these unit specific conditions, are Kady Mills MK1 through 3 (Emission Unit 15) which produce ink through mixing of raw materials.

b. The affected Kady mills are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.6.5(a).

c. The affected Kady mills are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected Kady mills are subject to 35 IAC 212.322, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 1) [35 IAC 212.322(a)].

7.6.4 Non-Applicability of Regulations of Concern

N/A

7.6.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. Open-top mills, tanks, vats or vessels

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim [35 IAC 218.624(c)].

7.6.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected Kady mills are subject to the following:

None

7.6.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected Kady mill shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.6.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected Kady mill to demonstrate compliance with Conditions 5.5.1 and 7.6.3, pursuant to Section 39.5(7)(b) of the Act:

a. For each affected Kady mill, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

b. Monthly and annual records of the following items for all affected Kady mills as a group:

   i. Amount of ink and base production (ton/mo and ton/yr);

   ii. VOM content for the ink and base production (weight percent);

   iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.6.12

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected Kady mill with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected Kady mills without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee’s obligation to properly obtain a construction permit in a timely manner for any activity

constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.6.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.6.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected Kady mill.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.6.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected Kady mill = the sum of VOM emissions from process operations, process equipment leaks, and solvent cleaning.

ii. VOM emissions from process operations and solvent cleaning:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

c. Compliance of the affected Kady mills with the emission limitation in Condition 7.6.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected Kady mills, so that no compliance procedures are set in this permit addressing this regulation.

7.7 Emission Units 16-18: Varnish Operations

7.7.1 Description

Varnish production is a batch process producing varnish, or vehicle, which serves as a primary component of an ink. Resin and oils are charged to one of three cook house kettles. Resin is added at a resin dumping station and conveyed to the kettles in closed pipes, with carbon dioxide or nitrogen as the conveying gas. The raw materials are heated by direct fire from natural gas combustion or by recirculating hot oil. After the heating cycle, the batch is transferred to a thinning tank where its composition is adjusted by the addition of oils or cheating agents. After thinning, the varnish is transferred to bulk storage tanks, bulk trailers, or drums.

7.7.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
16	3 Cook Kettles (MCK1-3)	Cook House Scrubber (SCRB01)
17	8 Thinning Tanks (MTR22-23, 28-33)	Butanol System (BS01)
18	Resin Conveying System	Dust Collector #4 (DC04)

7.7.3 Applicability Provisions and Applicable Regulations

a. An "affected varnish manufacturing line" for the purpose of these unit specific conditions, is a line which applies heating and thinning during varnish manufacturing. This includes the Resin Conveying System, Cook Kettles MCK1 through 3, and Thinning Tanks MTR22-23 and MTR28-33 (Emission Units 16-18).

b. The affected varnish manufacturing lines are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.7.5(a).

c. The affected varnish manufacturing lines are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception:

if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected varnish manufacturing lines (Emission Units 16-17) are subject to 35 IAC 212.321, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 1) [35 IAC 212.321(a)].

e. The affected varnish manufacturing lines (Emission Unit 18) are subject to 35 IAC 212.322, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 1) [35 IAC 212.322(a)].

f. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of a dust collector, scrubber, or Butanol VOM control system for an affected varnish manufacturing line, the Permittee is authorized to continue operation of the affected varnish manufacturing line in violation of the applicable requirements of 35 IAC 212.321, 35 IAC 212.322, or Condition 7.7.6 of this permit, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected varnish manufacturing line or remove the affected varnish manufacturing line from service as soon as practicable. This shall be accomplished within 7 days unless the feature(s) can not be repaired within 7 days and the affected varnish manufacturing line

can not be removed from service within 7 days, and the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that repair or replacement parts or maintenance service are unavailable and specify a schedule of actions the Permittee will take that will assure the feature(s) will be repaired or replaced as soon as possible.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.7.9(a) and 7.7.10(a).

7.7.4 Non-Applicability of Regulations of Concern

N/A

7.7.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. Open-top mills, tanks, vats or vessels

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim [35 IAC 218.624(c)].

b. Emission capture and control techniques shall achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from all three Varnish Cook Kettles (Emission Unit 16).

c. The Permittee shall follow good operating practices for the Cook House Scrubber (SCRB01), as per manufacturer’s recommendations, including periodic

inspection, routine maintenance and prompt repair of defects.

