

DRAFT CAAPP PERMIT
December 7, 2006

217/782-2113

"RENEWAL"
CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

PERMITTEE

Sovereign Commercial Group, Inc.
Attn: David Dirienzo
245 East Kehoe Boulevard
Carol Stream, Illinois 60187

I.D. No.: 043020AAL
Application No.: 96030064

Date Received: May 16, 2003
Date Issued: TBD
Expiration Date¹: TBD

Operation of: Industrial Adhesives and Coatings Manufacturing
Source Location: 245 East Kehoe Boulevard, Carol Stream, DuPage County, 60187
Responsible Official: Thomas J. Levy, Plant Manager

This permit is hereby granted to the above-designated Permittee to operate an industrial adhesives and coatings manufacturing plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

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

Edwin C. Bakowski, P.E.
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:SIS:psj

cc: Illinois EPA, FOS Region 1
CES
Lotus Notes

1 Except as provided in Conditions 1.5 and 8.7 of this permit.

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1.0 INTRODUCTION

1.1 Source Identification

Sovereign Commercial Group, Inc.
245 East Kehoe Boulevard
Carol Stream, Illinois 60188
PHONE # (630) 653-3800

I.D. No.: 043020AAL
County: DuPage County
Standard Industrial Classification: 2891, Adhesives & Sealants
Manufacturing

1.2 Owner/Parent Company

Sovereign Specialty Chemicals Inc.
225 West Washington Street
Chicago, Illinois 60606

1.3 Operator

Sovereign Commercial Group, Inc.
245 East Kehoe Boulevard
Carol Stream, Illinois 60188

David Dirienzo

(630) 653-3800

1.4 Source Description

Sovereign Commercial Group, Inc. is located at 245 East Kehoe Boulevard, Carol Stream, DuPage County. The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate may be used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents.

1.5 Title I Conditions

As generally identified below, this CAAPP permit contains certain conditions for emission units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to

Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include PSD and MSSCAM, and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

- a. This permit contains Title I conditions that reflect Title I requirements established in permits previously issued for this source, which conditions are specifically designated as "T1."

2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

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
BACT	Best Available Control Technology
BAT	Best Available Technology
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emissions Reduction Market System
HAP	Hazardous Air Pollutant
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MSSCAM	Major Stationary Sources Construction and Modification (35 IAC 203, New Source Review for non-attainment areas)
NESHAP	National Emission Standards for Hazardous Air Pollutants
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
PM _{2.5}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
RMP	Risk Management Plan
SO ₂	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing 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 permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

3.0 CONDITIONS FOR 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:

Two 8.368 mmBtu/hour gas fired boilers
One 4.2 mmBtu/hr gas fired boiler
20 wall fans

- 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:

Hot melt kettles

- 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:

Equipment used for filling drums, pails, or other packaging containers, excluding aerosol cans, with soaps, detergents, surfactants, lubricating oils, waxes, vegetable oils, greases, animal fats, glycerin, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(8)].

Equipment used for the mixing and blending of materials at ambient temperature to make water based adhesives, provided each material mixed or blended contains less than 5% organic solvent by weight [35 IAC 201.210(a)(9)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b). Note: These activities are not required to be individually listed.

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.3.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322 (see Attachment 2) and 35 IAC Part 266. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.2 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 218.301, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.
- 3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.
- 3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at 70°F, the Permittee shall comply with the applicable requirements of 35 IAC 218.122, which requires use of a permanent submerged loading pipe, submerged fill, or a vapor recovery system.

3.3 Addition of Insignificant Activities

- 3.3.1 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).
- 3.3.2 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.
- 3.3.3 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	Description	Date Constructed	Emission Control Equipment
Unit 01	Mixer M-5: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 02	Mixer M-8: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 03	Mixer M-9: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 04	Mixer M-10: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 05	Mixer M-10: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 06	Mixer M-11: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 07	Mixer M-12: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 08	Mixer M-13: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 09	Mixer M-16: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 10	Mixer M-17: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser
Unit 11	Mixer M18: Mixer for mixing & blending	2006	Primary Condenser
Unit 12	Mixer M-3a: Mixer for mixing & blending	2006	Primary Condenser
Unit 13	Tote Mixing Tote Washing	2006	None
Unit 14	Storage Tank (T-31, T-32): Each 1,650 gallon capacity tank	1972	None
	Storage Tanks (T-33, T-34, T-35, T-36): Each 1,450 gallon capacity tank	1972	None
	Tanks T51 & T 52	2004	None
	Tanks T15 & T 16	2004	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Applicability of Clean Air Act Permit Program (CAAPP)

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM and HAP emissions.
- 5.1.2 This permit is issued based on the source requiring a CAAPP permit because the source is in a source category designated by the USEPA, pursuant to 40 CFR 70.3(a)(5) [Section 39.5(2)(a)(iv) of the Act].

