217/782-2113

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

PERMITTEE

The Dow Chemical Company
Attn: Julie Woodard
26332 South Frontage Road
Channahon, Illinois 60410

Application No.: 95110022 I.D. No.: 197800AAJ
Applicant's Designation: Date Received: November 7, 1995
Operation of: Organic Chemical and Polystyrene Foam Board Manufacturing Plant
Date Issued: November 4, 1999 Expiration Date[2]: November 4, 2004
Source Location: I-55 and Arsenal Road, Channahon
Responsible Official: Doug Sheldon, Site Leader

This permit is hereby granted to the above-designated Permittee to OPERATE a storage terminal, a chemical manufacturing plant, and an expanded polystyrene foam board 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 Dan Punzak at 217/782-2113.

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

DES:DGP:jar

cc: Illinois EPA, FOS, Region 1
USEPA

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

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

TABLE OF CONTENTS

		PAGE
1.0	SOURCE IDENTIFICATION	4
	1.1 Source	
	1.2 Owner/Parent Company	
	1.3 Operator	
	1.4 General Source Description	
2.0	LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT	5
3.0	INSIGNIFICANT ACTIVITIES	6
	3.1 Identification of Insignificant Activities	
	3.2 Compliance with Applicable Requirements	
	3.3 Addition of Insignificant Activities	
4.0	SIGNIFICANT EMISSION UNITS AT THIS SOURCE	8
5.0	OVERALL SOURCE CONDITIONS	10
	5.1 Source Description	
	5.2 Applicable Regulations	
	5.3 Non-Applicability of Regulations of Concern	
	5.4 Source-Wide Operational and Production Limits and Work Practices	
	5.5 Source-Wide Emission Limitations	
	5.6 General Recordkeeping Requirements	
	5.7 General Reporting Requirements	
	5.8 General Operational Flexibility/Anticipated Operating Scenarios	
	5.9 General Compliance Procedures	
	5.10 Special Permit Shield (OPTIONAL)	
6.0	EMISSION REDUCTION MARKET SYSTEM (ERMS)	15
	6.1 Description of ERMS	
	6.2 Applicability	
	6.3 Obligation to Hold Allotment Trading Units (ATUs)	
	6.4 Market Transaction	
	6.5 Emission Excursion Compensation	
	6.6 Quantification of Seasonal VOM Emissions	
	6.7 Annual Account Reporting	
	6.8 Allotment of ATUs to the Source	
	6.9 Recordkeeping for ERMS	
	6.10 Federal Enforceability	
	6.11 Exclusions from Further Reductions	

PAGE

7.0 UNIT SPECIFIC CONDITIONS 22

7.1 Unit: Storage Terminal
Control: Five Tanks Controlled by Refrigerated Condenser
7.2 Unit: Polystyrene Plant
Control: Heater Firebox
7.3 Unit: Vinyl Ester Resin Plant
Control: Process Scrubber
7.4 Unit: Recycle Hopper
Control: Baghouse
7.5 Unit: Foam Processing
Control: None
7.6 Unit: Foam Warehouse and Outside Storage
Control: None
7.7 Unit: Polystyrene Silo
Control: None

8.0 GENERAL PERMIT CONDITIONS 48

8.1 Permit Shield
8.2 Applicability of Title IV Requirements
8.3 Emissions Trading Programs
8.4 Operational Flexibility/Anticipated Operating Scenarios
8.5 Testing Procedures
8.6 Reporting Requirements
8.7 Obligation to Comply with Title I Requirements

9.0 STANDARD PERMIT CONDITIONS 53

9.1 Effect of Permit
9.2 General Obligations of Permittee
9.3 Obligation to Allow Illinois EPA Surveillance
9.4 Obligation to Comply with Other Requirements
9.5 Liability
9.6 Recordkeeping
9.7 Annual Emissions Report
9.8 Requirements for Compliance Certification
9.9 Certification
9.10 Defense to Enforcement Actions
9.11 Permanent Shutdown
9.12 Reopening And Reissuing Permit For Cause
9.13 Severability Clause
9.14 Permit Expiration and Renewal

10.0 ATTACHMENTS

10.1 Attachment 1 - Example Certification by a Responsible Official 1-1

1.0 SOURCE IDENTIFICATION

1.1 Source

The Dow Chemical Company
26332 South Frontage Road
Channahon, Illinois 60410
815/423-2635

I.D. No.: 197800AAJ
Standard Industrial Classification: 3086, Plastic Foam Products
Secondary Classification: 2821, Organic Chemical Manufacturing

1.2 Owner/Parent Company

The Dow Chemical Company
26332 South Frontage Road
Channahon, Illinois 60410

1.3 Operator

The Dow Chemical Company
26332 South Frontage Road
Channahon, Illinois 60410

Julie Woodard
815/423-2635

1.4 General Source Description

The Dow Chemical Company is located at 26332 South Frontage Road in Channahon, Will County, Illinois. The source manufactures expanded polystyrene foam boards which are used as insulation in the building industry. Dow also manufactures polystyrene and vinyl ester resin and operates a storage distribution terminal for liquid chemicals.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Environmental Protection Act [415 ILCS 5/1 et seq.]
ACMA	Alternative Compliance Market Account
ATUs	Allotment Trading Units
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
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CFR	Code of Federal Regulations
ERMS	Emission Reduction Market System
°F	degrees Fahrenheit
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
kg	kilogram
kW	kilowatts
lb	pound
MACT	Maximum Available Control Technology
MG	Megagram
mmBtu	Million British thermal units
mo	Month
NESHAP	National Environmental Standards for Hazardous Air Pollutants
non-VOM	Organic materials which are not ozone precursors
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
psia	pounds per square inch absolute
RMP	Risk Management Plan
SO_2	Sulfur Dioxide
T	Ton
TOC	Total Organic Compounds
USEPA	United States Environmental Protection Agency
VOM	Volatile Organic Material

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

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

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

Polystyrene feed hopper
Ethyl Chloride Storage Tank with Vapor Lock Balance System
Additive Transport System

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:

Two Recycle Polystyrene Hoppers
Recycle Silo
Steam Generator
Flexo Printer
HCFC-142b Storage Tank with Vapor Lock Balance Recovery System

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

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

Printing operations with aggregate organic solvent usage that never exceeds 750 gallons per year from all printing lines at the source, including organic solvent from inks, dilutents, fountain solutions, and cleaning materials [35 IAC 201.210(a)(14)].

