217/782-2113

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

PERMITTEE

GATX Terminals Corporation
Attn: Dennis Majerczak
8500 West 68th Street
Argo, Illinois 60501

Application No.: 95120128 I.D. No.: 031012AEA
Applicant's Designation: ARGO TERMINAL Date Received: December 26, 1995
Operation of: Bulk Storage Facility
Date Issued: July 11, 2000 Expiration Date[2]: July 11, 2005
Source Location: 8500 West 68th Street, Argo, Cook
Responsible Official: Louis J. Zimmerman, General Manager

This permit is hereby granted to the above-designated Permittee to OPERATE a bulk storage facility, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

Revision Date Received: August 15, 2000
Revision Date Issued: December 7, 2000
Purpose of Revision: Administrative Amendment

This administrative amendment clarifies the applicability of equipment in benzene service in regards to NESHAP. Because the changes in the permit were only administrative, no formal public notice was issued.

This document only contains those portions of the entire CAAPP permit that have been revised as a result of this permitting action. If a conflict exists between this document and previous versions of the CAAPP permit, this document supersedes those terms and conditions of the permit for which the conflict exists. The previous permit issued August 30, 2000 is incorporated herein by reference.

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

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

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

DES:YY:jar

cc: Illinois EPA, FOS, Region 1

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

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

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1.0 SOURCE IDENTIFICATION

1.1 Source

GATX Terminals Corporation
8500 West 68th Street
Argo, Illinois 60501
708/496-2862

I.D. No.: 031012AEA
Standard Industrial Classification: 4226, Public “For Hire” Bulk Liquid Storage Terminal

1.2 Owner/Parent Company

GATX Terminals Corporation
500 West Monroe Street
Chicago, Illinois 60661

1.3 Operator

GATX Terminals Corporation
8500 West 68th Street
Argo, Illinois 60501

Dennis Majerczak/Environmental, Health and Safety Manager
708/496-2862

1.4 General Source Description

The GATX Terminals Corporation – Argo Terminal is located at 8500 West 68th Street, Argo, Illinois. The source is a bulk storage facility.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ASTM	American Society for Testing and Materials
ATU	Allotment Trading Unit
BAT	Best Available Technology
bbl	barrel
Btu	British thermal unit
°C	degrees Celsius
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
cm	centimeter
cm^2	centimeter square
CMS	Continuous Monitoring System
CO	carbon monoxide
CPMS	Continuous Parametric Monitoring System
DSP	distilled spirits processing
EFR	External Floating Roof
ERMS	Emissions Reduction Market System
°F	degrees Fahrenheit
ft	foot
g mole	gram mole
gal	gallon
HAP	Hazardous Air Pollutant
hr	hour
I.D. No.	Identification Number of Source, assigned by Illinois EPA
IAC	Illinois Administrative Code
IFR	Internal Floating Roof
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
K	Kelvin
kcal	kilocalorie
kg	kilograms
kPa	kilopascal
kW	kilowatts
l	liter
LAER	Lowest Achievable Emission Rate
lb	pound
m	meter
m^3	meters cubed
MACT	Maximum Achievable Control Technology

mg	milligram
MJ	megajoule
mmHg	millimeters mercury
mmBtu	Million British thermal units
mo	month
MW	molecular weight
MW	megawatt
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
OSHA	U.S. Occupational Safety and Health Administration
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
psi	pounds per square inch
psia	pounds per square inch, absolute
RMP	Risk Management Plan
scf	standard cubic foot
scm	standard cubic meter
sec	second
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
T	ton
T1	Title I – identifies Title I conditions that have been carried over from an existing construction permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing construction permit and subsequently revised in this permit
UCC	Union Carbide Corporation
USEPA	United States Environmental Protection Agency
VAS	Vapor Assist System
VCS	Vapor Collection System
VCU	Vapor Combustor Unit
VOC	volatile organic compound
VOL	volatile organic liquid
VOM	Volatile Organic Material
vp	vapor pressure
VPL	volatile petroleum liquid
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

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

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

Gasoline Dispensing Unit
Oil/Water Separator

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:

Use of Portable Tote Tanks

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

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

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn

syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

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

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

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
See Attachment 1	Storage Tanks not Subject to NSPS and not Storing Gasoline Products	See Attachment 1	See Attachment 1
See Attachment 1	Storage Tanks Subject to NSPS and not Storing Gasoline Products	See Attachment 1	See Attachment 1
See Attachment 1	Storage Tanks Subject to NSPS and Storing Gasoline Products	See Attachment 1	See Attachment 1
Docks 1, 2, and 3	Marine Loadout		None
Loading Racks	Railcar and Tank Truck Loading/Unloading	See Attachment 1	VAS, Tank Accumulator, VCU, and/or Scrubbers, and/or None
Equipment Leaks	Fugitive VOM Emissions	-	-
3 Natural Gas Fired Boilers	100 mmBtu/Hr 30.7 mmBtu/Hr 10.3 mmBtu/Hr	1983 1990 1978	None

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

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

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

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.

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

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

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

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

5.2.4 Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or

b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

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)	399.70
Sulfur Dioxide (SO_2)	0.21
Particulate Matter (PM)	4.13
Nitrogen Oxides (NO_x)	95.64
HAP, not included in VOM or PM	01.01
TOTAL	499.69

5.5.2 Emissions of Hazardous Air Pollutants

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

5.5.3 Other Source-Wide Emission Limitations

The source shall not exceed the following limitations:

a. i. For storage tanks 25-1, 25-4, 25-6, UC-1 through UC-32, UC-101, UC-102, UC TOTE-1 through 5, UC TOTE-6 A and B, UC TOTE-7, UC TOTE-8 A through D, blending kettles K-250 and K-500, and UCC loading and unloading operations, but not including fugitive equipment leaks, drip pan losses, etc.:

Pollutant	Throughput (gal/yr)	Emissions (T/yr)
VOM	65,847,940	4.40

No material shall be stored in these tanks, except as specified in Conditions 7.1.6(a) and 7.2.6(b), with a vapor pressure greater than 1.0 psia at 70°F.

Any tank storing butyl acetate, butyl alcohol, ethyl acetate, isobutyl acetate, isobutyl alcohol, isopropyl acetate, methyl carbinol, methyl isobutyl ketone, methyl proposal acetate, primary amyl acetate, n-propyl acetate, n-propyl alcohol, or vinyl acetate shall vent all emissions through the VCU.

ii. For UCC DSP operations including blending kettles K-250, K-500, UC TOTE-1 through 5, UC TOTE-6 A and B, UC TOTE-7, and UC TOTE-8 A through D:

Pollutant	Throughput (gal of ethyl alcohol/yr)	Emissions (T/yr)
VOM	13,240,420	1.12

iii. The limits in Conditions 5.5.3(a)(i) and (ii) are limitations established in Permit 92020053, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203. [T1].

b. i. For storage tanks E-13, E-16, E-17, E-18, E-21, E-22, E-25, E-26, E-28, and E-29:

VOM Emissions (T/mo)	(T/yr)
0.1	0.9

ii. For storage tanks E-10, E-11, E-12, E-14, E-15, E-19, E-20, E-23, E-24, E-27, E-30 through E-45, E-47, E-48, and E-49:

VOM Emissions (T/mo)	(T/yr)
0.3	2.6

iii. The limits in Conditions 5.5.3(b)(i) and (ii) are limitations established in Permit 99060010, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203. [T1].

c. For Conditions 5.5.3(a) and (b), 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).

d. Notwithstanding other provisions within this permit, if a VCU or IFR is not required by rule and yearly emission limits are not exceeded, then the VCU or IFR is not required.

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 deviations of the source 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

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

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

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. 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 in the sources’ CAAPP permits. These allotments are established from historical VOM emissions or “baseline emissions” lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its 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 insignificant units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;

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

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

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

v. VOM emissions from certain new and modified emission units as addressed by Section 6.7(b), if applicable, in accordance with 35 IAC 205.320(f).

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

6.4 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 758 ATUs per seasonal allotment period.

ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 82.1855 tons.

A. This determination includes the use of estimated 1995 and submitted 1996 emissions as baseline seasons.

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 during 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 during 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.

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)(1), (a)(2), or (a)(3) 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)(1), (a)(2), or (a)(3) [35 IAC 205.405(a)]:

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

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

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

The source has demonstrated in 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)]:

UC-1, 4, 5, 8, 11, 12, 16, 17, 18, 19, 20, 22, 24, 26, 28, 101, 102 [Tank, T/C Venting & T/T Loadout Emissions]

25-1, 25-4, 25-6 [Tank Emissions & T/T Loadout Emissions]

25-17, 48-1, 55-6, 55-10 [Tank Emissions & T/T Loadout & Fugitive Emissions]

Boilers and space heaters

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)]:

E-13, 16, 17, 18, 21, 22, 25, 26, 28, 29 [Tank Emissions Only]

20-2, 20-4, 25-3, 80-2 [Tank Emissions & Fugitive Emissions]

3-2, 4-2, 5-13, 5-15, 10-4, 10-18, 10-20, 10-25, 15-2, 25-2, 25-5, 25-7, 25-12, 25-19, 25-20, 55-3, 55-9, 80-6, 5005H, 5007H, C-10 [Tank Emissions Only]

10-12, 5001H, 5004H, C5-H, C8-H, CL-1, D-8 [Tank & T/T Loadout Emissions]

7.0 UNIT SPECIFIC CONDITIONS

7.1 Fixed Roof Tanks built/modified before June 11, 1973 or with a capacity less than 10,567 gallons, all of which do not store gasoline products

7.1.1 Description

Tanks that store acrylates, petroleum, chemical, and food grade products.

7.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
See Attachment 1	See Attachment 1	See Attachment 1

7.1.3 Applicability Provisions and Applicable Regulations

a. The “affected tanks” for the purpose of these unit-specific conditions, are fixed roof storage tanks that were constructed or modified prior to June 11, 1973 or have a capacity less than 10,567 gallons (40 m^3). These affected tanks are subject to 35 IAC 218 Subpart B.

As of the “date issued” as shown on page 1 of this permit, the affected tanks are identified in Attachment 1.

b. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in Condition 7.1.5(c) and the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material. [35 IAC 218.301]

7.1.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected tanks not being subject to the New Source Performance Standards (NSPS) for Storage Vessels, 40 CFR 60, Subpart K, Ka, or Kb, because the affected tanks were constructed or last modified before June 11, 1973 or the affected tanks have a capacity less than 10,567 gallons (40 m^3).

b. This permit is issued based on the affected tanks that have a capacity less than 40,000 gallons not being subject to the limitations of 35 IAC 218.120.

c. This permit is issued based on the affected tanks that have a capacity of 40,000 gallons or greater not being subject to the limitations of 35 IAC 218.120, because the contents of these affected tanks have a maximum true vapor pressure less than 0.75 psia.

d. This permit is issued based on the affected tanks not being subject to 35 IAC 218.121 or 218.123, because the contents of these affected tanks are not petroleum liquids.

e. This permit is issued based on the affected tanks not being subject to 35 IAC Part 218 Subparts TT and UU, because storage tanks are exempted from the requirements of these subparts per 35 IAC 218.980(a)(2) and (b)(2).

7.1.5 Control Requirements

a. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gal, 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 35 IAC 218.108, or unless such tank is a pressure tank as described in 35 IAC 218.121(a) or is fitted with a recovery system as described in 35 IAC 218.121(b)(2). [35 IAC 218.122(b)]

b. Exception: If no odor nuisance exists the limitations of Condition (a) above shall only apply to the loading of VOL with a vapor pressure of 2.5 psia or greater at 70°F. [35 IAC 218.122(c)]

c. Emissions of organic material in excess of those permitted by Condition 7.1.3(b) are allowable if such emissions are controlled by one of the following methods: [35 IAC 218.302]

i. Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,

ii. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total

uncontrolled organic material that would otherwise be emitted to the atmosphere; or,

iii. Any other air pollution control equipment approved by the Illinois EPA and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

7.1.6 Emission Limitations

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

a. Storage tank UC-101 shall not exceed the following limits:

Material Stored	Throughput (gal/yr)	VOM Emissions (lb/yr)
Methyl Alcohol	206,880	378

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Construction Permit 92020053, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modifications addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

b. The affected tanks shall not exceed the following limits:

Tank	Throughput (bbl/yr)	VOM Emissions (lb/yr)
25-18	200,000	9,140
55-8	1,150,000	3,000
80-1	320,000	2,810

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Construction Permit 96080122, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modifications addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

c. Upon completion of an IFR, the affected tank 25-9 shall not exceed the following limits:

Vapor Pressure at 75°F (psia)	Throughput (gal/yr)	VOM Emissions (T/yr)
1.99	5,250,000	2.61

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Construction Permit 99060041, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modifications addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.1.7 Testing Requirements

Any control device efficiency shall be determined by simultaneously measuring the inlet and outlet gas phase VOM concentrations and gas volumetric flow rates in accordance with the gas phase test methods specified below:

a. 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, incorporated by reference in 35 IAC 218.112 as appropriate to the conditions at the site, shall be used to determine VOM concentration. Method selection shall be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. The test shall consist of three separate runs, each lasting a minimum of 60 min, unless the Illinois EPA and the USEPA determine that process variables dictate shorter sampling times.

b. 40 CFR Part 60, Appendix A, Method 2, 2A, 2C or 2D, incorporated by reference in 35 IAC 218.112, shall be used for velocity and volumetric flow rates.