5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated nonattainment for the National Ambient Air Quality Standards for VOM and PM_{2.5} and attainment or unclassifiable for all other criteria pollutants CO, NO₂, SO₂, PM₁₀, Lead.

5.3 Source-Wide Applicable Provisions and Regulations

- 5.3.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions for Specific Emission Units) of this permit.
- 5.3.2 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.
 - b. Pursuant to 35 IAC 212.123(a), 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, except as allowed by 35 IAC 212.123(b) and 212.124.

5.3.3 Ozone Depleting Substances

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.

5.3.4 Risk Management Plan (RMP)

Should this stationary source, as defined in 40 CFR 68.3, become subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, then the owner or operator shall submit the items below. This condition is imposed in this permit pursuant to 40 CFR 68.215(a)(2)(i) and (ii).

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the RMP, as part of the annual compliance certification required by Condition 9.8.

5.3.5 Future Emission Standards

- a. Should this stationary source become subject to a new or revised regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 9.8. This permit may also have to be revised or reopened to address such new or revised regulations (see Condition 9.12.2).
- b. This permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the permit shall alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.

5.3.6 Episode Action Plan

- a. Pursuant to 35 IAC 244.141, 244.142, and 244.143, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan)

for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144 and is incorporated by reference into this permit.

- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared by the Director of the Illinois EPA or his or her designated representative.
- c. If an operational change occurs at the source which invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.
- d. Any subsequent revisions of the plan shall also be sent to the Chicago Department of Environmental Control.

5.3. PM₁₀ Contingency Measure Plan

Should the actual annual source-wide emissions of PM₁₀ equal or exceed 15 tons, then the Permittee shall prepare and submit a contingency measure plan reflecting the PM₁₀ emission reductions as set forth in 35 IAC 212.701 and 212.703. The Permittee shall submit such plan to the Illinois EPA for review and approval within ninety (90) days after the date this source becomes subject to this requirement. Such plan will be incorporated by reference into this permit and shall be implemented by the Permittee in accordance with 35 IAC 212.704 following notification by the Illinois EPA. The source shall comply with the applicable requirements of 35 IAC Part 212, Subpart U. This permit may also have to be revised or reopened to address this regulation (see Condition 9.12.2).

5.4 Source-Wide Non-Applicability of Regulations of Concern

Source-wide non-applicability of regulations of concern are not set for this source. However, there may be unit specific non-applicability of regulations of concern set forth in Section 7 of this permit.

5.5 Source-Wide Control Requirements and Work Practices

Source-wide control requirements and work practices are not set for this source. However, there may be requirements for unit specific control requirements and work practices set forth in Section 7 of this permit.

5.6 Source-Wide Production and Emission Limitations

5.6.1 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 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	75.53
Sulfur Dioxide (SO ₂)	---
Particulate Matter (PM)	---
Nitrogen Oxides (NO _x)	---
HAP, not included in VOM or PM	---
Total	75.53

5.6.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.6.3 Other Source-Wide Production and Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for PSD, state rules for MSSCAM, 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.

5.7 Source-Wide Testing Requirements

5.7.1 Pursuant to 35 IAC 201.282 and Section 4(b) of the Act, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

- a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All

such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests [35 IAC 201.282(a)].

- b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary [35 IAC 201.282(b)].
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

5.8 Source-Wide Monitoring Requirements

Source-wide monitoring requirements are not set for this source. However, there may be provisions for unit specific monitoring set forth in Section 7 of this permit.

5.9 Source-Wide Recordkeeping Requirements

5.9.1 Annual Emission Records

The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.

5.9.2 Records for HAP Emissions

The Permittee shall maintain records of HAP emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit, pursuant to Section 39.5(7)(b) of the Act.

- a. The Permittee shall maintain records of individual and combined HAP emissions on a monthly and annual basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.2, pursuant to Section 39.5(7)(b) of the Act.
- b. If testing is required by Condition 5.7.2, the Permittee shall keep records of the testing, including the test date, conditions, methodologies, calculations, test results, and

any discrepancies between the test results and formulation specifications of Condition 5.9.2(c) below.

- c. The Permittee shall keep an MSDS or equivalent document showing the formulation of each coating, including content of all HAPs. These formulation sheets may be used to make the calculation of HAP emissions required by Condition 5.7.2. If the formulation sheet uses a maximum or range value (e.g., less than 1% or range of 2 - 3%) then the highest value shall be used.

5.9.3 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.

5.10 Source-Wide Reporting Requirements

5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements within 30 days, 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. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

5.10.2 Annual Emissions Report

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

5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios

Source-wide operational flexibility is not set for this source. However, there may be provisions for unit specific operational flexibility set forth in Section 7 of this permit.