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

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 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 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. 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.

3.2.3 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 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

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
Storage Tanks B310, B320, B330, B340, B440, C890, E1120	Terminal - Tanks Vented to Condensers	1982	Condensers
Other Storage and Blending Tanks (~ 60)	Terminal – Tanks Not Vented to Condensers	1982	None
Loading and Unloading Racks	Both Railcar and Tank Trucks	1982	Vapor Balance for Some Tanks, Scrubber for Odorous Materials
V-1001, V-1030, V-601, TV-152, TV-1200, V-211, V-225, V-230, V-240, TV-156, Vacuum Vent	Polystyrene Process Unit Ducted to Common Vent	1974	Firebox of Dowtherm Heater (PS)
ME-740, 741, 742	Dies	1974	Demister
TV-155, TV-114, V-901, V-902, V-1070, V-1021, V-930, V-112, Tank Truck Loading	Polystyrene Process Uncontrolled Units	1974	
Dowtherm Heater (PS)	Gas-Fired 10.0 mmBtu/hr	1974	Firebox is Control for Process
Fugitive Leaks			LDAR
VT-1, RD-20, R-21, R-22, BT-23, BT-24, VT-30 TP 34, 36, 37	Vinyl Ester Resin Units Vented to Control	1976	Chilled Scrubber

Emission Unit	Description	Date Constructed	Emission Control Equipment
VT-2, VT-3, VT-6, VT-7, VT-51, VT-70, D-20, Drumming, Tank Truck Loading, Railcar Loading, Fugitive Leaks	Vinyl Ester Resin Uncontrolled Units	1976	None
Dowtherm Heater (VER)	Gas-Fired 6.0 mmBtu/hr	1976	None
019	Polystyrene Silo	1981	----
024	Recycle Hopper	1981	Baghouse
025	Plastic (Foam) Processing	1981	----
029	Foam Warehouse	1981	----

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

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

5.2 Applicable Regulations

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

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

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

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

c. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

d. Many processes listed in the unit-specific conditions in Section 7 are subject to 35 IAC 212.321(a). It is written in detail here any reference made to it in Section 7, where appropriate. This rule states that: No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction and modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified below of 35 IAC 212.321 [35 IAC 212.321(a)].

The emissions of particulate matter into the atmosphere in any one hour period from each of the affected coating lines shall not exceed the allowable emission rates specified in the following equation:

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

P = Process weight rate in metric or English tons per hours; and

E = Allowable emission rates in kilograms or pounds per hour.

and

A = 2.54

B – 0.534

e. Emissions of VOM from all combined emission units at this source that are subject to 35 IAC 218 Subpart RR and not controlled shall not exceed 5.0 tons per calendar year in order to meet the exemption level in 35 IAC 218.960(d). Limits of 1.0 tons per calendar year per individual emission units are specified in sections that follow but this combined limit includes units from two separate sections.

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

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

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

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

5.2.4 a. This stationary source, as defined in 40 CFR Section 68.3, is subject to 40 CFR Part 68, the Accidental Release Prevention regulations [40 CFR 68.215(a)(1)].

b. The owner or operator of a stationary source shall revise and update the RMP submitted, as specified in 40 CFR 68.190.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

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

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	249.0
Sulfur Dioxide (SO_2)	4.5
Particulate Matter (PM)	31.0
Nitrogen Oxides (NO_x)	8.1
HAP, not included in VOM or PM	20.0
TOTAL	312.6

5.5.2 Other Source-Wide Emission Limitations

The permitted VOM emissions for fee purposes of 249 tons/yr also represents a limit established to prevent the installation of this process from being a major modification pursuant to the PSD rules, 40 CFR 52.21.

Will County is now classified as part of the Chicago Metropolitan Area nonattainment area, but at the time when Dow obtained the construction permit (March, 1978) the area was classified as attainment for ozone. 35 IAC 203 was not in effect at that time.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

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

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

5.6.2 Retention and Availability of Records

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

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

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

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

5.7.2 Annual Emissions Report

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

5.8 General Operational Flexibility/Anticipated Operating Scenarios

This process emits VOM and non-VOM blowing agents that are introduced in one step of the process but may be emitted at any of three downstream processes including storage. These blowing agents may be changed provided that total VOM does not exceed the limit in Condition 5.5.1. The Illinois EPA must be notified if the HAP material in the blowing agent is changed to another HAP material.

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating VOM and non-VOM Emissions

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

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

The computer model described in Exhibit 220-6 of the application and also used in determination of the ERMS baseline may be used to determine VOM, HAP, and non-VOM emissions from the foam board manufacturing process.

5.10 Special Permit Shield

N/A

6.0 EMISSION REDUCTION MARKET SYSTEM (ERMS)

6.1 Description of ERMS

The ERMS is a “cap and trade” market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to 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 hold to other sources or participants (35 IAC 205.630).