7.7.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected varnish manufacturing lines are subject to the following:

a. VOM emissions and operation of the all Varnish Cook Kettles (Emission Unit 16) shall not exceed the following limits:

Ink Production Rate		VOM Emissions	
(Ton/Mo)	(Ton/Yr)	(Ton/Mo)	(Ton/Yr)
1,755	13,080	0.61	4.56

These limits are based on the maximum production rate, hours of operation, and a reduction in VOM emissions of 90 percent by the scrubbing system. 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 (running 12 month total) [T1].

The above limitations contain revisions to previously issued Construction Permit 94060127. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this construction permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this construction permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this construction permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, emission limits for each individual Varnish Cook Kettle have been removed, while the total annual emission limit for all Varnish Cook Kettles remains the same [T1R].

The VOM emission increase from the 3,500 gallon kettle in 1994 was offset by the reduction in VOM emissions from the installation of carbon dioxide or

nitrogen inerting control system and resin feeding system for all three Varnish Cook Kettles.

b. This permit is issued based on negligible emissions of VOM from the gel varnish thinning tanks (#23, 32, and 33). For this purpose, emissions shall not exceed nominal emission rates of 0.1 ton/yr.

The above limitations were established in Construction Permit 91120054 and Joint Construction and Operating Permits 88020016 and 86110001, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to 35 IAC Part 203 [T1].

7.7.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected varnish manufacturing line shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.7.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected varnish manufacturing line to demonstrate compliance with Conditions 5.5.1 and 7.7.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Malfunctions and Breakdowns of Affected Varnish Manufacturing Lines

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected varnish manufacturing line subject to 35 IAC 212.321

or 35 IAC 212.322 during malfunctions and breakdown of the control features of the affected varnish manufacturing line, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected varnish manufacturing line removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

b. For each affected varnish manufacturing line, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

c. Monthly and annual records of the following items for all affected varnish manufacturing lines as a group:

i. Amount of varnish production (ton/mo and ton/yr);

ii. VOM content for the varnish production (weight percent);

iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.7.12

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected varnish manufacturing line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such

deviations, and any corrective actions or preventive measures taken:

a. Reporting of Malfunctions and Breakdowns for Affected Varnish Manufacturing Lines

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected varnish manufacturing line subject to Condition 7.7.3(f) during malfunction or breakdown of the control features of the affected varnish manufacturing line.

i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected varnish manufacturing line was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected varnish manufacturing line was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected varnish manufacturing line will be taken out of service.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected varnish manufacturing lines without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.7.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.7.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected varnish manufacturing line and associated control equipment.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.7.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected varnish manufacturing line = the sum of VOM emissions from process operations and process equipment leaks.

ii. VOM emissions from process operations:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

c. Compliance of the affected varnish manufacturing line with the emission limitation in Condition 7.7.3(c) is assumed to be achieved by proper operation of the control equipment listed in Condition 7.7.2, as addressed by Condition 7.7.5.

7.8 Emission Unit 19: Compound Operations

7.8.1 Description

Compounds is a batch operation producing wax compounds. In the Compounds Department, oil, hard wax, and other additives are added to a vessel, heated, and mixed. The wax compounds are then allowed to cool and packaged.

7.8.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
19	2 Compound Tanks (MCPD1-2)	None

7.8.3 Applicability Provisions and Applicable Regulations

a. The "affected compound tanks" for the purpose of these unit specific conditions, are Compound Tanks MCPD1 and 2 (Emission Unit 19), which produce wax compounds through heating and mixing of raw materials.

b. The affected compound tanks are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

c. The affected compound tanks are subject to 35 IAC 212.322, which provides that:

   No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any existing process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 1) [35 IAC 212.322(a)].

7.8.4 Non-Applicability of Regulations of Concern

a. Each affected compound tank is not subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because wax is not considered a paint or ink.

b. Each affected compound tank is not subject to 35 IAC 218, Subpart QQ: Miscellaneous Formulation Manufacturing Processes, because no limits under this Subpart shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar year if the total emissions from such emission units not complying with does not exceed 4.5 Mg (5.0 tons) per calendar year [35 IAC 218.940(d)].