5.12 Source-Wide Compliance Procedures

5.12.1 Procedures for Calculating Emissions

Except as provided in Condition 9.1.3, compliance with the source-wide emission limits specified in Condition 5.6 shall be addressed by the recordkeeping and reporting requirements of Conditions 5.9 and 5.10, and compliance procedures in Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit.

- a. For the purpose of estimating VOM emissions from the storage tanks, the current version of TANKS Program is acceptable.
- b. For the purpose of estimating VOM emissions from the mixers at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

6.1 Emissions Reduction Market System (ERMS)

6.1.1 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 further reasonable progress toward attainment, as required by Section 182(c) of the Clean Air Act.

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 emission reduction from stationary sources required for 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 account to cover its actual VOM emissions during the preceding season. An 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 account database. The Illinois EPA will then retire ATUs in sources' accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its 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 emission reductions from an Emission Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 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 (35 IAC 205.710). Sources may also transfer or sell the ATUs that they holds to other sources or participants (35 IAC 205.630).

6.1.2 Applicability

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

6.1.3 Obligation to Hold Allotment Trading Units (ATUs)

- a. Pursuant to 35 IAC 205.150(c)(1) and 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 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 6.4.
 - i. VOM emissions from insignificant 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 elsewhere in 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 Section 6.7(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 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.

6.1.4 Market Transaction

- 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.

6.1.5 Emission 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 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 emission 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 of 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.

6.1.6 Quantification of Seasonal VOM Emissions

- a. The methods and procedures specified in Section 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 205.650(a), and shall be submitted in accordance with the following:
 - i. An initial emergency condition report within two days of the time when such excess emissions occurred due to the emergency; and
 - ii. A final emergency condition report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

6.1.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emission Report, seasonal VOM emission 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 Section 205.337 of this Subpart;
 - 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 are 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.

6.1.8 Allotment of ATUs to the Source

- a.
 - i. The allotment of ATUs to this source is 448 ATUs per seasonal allotment period.
 - ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 50.835 tons.
 - iii. The source's allotment reflects 88% of the baseline emissions (12% reduction) except for the VOM emissions from specific emission unit excluded from such reduction, pursuant to 35 IAC 205.405 including units complying with MACT or using BAT, as identified in Section 7 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
Not applicable.
- 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 emission 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.

6.1.9 Recordkeeping for ERMS

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

- a. Seasonal component of the Annual Emission 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.

6.1.10 Federal Enforceability

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

7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS

7.1 Unit 01: Mixer M-5
Control: Condenser

7.1.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 01	Mixer M-5: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.1.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.1.1 and 7.1.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.6.1.
- c. The affected mixer used in the production of adhesives and allied products is subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, OR BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.1.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-5 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHHH-Miscellaneous Coating Manufacturing; per applicability

requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.1.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected mixer not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.1.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature
- c. Unit 01 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.1.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6 the affected mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.1.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.1.8 Monitoring Requirements

The affected shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.1.3, 7.1.5, 7.1.6, and 7.1.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.

- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.1.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.1.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.2 Unit 02: Mixer M-8
Control: Condenser

7.2.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 02	Mixer M-8: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.2.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.2.1 and 7.2.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.2.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-5 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.2.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected mixer not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.2.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 02 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.2.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.2.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.2.8 Monitoring Requirements

The affected shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.2.3, 7.2.5, 7.2.6, and 7.2.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.2.10 Reporting Requirements

Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.2.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.3 Unit 03: Mixer M-9
Control: Condensers

7.3.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 03	Mixer M-9: Mixer for mixing & blending	1972	Primary Condenser, Secondary Condenser

7.3.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.3.1 and 7.3.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.3.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-9 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.3.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected mixer not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.3.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 04 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.3.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.3.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.3.8 Monitoring Requirements

The affected shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.3.3, 7.3.5, 7.3.6, and 7.3.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.3.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.3.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.4 Unit 04: Mixer M-10
Control: Condensers

7.4.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 04	Mixer M-10: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.4.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.4.1 and 7.4.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.4.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-10 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.4.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected unit 05 not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.4.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 04 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.4.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.4.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.4.8 Monitoring Requirements

The affected shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.4.3, 7.4.5, 7.4.6, and 7.4.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.4.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.4.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.5 Unit 05: Mixer M-10
Control: Condensers

7.5.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 05	Mixer M-10: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.5.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.5.1 and 7.5.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.5.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-10 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.5.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected unit 06 not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.5.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 05 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.5.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.5.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.5.8 Monitoring Requirements

The affected shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.5.3, 7.5.5, 7.5.6, and 7.5.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.5.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.6 Unit 06: Mixer M-11
Control: Condensers