6.2 Applicability

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

6.3 Obligation to Hold Allotment Trading Units (ATUs)

a. Pursuant to 35 IAC 205.150(c)(1) and 205.720, and as further addressed by condition 6.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than the ATU equivalent of its VOM emissions during the preceding seasonal allotment period (May 1 - September 30) not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.4.

i. VOM emissions from the polystyrene manufacturing process (Section 7.7), the vinyl ester manufacturing process (Section 7.3) or the storage terminal (Section 7.1). These processes are included in the CAAPP permit only because of HAP emissions.

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

iii. 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;

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

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

vi. 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.

6.4 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.

6.5 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.

6.6 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 205.750(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.

6.7 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.

6.8 Allotment of ATUs to the Source

a. i. The allotment of ATUs to this source is 742 ATUs per seasonal allotment period.

ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 84.3 tons.

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

B. This determination includes adjustment to actual emissions to account for voluntary over-compliance at the source, e.g., a reduction in use of blowing agent per unit of production, pursuant to 35 IAC 205.320(d) as further addressed in Section 7 of this permit.

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

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

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

b. Contingent Allotments for New or Modified Emission Units

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.

6.9 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.

d. The ERMS program does not include the polystyrene manufacturing process (Section 7.7), the vinyl ester manufacturing process (Section 7.3), or the storage terminal (Section 7.9). Therefore, the records specified in Condition 6.9(a) are not required for those operations.

6.10 Federal Enforceability

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

6.11 Exclusions from Further Reductions

a. VOM emissions from the following emission units, if satisfying subsection (a)(i), (a)(ii), or (a)(iii) prior to May 1, 1999, shall be excluded from the VOM emissions reductions requirements specified in IAC 205.400(c) and (e) as long as such emission units continue to satisfy subsection (a)(i), (a)(ii), or (a)(iii) [35 IAC 205.405(a)]:

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

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

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

The source has demonstrated in their ERMS application and the Illinois EPA has determined that the following emission units qualifies for exclusion from further reductions because they meet the criteria as indicated above [35 IAC 205.400(a) and (c)]:

None

b. VOM emissions from the emission units using BAT for controlling VOM emissions, prior to May 1, 1999, shall not be subject to the VOM emissions reductions requirements specified in IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in their ERMS application and the Illinois EPA has determined that the following emission units qualifies from further reductions because these emission units use BAT for controlling VOM emissions as indicated above [35 IAC 205.400(b) and (c)]:

None

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit Storage Terminal
Control Five Tanks Controlled by Refrigerated Condenser

7.1.1 Description

The Permittee also operates a Midwest bulk liquid distribution facility at the site. Materials are received by barge, rail or trucks, unloaded into storage tanks, and then loaded for distribution, primarily by truck. VOM emissions result from breathing, working, and loading losses. Although some tanks may be dedicated to one material, the Permittee has the flexibility to store various materials in the tanks provided that the tank is in compliance with applicable requirements.

7.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Storage Tanks B310, B320, B330, B340, B440, C890, E1120	Tanks Vented to Condensers	Condensers
Other Storage and Blending Tank (~ 60)	Not Vented to Condensers	None
Loading and Unloading Racks	Both Railcar and Tank Trucks	Vapor Balance for the following: Tanks: V210, V230, V310, V320, V330, V440, V890, and V1120. Scrubber for Odor Control for Loading out of Tank V610 and V640 Only.

7.1.3 Applicability Provisions and Applicable Regulations

a. An “affected storage terminal” for the purpose of these unit specific conditions is a terminal consisting of loading and unloading racks and storage tanks for liquid chemicals, primarily organic chemicals. The tank and racks are identified in Condition 7.1.2.

b. The racks and storage tanks are subject to 35 IAC 218.122, which states that:

i. No person shall cause or allow the discharge of more than 8 lbs/hr of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading area having throughput of greater than 40,000 gal/day into any railroad tank car, tank truck, or trailer unless such loading area is equipped with submerged loading pipes or a device that is equally effective in controlling emissions and is approved by the Illinois EPA according to the provisions of 35 IAC 201, and further processed consistent with Section 218.108.

ii. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gallon, unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201, and further processed consistent with Section 218.108, or unless such tank is a pressure tank as described in Section 218.121(a) or is fitted with a recovery system as described in Section 218.121(b)(2).

iii. Exception: If no odor nuisance exists the limitations above shall only apply to the loading of VOL with a vapor pressure of 2.5 psia or greater at 70°F. Of the current chemicals handled only one material is a VOL with a vapor pressure above 2.5 psia. Materials with a potential odor problem are vented to a scrubber during loadout.

c. The control requirements for storage containers of VOL (35 IAC 218.120) apply if the exceptions in Section 218.119 do not apply. All of the tanks meet the exceptions (i.e., less than 40,000 gallons or vapor pressure below 0.5 psia if greater than 40,000 gallons) but one. Tank V440 is equipped with a refrigerated condenser which complies with Section 218.120(a)(4) which requires:

i. A closed vent system and control device respectively shall meet the following specifications:

A. The closed vent system shall be designed to collect all VOM vapors and gases

discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined by the methods specified in 40 CFR 60.485(c), incorporated by reference at Section 218.112(d).

B. The control device shall be designed and operated to reduce inlet VOM emissions by 95 percent or greater. In lieu of the 95 percent control requirement, the Permittee is employing the provision in Section 218.120(c) which states that if the control device was on the storage vessel prior to December 31, 1992, the control device is only required to reduce emissions by 90%.

7.1.4 Non-Applicability of Regulations of Concern

The NSPS for storage tanks, 40 CFR 60, Subpart K or Ka do not apply because the tank size and vapor pressure exempt them from applicability. The tanks were constructed prior to applicability of Subpart Kb.