7.8.5 Operational Limits and Work Practices

None

7.8.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected compound tanks are subject to the following:

None

7.8.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected compound tank shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.8.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected compound tank to demonstrate compliance with Conditions 5.5.1 and 7.8.3, pursuant to Section 39.5(7)(b) of the Act:

a. Monthly and annual records of the following items for all affected compound tanks as a group:

i. Amount of wax compound production (ton/mo and ton/yr);

ii. VOM content for the wax production (weight percent);

iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.8.12

7.8.10 Reporting Requirements

a. The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected compound tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

b. Upon request by the Illinois EPA, for any emission unit(s) which the Permittee claims to be exempt from the requirements of 35 IAC 218, Subpart QQ, the Permittee shall submit records to the Illinois EPA within 30 calendar days from the date of the request which document that the emission unit(s) is exempt from those requirements [35 IAC 218.990].

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected compound tanks without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee’s obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.8.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.8.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected compound tank.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.8.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected compound tank = the sum of VOM emissions from process operations and process equipment leaks.

ii. VOM emissions from process operations:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

c. Compliance of the affected compound tanks with the emission limitation in Condition 7.8.3(b) is assumed to be achieved by the work-practices inherent in the operation of the affected compound tanks, so that no compliance procedures are set in this permit addressing this regulation.

7.9 Emission Unit 20: UV Coating Operations

7.9.1 Description

UV is a batch operation producing ultraviolet cured coating. Raw materials, including vehicle, UV powders, and other additives, are charged to a vessel, mixed, and packaged.

7.9.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
20	5 UV Mixers (UV1-5)	UV Wet Plate Scrubber (SCRB03)

7.9.3 Applicability Provisions and Applicable Regulations

a. The "affected UV mixers" for the purpose of these unit specific conditions, are UV Mixers UV1 through 5 (Emission Unit 20), which produce UV coating through mixing of raw materials.

b. The affected UV mixers are subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.9.5(a).

c. The affected UV mixers are subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected UV mixers are subject to 35 IAC 212.321, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 1) [35 IAC 212.321(a)].

e. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of the scrubber for an affected UV mixer, the Permittee is authorized to continue operation of the affected UV mixer in violation of the applicable requirements of Condition 7.9.6 of this permit, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee shall repair the damaged feature(s) of the affected UV mixer or remove the affected UV mixer from service as soon as practicable. This shall be accomplished within 7 days unless the feature(s) can not be repaired within 7 days and the affected UV mixer can not be removed from service within 7 days, and the Permittee obtains an extension from the Illinois EPA. The request for such an extension must document that repair or replacement parts or maintenance service are unavailable and specify a schedule of actions the Permittee will take that will assure the feature(s) will be repaired or replaced as soon as possible.

ii. The Permittee shall fulfill the applicable recordkeeping and reporting requirements of Conditions 7.9.9(a) and 7.9.10(a).

7.9.4 Non-Applicability of Regulations of Concern

N/A

7.9.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. <u>Open-top mills, tanks, vats or vessels</u>

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or

inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim [35 IAC 218.624(c)].

7.9.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected UV mixers are subject to the following:

a. This permit is issued based on negligible emissions of VOM from each affected UV mixer and negligible emissions of PM from all affected UV mixers combined. For this purpose, emissions of each regulated pollutant shall not exceed nominal emission rates of 0.44 ton/yr.

These limits are based on maximum operating rates, emission factors, and dust collector efficiencies. 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 (running 12 month total) [T1].

The above limitations were established in Joint Construction and Operating Permit 98120011, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned construction permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.9.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected UV mixer shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.9.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected UV mixer to demonstrate compliance with Conditions 5.5.1 and 7.9.3, pursuant to Section 39.5(7)(b) of the Act:

a. Records for Malfunctions and Breakdowns of Affected UV Mixers

The Permittee shall maintain records, pursuant to 35 IAC 201.263, of continued operation of an affected UV mixer subject to Condition 7.9.6 during malfunctions and breakdown of the control features of the affected UV mixer, which as a minimum, shall include:

i. Date and duration of malfunction or breakdown;

ii. A detailed explanation of the malfunction or breakdown;

iii. An explanation why the damaged feature(s) could not be immediately repaired or the affected UV mixer removed from service without risk of injury to personnel or severe damage to equipment;

iv. The measures used to reduce the quantity of emissions and the duration of the event;

v. The steps taken to prevent similar malfunctions or breakdowns or reduce their frequency and severity; and

vi. The amount of release above typical emissions during malfunction/breakdown.