7.6.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 06	Mixer M-11: Mixer For Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.6.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.6.1 and 7.6.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.6.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-11 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.6.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected unit 06 not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.6.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 06 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.6.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.6.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.6.8 Monitoring Requirements

The affected shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.6.3, 7.6.5, 7.6.6, and 7.6.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.6.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.7 Unit 07: Mixer M-12
Control: Condensers

7.7.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 07	Mixer M-12: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.7.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.7.1 and 7.7.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.7.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-12 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.7.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected unit 06 not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.7.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 08 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.7.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.7.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.7.8 Monitoring Requirements

The affected shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.7.3, 7.7.5, 7.7.6, and 7.7.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.7.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.8 Unit 08: Mixer M-13
Control: Condensers

7.8.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.8.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 08	Mixer M-13: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.8.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.8.1 and 7.8.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.8.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-13 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.8.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected mixer not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected mixer does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.8.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 08 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.8.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.8.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.8.8 Monitoring Requirements

The affected mixer shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.8.3, 7.8.5, 7.8.6, and 7.8.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.8.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.9 Unit 9: Mixer M-16
Control: Primary Condenser, Secondary Condenser

7.9.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.9.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 09	Mixer M-16: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.9.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.9.1 and 7.9.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.9.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-16 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing

operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.9.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected unit 10 not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.9.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 9 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.9.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

Note: Construction Permit 05090031 for the addition of M16 was issued based on the new equipment not being a major modification subject to 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM) because the emissions of VOM associated with the project are not significant. The permit was issued based on no increase in emissions of VOM from the installation of the new equipment.

7.9.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.9.8 Monitoring Requirements

The affected mixer shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.9.3, 7.9.5, 7.9.6, and 7.9.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.

- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.9.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.10 Unit 10: Mixer M-17
 Control: Primary Condenser, Secondary Condenser

7.10.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.10.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 10	Mixer M-17: Mixer for Mixing & Blending	1972	Primary Condenser, Secondary Condenser

7.10.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, is the mixer used in production of adhesives and allied products and are identified in 7.10.1 and 7.10.2.
- b. The affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units that are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.11.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-17 is subject to 35 IAC 212.322(a), which requires that:
 - i. 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 prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534
C	0.0	0.0

- B. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16
C	-18.4	-40.0

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].

- h. The affected mixer used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that

owns or operates miscellaneous coating manufacturing operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.10.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected unit 10 not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected unit 01 does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.10.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixer:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 10 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.10.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the mixer is subject to the following:

The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

Note: Construction Permit 05090031 for the addition of M17 was issued based on the new equipment not being a major modification subject to 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM) because the emissions of VOM associated with the project are not significant. The permit was issued based on no increase in emissions of VOM from the installation of the new equipment.

7.10.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.10.8 Monitoring Requirements

The affected mixer shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.10.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.10.3, 7.10.5, 7.10.6, and 7.10.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixer, the Permittee shall collect and record the following information each day:
 - i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.

- d. For the mixer controlled by a condenser:
 - i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.10.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.10.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.10.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.11 Unit 11: Mixer M18
Control: Condenser

7.11.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.11.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 11	Mixer M18: Mixer for Mixing & Blending	2006	Primary Condenser

7.11.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, are mixers used in production of adhesives and allied products and are identified in 7.11.1 and 7.11.2.
- b. Each affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.11.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-18 is subject to 35 IAC 212.321(a), which requires that:
 - i. 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 [35 IAC 212.321(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation

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

where:

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

- A. For process weight rates up to 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

- B. For process weight rates in excess of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.321].

- h. Mixing operations of Unit 11, used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is

subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.11.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected mixer not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected mixer does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.11.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixers:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 11 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.11.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject to the following:

- a. The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- b. The affected mixer is subject to the following:

<u>Emission Unit</u>	<u>Control</u>	<u>(Lbs/Hr)</u>	<u>VOM (Tons/Yr)</u>
Mixer M-18	Condenser C-18	0.97	2.2

The above limitations were established in Permit 06010026, 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].