7.1.5 Control Requirements or Operational and Production Limits and Work Practices

a. The refrigerated condenser in Tank V440 shall be operated to reduce VOM emissions by 90%.

b. The scrubber used when loading ethylenediamine and triethylenetetramine shall be operated to prevent odor complaints.

c. Loading of materials from storage tanks V210, V230, V310, V320, V330, V440, V890, and V1120 shall be done using vapor balance lines.

d. All control devices shall be operated in accordance with manufacturers recommended practices and maintained in proper working condition.

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected storage terminal is subject to the following:

Emissions from the affected storage terminal shall not exceed the following limits [T1]:

Emissions (ton/month)	Emissions (ton/year)
7.5	80.0

These limits are based on the use of AP-42 emission factors for loading and storage tanks.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

The above limitations were established in Construction Permit 79050019, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203.

7.1.7 Operating Requirements

None

7.1.8 Monitoring Requirements

The Permittee shall monitor the temperature of the condenser inlet on Tank V440.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank and loading rack to demonstrate compliance with Conditions 5.5.1 and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

a. Daily recording of temperature in Tank V440 condenser inlet (°F);

b. Throughput of each material and storage tank in which it is stored (pounds or gallons per month);

c. MSDS or other information source showing the vapor pressure of each material;

d. VOM and HAP emissions; and

e. Dimensions of each storage tank and calculation of volume of tank.

7.1.10 Reporting Requirements

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

Storage of a material in a tank which does not comply with Condition 7.1.3.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

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

The Permittee may vary the type and quantity of materials stored without prior approval provided the tank is in compliance with Condition 7.1.3 for the material stored and emissions do not exceed Condition 5.5.1 or 7.1.6.

7.1.12 Compliance Procedures

VOM and HAP emissions shall be calculated using TANKS3 and AP-42 emission factors for loading and breathing losses.

7.2 Unit Polystyrene Plant
Control Fuel Combustion Unit and Filter

7.2.1 Description

Polystyrene is a polymer of styrene so that in the reactors there is a cross-linking between styrene molecules but not a reaction between two different materials. A small amount of rubber improves the impact quality of the product. Ethylbenzene and mineral oil are initially added but do not react and are removed after the reaction. The common vent units are in compliance by venting to the fire box of the Dowtherm heater. The product is a solid (pellets).

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
V-1021, V-1030, V-601, V-611, TV-152, TV-1200, V-211, V-225, V-230, V-240, TV-156, Vacuum Vent	Unit Ducted to Common (Vacuum) Vent	Fire Box of Dowtherm Heater
ME-740, 741, 742	Dies	Demister
TV-155, TV-114, V-901, V-902, V-1070, TV-110, V-930, V-112, Tank Truck Loading	Uncontrolled Units	
Dowtherm Heater	Gas-Fired 10.0 mmBtu/hr	Firebox is Control for Process
Fugitive Leaks		LDAR

7.2.3 Applicability Provisions and Applicable Regulations

a. An “affected polystyrene plant”, for the purpose of these unit specific conditions is a process line that includes any of the various pieces of equipment listed in Condition 7.2.2.

b. The polystyrene process was subject to the NESHAP for Group IV polymers, 40 CFR 63 Subpart JJJ (Group IV Polymers and Resins). This includes an LDAR Program. On June 30, 1999 the USEPA placed an indefinite stay on the compliance dates for this NESHAP, excluding the LDAR program. Thus 7.2.3(b)(iii) listed below is not effective as of the date of issuance of this permit but will be if the USEPA repromulgates the rule with a new effective date. The requirements upon

repromulgation may not be the same. Special provisions include the following:

i. Due to vapor pressure specifications, all storage vessels are classified as Group 2 storage vessels.

ii. A. For the LDAR program, 40 CFR 63 Subpart JJJ incorporates the LDAR requirements of 40 CFR 63 Subpart H.

B. The Permittee shall also comply with the equipment leak provisions of 35 IAC 218 Subpart Q. However, compliance with Condition 7.2.3(b)(ii)(A) above which is more stringent shall be deemed compliance with this requirement.

iii. The specific provisions within 40 CFR 63 Subpart JJJ that for the common vent units the Permittee demonstrates compliance is Section 63.1316(c)(iii)(A). This rule requires that TOC emissions be reduced by 98 weight percent or to a concentration of 20 ppmv on a dry basis, whichever is less stringent. If an owner or operator elects to comply with the 20 ppmv standard, the concentration shall include a correction to 3 percent oxygen only when supplemental combustion air is used to combust the emissions. (See comment above about a delay in implementation of this rule or a possible revised rule.) The Permittee agrees to comply with this rule but noncompliance would not be a NESHAP violation.

iv. The units in Condition 7.2.2 (excluding fugitive leaks) not ducted to a common vent are exempt from control for the following reasons:

A. TV-114, TV-155, and V-1070 are exempt pursuant to 40 CFR 63.1314(d) which states that the provisions of Section 63.1314 do not apply to storage vessels containing styrene or ethylene glycol at existing affected sources.

B. TV-110, V-112, V-901, and V-902 are not storage vessels as defined in Section 63.1312.

C. V-930 is a Group 2 storage vessel as defined in Section 63.1312.

D. Tank truck loading is not a thermoplastic product process unit as defined in Section 63.1312.

c. VOM emissions from the material recovery section (vacuum vent) shall not exceed 0.12 kg of VOM per 1,000 kg of polystyrene produced (0.12 pounds of VOM per 1,000 pounds of polystyrene). Compliance with Condition 7.2.3(b)(iii), although not a NESHAP requirement because of the stay, shall be deemed compliance with this limit (35 IAC 218.642).

d. No person shall cause or allow the emission of more than 8 lb/hr of organic material into the atmosphere from any emission unit unless controlled by a thermal or catalytic incinerator which reduces emissions by 85%. If no odor nuisance exists, the limitations shall only apply to photochemically reactive material (35 IAC 218.301 and 218.302).