b. For each affected UV mixer, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

c. Monthly and annual records of the following items for all affected UV mixers as a group:

i. Amount of UV coating production (ton/mo and ton/yr);

ii. VOM content for the UV coating production (weight percent);

iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.9.12

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected UV mixer with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Reporting of Malfunctions and Breakdowns for Affected UV Mixers

The Permittee shall provide the following notification and reports to the Illinois EPA, Compliance Section and Regional Field Office, pursuant to 35 IAC 201.263, concerning continued operation of an affected UV mixer subject to Condition 7.9.3(e) during malfunction or breakdown of the control features of the affected UV mixer.

i. The Permittee shall notify the Illinois EPA's regional office by telephone as soon as possible during normal working hours, but no later than three (3) days, upon the occurrence of noncompliance due to malfunction, or breakdown.

ii. Upon achievement of compliance, the Permittee shall give a written follow-up notice to the Illinois EPA, Compliance Section and Regional Field Office, providing a detailed explanation of the event, an explanation why continued operation of the affected UV mixer was necessary, the length of time during which operation continued under such conditions, the measures taken by the Permittee to minimize and correct deficiencies with chronology, and when the repairs were completed or when the affected UV mixer was taken out of service.

iii. If compliance is not achieved within 5 working days of the occurrence, the Permittee shall

submit interim status reports to the Illinois EPA, Compliance Section and Regional Field Office, within 5 days of the occurrence and every 14 days thereafter, until compliance is achieved. These interim reports shall provide a brief explanation of the nature of the malfunction or breakdown, corrective actions accomplished to date, actions anticipated to occur with schedule, and the expected date on which repairs will be complete or the affected UV mixer will be taken out of service.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected UV mixers without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.9.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.9.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected UV mixer and associated control equipment.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.9.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected UV mixer = the sum of VOM emissions from process

operations, process equipment leaks, solvent cleaning, and filter openings.

ii. VOM emissions from process operations, solvent cleaning, and filter openings:

VOM emissions = Production or Solvent Use (lb) x VOM Content (%VOM) x Emission Factor (lb/lb VOM).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

c. Compliance of the affected UV mixers with the emission limitation in Condition 7.9.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected UV mixers, so that no compliance procedures are set in this permit addressing this regulation.

7.10 Emission Unit 21: Inkmaker System

7.10.1 Description

The Inkmaker System is a fully automated, computer-controlled, color blending system. The system automatically dispenses raw materials into pails, drums, or tubs. The inks are mixed in pails or drums and then covered.

7.10.2 List of Emission Units and Pollution Control Equipment

Emission Unit Group	Description	Emission Control Equipment
21	1 Inkmaker (IM)	None

7.10.3 Applicability Provisions and Applicable Regulations

a. An "affected ink making system" for the purpose of these unit specific conditions, is the Inkmaker IM (Emission Unit 21), which produces ink through mixing and blending of raw materials.

b. The affected ink making system is subject to 35 IAC 218, Subpart AA: Paint and Ink Manufacturing, because the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate. These requirements are described in Conditions 5.4 and 7.10.5(a).

c. The affected ink making system is subject to 35 IAC Section 218.301, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and with the following exception: if no odor nuisance exists the limitation shall apply only to photochemically reactive material.

d. The affected ink making system is subject to 35 IAC 212.321, which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 1) [35 IAC 212.321(a)].

7.10.4 Non-Applicability of Regulations of Concern

N/A

7.10.5 Operational Limits and Work Practices

The Permittee shall comply with the following requirements, in addition to the source wide requirements in Condition 5.4:

a. Open-top mills, tanks, vats or vessels

i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim [35 IAC 218.624(a)].

ii. The cover remains closed except when production, sampling, maintenance or inspection procedures require access [35 IAC 218.624(b)].

iii. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim [35 IAC 218.624(c)].

7.10.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected ink making system is subject to the following:

a. VOM emissions and operation of the Inkmaker System (Emission Unit 21) shall not exceed the following limits:

Ink Production Rate		VOM Emissions	
(Ton/Mo)	(Ton/Yr)	(Lb/Mo)	(Ton/Yr)
152	1824	362	2.17

These limits are based on the total maximum emission rate for the Inkmaker System. 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 (running 12 month total) [T1].