These emission limits are based on information provided in the application. Compliance with annual limits shall be determined from a running total of 12 months of data. [T1]

7.11.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.11.8 Monitoring Requirements

The affected mixer shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.11.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.11.3, 7.11.5, 7.11.6, 5.6.1, and 7.11.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixers, the Permittee shall collect and record the following information each day:

- i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For each mixer controlled by a condenser:
- i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.11.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.11.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.11.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.12 Unit 12: Mixer M-3a
Control: Condenser

7.12.1 Description

The source manufactures blister package adhesives, U.V. Curable Coatings, Pressure sensitive adhesives, hot melt adhesives and other allied products. The production of these products primarily involves mixing and blending of raw materials either under vacuum or atmospheric conditions with and without addition of heat. Typical raw materials utilized are resins, wax, water and various organic solvents such as toluene, isopropyl alcohol etc. Low vapor pressure polymeric isocyanates, and lesser amounts of toluene diisocyanate and methylene bisphenyl isocyanate are used in the production of adhesives and coatings. The mixers are controlled by condensers. In addition, the plant has storage tanks for organic solvents. Mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 will each be controlled by new primary condensers (except M-3A and M-18 which will continue to utilize existing MCM NESHAP primary condensers) and further controlled by a new single secondary condenser consisting of two units in parallel (A and B). Affected mixers M-10, M-11, and M-13 will each be controlled by existing primary condensers and further controlled by another new single secondary condenser consisting of two units in parallel (A and B). For affected mixers M-3A, M-4, M-5, M-8, M-9, M-12, M-16, M-17, and M-18 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. However, the control system shall also be designed such that each condenser independently, whether primary or secondary, will achieve compliance with the MCM NESHAP control standard. Accordingly, either the associated primary condenser or at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants. Regardless of which control scheme is utilized all air contaminants must vent through one of the secondary condensers, and the secondary condenser monitoring points shall always be used to demonstrate compliance. For affected mixers M-10, M-11, and M-13 the control system shall be designed and sized such that only one secondary heat exchanger (either A or B) will operate at one time. Accordingly, each associated primary condenser and at least one of the two secondary condensers (either A or B) shall be in operation at all times when an affected mixer is in operation and emitting air contaminants.

7.12.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 12	Mixer M-3a: Mixer for Mixing & Blending	2006	Primary Condenser

7.12.3 Applicable Provisions and Regulations

- a. An "affected mixer" for the purpose of these unit-specific conditions, are mixers used in production of adhesives and allied products and are identified in 7.12.1 and 7.12.2.
- b. Each affected mixer is subject to the emission limits identified in Condition 5.3.2.
- c. The affected mixer used in the production of adhesives and allied products are subject to 35 IAC 218 Subpart QQ: Miscellaneous Formulation Manufacturing Process, because it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units are:
 - i. Not regulated by 35 IAC 218 Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486), V, X, Y, Z, or BB of this Part, or
 - ii. Not included in any of the following categories: Synthetic Chemical Manufacturing Industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- d. The requirements of 35 IAC 218 Subpart QQ shall apply only to a source's miscellaneous formulation manufacturing process emission units only.
- e. If a source ceases to fulfill the criteria of 7.12.3 (c) and/or (d) above, the requirements of the 35 IAC 218 Subpart QQ shall continue to apply to a miscellaneous formulation manufacturing process emission unit which was ever subject to the control requirements of 35 IAC 218.946. [218.940(c)]
- f. For the purposes of the 35 IAC Subpart QQ, an emission unit shall be considered regulated if it is subject to the limits of Subpart QQ. An emission unit is considered not regulated by the Subpart QQ, e.g., the emission unit is covered by an exemption in the Subpart QQ or the applicability criteria of the Subpart QQ are not met [35 IAC 218.940].
- g. The affected mixer M-3a is subject to 35 IAC 212.321(a), which requires that:
 - i. 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 [35 IAC 212.321(a)].

- ii. The emissions of particulate matter into the atmosphere in any one hour period from the mixers shall not exceed the allowable emission rates specified in the following equation:

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

where:

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

- A. For process weight rates up to 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

- B. For process weight rates in excess of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

where:

P = Process weight rate in metric or English tons per hour, and

E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.321].

- h. Mixing operations of Unit 12, used in the production of adhesives and allied products are subject to 40 CFR 63 Subpart HHHHH-Miscellaneous Coating Manufacturing; per applicability requirements as stated in 40 CFR 63.7985, any facility that owns or operates miscellaneous coating manufacturing operations located at or are part of a major source of hazardous air pollutants (HAP) emissions is

subject to this CFR. Accordingly, by no later than December 11, 2006, the Permittee shall reduce emissions of total organic HAP by venting emissions through a closed-vent system to a condenser that reduces the outlet gas temperature to less than 2°C.

7.12.4 Non-Applicability of Regulations of Concern

This permit is issued based on affected mixer not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected mixer does not have potential pre-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

7.12.5 Control Requirements and Work Practices

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to the 35 IAC 218 Subpart QQ shall comply with the requirements of subsection (a) below [35 IAC 218.946].

- a. Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit.
- b. The following requirements are applicable during the operation of the affected mixers:
 - i. Each final MCM NESHAP condenser controlling the mixing vessel emissions shall be equipped with temperature recorders for the recording the exhaust gas outlet temperature.
- c. Unit 12 must meet control requirements and work practice standards of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- d. Each secondary condenser shall be equipped with a condenser exit (product side) temperature monitoring device capable of providing a continuous record.
- e. The Permittee shall comply with the applicable control requirements and work practices of requirements of the 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.