7.1.8 Monitoring Requirements

a. Available data on the storage temperature may be used to determine the maximum true vapor pressure. [35 IAC 218.128(b)]

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For other liquids, the vapor pressure:

A. Determined by ASTM Method D2879-83, incorporated by reference at 35 IAC 218.112(a)(1);

B. Measured by an appropriate method approved by the Illinois EPA and USEPA; or

C. Calculated by an appropriate method approved by the Illinois EPA and USEPA.

b. The owner or operator of each vessel of 40,000 gallon capacity or greater storing a mixture of indeterminate or variable composition with a maximum true vapor pressure of 0.5 psia or greater shall be subject to the following [35 IAC 218.128(c)]:

i. Prior to the initial filling of the vessel, the maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in Condition 7.1.8(a).

ii. For vessels in which the vapor pressure of the anticipated liquid composition is 0.5 psia or greater but less than 0.75 psia, an initial physical test of the vapor pressure is required; a physical test at least once every 6 months thereafter is required as determined by the following methods:

A. ASTM Method D2879-83, incorporated by reference at 35 IAC 218.112(a)(1);

B. ASTM Method D323-82, incorporated by reference at 35 IAC 218.112(a)(25); or

C. As measured by an appropriate method approved by the Illinois EPA.

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 to demonstrate compliance with Conditions 5.5.1, 7.1.3, and 7.1.6 pursuant to Section 39.5(7)(b) of the Act:

a. The owner or operator shall maintain readily accessible records of the dimensions of the storage vessels and an analysis of the capacities of the storage vessels. These records shall be kept for the life of the source. [35 IAC 218.129(f)]

b. Except as provided in Section 7.1.8(b), the owner or operator of each affected storage tank of 40,000 gallon capacity or greater storing a liquid with a true vapor pressure greater than or equal to 0.5 psia shall maintain a record of the VOL storage, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period for each of the storage tanks. [35 IAC 218.129(g)]

c. Throughput (gal/mo and gal/yr) and physical properties of each VOL stored in each tank.

7.1.10 Reporting Requirements

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

b. The owner or operator of each storage vessel with a design capacity greater than or equal to 40,000 gallons storing a liquid with a maximum true vapor pressure that is normally less than 0.75 psia shall notify the Illinois EPA within 30 days when the

maximum true vapor pressure of the liquid exceeds 0.75 psia. [35 IAC 218.128(a)]

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

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

Changes in the material stored in a tank, provided the tank continues to comply with the conditions of this permit.

7.1.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.1.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, the equations in AP-42 Volume I, Chapter 7, "Liquid Storage Tanks", September, 1997, is acceptable.

7.2 IFR Tanks and Storage Tanks built/modified after July 23, 1984 and with a capacity greater than 10,567 gallons, all of which do not store gasoline products

7.2.1 Description

Tanks that store benzene containing, petroleum, chemical, and food grade products.

7.2.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
See Attachment 1	See Attachment 1	See Attachment 1

7.2.3 Applicability Provisions and Applicable Regulations

a. An “affected tank” for the purpose of these unit-specific conditions is either a storage tank with a capacity of 40,000 gallons or greater that stores volatile organic liquids (VOLs) with a vapor pressure of 0.75 psia or greater or a storage tank with a capacity of 10,567 gallons or greater that was built/modified after July 23, 1984.

b. An “affected NPSP tank” for the purpose of these unit-specific conditions is a storage tank that is subject to 40 CFR 60 Subpart Kb. A storage tank is subject to 40 CFR 60 Subpart Kb if it was constructed, reconstructed, or modified after July 23, 1984 and if it has a capacity greater than or equal to 40 m^3 (10,567 gallons) that is used to store VOLs.

As of the “date issued” as shown on page 1 of this permit, the affected tanks are identified in Attachment 1.

c. The affected tanks are subject to 35 IAC Part 218 Subpart B.

d. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in Condition 7.2.5(f) and the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material. [35 IAC 218.301]

7.2.4 Non-Applicability of Regulations of Concern

a. Except as specified in Condition 7.2.9 (a), storage vessels with design capacity less than 75 m^3 (19,813 gal) are exempt from 40 CFR 60 Subpart A and from the provisions of 40 CFR 60 Subpart Kb.

b. Except as specified in Condition 7.2.9 (a), storage vessels either with a capacity greater than or equal to 151 m^3 (39,890 gal) storing a liquid with a maximum true vapor pressure less than 3.5 kPa (0.51 psia) or with a capacity greater than or equal to 75 m^3 (19,813 gal) but less than 151 m^3 (39,890 gal) storing a liquid with a maximum true vapor pressure less than 15.0 kPa (2.18 psia) are exempt from 40 CFR 60 Subpart A and from the provisions of 40 CFR 60 Subpart Kb.

c. This permit is issued based on the affected tanks not being subject to 40 CFR 61 Subpart Y, because the contents of these affected tanks are not industrial grade or refined benzene.

d. This permit is issued based on the affected tanks not being subject to 35 IAC 218.121 or 218.123, because the contents of these affected tanks are not petroleum liquids as defined by 35 IAC 211.4610.

e. This permit is issued based on the affected tanks not being subject to 35 IAC Part 218 Subparts TT and UU, because storage tanks are exempted from the requirements of these subparts per 35 IAC 218.980(a)(2) and (b)(2).

7.2.5 Control Requirements

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 (40,000 gal) containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa (0.75 psia) but less than 76.6 kPa (11.1 psia) or with a design capacity greater than or equal to 75 m^3 (19,813 gal) but less than 151 m^3 (40,000 gal) containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa (4.00 psia) but less than 76.6 kPa (11.1 psia) shall equip each storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications [40 CFR 60.112b(a)(1) and/or 35 IAC 218.120(a)(1)]:

i. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage

vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

ii. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

A. A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

B. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

C. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

iii. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

iv. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder

wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

v. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

vi. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

vii. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

viii. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

ix. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

b. The owner or operator of each storage vessel with a design capacity equal to or greater than 151 m^3 (40,000 gal) which contains VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa (11.1 psia) shall equip each storage vessel with a closed vent system and control device as specified below: [40 CFR 112b(b)(1) and/or 35 IAC 218.120(b) and (a)(4)]

i. The closed vent system shall be designed to collect all VOC (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).

ii. The control device shall be designed and operated to reduce inlet VOC (VOM) emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements of 40 CFR 60.18, as specified in Condition 7.2.5(c) below.

c. i. Flares shall be designed for and operated with no visible emissions as determined by the methods specified in Condition 7.2.7(b), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

ii. Flares shall be operated with a flame present at all times, as determined by the methods specified in Condition 7.2.7(b).

iii. An owner/operator has the choice of adhering to either the heat content specifications in Condition 7.2.5(c)(iii)(B) and the maximum tip velocity specifications in Condition 7.2.5(c)(iv), or adhering to the requirements in Condition 7.2.5(c)(iii)(A).

A. 1. Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max}, as determined by the following equation:

$$V_{max}=(X_{H2}-K_1) \times K_2$$

Where:

V_{max} = Maximum Permitted Velocity, m/sec.

K_1 = Constant, 6.0 Volume-Percent Hydrogen

K_2 = Constant, 3.9(m/sec)/Volume-Percent Hydrogen

X_{H2} = The Volume-Percent of Hydrogen, on a Wetbasis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77 (Incorporated by Reference as Specified in 40 CFR 60.17)

2. The actual exit velocity of a flare shall be determined by the method specified in Condition 7.2.7(b)(ii)(D).

B. Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in Condition 7.2.7(b)(ii)(C).

iv. A. Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in Condition 7.2.7(b)(iv), less than 18.3 m/sec (60 ft/sec), except as provided in Conditions 7.2.5(c)(iv)(B) and (C).

B. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in Condition 7.2.7(b)(iv), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

C. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in Condition 7.2.7(b)(ii)(D), less than the velocity, V_{max}, as determined by the method specified in Condition

7.2.7(b)(ii)(E), and less than 122 m/sec (400 ft/sec) are allowed.

v. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in Condition 7.2.7(b)(ii)(F).

vi. Flares used to comply with this Condition shall be steam-assisted, air-assisted, or nonassisted.

d. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), 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 35 IAC 218.108, or unless such tank is a pressure tank as described in 35 IAC 218.121(a) or is fitted with a recovery system as described in 35 IAC 218.121(b)(2). [35 IAC 218.122(b)]

e. Exception: If no odor nuisance exists the limitations of Condition 7.2.5(d) shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3K (70°F). [35 IAC 218.122(c)]

f. Emissions of organic material in excess of those permitted by Condition 7.2.3(d) are allowable if such emissions are controlled by one of the following methods: [35 IAC 218.302]

i. Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,

ii. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,

iii. Any other air pollution control equipment approved by the Illinois EPA and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

g. For all affected storage tanks that are not affected NSPS storage tanks the specifications set forth in Condition 7.2.5(a) shall be met during the next scheduled tank cleaning or before March 15, 2004, whichever comes first.

7.2.6 Emission Limitations

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

a. i. Throughput for storage tanks 25-1, 25-4, and 25-6 shall not exceed 24,250,000 gal/yr.

ii. The affected tanks shall not exceed the following limits:

Tank	Material Stored	Throughput (gal/yr)	VOM Emissions (lb/yr)
UC-12	Ethyl Acetate	1,850,000	1,190
UC-24	Vinyl Acetate	3,244,000	1,914

iii. Storage tanks UC-33, UC-34, UC-37, and UC-38 shall not exceed the following limits:

Max. Vapor Pressure (psia)	Throughput (gal/yr)	VOM Emissions (lb/mo)	VOM Emissions (T/yr)
0.0002	5,166,110	167	1.00

iv. For Conditions 7.2.6(a)(i), (ii), and (iii) above, compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

v. The above limitations were established in Construction Permits 92020053, for Conditions 7.2.6(a) and (b), and 96030311, for Condition 7.2.6(c), pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modifications addressed in the aforementioned Construction Permits do not constitute a new major source or major modification pursuant to

Title I of the CAA, specifically 35 IAC Part 203 [T1].

b. The affected tanks shall not exceed the following limits:

Tank	VOM Emissions (lb/yr) Tank	Loadout
3-2	530	877
4-2	600	1,454
10-4	277	474
10-18	1,820	3,030
15-2	122	314
20-2	3,800	805
25-2	260	114
25-3	2,460	1,510
25-7	2,770	6,670
80-2	2,810	----

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) [T1R].

The above limitations contain revisions to previously issued Permit 96080122. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, throughput, molecular weight, and vapor pressure requirements were removed without changing the emission limits [T1R].

c. The affected tanks shall not exceed the following limits:

VOM Emissions

Tank	(lb/hr)	(T/yr)
5010	0.11	0.35
5011	0.21	0.61
5012	0.05	0.15
5013	0.02	0.06

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) [T1R].

The above limitations contain revisions to previously issued Permit 92110037. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, throughput and vapor pressure requirements were removed without changing the emission limits [T1R].

d. The affected tanks shall not exceed the following limits:

Tank	VOM Emissions (T/yr)
80-5	3.3
80-6	2.4

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) [T1R].

The above limitations contain revisions to previously issued Permits 92020085 and 99030037. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the

conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, throughput and vapor pressure requirements were removed without changing the emission limits [T1R].

d. Notwithstanding other provisions within this permit, if a VCU or IFR is not required by rule and yearly emission limits are not exceeded, then the VCU or IFR is not required.

7.2.7 Testing Requirements

a. After installing the control equipment required to meet Condition 7.2.5(a) (permanently affixed roof and internal floating roof), each owner or operator shall: [40 CFR 60.113b(a) and/or 35 IAC 218.127(a)]

i. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

ii. For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is

detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Illinois EPA in the inspection report required in Condition 7.2.10(c)(ii). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

iii. For vessels equipped with a double-seal system as specified in Condition 7.2.5(a)(ii)(B):

A. Visually inspect the vessel as specified in Condition 7.2.7(a)(iv) at least every 5 years; or

B. Visually inspect the vessel as specified in Condition 7.2.7(a)(ii).

iv. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Conditions 7.2.7(a)(ii) and (iii)(B) and at intervals no

greater than 5 years in the case of vessels specified in Condition 7.2.7(a)(iii)(A).

b. The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in Condition 7.2.5(b) and (c) shall meet the requirements specified in the general control device requirements of 40 CFR 60.18(e) and (f), as specified below. [40 CFR 60.113b(d) and/or 35 IAC 218.127(c)]

i. Flares used to comply with provisions of Condition 7.2 shall be operated at all times when emissions may be vented to them.

ii. A. Reference Method 22 shall be used to determine the compliance of flares with the visible emission provisions of Condition 7.2.5(c). The observation period is 2 hours and shall be used according to Method 22.

B. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

C. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77

(Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

D. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

E. The maximum permitted velocity, V_{max}, for flares complying with Condition 7.2.5(c)(iv)(C) shall be determined by the following equation.

$$Log_{10} (V_{max})=(H_T+28.8)/31.7$$

V_{max} = Maximum permitted velocity, M/sec
28.8 = Constant
31.7 = Constant
H_T = The net heating value as determined in Condition 7.2.7(b)(ii)(C).

F. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation.

$$V_{max}=8.706+0.7084 (H_T)$$

V_{max} = Maximum permitted velocity, m/sec
8.706 = Constant
0.7084 = Constant
H_T = The net heating value as determined in Condition 7.2.7(b)(ii)(C).