Styrene is a photochemically reactive material. Compliance with Condition 7.2.3(b)(iii) shall be deemed compliance with this limit.

e. Continuous emission units within the polystyrene process other than the material recovery section are subject to 35 IAC 218 Subpart RR as explained in Section 218.960(b)(1). However, the Permittee qualifies those units under the exemption in Section 218.960(d). Emissions from those units shall not exceed 1.0 ton per calendar year and from all units included with the exemption not exceed 5.0 tons per calendar year. Continuous units other than the material recovery section does not include storage tanks or tank truck loading.

f. The movement of product, polystyrene pellets, by air conveyors is subject to 35 IAC 212.321(a). This rule is written out in Condition 5.2.2(d). The pellets are not considered to be emitters of VOM.

7.2.4 Non-Applicability of Regulations of Concern

a. The material recovery section of the polystyrene process is not subject to 35 IAC 218 Subpart RR: Miscellaneous Organic Chemical Manufacturing Processes because Section 218.960(a)(1) states that units

subject to 35 IAC 218 Subpart BB are not subject to Subpart RR.

b. The polystyrene process is not subject to 40 CFR 60 Subpart DDD, NSPS for Polymer Manufacturing, because:

i. The process was constructed prior to the applicability date of January 10, 1989; and

ii. Units that were subject to both the NSPS and NESHAP are now subject to only the NESHAP cited in Condition 7.2.3(b). The process control requirements of this rule have been stayed.

c. Storage tanks are not subject to 35 IAC 218.120 because the applicability requirements in Section 218.119 exempt tanks due to the vapor pressure and/or tank volume. The tanks are exempt from 35 IAC 218.122(b) due to the vapor pressure exemption in Section 218.122(c).

d. The Dowtherm heater is not subject to 35 IAC 216.121, which states that CO emissions shall not exceed 200 ppm because the heat input is less than 10 mmBtu/hr.

7.2.5 Control Requirements

The firebox of the Dowtherm heater shall be operated so as to reduce incoming TOC or HAP emissions by 98 weight percent or to concentration of 20 parts per million by volume (ppmv) on a dry basis, whichever is less stringent (40 CFR 63.1316(c)(1)(iii)(A)).

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected polystyrene plant is subject to the following:

N/A

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.2.7 Testing Requirements

a. Upon request by the Illinois EPA, the emissions from the common vent shall be tested to verify that they

continue to meet compliance with Condition 7.2.3(b)(iii) and 7.2.3(c).

b. The Permittee shall conduct an LDAR program as required by 40 CFR 63 Subpart H and Condition 7.2.3(b)(ii) employing USEPA Method 21.

7.2.8 Monitoring Requirements

a. Vacuum vent temperature (°C).

b. Vacuum vent pressure (psia).

c. Dowtherm heater combustion temperature (°C).

d. Blower functioning on demister (on/off).

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected polystyrene process to demonstrate compliance with Conditions 5.5.1, 7.2.3, and 7.2.7, pursuant to Section 39.5(7)(b) of the Act:

a. Items monitored in Condition 7.2.8.

b. Results of LDAR testing and repair of components found leaking.

c. VOM and HAP emissions.

d. A record of any past firebox destruction efficiency tests must be kept beyond the 5 years specified by Condition 9.6.3. Results of past tests must be kept until another test is performed or 15 years

e. Due to the small size of the Dowtherm heater, gas usage to this particular unit does not have to be metered but may be estimated based on percentages of plant total and heat demand.

7.2.10 Reporting Requirements

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

a. Noncompliance with Condition 7.2.3(b)(iii).

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

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

Use of different raw materials that affect the properties of the polystyrene but not emissions from the process.

7.2.12 Compliance Procedures

a. Storage tanks and loading emissions calculated using TANKS3 or AP-42 emission factors.

b. Polystyrene manufacturing: use of factors from previous testing and engineering calculations.

c. Dowtherm heater

Emissions from the affected boilers burning natural gas shall be calculated based on previous emissions testing or the use of the following factors:

Pollutant	Emission Factor ($lb/10^6$ ft^3)
CO	84
PM	7.6
NO_x	100
SO_2	0.6
VOM	5.5

These are the emission factors for uncontrolled natural gas combustion in small industrial boilers (0.3 - < 100 mmBtu/hr), Tables 1.4-1 and 1.4-2m AP-42, 5th Edition, March, 1998. VOM emission factor based on Total Organic Carbon (TOC) factor corrected for 52% methane.

Boiler Emissions (lb) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor.

7.3 Unit Vinyl Ester Resin Plant Control Scrubber

7.3.1 Description

The vinyl ester resin plant has low emissions but the principal material is styrene, a HAP. The one control device is a scrubber which uses chilled styrene as the scrubbant. Numerous vents are ducted to the scrubber. Total VOM emissions after control are typically less than 2 tons/yr, with VOM from uncontrolled units less than 1.0 tons/yr.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
VT-1, RD-20, R-21, R-22, BT-23, BT-24, VT-30 TO 34, 36, 37	Units vented to control	Chilled Scrubber
VT-2, VT-3, VT-6, VT-7, VT-70, VT-51, D-20, Drumming Tank, Truck Loading, Tote Loading, Railcar Loading, Fugitive Leaks	Uncontrolled Units	None
Dowtherm Heater	Gas-Fired 6.0 mmBtu/hr	None

7.3.3 Applicability Provisions and Applicable Regulations

a. An “affected vinyl ester resin plant” for the purpose of these unit specific conditions is a process consisting of the units listed in Condition 7.3.2 excluding the Dowtherm heater.

i. The vinyl ester resin process is subject to 35 IAC 218 Subpart V, Batch Operations.