7.12.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, the affected mixer is subject to the following:

- a. The affected mixer must meet each emission limit of Table 1 of 40 CFR 63 Subpart HHHHH, Miscellaneous Coatings Manufacturing.
- b. The affected mixer is subject to the following:

<u>Emission Unit</u>	<u>Control</u>	<u>(Lbs/Hr)</u>	<u>VOM (Tons/Yr)</u>
Mixer M-3a	Condenser C-3a	3.8	3.0

The above limitations were established in Permit 06010026, 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]

These emission limits are based on information provided in the application. Compliance with annual limits shall be determined from a running total of 12 months of data. [T1]

7.12.7 Testing Requirements

The Permittee may choose to test in a manner that meets the requirements of 40 CFR 63 Subpart HHHHH, but this is not necessary before the applicable compliance date for Subpart HHHHH. The applicable testing requirements must be followed if the Permittee seeks to demonstrate compliance with requirements of Subpart HHHHH.

7.12.8 Monitoring Requirements

The affected mixer shall demonstrate compliance with requirements of Table 1, 40 CFR 63, Subpart HHHHH by following applicable monitoring requirements as specified and applicable in 40 CFR 63, Subpart HHHHH.

7.12.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected mixer to demonstrate compliance with Condition 7.12.3, 7.12.5, 7.12.6, 5.6.1 and 7.12.12 pursuant to Section 39.5(7)(b) of the Act:

- a. Organic solvent usage (lbs/day and tons/year).
- b. Production rate (lbs/day and tons/year).
- c. For the condensers used to control the affected mixers, the Permittee shall collect and record the following information each day:

- i. Control device monitoring data;
 - ii. A log of operating time for the capture system, control device, monitoring equipment and the associated emission source; and
 - iii. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of outages.
- d. For each mixer controlled by a condenser:
- i. A file with design information and engineering calculations for the performance of the condenser.
 - ii. Logs of inspection, maintenance, and repairs.
 - iii. Annual emissions, with supporting calculations.

7.12.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.12.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.12.12 Compliance Procedures

For the purpose of estimating VOM emissions from the mixer at the source, the engineering estimates are based on the material balance and the overall control efficiency of the condensers.

7.13 Unit 13: Process Emission Unit
Control: None

7.13.1 Description

Stir and blend mixing operation.

7.13.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 13	Tote Mixing	2006	None
	Tote Washing	2006	None

7.13.3 Applicable Provisions and Regulations

- a. An "affected process emission unit" for the purpose of these unit-specific conditions, are operations of Tote mixing and tote washing used in production of adhesives and allied products and are identified in 7.13.1 and 7.13.2.
- b. 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, 218.303, or 218.304 and the following exemption: If no odor nuisance exists the limitation of 35 IAC 218 Subpart G shall only apply to photochemically reactive material [35 IAC 218.301].
- c. Each affected process emission unit is subject to the emission limits identified in Condition 5.3.2.

7.13.4 Non-Applicability of Regulations of Concern

- a. The affected process emission unit is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected Unit 14 does not use an add-on control device to achieve compliance with an emission limitation or standard

7.13.5 Control Requirements and Work Practices

None

7.13.6 Production and Emission Limitations

In addition to Condition 5.3 and the source-wide emission limitations in Condition 5.6, emissions of the affected process emission unit shall not exceed the following limits:

Unit	VOM	
	(Lbs/Hr)	(T/Yr)
Tote Mixing	0.27	1.30
Tote Washing	3.20	0.38

The above limitations were established in Permit 06010026, 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]

These emission limits are based on information provided in the application. Compliance with annual limits shall be determined from a running total of 12 months of data.

7.13.7 Testing Requirements

Testing requirements are not set for the affected process emission unit. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.13.8 Monitoring Requirements

None

7.13.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected process emission unit to demonstrate compliance with Condition 7.13.3, 7.13.6, 5.6.1, and 7.13.12 pursuant to Section 39.5(7)(b) of the Act:

- a. For tote mixing:
 - i. A file with design information and engineering calculations for the emissions per batch.
 - ii. Number of batches.
 - iii. Annual emissions, with supporting calculations.
- b. For tote washing:
 - i. A file with design information and engineering calculations for the emissions.
 - ii. Number of totes washed.
 - iii. Annual emissions, with supporting calculations.

7.13.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected process emission unit 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.

7.13.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected process emission unit. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.13.12 Compliance Procedures

- a. For the purpose of estimating VOM emissions from the affected process emission unit at the source, the engineering estimates are based on the material balance.