The above limitations were established in Construction Permit 94120023, pursuant to 35 IAC Part

203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to 35 IAC Part 203 [T1].

The VOM emission increase from the Inkmaker System in 1995 was offset by the reduction in VOM emissions from the replacement of a tank farm (Storage Tanks 101-120, see Condition 3.1), including the addition of a vapor recovery system.

7.10.7 Testing Requirements

Upon request of the Illinois EPA or USEPA, the VOM emissions from an affected ink making system shall be determined in accordance with Reference Method 18, 25 or 25A, specified in 40 CFR 60 Appendix A, pursuant to 35 IAC 218.105. Use of an adaptation of these test methods may not be used unless approved by the Illinois EPA and the USEPA on a case by case basis. The Permittee must submit sufficient documentation for the Illinois EPA and the USEPA to find that the test methods specified above will yield inaccurate results or are otherwise inappropriate and that the proposed adaptation is appropriate [35 IAC 218.105(f)].

7.10.8 Monitoring Requirements

In addition to the source wide monitoring requirements in Condition 5.4.2, the Permittee shall perform the following monitoring procedures:

None

7.10.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected ink making system to demonstrate compliance with Conditions 5.5.1 and 7.10.3, pursuant to Section 39.5(7)(b) of the Act:

a. For each affected ink making system, the Permittee shall maintain all records necessary to demonstrate compliance with 35 IAC 218, Subpart AA at the source for a period of three years [35 IAC 218.637(b)], or for such longer period as may be required by this permit (see Conditions 5.6 and 9.6.3).

b. Monthly and annual records of the following items for the affected ink making system as a group:

i. Amount of ink and base production (ton/mo and ton/yr);

ii. VOM content for the ink and base production (weight percent);

iii. Total VOM emissions calculated based on the compliance procedures in Condition 7.10.12

7.10.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected ink making system with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

7.10.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected ink making system without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes in raw materials and ink formulations, as long as such changes do not cause a violation of the emission limitations in Condition 7.10.6 and Condition 5.5.1.

b. Replacement of equipment in kind, provided that the replacement does not increase the amount of any specified air contaminant emitted by such equipment and does not result in the emission of any specified air contaminant not previously emitted.

7.10.12 Compliance Procedures

a. Compliance with the PM limitations in this section is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of each affected ink making system.

b. Compliance with emission limitations in this section and Condition 5.5.1 shall be based on the recordkeeping requirements in Condition 7.10.9 and by use of the formulae and emission factors listed in Attachment 2 or by use of emission factors derived from a site specific emission factor if that emission

factor was developed from stack test data and based on the worst case scenario:

i. Total VOM emissions from each affected ink making system = the sum of VOM emissions from process operations, process equipment leaks, and solvent cleaning.

ii. VOM emissions from process operations and solvent cleaning:

VOM emissions = Production or Solvent Use (lb) x Emission Factor (lb/lb ink).

iii. VOM emissions from process equipment leaks:

VOM emissions = Charging Hours (hr) x Emission Rate (lb/hr).

c. Compliance of the affected ink making system with the emission limitation in Condition 7.10.3(c) is assumed to be achieved by the work-practices inherent in the operation of the affected ink making system, so that no compliance procedures are set in this permit addressing this regulation.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after March 31, 1999 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA, emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change, and the Permittee provides written

notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change [Section 39.5(12)(a) of the Act]. This notice shall:

a. Describe the physical or operational change;

b. Identify the schedule for implementing the physical or operational change;

c. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;

d. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and

e. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

A report summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

a. The name and identification of the affected unit(s);

b. The person(s) who will be performing sampling and analysis and their experience with similar tests;

c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;

e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;

f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

a. The name and identification of the affected unit(s);

b. The date and time of the sampling or measurements;

c. The date any analyses were performed;

d. The name of the company that performed the tests and/or analyses;

e. The test and analytical methodologies used;

f. The results of the tests including raw data, and/or analyses including sample calculations;

g. The operating conditions at the time of the sampling or measurements; and

h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

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

iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 (“Title I provisions”) and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and

d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(p)(ii) of the Act]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

i. At reasonable times, for the purposes of assuring permit compliance; or

ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source.