7.2.8 Monitoring Requirements

a. Available data on the storage temperature may be used to determine the maximum true vapor pressure. [40 CFR 60.116b(e) and/or 35 IAC 218.128(b)]

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For other liquids, the vapor pressure:

A. May be obtained from standard reference texts;

B. Determined by ASTM Method D2879-83 (incorporated by reference);

C. Measured by an appropriate method approved by the Illinois EPA and USEPA; or

D. Calculated by an appropriate method approved by the Illinois EPA and USEPA.

b. The owner or operator of each vessel storing a mixture of indeterminate or variable composition shall be subject to the following [40 CFR 60.116b(f) and/or 35 IAC 218.128(c)]:

i. Prior to the initial filling of the vessel, the maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in subsection b above.

ii. For vessels in which the vapor pressure of the anticipated liquid composition is 0.5 psia or greater but less than 0.75 psia, an initial physical test of the vapor pressure is required; a physical test at least once every 6 months thereafter is required as determined by the following methods:

A. ASTM Method D2879-83 (incorporated by reference);

B. ASTM Method D323-82 (incorporated by reference); or

C. As measured by an appropriate method approved by the Illinois EPA and USEPA.

c. Owners or operators of flares used to comply with the provisions of Condition 7.2 shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Conditions 5.5.1, 7.2.3, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

a. The owner or operator shall maintain readily accessible records of the dimensions of the storage vessels and an analysis of the capacities of the storage vessels. These records shall be kept for the life of the source. [40 CFR 60.116b(b) and/or 35 IAC 218.129(f)]

b. Except as provided in Section 7.2.8(b), the owner or operator of each affected NSPS storage tank either with a design capacity greater than or equal to 151 m^3 (39,890 gal) storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa (0.51 psia) or with a design capacity greater than or equal to 75 m^3 (19,813 gal) but less than 151 m^3 (39,890 gal) storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa (2.18 psia) shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period. Each vessel equipped with a closed vent system and control device meeting the specifications of Condition 7.2.5(b) is exempt from this condition. [40 CFR 60.116b(c) and (g)]

c. After installing the control equipment in accordance with Condition 7.2.5(a) (fixed roof and internal floating roof), the owner or operator shall keep a record of each inspection performed as required by Condition 7.2.7(a). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [40 CFR 60.115b(a)(2) and/or 35 IAC 218.129(a)(2)]

d. The owner or operator shall keep records of all periods of operation during which the flare pilot flame is absent. [40 CFR 60.115b(d)(2) and/or 35 IAC 218.129(d)(2)]

e. Throughput (gal/mo and gal/yr) and physical properties of each VOL stored in each tank.

7.2.10 Reporting Requirements

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

b. Notify the Illinois EPA in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Conditions 7.2.7(a)(i) and (iv) to afford the Illinois EPA the opportunity to have an observer present. If the inspection required by Condition 7.2.7(a)(iv) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Illinois EPA at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Illinois EPA at least 7 days prior to the refilling. [40 CFR 60.113b(a)(5) and/or 35 IAC 218.127(a)(5)]

c. After installing control equipment in accordance with Condition 7.2.5(a) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

i. Furnish the Illinois EPA with a report that describes the control equipment and certifies that the control equipment meets the specifications of Conditions 7.2.5(a) and 7.2.7(a)(i). [40 CFR 60.115b(a)(1) and/or 35 IAC 218.129(a)(1)]

ii. If any of the conditions described in Condition 7.2.7(a)(ii) are detected during the annual visual inspection required by Condition

7.2.7(a)(ii), a report shall be furnished to the Illinois EPA within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [40 CFR 60.115b(a)(3) and/or 35 IAC 218.129(a)(3)]

iii. After each inspection required by Condition 7.2.7(a)(iii) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Condition 7.2.7(a)(iii)(B), a report shall be furnished to the Illinois EPA within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Condition 7.2.5(a) or 7.2.7(a)(iii) and list each repair made. [40 CFR 60.115b(a)(4) and/or 35 IAC 218.129(a)(4)]

d. After installing a closed vent system and flare to comply with Condition 7.2.5(b), the owner or operator shall report semiannually all periods recorded under Condition 7.2.9(d) in which the pilot flame was absent. [40 CFR 60.115b(d)(3) and/or 35 IAC 218.129(d)(3)]

e. The owner or operator of each affected NSPS storage tank either with a design capacity greater than or equal to 151 m^3 (39,890 gal) storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa (0.75 psia) or with a design capacity greater than or equal to 75 m^3 (19,813 gal) but less than 151 m^3 (39,890 gal) storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa (4.00 psia) shall notify the Illinois EPA within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range. Each vessel equipped with a closed vent system and control device meeting the specifications of Condition 7.2.5(b) is exempt from this condition. [40 CFR 60.116b(d) and (g)]

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected tanks without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the

Permittee’s obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Changes in the material stored in a tank, provided the tank continues to comply with the conditions of this permit.

7.2.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.2.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, the equations in AP-42 Volume I, Chapter 7, “Liquid Storage Tanks”, September, 1997, is acceptable.

7.3 Storage Tanks that store gasoline products

7.3.1 Description

Tanks that are in gasoline service.

7.3.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
See Attachment 1	See Attachment 1	See Attachment 1

7.3.3 Applicability Provisions and Applicable Regulations

a. An “affected tank” for the purpose of these unit-specific conditions is a storage tank that is subject to the control requirement of 40 CFR 63 Subpart R that relies on an internal floating roof for compliance. A storage tank at this bulk gasoline terminal is subject to the control requirements of 40 CFR 63 Subpart R if it is storing gasoline and has a design capacity greater than or equal to 75m^3 (19,813 gal.).

   As of the “date issued” as shown on page 1 of this permit, the affected tanks are identified in Attachment 1.

b. The affected tanks are subject to 35 IAC 218.121. A storage tank is subject to the control requirements of 35 IAC 218.121 if it has a capacity greater than or equal to 151 m^3 (40,000 gal) which contains a volatile petroleum liquid (VPL) with vapor pressure greater than or equal to 10.34 kPa (1.5 psia) but less than 86.19 kPa (12.5 psia).

c. No person shall sell, offer for sale, dispense, supply, offer for supply, or transport for use in Illinois gasoline whose Reid vapor pressure exceeds the applicable limitations set forth in Conditions 7.3.3(c) and (d) during the regulatory control periods, which shall be May 1 to September 15 for retail outlets, wholesale purchaser-consumer operations, and all other operations. [35 IAC 218.585(a)]

d. The Reid vapor pressure of gasoline, a measure of its volatility, shall not exceed 9.5 psi (65.5 kPa) during the regulatory control period in 1990 and each year thereafter. [35 IAC 218.585(b)]

e. The Reid vapor pressure of ethanol blend gasoline shall not exceed the limitations for gasoline set forth in Condition 7.3.3(c) by more than 1.0 psi (6.9 kPa). Notwithstanding this limitation, blenders of ethanol blend gasoline whose Reid vapor pressure is less than 1.0 psi above the base stock gasoline immediately after blending with ethanol are prohibited from adding butane or any product that will increase the Reid vapor pressure of the blended gasoline. [35 IAC 218.585(c)]

f. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in Condition 7.3.5(d) and the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material. [35 IAC 218.301]

g. The owner or operator of an affected tank shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the gasoline loading operations during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The owner or operator shall keep the written startup, shutdown, and malfunction plan on record after it is developed to be made available for inspection, upon request, by the Illinois EPA for the life of the affected gasoline loading operations or until the affected gasoline loading operations is no longer subject to the relevant standard. [40 CFR 63.6(e)(3)]

7.3.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected tanks not being subject to the limitations of 35 IAC 218.120 because tanks storing petroleum liquids as defined at 35 IAC 211.4610 are exempted. [35 IAC 218.119(e)]

b. This permit is issued based on the affected tanks not being subject to 35 IAC 218.583, except for 35 IAC 218.583(a)(1), because the tanks are fitted with floating roofs. [35 IAC 218.583(b)(1)]

c. These affected tanks are not subject to the requirements of 35 IAC Part 218 Subparts TT and UU, because the affected tanks are subject to 35 IAC 218 Subpart B. [35 IAC 218.980(a) and (b)]

7.3.5 Control Requirements

a. The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 (40,000 gallons) containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa (0.75 psia) but less than 76.6 kPa (11.1 psia) shall equip each storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications [40 CFR 63.423(a) and 60.112b(a)(1) and 35 IAC 218.121(b)(1)]:

i. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

ii. Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

A. A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

B. Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

C. A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically

against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

iii. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

b. No person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing operation unless the tank is equipped with a submerged loading pipe. [35 IAC 218.583(a)(1) and 218.122]

c. No owner or operator of a stationary storage tank shall cause or allow the storage of any VPL in the tank unless:

i. There are no visible holes, tears or other defects in the seal or any seal fabric or material of any floating roof. [35 IAC 218.123(b)(2)]

ii. All openings of any floating roof deck, except stub drains, are equipped with covers, lids or seals such that: [35 IAC 218.123(b)(3)]

A. The cover, lid or seal is in the closed position at all times except when petroleum liquid is transferred to or from the tank;

B. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

C. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at eh manufacturer’s recommended setting.

iii. No emission of air contaminants is allowed into the atmosphere from any gauge or sampling devices attached to such tanks, except during sampling or maintenance operations. [35 IAC 218.121(b)(1)]

d. Emissions of organic material in excess of those permitted by Condition 7.3.3(f) are allowable if such emissions are controlled by one of the following methods: [35 IAC 218.302]

i. Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,

ii. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,

iii. Any other air pollution control equipment approved by the Illinois EPA and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

7.3.6 Emission Limitations

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

a. The affected tanks shall not exceed the following limits:

Tank	Throughput (bbl/yr)	VOM Emissions (lb/yr)
25-17	500,000	8,650
48-1	830,000	8,330
55-3	220,000	2,240
55-6	1,300,000	10,475
55-9	1,300,000	10,475
55-10	1,300,000	10,475

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Construction Permit 96080122, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or

modifications addressed in the aforementioned Construction Permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

b. Notwithstanding other provisions within this permit, if a VCU or IFR is not required by rule and yearly emission limits are not exceeded, then the VCU or IFR is not required.

7.3.7 Testing Requirements

a. After installing the required control equipment (permanently affixed roof and internal floating roof), each owner or operator shall: [40 CFR 63.425(d) and 60.113b(a)]

i. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

ii. For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Illinois EPA in the inspection report required in Condition 7.3.10(c)(ii). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that

will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

iii. For vessels equipped with a double-seal system as specified in Condition 7.3.5(a)(ii)(B):

A. Visually inspect the vessel as specified in Condition 7.3.7(a)(iv) at least every 5 years; or

B. Visually inspect the vessel as specified in Condition 7.3.7(a)(ii).

iv. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Conditions 7.3.7(a)(ii) and (a)(iii)(B) and at intervals no greater than 5 years in the case of vessels specified in Condition 7.3.7(a)(iii)(A) of this section.

b. All storage tanks storing any VPL shall have:

i. Routine inspections of floating roof seals conducted through roof hatches once every six months; [35 IAC 218.123(b)(4)]

ii. A complete inspection of the cover and seal of any floating roof tank made whenever the tank is emptied for reasons other than the transfer of petroleum liquid during the normal

operation of the tank, or whenever repairs are made as a result of any semi-annual inspection or incidence of roof damage or defect. [35 IAC 218.123(b)(5)]

7.3.8 Monitoring Requirements

a. Available data on the storage temperature may be used to determine the maximum true vapor pressure. [40 CFR 63.427(c) and 60.116b(e)]

i. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

ii. For other liquids, the vapor pressure:

A. May be obtained from standard reference texts;

B. Determined by ASTM Method D2879-83, incorporated by reference at 35 IAC 218.112(a)(1);

C. Measured by an appropriate method approved by the Illinois EPA and USEPA; or

D. Calculated by an appropriate method approved by the Illinois EPA and USEPA.

b. The owner or operator of each vessel storing a mixture of indeterminate or variable composition shall be subject to the following [40 CFR 63.427(c) and 60.116b(f)]:

i. Prior to the initial filling of the vessel, the maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in subsection b above.

ii. For vessels in which the vapor pressure of the anticipated liquid composition is 0.5 psia or greater but less than 0.75 psia, an initial physical test of the vapor pressure is

required; a physical test at least once every 6 months thereafter is required as determined by the following methods:

A. ASTM Method D2879-83, incorporated by reference at 35 IAC 218.112(a)(1);

B. ASTM Method D323-82, incorporated by reference at 35 IAC 218.112(a)(25); or

C. As measured by an appropriate method approved by the Illinois EPA and USEPA.

c. All sampling of gasoline required pursuant to the provisions of 35 IAC 218.585 shall be conducted by one or more of the following approved methods or procedures which are incorporated by reference in 35 IAC 215.105. [35 IAC 218.585(d)]

i. For manual sampling, ASTM D4057;

ii. For automatic sampling, ASTM D4177;

iii. Sampling procedures for Fuel Volatility, 40 CFR 80 Appendix D.

d. The Reid vapor pressure of gasoline shall be measured in accordance with either test method ASTM D323 or a modification of ASTM D323 known as the "dry method" as set forth in 40 CFR 80, Appendix E, incorporated by reference in 35 IAC 218.112. For gasoline-oxygenate blends which contain water-extractable oxygenates, the Reid vapor pressure shall be measured using the dry method test. [35 IAC 218.585(e)]

e. The ethanol content of ethanol blend gasoline shall be determined by use of one of the approved testing methodologies specified in 40 CFR 80, Appendix F, incorporated by reference in 35 IAC 218.112. [35 IAC 218.585(f)]

f. Any alternate to the sampling or testing methods or procedures contained in Conditions 7.3.8(c), (d), and (e) must be approved by the Illinois EPA, which shall consider data comparing the performance of the proposed alternative to the performance of one or more approved test methods or procedures. Such data shall accompany any request for Illinois EPA approval of any alternate test procedure. If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent

to the approved test methods or procedures, the Illinois EPA shall approve the proposed alternative. [35 IAC 218.585(g)]

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 tank to demonstrate compliance with Conditions 5.5.1 and 7.3.3, pursuant to Section 39.5(7)(b) of the Act:

a. The owner or operator shall maintain readily accessible records of the dimensions of the storage vessels and an analysis of the capacities of the storage vessels. These records shall be kept for the life of the source. [40 CFR 63.427(c) and 60.116b(b)]

b. Except as provided in Section 7.3.8(b), the owner or operator shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period for each of the storage tanks. [40 CFR 63.427(c) and 60.116b(c)]

c. Throughput (gal/mo and gal/yr) and physical properties of each VOL stored in each tank.

d. After installing the required control equipment (fixed roof and internal floating roof), the owner or operator shall keep a record of each inspection performed as required by Condition 7.3.7. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [40 CFR 63.428(d) and 60.115b(a)(2)]

e. A record of the results of each inspection conducted under Condition 7.3.7(b)(i) or (ii) is maintained. [35 IAC 218.123(b)(6)]

7.3.10 Reporting Requirements

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

b. Notify the Illinois EPA in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Conditions 7.3.7(a) and (d) to afford the Illinois EPA the opportunity to have an observer present. If the inspection required by Condition 7.3.7(a)(iv) is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Illinois EPA at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Illinois EPA at least 7 days prior to the refilling. [40 CFR 63.425(d) and 60.113b(a)(5)]

c. After installing the required control equipment (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

i. Furnish the Illinois EPA with a report that describes the control equipment and certifies that the control equipment meets the specifications of Conditions 7.3.5(a) and 7.3.7(a)(i). This report shall be an attachment to the notification required by 40 CFR 60.7(a)(3). [40 CFR 63.428(d) and 60.115b(a)(1)]

ii. If any of the conditions described in Condition 7.3.7(a)(ii) are detected during the annual visual inspection required by Condition 7.3.7(a)(ii), a report shall be furnished to the Illinois EPA within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [40 CFR 63.428(d) and 60.115b(a)(3)]

iii. After each inspection required by Condition 7.3.7(a)(iii) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Condition 7.3.7(a)(iii)(B), a report shall be furnished to the Illinois EPA within 30 days of the

inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Condition 7.3.5(a) or 7.3.7(a)(iii) and list each repair made. [40 CFR 63.428(d) and 60.115b(a)(4)]

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

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

Changes in the material stored in a tank, provided the tank continues to comply with the conditions of this permit.