A. Within Section 218.500(c) are two levels of operation defined as de minimis and exempted from the control requirements of Section 218.501. The Permittee has control equipment that complies with Section 218.501(a), although the entire process may qualify for the exemption in Section 218.500(c)(2) of uncontrolled VOM emissions of less than 15 ton/year.

B. 35 IAC 218.501(a) requires that the control equipment reduce VOM emissions by an overall average efficiency of 90 percent, or ppmv, per batch cycle.

C. The Permittee has not used the provision in 35 IAC 218.501(c) that states that if control equipment was operated prior to March 15, 1995 and can demonstrate that 90% control cannot be achieved, that 81% control is acceptable until the control device is replaced.

D. The units in Condition 7.3.2 that are not controlled are not part of the batch process but are storage, loading, and drumming operations.

ii. No person shall cause or allow the emission of more than 8 lb/hr of organic material into the atmosphere from any emission unit unless controlled by a thermal or catalytic incinerator which reduces emission by 85%. If no odor nuisance exists, the limitations shall only apply to photochemically reactive material. (35 IAC 218.301 and 218.302).

Styrene, the principal VOM emitted, is a photochemically reactive material.

Compliance with condition 7.3.3(a)(i) shall be deemed compliance with this limit.

b. Malfunction and Breakdown Provisions

In the event of a malfunction or breakdown of the chilled scrubber, the Permittee is authorized to continue operation of the batch vinyl ester resin process in violation of the applicable requirement of 35 IAC 218.501, as necessary to prevent risk of injury to personnel or severe damage to equipment. This authorization is subject to the following requirements:

i. The Permittee may complete processing of the materials in the equipment vented to the chilled scrubber at the time of the breakdown, but no new batch of materials may begin until the chilled scrubber is functioning in its normal temperature and flow rate range.

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

7.3.4 Non-Applicability of Regulations of Concern

a. The vinyl ester resin process is not subject to 35 IAC 218 Subpart RR, Miscellaneous Organic Chemical Manufacturing Processes because 35 IAC 218.960(a)(1) and (b)(1)(A) both state that emission units that are regulated by 218 Subpart V are not regulated by Subpart RR. This process is regulated by Subpart V.

b. The vinyl ester resin process is not subject to any NSPS or NESHAP regulations because none of the chemicals produced are listed in tables of those rules as follows:

Specific Rule	Process Type	Table of Affected Chemicals
40 CFR 60, Subpart RRR	SOCMI Reactor Processes	Section 60.707
40 CFR 63, Subparts F, G, and H	Hazardous Organic NESHAP	Table 1 in Subpart F

7.3.5 Control Requirements

The scrubber shall be operated as a chilled unit with the temperature necessary to control emissions by a minimum of 90%.

7.3.6 Emission Limitations

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

Emissions of VOM from VT-2, VT-3, VT-51 and D-20 shall not exceed 1.0 tons per calendar year from each individual unit. See also Condition 5.2.2(e) which limits combined emissions from these units and others.

7.3.7 Testing Requirements

Upon written request from the Illinois EPA, the control efficiency of the scrubber shall be determined to verify compliance with Condition 7.3.3(a) or the emissions from VT-2, VT-3, VT-31 or D-20 determined to verify that they

continue to meet the individual or combined exemption levels from requiring control.

7.3.8 Monitoring Requirements

The Permittee shall continuously monitor the temperature of the scrubbant used in the scrubber.

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected vinyl ester resin process to demonstrate compliance with conditions 5.5.1, 7.3.3 and 7.3.8, pursuant to Section 39.5(7)(b) of the Act:

a. Scrubbant temperature (°C);

b. VOM and HAP emissions (lb/mo);

c. A record of any past scrubber efficiency test must be kept beyond the 5 years specified in Condition 9.6.3. Results of past tests must be kept until another test is performed or 15 years.

d. If no new batches are begun after malfunction or breakdown of the chilled scrubber, only the date and time of the event and number of batches in process that were completed need be recorded.

7.3.10 Reporting Requirements

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

a. Scrubber temperature far enough above normal such that 90% efficiency is not achieved.

b. If a new batch was begun while the chilled scrubber was in a period of malfunction and breakdown.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

a. For vinyl ester resin process:

   Use of past scrubber efficiency test and engineering calculations. Emissions from this entire process, including storage, loading and fugitive leaks are typically less than 3.0 tons/year.

b. Storage tanks and loading losses are determined by use of AP-42 emission factors.

c. Fugitive emissions are determined from historical monitoring data.

7.4 Unit: Recycle Hopper
Control: Baghouse

7.4.1 Description

Plastic shavings are airveyed into a baghouse, which then fall into a hopper and are augured out. The shavings contain the VOM and/or non-VOM blowing agents which are continuously emitted. Control is for PM only, not VOM.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
024	Recycle Hopper with Baghouse	None. Since the baghouse is an integral part of product recovery it is not classified as a control device but operational requirements are the same whether control device or not.

7.4.3 Applicability Provisions and Applicable Regulations

a. An “affected recycle hopper” for the purpose of these unit-specific conditions is a system identified in Condition 7.7.2. The system is subject to 35 IAC 212.321(a), which is written out in Condition 5.2.2(d).

b. The owner or operator of this emission unit shall not cause or allow the discharge of more than 8 lb/hr of organic material into the atmosphere. If no odor nuisance exists, this limitation shall apply only to photochemically reactive material, pursuant to the definition in 35 IAC 211.4690. (35 IAC 218.301).