9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit compliance certifications annually or more frequently as specified in the applicable requirement or by permit condition.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

ii. The permitted source was at the time being properly operated;

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission

limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;

c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 Particulate Matter Emissions from Process Emission Units

10.1.1 Section 212.321 Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

a. Except as further provided in 35 IAC Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.

b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$E = A(P)^B$

where

P = Process weight rate; and
E = Allowable emission rate; and,

1. Up to process weight rates of 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

2. For process weight rate greater than or equal to 408 Mg/hr (450 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

c. Limits for Process Emission Units For Which Construction of Modification Commenced On or After April 14,1972

Metric		English	
P Mg/hr	E kg/hr	P Ton/hr	E lbs/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.20	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.	3.9	10.00	8.70
13.	4.8	15.00	10.80
18.	5.7	20.00	12.50
23.	6.5	25.00	14.00
27.	7.1	30.00	15.60
32.	7.7	35.00	17.00
36.	8.2	40.00	18.20
41.	8.8	45.00	19.20
45.	9.3	50.00	20.50
90.	13.4	100.00	29.50
140.	17.0	150.00	37.00
180.	19.4	200.00	43.00
230.	22.	250.00	48.50
270.	24.	300.00	53.00
320.	26.	350.00	58.00
360.	28.	400.00	62.00
408.	30.1	450.00	66.00
454.	30.4	500.00	67.00

where:

P = Process weight rate in Mg/hr or Ton/hr, and
E = Allowable emission rate in kg/hr or lbs/hr.

10.1.2 Section 212.322 Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972.

a. Except as further provided in 35 IAC Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14,1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.

b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$E = C + A(P)^B$$

where:

P = process weight rate; and,
E = allowable emission rate; and,

1. For process weight rates up to 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

2. For process weight rates in excess or 27.2 Mg/hr (30 Ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	lbs/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

Metric		English	
P	E	P	E
Mg/hr	kg/hr	Ton/hr	lbs/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.20	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.	8.7	10.00	19.20
13.	11.1	15.00	25.20
18.	13.8	20.00	30.50

Metric		English	
P Mg/hr	E kg/hr	P Ton/hr	E lbs/hr
23.	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

where:

P = Process weight rate in Mg/hr or Ton/hr, and
E = Allowable emission rate in kg/hr or lbs/hr.

10.2 Attachment 2 Emission Factors for Ink Manufacturing Lines

The following are VOM emission factors, as determined according to the procedures in Section 5.9.1.

Emission Unit	Emission Point	Emission Factor
Ball Mills	Process Operations	0.00199 lb/lb VOM
	Process Equipment Leaks	0.7493 lb/hr
	Tanker Loading	0.615 lb/load
	Filter Openings	0.000113 lb/lb VOM
Regular Grinding	Process Operations	0.0152 lb/lb VOM
	Process Equipment Leaks	0.1940 lb/hr
	Solvent Cleaning	0.0152 lb/lb VOM, 0.00282 lb/lb VOM (caustic)
Bulk Grinding	Process Operations	0.00196 lb/lb VOM
	Process Equipment Leaks	0.5241 lb/hr
	Solvent Cleaning	0.00063 lb/lb VOM
	Filter Openings	0.0000355 lb/lb VOM
Cutters	Process Operations	0.00095 lb/lb VOM
	Process Equipment Leaks	0.1641 lb/hr
	Solvent Cleaning	0.00132 lb/lb VOM
	Tanker Loading	0.649 lb/load
	Filter Openings	0.0000444 lb/lb VOM
Blending	Process Operations	0.0130 lb/lb VOM
	Process Equipment Leaks	0.1238 lb/hr
	Solvent Cleaning	0.0130 lb/lb VOM, 0.00282 lb/lb VOM (caustic)
Kady Mills	Process Operations	0.00346 lb/lb VOM
	Process Equipment Leaks	0.1149 lb/hr
	Solvent Cleaning	0.00132 lb/lb VOM
Varnish	Process Operations	0.00134 lb/lb VOM (cook kettle), 0.0000601 lb/lb VOM (thinning tank)
	Process Equipment Leaks	0.1032 lb/hr
Compounds	Process Operations	0.0029 lb/lb VOM
	Process Equipment Leaks	0.2536 lb/hr
UV Coating	Process Operations	0.0172 lb/lb VOM
	Process Equipment Leaks	0.3336 lb/hr
	Solvent Cleaning	0.00184 lb/lb VOM
	Filter Openings	0.0000442 lb/lb VOM
Inkmaker	Process Operations	0.00119 lb/lb ink
	Solvent Cleaning	0.00119 lb/lb ink

10.3 Attachment 3 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

JS:psj

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. Unlike this source's current state operating permit(s), the conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

The Sun Chemical - General Printing Ink Division is located at 135 West Lake Street in Northlake, IL. The source manufactures printing inks, coatings, wax compounds, and varnish.