7.3.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from each affected tank, the equations in AP-42 Volume I, Chapter 7, "Liquid Storage Tanks", September, 1997, is acceptable.

7.4 Marine Loading

7.4.1 Description

Receiving and shipping out of benzene containing products, styrene monomer, gasoline, petroleum and other chemical products.

7.4.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Docks 1, 2, and 3	Marine Loading	None

7.4.3 Applicability Provisions and Applicable Regulations

a. An “affected marine tank vessel loading operation” for the purpose of these unit-specific conditions, is each emission unit listed in Condition 7.4.2.

b. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in Condition 7.4.5 and the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material. [35 IAC 218.301]

7.4.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected marine tank vessel loading operation not being subject to 40 CFR 63 Subpart Y because it is an existing source that does not have emissions of 10 or 25 tons, as that term is defined in 40 CFR 63.561, and does not have throughput of 10 M barrels or 200 M barrels, as that term is defined in 40 CFR 63.561.

b. This permit is issued based on the affected marine tank vessel loading operation not being subject to 35 IAC Part 218 Subpart GG because the affected marine tank vessel loading operation is not permitted to load gasoline or crude oil.

c. This permit is issued based on the affected marine tank vessel loading operation not being subject to the National Emission Standard for Benzene Emissions from Benzene Transfer Operations in 40 CFR 61 Subpart BB, except for the recordkeeping and reporting requirements in Condition 7.4.9(a), because the benzene containing products at the facility contain

less than 70 percent by weight of benzene. [40 CFR 61.300(b)]

d. This permit is issued based on the affected marine tank vessel loading operation not being subject to the National Emission Standard for Benzene Waste Operations in 40 CFR 61 Subpart FF, because the facility is not a chemical manufacturing plant, coke by-product recovery plant, or petroleum refinery. [40 CFR 61.340(a)]

e. This permit is issued based on the affected marine tank vessel loading operation not being subject to 35 IAC Part 218 Subparts TT and UU, because barge loading facilities are exempted from the control requirements in these subparts.

7.4.5 Control Requirements

Emissions of organic material in excess of those permitted by Condition 7.4.3(b) are allowable if such emissions are controlled by one of the following methods: [35 IAC 218.302]

a. Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,

b. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,

c. Any other air pollution control equipment approved by the Illinois EPA and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

7.4.6 Emission Limitations

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

None

7.4.7 Testing Requirements

None

7.4.8 Monitoring Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Conditions 5.5.1 and 7.4.3, pursuant to Section 39.5(7)(b) of the Act:

a. Each owner or operator of an affected source complying with Condition 7.4.4(c) shall record the following information. The first year after promulgation the owner or operator shall submit a report containing the requested information to the Director of the Emission Standards Division, (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711. After the first year, the owner or operator shall continue to record; however, no reporting is required. The information shall be made available if requested. The information shall include, as a minimum: [40 CFR 61.305(i)]

   i. The affected source's name and address;

   ii. The weight percent of the benzene loaded;

   iii. The type of vessel loaded (i.e., tank truck, railcar, or marine vessel); and

   iv. The annual amount of benzene loaded into each type of vessel.

b. Throughput (gal/mo and gal/yr) and physical properties of each VOL transferred through each dock.

7.4.10 Reporting Requirements

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

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected marine loading operations 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:

Changes in the material transferred through the marine loading operations, provided the marine loading operations continue to comply with the conditions of this permit.

7.4.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from the affected marine tank vessel loading operation, the following formula should be used:

$LL = (12.46 \times S \times PVA \times MW/T) \times (Q_{out}/10^3) \times (100\%-\%CE)/2000$

Where:

LL = Loading Losses, T/yr

S = Saturation Factor, 0.50 for Submerged Loading of Barges

PVA = True Vapor Pressure of Liquid Loaded, psia

MW = Molecular Weight of Vapors, lb/lb-mole

T = Temperature of Bulk Liquid Loaded, °R (°F + 460)

Q_{out} = Amount of Liquid Loaded, gal/yr

% CE = Destruction Efficiency of Control Device, %

This is the formula for emissions from loading petroleum liquids, Section 5.2, AP-42, Fifth Edition, January 1995.

7.5 Railcar and Tank Truck Loading/Unloading

7.5.1 Description

Receiving and shipping out of acrylates, gasoline, petroleum, chemical, and food grade products.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Gasoline Rack	Loading/Unloading Racks	VCU (Flare)
Racks 31 and 44	Loading/Unloading Racks	Scrubbers #1 and #2 (Only When Loading/Unloading Acrylates)
Union Carbide Loading Rack	Loading/Unloading Racks	Tank Accumulator and VCU (Flare)
Eastman Chemical Loading Rack	Loading/Unloading Racks	None
Other racks	See Attachment 1	None
Direct load	From Tank to Truck/Rail and Vice Versa	None
Truck to Truck	Loading/Unloading	None

7.5.3 Applicability Provisions and Applicable Regulations

a. The “affected loading operations” for the purpose of these unit-specific conditions, are loading racks for railcars and tank trucks.

   As of the “date issued” as shown on page 1 of this permit, the affected tanks are identified in Condition 7.5.2.

b. The “affected gasoline loading operations”, for the purpose of these unit-specific conditions, are loading racks which deliver liquid gasoline product into gasoline tank trucks and were constructed or modified after December 17, 1980 which are subject to 40 CFR 60 Subpart XX and 40 CFR 63 Subpart R.

c. The affected gasoline loading operations are subject to 35 IAC 218.582.

d. The affected gasoline loading operations subject to and complying with 40 CFR 60 Subpart XX are hereby shielded from compliance with 35 IAC 218.582, except

as specified in Condition 7.5.5(i). This shield is issued to streamline the applicable requirements for the source, based on the Illinois EPA's finding that compliance with 40 CFR 60 Subpart XX assures compliance with 35 IAC 218.582.

e. No person shall sell, offer for sale, dispense, supply, offer for supply, or transport for use in Illinois gasoline whose Reid vapor pressure exceeds the applicable limitations set forth in Conditions 7.5.3(e) and (f) during the regulatory control periods, which shall be May 1 to September 15 for retail outlets, wholesale purchaser-consumer operations, and all other operations. [35 IAC 218.585(a)]

f. The Reid vapor pressure of gasoline, a measure of its volatility, shall not exceed 9.5 psi (65.5 kPa) during the regulatory control period in 1990 and each year thereafter. [35 IAC 218.585(b)]

g. The Reid vapor pressure of ethanol blend gasoline shall not exceed the limitations for gasoline set forth in Condition 7.5.3(e) by more than 1.0 psi (6.9 kPa). Notwithstanding this limitation, blenders of ethanol blend gasoline whose Reid vapor pressure is less than 1.0 psi above the base stock gasoline immediately after blending with ethanol are prohibited from adding butane or any product that will increase the Reid vapor pressure of the blended gasoline. [35 IAC 218.585(c)]

h. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in Condition 7.5.5(j) and the following exception: If no odor nuisance exists the limitation of this condition shall apply only to photochemically reactive material. [35 IAC 218.301]

i. The owner or operator of an affected gasoline loading operations shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the gasoline loading operations during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The owner or operator shall keep the written startup, shutdown, and malfunction plan on record after it is developed to be

made available for inspection, upon request, by the Illinois EPA for the life of the affected gasoline loading operations or until the affected gasoline loading operations is no longer subject to the relevant standard. [40 CFR 63.6(e)(3)]

7.5.4 Non-Applicability of Regulations of Concern

a. This permit is issued based on the affected gasoline loading operations not being subject to 40 CFR 63 Subpart R because the gasoline loading operations are subject to more stringent control requirements in the new source performance standards for bulk gasoline terminals, 40 CFR Part 60 Subpart XX. [40 CFR 63.420(g)]

b. This permit is issued based on the affected loading operations not being subject to the National Emission Standard for Benzene Emissions from Benzene Transfer Operations in 40 CFR 61 Subpart BB, except for the recordkeeping and reporting requirements in Condition 7.5.9(g), because the benzene containing products at the source contain less than 70 percent by weight of benzene. [40 CFR 61.300(b)]

c. This permit is issued based on the affected loading operations not being subject to the National Emission Standard for Benzene Waste Operations in 40 CFR 61 Subpart FF, because the source is not a chemical manufacturing plant, coke by-product recovery plant, or petroleum refinery. [40 CFR 61.340(a)]

d. This permit is issued based on the affected loading operations not being subject to 35 IAC Part 218 Subparts TT and UU, because this category of emission unit is exempted from the requirements of these subparts per 35 IAC 218.980(a)(2) and (b)(2).

7.5.5 Control Requirements

a. Each affected gasoline loading operation shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading. [40 CFR 60.502(a)]

b. The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 10 milligrams of total organic compounds per liter of gasoline loaded. [40 CFR 63.422(b)]

c. Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack. [40 CFR 60.502(d)]

d. Loading of liquid product into gasoline cargo tanks trucks shall be limited to vapor-tight gasoline cargo tanks using the following procedures: [40 CFR 60.502(e) and 63.422(c)]

i. The owner or operator shall obtain the vapor tightness documentation described in Condition 7.5.9(b) for each gasoline cargo tank which is to be loaded at the affected source.

ii. The owner or operator shall require the tank identification number to be recorded as each gasoline tank truck is loaded at the affected source.

iii. A. The owner or operator shall cross-check each tank identification number obtained in Condition 7.5.5(d)(ii) with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded, unless either of the following conditions is maintained:

1. If less than an average of one gasoline cargo tank per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; or

2. If less than an average of one gasoline cargo tank per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed semiannually.

B. If either the quarterly or semiannual cross-check provided in Conditions 7.5.5(d)(iii)(A)(1) through (2) reveals that these conditions were not maintained, the source must return to biweekly monitoring until such time as these conditions are again met.

iv. The terminal owner or operator shall notify the owner or operator of each non-vapor-tight gasoline cargo tank loaded at the affected facility within 1 week of the documentation cross-check in Condition 7.5.5(d)(iii).

v. The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that: [40 CFR 63.422(c)(2)]

A. The gasoline cargo tank meets the applicable test requirements in Condition 7.5.7(g).

B. For each gasoline cargo tank failing that test in Condition 7.5.7(h) or (i) at the facility, the cargo tank either:

1. Before repair work is performed on the cargo tank, meets the test requirements in Condition 7.5.7(i) or (j), or

2. After repair work is performed on the cargo tank before or during the tests in condition 7.5.7(i) or (j), subsequently passes the annual certification test described in Condition 7.5.7(g).

vi. Alternate procedures to those described in Conditions 7.5.5(d)(i) through (v) for limiting gasoline cargo tank loading may be used upon application to, and approval by, the Illinois EPA.

e. The owner or operator shall act to assure that loading of gasoline tank trucks at the affected source are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system. [40 CFR 60.502(f)]

f. The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected source. Examples of actions to accomplish this include training drivers

in the hookup procedures and posting visible reminder signs at the affected loading racks. [40 CFR 60.502(g)]

g. The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 Pascal (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in Condition 7.5.7(d). [40 CFR 60.502(h)]

h. No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 Pascal (450 mm of water). [40 CFR 60.502(i)]

i. No person shall cause or allow the transfer of gasoline into any delivery vessel from any bulk gasoline terminal unless:

   i. The delivery vessel displays the appropriate sticker pursuant to the requirements of 35 IAC 218.584(b) or (d); or, if the terminal is driver-loaded, the terminal owner or operator shall be deemed to be in compliance with this permit when terminal access authorization is limited to those owners and/or operators of delivery vessels who have provided a current certification as required by 35 IAC 218.584(c)(3). [35 IAC 218.582(a)(5)]

   ii. There is no liquid drainage from the loading device when it is not in use. [35 IAC 218.582(a)(3)]

   iii. The terminal vapor collection system and gasoline loading equipment is operated in a manner that prevents avoidable leaks of liquid during loading or unloading operations. [35 IAC 218.582(b)(1)(C)]

j. Emissions of organic material in excess of those permitted by Condition 7.5.3(h) are allowable if such emissions are controlled by one of the following methods: [35 IAC 218.302]

   i. Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or

less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,

ii. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,

iii. Any other air pollution control equipment approved by the Illinois EPA and approved by the USEPA as a SIP revision capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

7.5.6 Emission Limitations

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

a. Emissions from the Eastman Chemical loading rack shall not exceed the following limits:

VOM Emissions	
(T/mo)	(T/yr)
0.5	5.04

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 99060010, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

b. Emissions from the gasoline loading rack and VCU shall not exceed the following limits:

	Emissions	
Pollutant	(lbs/hr)	(T/yr)
CO	22.5	98.6
NO_X	5.0	220
VOM	---	8.1

Throughput for the gasoline loading rack shall not exceed 500,000 barrels/month and 6,580,000 barrels/year.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 96080122, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

c. Notwithstanding other provisions within this permit, if a VCU is not required by rule and yearly emission limits are not exceeded, then the VCU is not required.