7.14 Unit 14: Storage Tanks
Control: None

7.14.1 Description

Tanks for storage of organic solvents.

7.14.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Date Constructed	Emission Control Equipment
Unit 14	Storage Tank (T-31, T-32): Each 1,650 Gallon Capacity Tank	1972	None
	Storage Tanks (T-33, T-34, T-35, T-36): Each 1,450 Gallon Capacity Tank	1972	None
	Tanks T51 & T 52	2004	None
	Tanks T15 & T 16	2004	None

7.14.3 Applicable Provisions and Regulations

- a. An "affected storage tank" for the purpose of these unit specific conditions, is an organic material storage tank identified in 7.14.1 and 7.14.2.
- b. For the affected storage tanks, the Permittee shall maintain readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel [25 IAC 218.129 (f)].
- c. Tanks T-51, T-52 are subject to subject to 35 IAC 218.301, use of organic material, which provides that no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material.
- d. The Tanks T-51 and T-52 are Group 1b storage tanks as defined in the NESHAP 40 CFR 63.8105. The Permittee shall comply with all the applicable requirements for storage tanks Group 1b specified in the NESHAP 40 CFR 63.8010.

7.14.4 Non-Applicability of Regulations of Concern

- a. The affected tanks are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tanks use a passive control measure, such as a seal, lid, or roof, that is not

considered a control device because it acts to prevent the release of pollutants.

- b. Tanks T-15 and T-16 are not being subject to control requirements under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Process, 40 CFR Part 63, Subpart FFFF. This is because the capacity of each tank (nominally 2,500 gallons, each) is less than 10,000 gallons and the tanks function as storage tanks, rather than as process tanks (which only receive material from a single batch or feed a subsequent tank) so that the tanks qualify as Group 2 storage tanks, as defined at 40 CFR 63.2550.

7.14.5 Control Requirements and Work Practices

For Tanks T-15 and T-16:

- a. Shall be equipped with conservation vents with a pressure setting not less than 0.75 ounce per square inch;
- b. The vapor pressure of material stored in the tanks T-15 and T-16 shall be less than 3.934 psia as stored, on a monthly average; and
- c. At all times, the Permittee shall maintain and operate the tanks and the associated conservation vents in a manner consistent with good air pollution control practice for minimizing emissions.

7.14.6 Production and Emission Limitations

In addition to Condition 5.3.2 and the source-wide emission limitations in Condition 5.6, the affected tanks subject to the following:

- a. For T51 and T52:

Construction Permit 05090031 for the addition of T-51, and T-52 was issued based on the new equipment not being a major modification subject to 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM) because the emissions of VOM associated with the project are not significant. The permit was issued based on no increase in emissions of VOM from the installation of T51 and T52.

- b. Emissions of VOM from the tanks T-15 and T-16 each shall not exceed 0.91 tons/year.

The above limitations were established in Permit 04040071, 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]

Compliance with annual limits shall be determined from a running total of 12 months of data.

- c. For other sources within this unit emission limits for VOM are not set, as potential to emit in the absence of permit limit is less than the significant and major source thresholds for these pollutants pursuant to Title I of the CAA, specifically the federal rules for the Prevention of Significant Deterioration (PSD), 40 CFR 52.21.

7.14.7 Testing Requirements

Testing requirements are not set for the affected tanks. However, there are source-wide testing requirements in Condition 5.7 and general testing requirements in Condition 8.5.

7.14.8 Monitoring Requirements

None

7.14.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each tank to demonstrate compliance with Condition 7.14.3, 7.14.5, 7.14.6, and 5.6.1 pursuant to Section 39.5(7)(b) of the Act:

- a. For the affected tanks, the Permittee shall keep records of the following for each tank:
 - i. Monthly average temperature and vapor pressure (psia) of the material stored in the tank, with supporting documentation.
 - ii. Throughput of material (gallons/month).
 - iii. Monthly and annual emissions of VOM, with all supporting data and calculations.

7.14.10 Reporting Requirements

- a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected 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.

7.14.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected mixer. However, there may be provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.14.12 Compliance Procedures

For the purpose of estimating VOM emissions from the storage tanks, the current version of TANKS Program is acceptable.

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 _____ **Error! Bookmark not defined.** (the date of issuance of the proposed 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 that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test

methods), recordkeeping, reporting, or compliance certification requirements;

- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. 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. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. 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;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. 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 if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit.