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit Group	Description	Date Constructed	Emission Control Equipment
Ball Mills			
01	2 Ball Mills (MBM20-21)	Prior to 1972	Dust Collector #2 (DC02)
02	11 Ball Mills (MBM 22-32)	Prior to 1972	Dust Collector #3 (DC03)
Regular Grinding			
03	3 Premixers (MPM1-3)	Prior to 1972	Dust Collector #2 (DC02)
04	6 Air Mixers (MAM1-6)	Prior to 1972	None
05	6 Horizontal Mills (MHM1-6)	Prior to 1972	None
06	6 Tubs (MT1-6)	Prior to 1972	None
07	3 Let Down Mixers (MLD1-3)	Prior to 1972	None
Bulk Grinding			
08	4 Premix Tanks (M1A-M4A)	1992	Dust Collector #1 (DC01)
09	5 Horizontal Mills (M1BA, M1B-M4B)	1992	None
10	4 Letdown Tanks (M1C-M4C)	1992	None
11	Drum Filler and Tote Filler (M5A-M5B)	1992	None
Cutters			
12	19 Cutters (MC1-19)	Prior to 1972 (modified in 1992)	Dust Collector #1 (DC01)
Blending			
13	10 Blending Mixers (MBL01-10)	Prior to 1972	Dust Collector #1 (DC01)
14	5 Carousel Air Mixers (MCM1-5)	Prior to 1972	None
Kady Mills			
15	3 Kady Mills (MK1-3)	Prior to 1972	None

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions. The proposed permit limits the maximum annual emissions from significant emission units at the source. Insignificant activities at this source are not accounted for in the source limit.

For purposes of fees, the source is allowed the following emissions:

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	190.82
Sulfur Dioxide (SO_2)	0.00
Particulate Matter (PM)	4.96
Nitrogen Oxides (NO_x)	0.00
HAP, not included in VOM or PM	-
TOTAL	195.78

The Source has requested that the Illinois EPA establish conditions in the CAAPP permit that allow various refinements from the conditions of the construction permit(s), consistent with the information provided in the CAAPP application. In addition, the Source has requested emission limits above that allowed in the previously issued construction permit(s), and has addressed the applicability and compliance of 35 IAC Part 203, "Major Stationary Sources Construction and Modification" and/or 40 CFR 52.21, federal "Prevention of Significant Deterioration". These limits continue to ensure that the construction and/or modification addressed in the construction permit(s) does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for these rules. The information in the CAAPP application contains the most current and accurate information for the source as further detailed in the CAAPP permit.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board’s emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

A CAAPP permit contains conditions listing the applicable state and federal air pollution control regulations that apply to a source. The permit conditions also establish emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the source is operating in accordance with the requirements of the permit.

Because this source is located in the Chicago ozone nonattainment area and emits volatile organic material, the permit includes conditions to implement the Emission Reduction Market System (ERMS). The ERMS is a market-based program designed to reduce emissions from stationary sources to contribute to further reasonable progress toward attainment, as further described in section 6 of the permit. The permit contains the Illinois EPA's determination of the source's baseline emissions and allotment of trading units under the ERMS. The permit also provides that the source must begin to operate under the ERMS following the initial issuance of trading units to the source. This will occur for the 2000 seasonal allotment period (rather than the 1999 season as originally intended by the ERMS) due in part to delays in the initial issuance of CAAPP Permits. These delays, which have occurred nationally, are attributable to a variety of causes including the unforeseen complexity of processing these permits and gaps in national guidance. Even though operation under the ERMS will not officially start until the 2000 seasonal allotment period, detailed recordkeeping and reporting of seasonal emissions was required beginning in 1998, which will document emission reductions achieved by sources in 1999 in preparation for the ERMS.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 164.

JS:psj