7.5.7 Testing Requirements

a. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60 appendix A or other methods and procedures as specified in this condition, except as provided in 40 CFR 60.8(b). The three-run requirement of 40 CFR 60.8(f) does not apply to this equipment. [40 CFR 60.503(a)]

b. Immediately before the performance test required to determine compliance with Condition 7.5.5(b) and (g), the owner or operator shall use Method 21 to monitor for leakage of vapor all potential sources in the terminal's vapor collection system equipment while a gasoline tank truck is being loaded. The owner or operator shall repair all leaks with readings of 500 ppm (as methane) or greater before conducting the performance test. [40 CFR 60.503(b) and 63.425(a)]

c. The owner or operator shall determine compliance with the standards in Condition 7.5.5(b) as follows: [40 CFR 60.503(c)]

i. The performance test shall be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until

300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs.

ii. If the vapor processing system is intermittent in operation, the performance test shall begin at a reference vapor holder level and shall end at the same reference point. The test shall include at least two startups and shutdowns of the vapor processor. If this does not occur under automatically controlled operations, the system shall be manually controlled.

iii. The emission rate (E) of total organic compounds shall be computed using the following equation:

$$E = K \sum_{i=1}^{n} (V_{esi} C_{ei})/(L 10^6)$$

Where:

E = Emission rate of total organic compounds, mg/liter of gasoline loaded.

V_{esi} = Volume of air-vapor mixture exhausted at each interval "i", scm.

C_{ei} = Concentration of total organic compounds at each interval “i”, ppm.

L = Total volume of gasoline loaded, liters.

n = Number of testing intervals.

i = Emission testing interval of 5 minutes.

K = Density of calibration gas, 1.83×10^6 for propane and 2.41×10^6 for butane, mg/scm.

iv. The performance test shall be conducted in intervals of 5 minutes. For each interval “i”, readings from each measurement shall be recorded, and the volume exhausted (V_{esi}) and the corresponding average total organic compounds concentration (C_{ei}) shall be determined. The sampling system response time shall be considered in determining the average total organic compounds concentration corresponding to the volume exhausted.

v. The following methods shall be used to determine the volume (V_{esi}) air-vapor mixture exhausted at each interval:

A. Method 2B shall be used for combustion vapor processing systems.

B. Method 2A shall be used for all other vapor processing systems.

vi. Method 25A or 25B shall be used for determining the total organic compounds concentration (C_{ei}) at each interval. The calibration gas shall be either propane or butane. The owner or operator may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the Illinois EPA.

vii. To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested, terminal records or readings from gasoline dispensing meters at each loading rack shall be used.

d. The owner or operator shall determine compliance with the standard in Condition 7.5.5(g) as follows: [40 CFR 60.503(d)]

i. A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with ±2.5 mm of water precision, shall be calibrated and installed on the terminal's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline tank truck.

ii. During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.

e. For each performance test conducted under Conditions 7.5.7, the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the following procedure: [40 CFR 63.425(b)]

i. During the performance test, continuously record the operating parameter under Section 63.427(a);

ii. Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations; and

iii. Provide for the Illinois EPA's approval the rationale for the selected operating parameter value, and monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in Condition 7.5.5(b).

f. For performance tests performed after the initial test, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test. [40 CFR 62.425(c)].

g. Annual certification test. The annual certification test for gasoline cargo tanks shall consist of the following test methods and procedures: [40 CFR 63.425(e)]

i. Method 27, Appendix A, 40 CFR Part 60. conduct the test using a tie period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P_i) or the pressure test shall be 460 mm H_2O z928 in. H_2O), gauge. The initial vacuum (V_i) for the vacuum test shall be 150 mm H_2O (6 in. H2O gauge. The maximum allowable pressure and vacuum changes (D_P, D_V) are shown in the second column of the table below.

Cargo Tank or Compartment Capacity, Liters (Gal)	Annual Certification-Allowable Pressure or Vacuum Change (D_P, D_V) in 5 Minutes, mm H_2O (in H_2O)	Allowable Pressure Change (D_P) in 5 Minutes at any Time, mm H_2O (In H_2O)
9,464 or More (2,500 or More)	25 (1.0)	64 (2.5)
9,463 to 5,678 (2,499 to 1,500)	38 (1.5)	76 (3.0)
5,679 to 3,785 (1,499 to 1,000)	51 (2.0)	89 (3.5)
3,782 or Less (900 or Less)	64 (2.5)	102 (4.0)

ii. Pressure test of the cargo tank's internal vapor valve as follows:

A. After completing the tests under Condition 7.5.7(g)(i), use the procedures in Method 27 to repressurize the tank to 460 mm H_2O (18 in. H_2O), gauge. Close the tank's internal vapor valve(s), thereby isolating the vapor return line and manifold from the tank.

B. Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After 5 minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable 5-minute pressure increase is 130 mm H_2O (5 in. H_2O).

h. Leak detection test. The leak detection test shall be performed using Method 21, Appendix A, 40 CFR Part 60, except omit Section 4.3.2 of Method 21. A vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph. [40 CFR 63.425(f)]

i. The leak definition shall be 21,000 ppm as propane. Use propane to calibrate the instrument, setting the span at the leak definition. The response time to 90 percent of the final stable reading shall be less than 8 seconds for the detector with the sampling line and probe attached.

ii. In addition to the procedures in Method 21 include the following procedures:

A. Perform the test on each compartment during loading of that compartment or while the compartment is still under pressure.

B. To eliminate a positive instrument drift, the dwell time for each leak detection shall not exceed two times the instrument response time. Purge the instrument with ambient air between each leak detection. The duration of the purge shall be in excess of two instrument response times.

C. Attempt to block the wind from the area being monitored. Record the highest detector reading and location for each leak.

i. Nitrogen pressure decay field test. For those cargo tanks with manifolded product lines, this test procedure shall be conducted on each compartment. [40 CFR 63.425(g)]

i. Record the cargo tank capacity. Upon completion of the loading operation, record the total volume loaded. Seal the cargo tank vapor collection system at the vapor coupler. The sealing apparatus shall have a pressure tap. Open the internal vapor valve(s) of the cargo tank and record the initial headspace pressure. Reduce or increase, as necessary, the initial headspace pressure to 460 mm H_2O (18.0 in. H_2O), gauge by releasing pressure or by adding commercial grade nitrogen gas from a high pressure cylinder capable of maintaining a pressure of 2,000 psig.

A. The cylinder shall be equipped with a compatible two-stage regulator with a relief valve and a flow control metering valve. The flow rate of the nitrogen shall be no less than 2 cfm. The maximum allowable time to pressurize cargo tanks with headspace volumes of 1,000 gallons or less to the appropriate pressure is 4 minutes. For cargo tanks with a headspace of greater than 1,000 gallons, use as a maximum allowable time to pressurize 4

minutes or the result from the equation below, whichever is greater.

$$T = V_h \times 0.004$$

Where:

T = Maximum allowable time to pressurize the cargo tank, min;

V_h = Cargo tank headspace volume during testing, gal.

ii. It is recommended that after the cargo tank headspace pressure reaches approximately 460 mm H_2O (18 in. H_2O), gauge, a fine adjust valve be used to adjust the headspace pressures to 460 mm H_2O (18.0 in. H_2O), gauge for the next 30 $\pm$ 5 seconds.

iii. Reseal the cargo tank vapor collection system and record the headspace pressure after 1 minute. The measured headspace pressure after 1 minute shall be greater than the minimum allowable final headspace pressure (P_F) as calculated from the following equation:

$$P_F = 18((18-N)/18)^{(Vs/5Vh)}$$

Where:

P_F = Minimum allowable final headspace pressure, in H_2O, gauge;

V_s = Total cargo tank shall capacity, gal;

V_h = Cargo tank headspace volume after loading, gal;

18.0 = Initial pressure at start of test, in. H2O, gauge; and

N = 5-minute continuous performance standard at any time from the third column of the table in Condition 7.5.7(g)(i), inches H_2O.

iv. Conduct the internal vapor valve portion of this test by repressurizing the cargo tank headspace with nitrogen to 460 mm H_2O (18 in.

H_2O), gauge. Closed the internal vapor valve(s), wit for 30 $\pm$ 5 seconds, then relieve the pressure downstream of the vapor valve in the vapor collection system to atmospheric pressure. Wait 15 seconds, then reseal the vapor collection system. Measure and record the pressure every minute for 5 minutes. Within 5 seconds of the pressure measurement at the end of 5 minutes, open the vapor valve and record the headspace pressure as the "final pressure".

v. If the decrease in pressure in the vapor collection system is less than at least one of the interval pressure change values in the following table, or if the final pressure is equal to or greater than 20 percent of the 1-minute final headspace pressure determined in the test in Condition 7.5.7(i)(iii), then the cargo tank is considered to be a vapor-tight gasoline cargo tank.

Time Interval	Interval Pressure Change, mm H_2O (in. H_2O)
After 1 Minute	28 (1.1)
After 2 Minutes	56 (2.2)
After 3 Minutes	84 (3.3)
After 4 Minutes	112 (4.4)
After 5 Minutes	140 (5.5)

j. Continuous performance pressure decay test. The continuous performance pressure decay test shall be performed using Method 27, Appendix A, 40 CFR Part 60. Conduct only the positive pressure test using at time period (t) of 5 minutes. The initial pressure (P_i) shall be 450 mm H_2O (18 in. H_2O), gauge. The maximum allowable 5-minute pressure change (D_p) which shall be met at any time is shown in the third column of the table in Condition 7.5.7(g)(i). [40 CFR 63.425(h)]

7.5.8 Monitoring Requirements

a. Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak

repaired within 15 calendar days after it is detected. [40 CFR 60.502(j)]

b. Each owner or operator of a bulk gasoline terminal subject to the provisions of permit shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS). Where a flare is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, shall be installed in proximity to the pilot light to indicate the presence of a flame. [40 CFR 63.427(a)(4)]

c. All sampling of gasoline required pursuant to the provisions of 35 IAC 218.585 shall be conducted by one or more of the following approved methods or procedures which are incorporated by reference in 35 IAC 215.105. [35 IAC 218.585(d)]

   i. For manual sampling, ASTM D4057;

   ii. For automatic sampling, ASTM D4177;

   iii. Sampling procedures for Fuel Volatility, 40 CFR 80 Appendix D.

d. The Reid vapor pressure of gasoline shall be measured in accordance with either test method ASTM D323 or a modification of ASTM D323 known as the "dry method" as set forth in 40 CFR 80, Appendix E, incorporated by reference in 35 IAC 218.112. For gasoline-oxygenate blends which contain water-extractable oxygenates, the Reid vapor pressure shall be measured using the dry method test. [35 IAC 218.585(e)]

e. The ethanol content of ethanol blend gasoline shall be determined by use of one of the approved testing methodologies specified in 40 CFR 80, Appendix F, incorporated by reference in 35 IAC 218.112. [35 IAC 218.585(f)]

f. Any alternate to the sampling or testing methods or procedures contained in Conditions 7.5.8(c), (d), and (e) must be approved by the Illinois EPA, which shall consider data comparing the performance of the proposed alternative to the performance of one or more approved test methods or procedures. Such data shall accompany any request for Illinois EPA approval of any alternate test procedure. If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent

to the approved test methods or procedures, the Illinois EPA shall approve the proposed alternative. [35 IAC 218.585(g)]

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected loading operation to demonstrate compliance with Conditions 5.5.1, 7.5.3, and 7.5.6 pursuant to Section 39.5(7)(b) of the Act:

a. The tank truck vapor tightness documentation required under Condition 7.5.5(d)(i) shall be kept on file at the terminal in a permanent form available for inspection. [40 CFR 60.505(a)]

b. The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include, as a minimum, the following information: [40 CFR 60.505(b)]

i. Test title: Gasoline Delivery Tank Pressure Test-EPA Reference Method 27.

ii. Tank owner and address.

iii. Tank identification number.

iv. Testing location.

v. Date of test.

vi. Tester name and signature.

vii. Witnessing inspector, if any: Name, signature, and affiliation.

viii. Test results: Actual pressure change in 5 minutes, mm of water (average for 2 runs).

c. A record of each monthly leak inspection required under Section 60.502(j) shall be kept on file at the terminal for at least 2 years. Inspection records shall include, as a minimum, the following information: [40 CFR 60.505(c)]

i. Date of inspection.

ii. Findings (may indicate no leaks discovered; or location, nature, and severity of each leak).

iii. Leak determination method.

iv. Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).

v. Inspector name and signature.

d. The terminal owner or operator shall keep documentation of all notifications required under Condition 7.5.5(d)(iv) on file at the terminal for at least 2 years. [40 CFR 60.505(d)]

e. The owner or operator of an affected facility shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least 3 years. [40 CFR 60.505(f)]

f. Each owner or operator of a bulk gasoline terminal subject to the provisions of this condition shall keep records of the test results for each gasoline cargo tank loading at the facility as follows: [40 CFR 63.428(b)]

i. Annual certification testing performed under Condition 7.5.7(g);

ii. Continuous performance testing performed at any time at that facility under Conditions 7.5.7(h), (i), and (j); and

iii. The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

A. Name of Test:

1. Annual Certification Test - Method 27 (Condition 7.5.7(g)(i)),

2. Annual Certification Test - Internal Vapor Valve (Condition 7.5.7(g)(ii)),

3. Leak Detection Test (Condition 7.5.7(h)),

4. Nitrogen Pressure Decay Field Test (Condition 7.5.7(i)), or

5. Continuous Performance Pressure Decay Test (Condition 7.5.7(j)).

B. Cargo tank owner's name and address.

C. Cargo tank identification number.

D. Test location and date.

E. Tester name and signature.

F. Witnessing inspector, if any: Name, signature, and affiliation.

G. Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.