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 Conditions 8.6.3 and 8.6.4.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA

every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
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 determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that 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. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Unit with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

- i. Illinois EPA - Air Compliance Unit

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

- ii. Illinois EPA - Air Quality Planning Section

Illinois Environmental Protection Agency
Bureau of Air
Air Quality Planning Section (MC 39)
P.O. Box 19276
Springfield, Illinois 62794-9276

iii. Illinois EPA - Air Regional Field Office

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

iv. USEPA Region 5 - Air Branch

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

- c. Permit applications should be addressed to the Air Permit Section. As of the date of issuance of this permit, the address of the Air Permit Section is as follows:

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

8.7 Title I Conditions

Notwithstanding the expiration date on the first page of this CAAPP permit, Title I conditions in this permit, which are identified by a T1, T1N, or T1R designation, remain in effect until such time as the Illinois EPA takes action to revise or terminate them in accordance with applicable procedures for action on Title I conditions. This is because these conditions either: (a) incorporate conditions of earlier permits that were issued by the Illinois EPA pursuant to authority that includes authority found in Title I of the CAA (T1 conditions), (b) were newly established in this CAAPP permit pursuant to authority that includes such Title I authority (T1N conditions), or (c) reflect a revision or combination of conditions established in this CAAPP permit (T1R conditions). (See also Condition 1.5.)

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.

9.1.2 In particular, this permit does not alter or affect the following [Section 39.5(7)(j)(iv) of the Act]:

- 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, pursuant to Section 39.5(7)(j) and (p) of the Act, 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, or 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 this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [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 there under.

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 [Sections 4 and 39.5(7)(a) and (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 applicable requirements; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any regulated activity, discharge or emission at the source authorized by this permit.

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. At 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 including any logs, plans, procedures, or instructions required to be kept 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, Air Quality Planning 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 annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Unit, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- 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 and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 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 [Section 39.5(7)(k) of the Act]:

- 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.

Note: For this purpose, emergency means a situation arising from sudden and reasonably unforeseeable events beyond the control of the source, as further defined by Section 39.5(7)(k)(iv) of the Act.

- 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 [Section 39.5(7)(k)(iv) of the Act].

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, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, 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 that inaccurate statements were made in establishing the emission standards or limitations, or other terms or conditions of this permit.

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

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 and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5)(e) and (i) 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. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and 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

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5)(l) and (o) of the Act].

Note: Pursuant to Sections 39.5(5)(h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal

application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

9.15 General Authority for the Terms and Conditions of this Permit

The authority for terms and conditions of this permit that do not include a citation for their authority is Section 39.5(7)(a) of the Act, which provides that the Illinois EPA shall include such provisions in a CAAPP permit as are necessary to accomplish the purposes of the Act and to assure compliance with all applicable requirements. Section 39.5(7)(a) of the Act is also another basis of authority for terms and conditions of this permit that do include a specific citation for their authority.

Note: This condition is included in this permit pursuant to Section 39.5(7)(n) of the Act.

10.0 ATTACHMENTS

Attachment 1 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: _____

Attachment 2 Emissions of Particulate Matter from Process Emission Units

- a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].
- i. 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 [35 IAC 212.321(a)].
- ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

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

where:

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

A. Up to process weight rates of 408 Mg/hr (450 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.214	2.54
B	0.534	0.534

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

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	11.42	24.8
B	0.16	0.16

iii. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	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
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

b. Existing Process Emission Units for Which Construction or Modification Prior to April 14, 1972 [35 IAC 212.322].

i. 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 [35 IAC 212.322(a)].

ii. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.322(b)]:

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

where:

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

A. Up to process weight rates up to 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

B. For process weight rate in excess of 27.2 Mg/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	- 18.4	- 40.0

iii. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972 [35 IAC 212.322(c)]:

Metric P <u>Mg/hr</u>	E <u>kg/hr</u>	English P <u>T/hr</u>	E <u>lb/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	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
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	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

Attachment 3 Compliance Assurance Monitoring (CAM) Plan

There are no specific emission units that require a CAM plan as identified in the Monitoring Requirements of Subsection 8 for each Section 7, Unit Specific Conditions for Specific Emission Units.

Attachment 4 Guidance

The Illinois has prepared guidance for sources on the Clean Air Act Permit Program (CAAPP) that is available on the Internet site maintained by the Illinois EPA, www.epa.state.il.us. This guidance includes instructions on applying for a revision or renewal of the CAAPP permit.

Guidance On Revising A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-revising.pdf

Guidance On Renewing A CAAPP Permit:

www.epa.state.il.us/air/caapp/caapp-renewing.pdf

The application forms prepared by the Illinois EPA for the CAAPP are also available from the Illinois EPA's Internet site:

www.epa.state.il.us/air/caapp/index.html

These CAAPP application forms should also be used by a CAAPP source when it applies for a construction permit. For this purpose, the appropriate CAAPP application forms and other supporting information, should be accompanied by a completed Application For A Construction Permit form (199-CAAPP) and Fee Determination for Construction Permit Application form (197-FEE):

www.epa.state.il.us/air/caapp/199-caapp.pdf

www.epa.state.il.us/air/permits/197-fee.pdf

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