7.4.4 Non-Applicability of Regulations of Concern

Part 218 Subpart TT. Qualifies for exemptions stated in 35 IAC 218.980(f).

7.4.5 Control Requirements

Process is shutdown in an orderly manner if a bag break occurs.

7.4.6 Emission Limitations

None

7.4.7 Operating Requirements

Process is shutdown in an orderly manner if a bag break occurs.

7.4.8 Inspection Requirements

Daily visual observation of stack for indication of bag break. An observation is not required on days when the system is not operating.

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected recycle hopper to demonstrate compliance with Conditions 5.5.1 and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

a. Daily stack observation.

b. Material throughput (lb/mo).

c. VOM emissions (lb/mo).

d. Non-VOM emissions (lb/mo).

e. HAP emissions (lb/mo).

f. PM emissions (lb/mo).

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected recycle hopper 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:

Continued operation after bag break.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

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

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

This process emits VOM and non-VOM blowing agent materials that have been introduced elsewhere into the process. These blowing agents may be changed provided that total VOM does not exceed the limit in Condition 5.5.1 and 7.4.6. The Illinois EPA must be notified if the HAP material in the blowing agent is changed.

7.4.12 Compliance Procedures

a. Operation with intact bags assures compliance with PM limits.

b. Emissions of VOM and HAPs are determined from plant specific emission factors developed for this process. These factors are based on a material balance for various grades of products and various ambient temperatures.

7.5 Unit: Foam Processing
Control: None

7.5.1 Description

The polystyrene beads and additives from a conveyor enter an extrusion system where they mixed and a blowing agent added under high pressure. As the materials leave the extrusion system the lower pressure causes the dissolved blowing agent to expand or foam into a continuous board that is then cut to desired lengths.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
025	Foams Processing	None

7.5.3 Applicability Provisions and Applicable Regulations

The owner or operator of this emission unit shall not cause or allow the discharge of more than 8 lb/hr of organic material into the atmosphere. If no odor nuisance exists, this limitation shall apply only to photochemically reactive material, pursuant to the definition in 35 IAC 211.4690. (35 IAC 218.301).

7.5.4 Non-Applicability of Regulations of Concern

Part 218 Subpart TT. Qualifies for exemption stated in IAC 218.980(f).

7.5.5 Control Requirements

None

7.5.6 Emission Limitations

None

7.5.7 Operating Requirements

None

7.5.8 Inspection Requirements

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for affected foam process to demonstrate compliance with Conditions 5.5.1 and 7.5.6, pursuant to Section 39.5(7)(b) of the Act:

a. Blowing agent usage (ton/mo);

i. VOM Type

ii. Non-VOM Type

iii. HAP Content

b. Production (board-feet/mo); and

c. PM, VOM , non-VOM, and HAP emissions (ton/mo).

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected recycle hopper 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 preventative measures taken:

None

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

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

The blowing agents are introduced to the entire process in this step and this determines the type of downstream emissions. These blowing agents may be changed provided that total VOM does not exceed the limit in Condition 5.5.1. The Illinois EPA must be notified if the HAP material in the blowing agent is changed.

7.5.12 Compliance Procedures

a. Normal operation assures compliance with PM limits.

b. Emissions of VOM and HAPs are determined from plant specific emission factors developed for this process. These factors are based on a material balance for various grades of products and various ambient temperatures.

7.6 Unit: Foam Warehouse and Outside Storage
Control: None

7.6.1 Description

Plastic foam is stored until shipped to customer.

7.6.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
029	Foam Warehouse and Outside Storage	None

7.6.3 Applicability Provisions and Applicable Regulations

The owner or operator of this emission unit shall not cause or allow the discharge of more than 8 lb/hr of organic material into the atmosphere. If no odor nuisance exists, this limitation shall apply only to photochemically reactive material, pursuant to the definition in 35 IAC 211.4690. (35 IAC 218.301).

7.6.4 Non-Applicability of Regulations of Concern

Part 218 Subpart TT. Qualifies for exemption stated in IAC 218.980(f). The only PM emissions are fugitive emissions from road dust. The product is usually wrapped in plastic film.

7.6.5 Control Requirements

None

7.6.6 Emission Limitations

None

7.6.7 Operating Requirements

None

7.6.8 Inspection Requirements

None

7.6.9 Recordkeeping Requirements

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

Conditions 5.5.1 and 7.6.6, pursuant to Section 39.5(7)(b) of the Act:

a. Month-end inventory; and

b. VOM and HAP emissions.

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected foams process 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:

None

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

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

This process emits VOM and non-VOM blowing agent materials that have been introduced elsewhere into the process. These blowing agents may be changed provided that total VOM does not exceed the limit in Condition 5.5.1. The Illinois EPA must be notified if the HAP material in the blowing agent is changed.

7.6.12 Compliance Procedures

Emissions of VOM and HAPs are determined from plant specific emission factor developed for this process. These factors are based on a material balance for various grades of products and various ambient temperatures. The computer model described in Exhibit 220-6 of the application shall be used.

7.7 Unit: Polystyrene Silo
Control: None

7.7.1 Description

Storage silo for plastic pellets

7.7.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
0019	Polystyrene Silo	None

7.7.3 Applicability Provisions and Applicable Regulations

An “affected polystyrene silo” for the purpose of these unit-specific conditions is a system identified in Condition 7.7.2. The system is subject to 35 IAC 212.321(a), which is written out in Condition 5.2.2(d).