H. Test results: Pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument and leak definition.

g. Each owner or operator of a bulk gasoline terminal subject to the provisions of this condition shall keep an up-to-date, readily accessible record of the continuous monitoring data required under Condition 7.5.8(b). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record. [40 CFR 63.428(c)(1)]

h. Throughput (gal/mo and gal/yr) and physical properties of each VOL transferred through each loading rack.

7.5.10 Reporting Requirements

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

b. Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall include in a semiannual report to the Illinois EPA the following information, as applicable: [40 CFR 63.428(g)]

i. Each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility; and

ii. The number of equipment leaks not repaired within 5 days after detection.

c. Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this condition shall include in the excess emissions report to the Illinois EPA required in accordance with 40 CFR 63.10(e)(3), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under this condition, and the following information shall be included in the excess emissions report, as applicable: [40 CFR 63.428(h)]

i. Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under Condition 7.5.7(e). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

ii. Each instance of a nonvapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

iii. Each reloading of a nonvapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with Condition 7.5.5(d)(v).

iv. For each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:

A. The date on which the leak was detected;

B. The date of each attempt to repair the leak;

C. The reasons for the delay of repair; and

D. The date of successful repair.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected loading operations 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:

Changes in the material transferred through a loading operation, provided the loading operation continues to comply with the conditions of this permit.

7.5.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from the affected loading operations, the following formula should be used:

$LL = (12.46 \times S \times PVA \times MW/T) \times (Q_{out}/10^3) \times (100\%-\% CE)/2000$

Where:

LL = Loading Losses, T/yr

S = Saturation factor, 0.50 for submerged loading of barges

PVA = True vapor pressure of liquid loaded, psia

MW = Molecular weight of vapors, lb/lb-mole

T = Temperature of bulk liquid loaded, °R (°F + 460)

Q_{out} = Amount of liquid loaded, gal/yr

% CE = Destruction efficiency of control device, %

This is the formula for emissions from loading petroleum liquids, Section 5.2, AP-42, Fifth Edition, January 1995.

7.6 Equipment Leaks

7.6.1 Description

Fugitive emissions from pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems.

7.6.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Equipment Leaks	Fugitive emissions	None

7.6.3 Applicability Provisions and Applicable Regulations

a. The “affected equipment” for the purpose of these unit-specific conditions, are pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems.

b. The “affected benzene equipment” for the purpose of these unit-specific conditions, are the following sources that are intended to operate in benzene service: pumps, compressors, pressure relief devices, sampling connections, systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems. The “affected benzene equipment” are subject to 40 CFR 61 Subparts V and J.

7.6.4 Non-Applicability of Regulations of Concern

None

7.6.5 Control Requirements

a. Each piece of affected benzene equipment is subject to Conditions 7.6.5(b)-(k) and shall be marked in such a manner that it can be distinguished readily from other pieces of equipment. [40 CFR 61.242-1(d)]

b. Equipment that is in vacuum service is excluded from the requirements of Conditions 7.6.5(c) to (k) if it is identified as required in Condition 7.6.9(d)(v). [40 CFR 61.242-1(e)]

c. Pumps [40 CFR 61.242-2]

i. A. Each pump shall be monitored monthly to detect leaks by the methods specified in Condition 7.6.8(a), except as provided in Conditions 7.6.5(c)(iv), (v), and (vi).

B. Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

ii. A. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

B. If there are indications of liquids dripping from the pump seal, a leak is detected.

iii. A. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Condition 7.6.5(k).

B. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

iv. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Conditions 7.6.5(c)(i) and (ii), provided the following requirements are met:

A. Each dual mechanical seal system is:

1. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

2. Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 61.242-11; or

3. Equipped with a system that purges the barrier fluid into a process

stream with zero VHAP emissions to atmosphere.

B. The barrier fluid is not in VHAP service and, if the pump is covered by standards under 40 CFR part 60, is not in VOC service.

C. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

D. Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

1. If there are indications of liquid dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in Condition 7.6.8 to determine the presence of VOC and VHAP in the barrier fluid.

2. If the monitor reading (taking into account any background readings) indicates the presence of VHAP, a leak is detected. For the purpose of this paragraph, the monitor may be calibrated with VHAP, or may employ a gas chromatography column to limit the response of the monitor to VHAP, at the option of the owner or operator.

3. If an instrument reading of 10,000 ppm or greater (total VOC) is measured, a leak is detected.

E. Each sensor as described in Condition 7.6.5(c)(iv)(C) is checked daily or is equipped with an audible alarm.

F. 1. The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal

system, the barrier fluid system, or both.

2. If indications of liquids dripping from the pump seal exceed the criteria established in Condition 7.6.5(c)(iv)(F)(1), or if, based on the criteria established in Condition 7.6.5(c)(iv)(F)(1), the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

3. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in Condition 7.6.5(k).

4. A first attempt at repair shall be made no later than five calendar days after each leak is detected.

v. Any pump that is designated, as described in Condition 7.6.9(d)(ii), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Conditions 7.6.5(c)(i), (iii), and (iv) if the pump:

A. Has no externally actuated shaft penetrating the pump housing,

B. Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Condition 7.6.8(b), and

C. Is tested for compliance with Condition 7.6.5(c)(v)(B) initially upon designation, annually, and at other times requested by the Administrator.

vi. If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of 40 CFR 61.242-11, it is exempt

from the requirements of Conditions 7.6.5(c)(i)-(v).

vii. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of Conditions 7.6.5(c)(i)(B) and (iv)(D), and the daily requirements of Condition 7.6.5(c)(iv)(E)(1), provided that each pump is visually inspected as often as practicable and at least monthly.

d. Compressors [40 CFR 61.242-3]

i. Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluid to atmosphere, except as provided in Conditions 7.6.5(d)(viii) and (ix).

ii. Each compressor seal system as required in Condition 7.6.5(d)(i) shall be:

A. Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or

B. Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 61.242-11; or

C. Equipped with a system that purges the barrier fluid into a process stream with zero VHAP emissions to atmosphere.

iii. The barrier fluid shall not be in VHAP service and, if the compressor is covered by standards under 40 CFR part 60, shall not be in VOC service.

iv. Each barrier fluid system as described in Conditions 7.6.5(d)(i)-(iii) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

v. A. Each sensor as required in Condition 7.6.5(d)(iv) shall be checked daily or shall be equipped with an audible alarm unless the compressor is located within the boundary of an unmanned plant site.

B. The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

vi. If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under Condition 7.6.5(d)(v)(B), a leak is detected.

vii. A. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Condition 7.6.5(k).

B. A first attempt at repair shall be made no later than 5 calendar days after eack leak is detected.

viii. A compressor is exempt from the requirements of Conditions 7.6.5(d)(i) and (ii) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of 40 CFR 61.242-11, except as provided in Condition 7.6.5(d)(ix).

ix. Any Compressor that is designated, as described in Condition 7.6.9(d)(ii), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of Conditions 7.6.5(d)(i)-(viii) if the compressor:

A. Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Condition 7.6.8(c); and

B. Is tested for compliance with Condition 7.6.5(ix)(A) initially upon designation, annually, and at other times requested by the Administrator.

e. Pressure relief devices in gas/vapor service [40 CFR 61.242-4]

i. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Condition 7.6.8(b).

ii. A. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Condition 7.6.5(k).

B. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Condition 7.6.8(b).

ii. Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in 40 CFR 61.242-11 is exempt from the requirements of Conditions 7.6.5(e)(i) and (ii).

f. Sampling connecting systems [40 CFR 61.242-5]

i. Each sampling connection system shall be equipped with a closed-purge system or closed vent system.

ii. Each closed-purge system or closed-vent system as required in Condition 7.6.5(f)(i) shall:

A. Return the purged process fluid directly to the process line with zero VHAP emissions to atmosphere; or

B. Collect and recycle the purged process fluid with zero VHAP emissions to atmosphere; or

C. Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 61.242-11.

iii. In-situ sampling systems are exempt from the requirements of Conditions 7.6.5(f)(i) and (ii).

g. Open-ended valves or lines [40 CFR 61.242-6]

i. A. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

B. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

ii. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

iii. When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Condition 7.6.5(g)(i) at all other times.

h. Valves [40 CFR 61.242-7]

i. Each valve shall be monitored monthly to detect leaks by the method specified in Condition 7.6.8(a) and shall comply with Conditions 7.6.5(h)(ii)-(v), except as provided in Condition 7.6.5(h)(vi), (vii), and (viii).

ii. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

iii. A. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter,

beginning with the next quarter, until a leak is detected.

B. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

iv. A. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Condition 7.6.5(k).

B. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

v. First attempts at repair include, but are not limited to, the following best practices where practicable:

A. Tightening of bonnet bolts;

B. Replacement of bonnet bolts;

C. Tightening of packing gland nuts; and

D. Injection of lubricant into lubricated packing.

vi. Any valve that is designated, as described in Condition 7.6.9(d)(ii), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Condition 7.6.5(h)(i) if the valve:

A. Has no external actuating mechanism in contact with the process fluid;

B. Is operated with emissions less than 500 ppm above background, as measured by the method specified in Condition 7.6.8(b); and

C. Is tested for compliance with Condition 7.6.5(h)(vi)(B) initially upon designation, annually, and at other times requested by the Administrator.

vii. Any valve that is designated, as described in Condition 7.6.9(e)(i), as an unsafe-to-monitor valve is exempt from the requirements of Condition 7.6.5(h)(i) if:

A. The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Condition 7.6.5(h)(i); and

B. The owner or operator of the valve has a written plan that requires monitoring of the valve as frequent as practicable during safe-to-monitor times.

viii. Any valve that is designated, as described in Condition 7.6.9(e)(ii), as a difficult-to-monitor valve is exempt from the requirements of Condition 7.6.5(h)(i) if:

A. The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;

B. The process unit within which the valve is located is an existing process unit; and

C. The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

i. Pressure relief devices in liquid service and flanges and other connectors [40 CFR 61.242-8]

i. Pressure relief devices in liquid service and flanges and other connectors shall be monitored within 5 days by the method specified in Condition 7.6.8(a) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

ii. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

iii. A. When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is

detected, except as provided in Condition 7.6.5(k).

B. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

iv. First attempts at repair include, but are not limited to, the best practices described under Condition 7.6.5(h)(v).

j. Product accumulator vessels [40 CFR 61.242-9]

Each product accumulator vessel shall be equipped with a closed-vent system capable of capturing and transporting any leakage from the vessel to a control device as described in 40 CFR 61.242-11

k. Delay of repair [40 CFR 61.242-10]

i. Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.

ii. Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process and that does not remain in VHAP service.

iii. Delay of repair for valves will be allowed if:

A. The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

B. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 61.242-11.

iv. Delay of repair for pumps will be allowed if:

A. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and

B. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

v. Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

7.6.6 Emission Limitations

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

a. Emissions from the affected equipment at the Eastman facility shall not exceed the following limits:

VOM Emissions	
(T/mo)	(T/yr)
1.2	11.95

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 99060010, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

b. Emissions from the affected equipment in gasoline service shall not exceed 29.8 T/yr of VOM emissions.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations were established in Permit 96080122, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically 35 IAC Part 203 [T1].

7.6.7 Testing Requirements

See Conditions 7.6.5 and 7.6.8

7.6.8 Monitoring Requirements

a. Monitoring, as required in Condition 7.6.5, shall comply with the following requirements: [40 CFR 61.245(b)]

i. Monitoring shall comply with Method 21 of Appendix A of 40 CFR part 60.

ii. The detection instrument shall meet the performance criteria of Reference Method 21.

iii. The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

iv. Calibration gases shall be:

A. Zero air (less than 10 ppm of hydrocarbon in air); and

B. A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

v. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

b. When equipment is tested for compliance with or monitored for no detectable emissions, the owner or operator shall comply with the following requirements: [40 CFR 61.245(c)]

i. The requirements of Conditions 7.6.8(a)(i) through (iv) shall apply.

ii. The background level shall be determined, as set forth in Reference Method 21.

iii. The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

iv. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

c. i. Each piece of equipment within a process unit that can conceivably contain equipment in VHAP service is presumed to be in VHAP service unless an owner or operator demonstrates that the piece of equipment is not in VHAP service. For a piece of equipment to be considered not in VHAP service, it must be determined that the percent VHAP content can be reasonably expected never to exceed 10 percent by weight. For purposes of determining the percent VHAP content of the process fluid that is contained in or contacts equipment, procedures that conform to the methods described in ASTM Method D-2267 (incorporated by the reference as specified in 40 CFR 61.18) shall be used. [40 CFR 61.245(d)(1)]

ii. A. An owner or operator may use engineering judgment rather than the procedures in Condition 7.6.8(c)(i) to demonstrate that the percent VHAP content does not exceed 10 percent by weight, provided that the engineering judgment demonstrates that the VHAP content clearly does not exceed 10 percent by weight. When an owner or operator and the Administrator do not agree on whether a piece of equipment is not in VHAP service, however, the procedures in Condition 7.6.8(c)(i) shall be used to resolve the disagreement. [40 CFR 61.245(d)(2)(i)]

B. If an owner or operator determines that a piece of equipment is in VHAP service, the determination can be revised only after following the procedures in Condition 7.6.8(c)(i). [40 CFR 61.245(d)(2)(ii)]

iii. Samples used in determining the percent VHAP content shall be representative of the process fluid that is contained in or contacts the equipment. [40 CFR 61.245(d)(3)]

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 affected equipment to demonstrate compliance with Conditions 5.5.1, 7.6.3, and 7.6.6 pursuant to Section 39.5(7)(b) of the Act:

a. An owner or operator of more than one process unit subject to the provisions of this part may comply with the recordkeeping requirements for these process units in one recordkeeping system if the system identifies each record by each process unit. [40 CFR 61.246(a)(2)]

b. When each leak is detected as specified in Conditions 7.6.5(c), (d), (h), and (i), the following requirements apply: [40 CFR 61.246(b)]

i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

ii. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Condition 7.6.5(h)(iii) and no leak has been detected during those 2 months.

iii. The identification on equipment, except on a valve, may be removed after it has been repaired.

c. When each leak is detected as specified in Conditions 7.6.5(c), (d), (h), and (i), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: [40 CFR 61.246(c)]

i. The instrument and operator identification numbers and the equipment identification number.

ii. The date the leak was detected and the dates of each attempt to repair the leak.

iii. Repair methods applied in each attempt to repair the leak.

iv. "Above 10,000" if the maximum instrument reading measured by the methods specified in Condition 7.6.8 after each repair attempt is equal to or greater than 10,000 ppm.

v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

vii. The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.

ix. The date of successful repair of the leak.

d. The following information pertaining to all equipment to which a standard applies shall be recorded in a log that is kept in a readily accessible location: [40 CFR 61.246(e)]

i. A list of identification numbers for equipment (except welded fittings) subject to the requirements of this part.

ii. A. A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background.

B. The designation of this equipment for no detectable emissions shall be signed by the owner or operator.

iii. A list of equipment identification numbers for pressure relief devices required to comply with Condition 7.6.5(e)(i).

iv. A. The dates of each compliance test required in Conditions 7.6.5(c)(v), (d)(ix), (e), and (h)(vi).

B. The background level measured during each compliance test.

C. The maximum instrument reading measured at the equipment during each compliance test.

v. A list of identification numbers for equipment in vacuum service.

e. The following information pertaining to all valves subject to the requirements of Conditions 7.6.5(h)(vii) and (viii) shall be recorded in a log that is kept in a readily accessible location: [40 CFR 61.246(f)]

i. A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

ii. A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

f. The following information shall be recorded in a log that is kept in a readily accessible location: [40 CFR 61.246(h)]

i. Design criterion required in Conditions 7.6.5(c)(iv)(E) and (d)(v)(B) and an explanation of the design criterion; and

ii. Any changes to this criterion and the reasons for the changes.

g. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions: [40 CFR 61.246(i)]

i. An analysis demonstrating the design capacity of the process unit, and

ii. An analysis demonstrating that equipment is not in VHAP service.

h. Information and data used to demonstrate that a piece of equipment is not in VHAP service shall be recorded in a log that is kept in a readily accessible location. [40 CFR 61.246(j)]

i. Throughput (gal/mo and gal/yr) and physical properties of each VOL transferred through the affected equipment.

7.6.10 Reporting Requirements

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

b. A report shall be submitted to the Administrator semiannually , that includes the following information: [40 CFR 61.247(b)]

i. Process unit identification.

ii. For each month during the semiannual reporting period,

A. Number of valves for which leaks were detected as described in Condition 7.6.5(h)(ii).

B. Number of valves for which leaks were not repaired as required in Condition 7.6.5(h)(iv).

C. Number of pumps for which leaks were detected as described in Conditions 7.6.5(c)(ii) and (iv)(F).

D. Number of pumps for which leaks were not repaired as required in Conditions 7.6.5(c)(iii) and (iv)(F).

E. Number of compressors for which leaks were detected as described in Condition 7.6.5(d)(vi).

F. Number of compressors for which leaks were not repaired as required in Condition 7.6.5(d)(vii).

G. The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.

iii. Dates of process unit shutdowns which occurred within the semiannual reporting period.

iv. Revisions to items reported according to the initial report required by 40 CFR 61.247(a) if changes have occurred since the initial report or subsequent revisions to the initial report. (Note: Compliance with the requirements of 40 CFR 61.10(c) is not required for revisions documented under this paragraph.)

v. The results of all performance tests and monitoring to determine compliance with no detectable emissions conducted within the semiannual reporting period.

c. In the first report submitted as required in 40 CFR 61.247(a), the report shall include a reporting schedule stating the months that semiannual reports shall be submitted. Subsequent reports shall be submitted according to that schedule, unless a revised schedule has been submitted in a previous semiannual report. [40 CFR 61.247(c)]

d. An application for approval of construction or modification, 40 CFR 61.05(a) and 61.07, will not be required if: [40 CFR 61.247(e)]

i. The new source complies with the standard, Condition 7.6.5;

ii. The new source is not part of the construction of a process unit; and

iii. In the next semiannual report required by Condition 7.6.10(b), the following information is reported:

A. Equipment identification number and process unit identification.

B. Type of equipment (for example, a pump or pipeline valve).

C. Percent by weight VHAP in the fluid at the equipment.

D. Process fluid state at the equipment (gas/vapor or liquid).

E. Method of compliance with the standard (for example, "monthly leak detection and repair" or "equipped with dual mechanical seals").

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

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

Changes in the material transferred through the affected equipment, provided the affected equipment continue to comply with the conditions of this permit.

7.6.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.6.9 and the emission factors and formulas listed below:

a. Equipment Leaks

$$Lc - 1 \times 12 \times \Sigma(N_i \times Ef_i) \times \%Leaking$$

where:

Lc = Component Losses, lb/yr
Fugitive loss duration factor = 1 hr/mo
Conversion factor = 12 mo/yr
N_i = number of components
Ef_i = emission factor, lb/hr-component
% Observed leaking based on LDAR

Equation and emission factors are from AP-42 for petroleum storage tanks and the CTG for Chemical Batch Processes for chemical organic liquid.

b. Drip Pan (Spillage) Losses

$$Ldp = EF \times (Q_{stg}/1000) \times (100\%-\%Recovered)$$

where:
Ldp = Drip Pan Losses, lb/yr
EF = 0.7 lb/10^3 gallons throughput
Q_{stg} = throughput, gal/yr
% Recovered = determined by mass balance

Equation and emission factors are from AP-42 for fuel dispensing operations.

c. Storage Tank Turnaround

$$L_{Tank\ Turnaround} = \{[(10{,}000 \times 12 + 80{,}000 \times 13) \times 42\ gal/bbl]/[34{,}000 \times 25]\} \times 5.1808 \times TC$$

where:
$L_{Tank\ Turnaround}$ = Storage Tank Turnaround Emissions, lb/yr
TC = tank cleanings per year

Equation is based on the assumption that 12 storage vessels with 10,000 bbl capacity and 13 storage vessels with 80,000 bbl capacity are cleaned annually.

d. Total fugitive VOM emissions is given by adding the values obtained in Conditions 7.6.12(a), (b), and (c).

7.7 Natural Gas Fired Boilers

7.7.1 Description

Boilers are used for space and tank heating at the source.

7.7.2 List of Emission Units and Pollution Control Equipment

Equipment	Description	Emission Control Equipment
Boiler #1	Cleaver Brooks. Maximum Heat Input Capacity: 10.3 mmBtu/hr	None
Boiler #2	Zurn. Maximum heat Input Capacity: 30.7 mmBtu/hr	None
Boiler #3	Babcock and Wilcox. Maximum Heat Input Capacity: 100.8 mmBtu/hr	None

7.7.3 Applicable Provisions and Regulations

a. An affected boiler for the purpose of these unit specific conditions is a boiler that is fired with natural gas, with a maximum heat input capacity of less than 250 mmBtu/hr, but greater than or equal to 10 mmBtu/hr.

   As of the “date issued” as shown on page 1 of this permit, the affected boilers are identified in Condition 7.7.2.

b. A new affected boiler (the Zurn boiler) for the purpose of these unit specific conditions is a boiler that is fired with natural gas, with a maximum heat input capacity of 100 mmBtu/hr or less, but greater than or equal to 10 mmBtu/hr, and constructed, modified or reconstructed after June 9, 1989. As a consequence, the affected boiler is subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc because the boiler was constructed after June 9, 1989 and the firing rate of the affected boiler is less than 100 mmBtu/hr and greater than 10 mmBtu/hr.

c. No person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].

d. The affected boilers are subject to the emission limits identified in condition 5.2.2.

7.7.4 Non-Applicability of Regulations of Concern

a. Each affected boiler is not subject to 35 IAC 217.141 or 40 CFR 60 Subpart D, because the actual heat input of each affected boiler is less than 73.2 MW (250 mmBtu/hr).

b. Pursuant to 35 IAC 215.303, each affected boiler, i.e., fuel combustion emission unit, is not subject to 35 IAC 218.301, Use of Organic Material.

c. The affected Cleaver Brooks, Babcock, and Wilcox boilers are not subject to 40 CFR 60 Subpart Db or Dc because these boilers were both constructed before June 19, 1984.

7.7.5 Operational and Production Limits and Work Practices

Each affected boiler shall only be fired with natural gas.

7.7.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5.1, the affected boilers are subject to the following:

NO_x Emissions from the Zurn boiler shall not exceed 39.9 T/yr.

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) [T1R].

The above limitations contain revisions to previously issued Permit 90090068. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification

pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, oil fired backup limits were removed because the boiler is no longer permitted to fire with oil [T1R].

7.7.7 Testing Requirements

None

7.7.8 Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1, 5.5.3 and 7.7.6 pursuant to Section 39.5(7)(b) of the Act:

a. Total natural gas usage for the boiler (gal/mo and gal/yr)

b. Annual aggregate NO_x, PM, and VOM emissions from the affected boilers, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations with applicable control and operating requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

a. Emissions of CO from an affected boiler in excess of the limits specified in Condition 7.7.3(c) within 30 days of such an occurrence.

b. Emissions of NO_x, PM, or VOM from the affected boilers in excess of the limits specified in Condition 5.5.1 based on the current month’s records plus the preceding 11 months within 30 days of such an occurrence.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.7.12 Compliance Procedures

a. Compliance with Condition 7.7.3(c) is demonstrated under inherent operating conditions of an affected boiler, so that no compliance procedures are set in this permit addressing this requirement.

b. Compliance with the emission limits in Conditions 5.5.1, 5.5.3, and 7.7.6 shall be based on the recordkeeping requirements in Condition 7.7.9 and the emission factors and formulas listed below:

i. Emissions from the boilers burning natural gas shall be calculated based on the following emission factors:

Pollutant	Emission Factor ($lb/10^6 ft^3$)
PM	1.9
SO_2	0.6
VOM	5.5
NO_x	100
CO	84

These are the emission factors for uncontrolled natural gas combustion in small boilers (<100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Fifth Edition, March 1998.

Boiler Emissions (ton) = natural gas consumed multiplied by the appropriate emission factor/2000.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

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

This permit shield does not extend to applicable requirements which are promulgated after March 24, 2000 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

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

8.3 Emissions Trading Programs

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

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

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

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this

permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

i. Describe the physical or operational change;

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

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

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

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

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. 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

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, 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 (MC 40)
Bureau of Air
Compliance Section

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.