7.7.4 Non-Applicability of Regulations of Concern

Part 218 - This equipment handles solid materials (in pellet form) prior to addition of a blowing agent and is not considered to be an emitter of VOM.

7.7.5 Control Requirements

None

7.7.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected polystyrene silo is subject to the following:

7.7.7 Operating Requirements

None

7.7.3 Inspection Requirements

None

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the polystyrene silo to demonstrate compliance with Conditions 5.5.1 and 7.7.6, pursuant to Section 39.5(7)(b) of the Act:

a. Throughput of pellets (ton/mo); and

b. Hours of operation (receiving, hours/mo).

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected silo 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:

Operation in excess of design capacity of the system.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

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

The silo may be loaded into from trucks and cartons as well as from railroad cars. The rate from trucks may be higher than railroad cars but within its design capacity.

7.7.12 Compliance Procedures

Operation within design capacity assures compliance.

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 as of the date the proposed permit for this source was issued. This shield is granted based on the Illinois EPA's review of the permit application for this source and its determination that all applicable requirements are specifically identified in this permit. If the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to the source, the Illinois EPA's written determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after June 19, 1999 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

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

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.3 Emissions Trading Programs

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

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

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

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA, emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change and the Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change [Section 39.5(12)(a) of the Act]. This notice shall:

a. Describe the physical or operational change;

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

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

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

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

8.5 Testing Procedures

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

8.6 Reporting Requirements

8.6.1 Monitoring Reports

A report summarizing required monitoring as specified in the conditions of this permit shall be submitted to the

Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

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

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

8.6.2 Test Notifications

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

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

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

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

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

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

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

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

8.6.3 Test Reports

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

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

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

c. The date any analyses were performed;

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

e. The test and analytical methodologies used;

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

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

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

8.6.4 Reporting Addresses

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

i. Illinois EPA - Air Compliance Section

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

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
Eisenhower Tower
1701 South First Avenue
Maywood, Illinois 60153

iii. Illinois EPA - Air Permit Section (MC 11)

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

iv. USEPA Region 5 - Air Branch

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

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

8.7 Obligation to Comply with Title I Requirements

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

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

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

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

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

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

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

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

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

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

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

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(p)(ii) of the Act]:

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

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

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

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

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

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

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

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

9.4 Obligation to Comply With Other Requirements

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

9.5 Liability

9.5.1 Title

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

9.5.2 Liability of Permittee

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

9.5.3 Structural Stability

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

9.5.4 Illinois EPA Liability

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

9.5.5 Property Rights

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

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

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

9.6.3 Retention of Records

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

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

9.7 Annual Emissions Report

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

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit 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 Section, 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 [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

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

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

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

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

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

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

9.11 Permanent Shutdown

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

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

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

9.12.2 Reopening and Revision

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

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

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

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

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

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee

shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

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

9.14 Permit Expiration and Renewal

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

10.0 ATTACHMENTS

10.1 Attachment 1 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: _____

DGP:jar

PROJECT SUMMARY

I. INTRODUCTION

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

The Dow Chemical Company is located at 26332 Frontage Road in Channahon, Will County, Illinois. The source manufactures expanded polystyrene foam boards which are used as insulation in the building industry. Dow also manufactures polystyrene and vinyl ester resin and operates a storage distribution terminal for liquid chemicals.

II. PROCESS DESCRIPTION

Significant emission units at this source are as follows:

Emission Unit	Description	Emission Control Equipment
Storage Tanks B310, B320, B330, B340, B440, C890, E1120	Terminal - Tanks Vented to Condensers	Condensers
Other Storage and Blending Tanks (~ 60)	Terminal – Tanks Not Vented to Condensers	None
Loading and Unloading Racks	Both Railcar and Tank Trucks	Vapor Balance for Some Tanks, Scrubber for Odor (One Tank)
019	Polystyrene Silo	----
022	Additive Transport System	Filter
024	Recycle Hopper	Baghouse
025	Plastic (Foam) Processing	----
029	Foam Warehouse	----
V-1001, V-1030, V-601, TV-152, TV-1200, V-211, V-225, V-230, V-240, TV-156, Vacuum Vent	Polystyrene Process Unit Ducted to Common Vent	Firebox of Dowtherm Heater (PS)
ME-740, 741, 742	Dies	Demister
TV-155, TV-114, V-901, V-902, V-1070, V-1021, V-930, V-112, Tank Truck Loading	Polystyrene Process Uncontrolled Units	

Emission Unit	Description	Emission Control Equipment
Dowtherm Heater (PS)	Gas-Fired 10.0 mmBtu/hr	Firebox is Control for Process
Fugitive Leaks		LDAR
VT-1, RD-20, R-21, R-22, BT-23, BT-24, VT-30 TP 34, 36, 37	Vinyl Ester Resin Units Vented to Control	Chilled Scrubber
VT-2, VT-3, VT-6, VT-7, VT-51, VT-70, D-20, Drumming, Tank Truck Loading, Railcar Loading, Fugitive Leaks	Vinyl Ester Resin Uncontrolled Units	None
Dowtherm Heater (VER)	Gas-Fired 6.0 mmBtu/hr	None

III. EMISSIONS

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

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

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	249.0
Sulfur Dioxide (SO_2)	4.5
Particulate Matter (PM)	31.0
Nitrogen Oxides (NO_x)	8.1
HAP, not included in VOM or PM	20.0
TOTAL	312.6

IV. APPLICABLE EMISSION STANDARDS

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

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

All emission sources in Illinois must comply with the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois

EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

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

Title I

In addition to the above conditions, a combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 – federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 – Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

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

VI. REQUEST FOR COMMENTS

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

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

DGP:95110022:jar