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

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

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

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner

unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

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

9.2.3 Duty to Cease Operation

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

9.2.4 Disposal Operations

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

9.2.5 Duty to Pay Fees

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

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

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 authorized by this permit; and

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

9.4 Obligation to Comply With Other Requirements

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

9.5 Liability

9.5.1 Title

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

9.5.2 Liability of Permittee

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

9.5.3 Structural Stability

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

9.5.4 Illinois EPA Liability

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

9.5.5 Property Rights

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

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

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

9.6.2 Records of Changes in Operation

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

9.6.3 Retention of Records

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

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

9.7 Annual Emissions Report

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

9.8 Requirements for Compliance Certification

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

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

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

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

9.9 Certification

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

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

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

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the

following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

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

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

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

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

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

9.11 Permanent Shutdown

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

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing

of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

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

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

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

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

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

9.12.3 Inaccurate Application

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

9.12.4 Duty to Provide Information

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

9.13 Severability Clause

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

9.14 Permit Expiration and Renewal

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

10.0 ATTACHMENTS

10.1 Attachment 1 - List of Storage Tanks

TABLE 1-1

Tank #	Capacity (gal)	Date Constructed /Modified	Control	Applicable Condition	Associated Loading/ Unloading Rack
3-1	121,000	1969	None	7.1	27
3-2	105,100	1969	IFR	7.2	27
4-2	153,500	1969	IFR	7.2	27
5-1	207,400	1954	None	7.1	6
5-2	207,700	1954	None	7.1	6
5-3	206,900	1954	None	7.1	6
5-4	207,600	1951	None	7.1	6
5-5	207,600	1951	None	7.1	6
5-6	207,600	1951	None	7.1	6
5-7	207,600	1951	None	7.1	6
5-8	205,900	1951	None	7.1	6
5-9	206,700	1951	None	7.1	6
5-10	207,000	1951	None	7.1	6
5-11	206,500	1951	None	7.1	6
5-12	206,500	1954	None	7.1	28
5-13	187,400	1954	IFR	7.2	28
5-14	206,000	1955	None	7.1	28
5-15	187,700	1955	IFR	7.2	28
5-16	205,000	1955	None	7.1	28
5-17	206,000	1955	None	7.1	28
5-18	203,400	1955	None	7.1	28
5-19	206,200	1955	None	7.1	-
5-21	204,000	1971	None	7.1	36
10-1	408,900	1951	None	7.1	6
10-2	410,600	1961	None	7.1	6
10-3	409,900	1951	None	7.1	6
10-4	391,900	1951	IFR	7.2	6
10-5	405,400	1952	None	Insig.	15
10-6	410,800	1953	None	Insig.	15
10-7	318,600	1953	None	Insig.	15
10-8	316,800	1952	None	Insig.	15
10-9	319,700	1952	None	Insig.	15
10-10	319,900	1953	None	Insig.	15
10-11	392,000	1952	IFR	7.2	36
10-12	410,700	1954	Scrubber #2	7.1	31
10-14	409,500	1954	None	7.1	36
10-15	409,100	1954	None	7.1	36
10-16	410,00	1954	None	7.1	36

Tank #	Capacity (gal)	Date Constructed /Modified	Control	Applicable Condition	Associated Loading/ Unloading Rack
10-18	395,100	1956	IFR	7.2	28
10-19	409,000	1954	None	7.1	-
10-20	389,800	1955	IFR	7.2	28
10-21	407,900	1955	None	7.1	28
10-22	410,900	1955	None	7.1	40
10-23	410,500	1956	None	7.1	40
10-24	409,800	1956	None	7.1	28
10-25	377,300	1956	IFR	7.2	28
10-26	408,800	1957	None	7.1	40
10-27	407,700	1957	None	7.1	40
10-28	408,600	1957	None	7.1	40
10-29	374,600	1957	None	7.1	40
10-30	409,300	1957	None	7.1	40
10-31	409,000	1957	None	7.1	40
10-32	409,500	1958	None	7.1	-
10-33	412,800	1958	None	7.1	-
15-1	630,000	1951	None	7.1	6
15-2	609,100	1951	IFR	7.2	6
15-3	609,000	1953	IFR	7.2	34
15-5	630,000	1956	None	7.1	40
15-6	630,000	1957	None	7.1	40
20-1	817,800	1951	None	7.1	6
20-2	786,900	1951	IFR	7.2	6
20-3	816,800	1951	None	7.1	6
20-4	787,800	1951	IFR	7.2	6
20-5	817,300	1953	None	7.1	34
25-1	940,500	nd	IFR	7.2	UCC
25-2	965,000	1952	IFR	7.2	14
25-3	979,400	1952	IFR	7.2	-
25-4	940,700	1952	IFR	7.2	UCC
25-5	962,800	1952	IFR	7.2	-
25-6	940,600	1952	IFR	7.2	UCC
25-7	975,200	1952	IFR	7.2	34
25-8	1,015,400	1952	None	7.1	34
25-9	1,017,900	1953	See Note	7.1	28
25-10	1,014,600	1954	None	7.1	28
25-11	1,017,000	1954	IFR	7.2	28
25-13	1,011,500	1955	None	7.1	-
25-14	1,011,100	1955	None	7.1	-
25-15	1,012,600	1955	None	7.1	-
25-16	1,017,300	1955	None	7.1	-
25-17	984,700	1955	IFR	7.3	Gasoline
25-18	1,019,200	1955	None	7.1	Gasoline
25-21	974,800	1958	None	7.1	-

Tank #	Capacity (gal)	Date Constructed /Modified	Control	Applicable Condition	Associated Loading/ Unloading Rack
25-22	1,013,100	1956	None	7.1	-
25-23	1,017,700	1956	None	7.1	-
33-1	1,189,100	1957	None	7.1	-
33-2	1,208,700	1957	None	7.1	-
48-1	1,897,100	1958	IFR	7.3	Gasoline
55-1	2,254,000	1951	None	7.1	8
55-2	2,227,000	1951	None	7.1	9
55-3	2,216,400	1951	IFR	7.3	6
55-4	2,215,400	1951	None	7.1	10
55-5	2,256,900	1951	None	7.1	10
55-6	2,172,000	1956	IFR	7.3	Gasoline
55-7	2,244,300	1956	None	7.1	-
55-8	2,251,100	1957	None	7.1	Gasoline
55-9	2,150,600	1958	IFR	7.3	Gasoline
55-10	2,148,800	1958	IFR	7.3	Gasoline
80-1	3,128,100	1952	None	7.1	10
80-2	3,144,100	1951	IFR	7.2	10
80-3	3,283,200	1951	None	7.1	-
80-4	3,263,000	1956	None	7.1	-
80-5	3,261,400	1956	IFR	7.2	-
80-6	3,017,500	1955	IFR	7.2	-
1212	11,600	1955	None	7.1	Gasoline
2401	25,000	1969	None	7.1	27
2402	24,500	1969	None	7.1	27
2403	24,500	1969	None	7.1	27
2404	24,500	1969	None	7.1	27
5001-H	46,800	1961	Scrubber #1	7.1	44
5002-H	46,800	1961	None	7.1	44
5003-H	46,800	1961	None	7.1	44
5004-H	46,800	1961	Scrubber #1	7.1	44
5005-H	40,300	1961	IFR	7.2	44
5006-H	46,800	1961	None	7.1	44
5007-H	50,000	1961	IFR	7.2	44
5008-H	46,800	1961	None	7.1	44
5009-H	46,800	1961	None	7.1	40
5010	49,500	1993	None	7.2	41
5011	49,600	1993	None	7.2	42
5012	49,600	1993	None	7.2	41
5013	49,700	1993	None	7.2	42
C-1	105,900	1952	None	7.1	6
C-2	105,800	1952	None	7.1	6
C-3	102,800	1952	None	7.1	6
C-10	104,400	1969	IFR	7.2	Direct Transfer

C-11	103,400	1971	None	7.1	36
C-4H	96,700	1961	None	7.1	44
C-5H	97,500	1961	Scrubber #1	7.1	44
C-6H	97,200	1961	None	7.1	44
C-7H	97,500	1961	None	7.1	44
C-8H	78,900	1961	Scrubber #2	7.1	31
CL-1	150,700	1958	Scrubber #1	7.1	44
D-7	250,000	1954	None	7.1	-
D-8	60,000	1954	Scrubber #2	7.1	31
W-1	42,500	nd	None	7.1	4
W-2	42,500	nd	None	7.1	4
WT-1	10,000	nd	None	7.1	Direct Transfer
WT-2	10,000	nd	None	7.1	Direct Transfer
E-10	49,300	1987	None	7.2	Eastman
E-11	9,100	1987	None	7.1	Eastman
E-12	29,000	1987	None	7.2	Eastman
E-13	48,900	1987	IFR	7.2	Eastman
E-14	36,800	1987	None	7.2	Eastman
Tank #	Capacity (gal)	Date Constructed /Modified	Control	Applicable Condition	Associated Loading/ Unloading Rack
E-15	49,500	1987	None	7.2	Eastman
E-16	48,400	1987	IFR	7.2	Eastman
E-17	48,400	1987	IFR	7.2	Eastman
E-18	48,900	1987	IFR	7.2	Eastman
E-19	49,600	1987	None	7.2	Eastman
E-20	49,500	1987	None	7.2	Eastman
E-21	48,300	1987	IFR	7.2	Eastman
E-22	48,300	1987	IFR	7.2	Eastman
E-23	49,600	1987	None	7.2	Eastman
E-24	49,600	1987	None	7.2	Eastman
E-25	48,400	1987	IFR	7.2	Eastman
E-26	48,400	1987	IFR	7.2	Eastman
E-27	49,500	1987	None	7.2	Eastman
E-28	48,400	1987	IFR	7.2	Eastman
E-29	48,400	1987	IFR	7.2	Eastman
E-30	49,300	1987	None	7.2	Eastman
E-31	49,300	1987	None	7.2	Eastman
E-32	49,300	1987	None	7.2	Eastman
E-33	49,400	1987	None	7.2	Eastman
E-34	49,400	1987	None	7.2	Eastman
E-35	49,400	1987	None	7.2	Eastman
E-36	49,300	1987	None	7.2	Eastman
E-37	49,200	1987	None	7.2	Eastman
E-38	49,200	1987	None	7.2	Eastman

E-39	49,300	1987	None	7.2	Eastman
E-40	49,400	1987	None	7.2	Eastman
E-41	49,500	1987	None	7.2	Eastman
E-42	49,300	1987	None	7.2	Eastman
E-43	49,300	1987	None	7.2	Eastman
E-44	49,300	1987	None	7.2	Eastman
E-45	49,400	1987	None	7.2	Eastman
E-47	51,000	1993	None	7.2	Eastman
E-48	49,300	1987	None	7.2	Eastman
E-49	49,300	1987	None	7.2	Eastman
UC-1	70,000	1994	VCU	7.2	UCC
UC-2	70,000	1994	None	7.2	UCC
UC-3	70,000	1994	None	7.2	UCC
UC-4	70,000	1994	VCU	7.2	UCC
UC-5	70,000	1994	VCU	7.2	UCC
UC-6	70,000	1994	None	7.2	UCC
UC-7	70,000	1994	None	7.2	UCC
UC-8	70,000	1994	VCU	7.2	UCC
UC-9	70,000	1994	None	7.2	UCC
UC-10	70,000	1994	None	7.2	UCC
UC-11	70,000	1994	VCU	7.2	UCC
UC-12	70,000	1994	VCU	7.2	UCC
UC-13	70,000	1994	None	7.2	UCC
UC-14	70,000	1994	None	7.2	UCC
UC-15	70,000	1994	None	7.2	UCC
UC-16	70,000	1994	VCU	7.2	UCC
Tank #	Capacity (gal)	Date Constructed /Modified	Control	Applicable Condition	Associated Loading/ Unloading Rack
UC-17	70,000	1994	VCU	7.2	UCC
UC-18	70,000	1994	VCU	7.2	UCC
UC-19	70,000	1994	VCU	7.2	UCC
UC-20	70,000	1994	VCU	7.2	UCC
UC-21	70,000	1994	None	7.2	UCC
UC-22	70,000	1994	VCU	7.2	UCC
UC-23	70,000	1994	None	7.2	UCC
UC-24	70,000	1994	VCU	7.2	UCC
UC-25	70,000	1994	None	7.2	UCC
UC-26	70,000	1994	VCU	7.2	UCC
UC-27	70,000	1994	None	7.2	UCC
UC-28	70,000	1994	VCU	7.2	UCC
UC-29	70,000	1994	VCU	7.2	UCC
UC-30	70,000	1994	None	7.2	UCC
UC-31	70,000	1994	None	7.2	UCC
UC-32	70,000	1994	None	7.2	UCC
UC-33	70,000	1994	None	7.2	UCC
UC-34	70,000	1994	None	7.2	UCC

UC-37	70,000	1994	None	7.2	UCC
UC-38	70,000	1994	None	7.2	UCC
UC-101	10,000	1994	VCU	7.1	UCC
UC-102	7,000	1994	VCU	7.1	UCC

Note: Tank 25-9 has been issued Construction/Operating Permit 99060041 to add an internal floating roof to the existing tank, however, at the time of issuance of this permit, the IFR had not yet been installed.

10.2 Attachment 2 - 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: _____

YY:jar

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 GATX Terminals Corporation – Argo Terminal is located at 8500 W. 68th Street, Argo, Illinois. The source is a bulk storage facility.

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Description	Date Constructed	Emission Control Equipment
See Attachment 1	Storage Tanks Not Subject To NSPS And Not Storing Gasoline Products	See Attachment 1	See Attachment 1
See Attachment 1 of CAAPP Permit	Storage Tanks Subject to NSPS and not Storing Gasoline Products	See Attachment 1 of CAAPP Permit	See Attachment 1 of CAAPP Permit
See Attachment 1 of CAAPP Permit	Storage Tanks not Subject to NSPS and Storing Gasoline Products	See Attachment 1 of CAAPP Permit	See Attachment 1 of CAAPP Permit
See Attachment 1 of CAAPP Permit	Storage Tanks Subject to NSPS and Storing Gasoline Products	See Attachment 1 of CAAPP Permit	See Attachment 1 of CAAPP Permit
Docks 1, 2, and 3	Marine Loadout		None
Loading Racks	Railcar and Tank Truck Loading/Unloading	See Attachment 1 of CAAPP Permit	VAS, Tank Accumulator, VCU, and/or Scrubbers
Equipment Leaks	Fugitive VOM Emissions	---	---
3 Natural Gas-Fired Boilers	100, 30.7, and 10.3 mmBtu/Hr	1983,1990, 1978	None

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

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

Pollutant	Tons/Year
Volatile Organic Material (VOM)	327.60
Sulfur Dioxide (SO_2)	0.21
Particulate Matter (PM)	4.13
Nitrogen Oxides (NO_x)	95.64
HAP, not included in VOM or PM	11.23
TOTAL	438.81

This permit is a combined Title I/CAAPP permit that may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit by T1, T1R, or T1N. The source has requested that the Illinois EPA establish or revise such conditions in a Title I permit, consistent with the information provided in the CAAPP application. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

IV. APPLICABLE EMISSION STANDARDS

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

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

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

V. PROPOSED PERMIT

CAAPP

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

Title I

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 non-attainment area and emits volatile organic material (VOM), the permit includes conditions to implement the Emissions Reduction Market System (ERMS). The ERMS is a market-based program designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as further described in Section 6.0 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 allotment 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 emissions 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.

YY:jar