

217/782-2113

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

PERMITTEE:

BP Pipelines (North America), Inc. - Manhattan Station  
Attn: Timothy Smith, Operations Manager, Mid-Continent District  
15600 Bruns Road  
Manhattan, Illinois 60442-0007

I.D. No.: 197811AAA  
Application No.: 95090005

Date Received: May 7, 2004  
Date Issued:  
Expiration Date<sup>1</sup>:

Operation of: BP Pipelines (North America), Inc. - Manhattan Station, Pipe  
Line Breakout Station  
Source Location: 15600 Bruns Road, Manhattan, Will County 60442-0007  
Responsible Official: Timothy Smith, Operations Manager, Mid-Continent  
District

This permit is hereby granted to the above-designated Permittee to OPERATE a pipe line breakout station, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

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

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

ECB:MED:jws

cc: Illinois EPA, FOS, Region 1  
CES  
Lotus Notes

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

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**1.0 INTRODUCTION**

1.1 Source Identification

BP Pipelines (North America), Inc. - Manhattan Station  
15600 Bruns Road  
Manhattan, Illinois 60442-0007  
815/478-8100

I.D. No.: 197811AAA

County: Will

Standard Industrial Classification: 4612, Crude Petroleum Pipeline  
Stations  
4613, Refined Petroleum Pipeline  
Stations (Secondary)

1.2 Owner/Parent Company

BP Pipelines (North America), Inc.  
28100 Torch Parkway, Suite 800  
Warrenville, Illinois 60555-3938

1.3 Operator

BP Pipelines (North America), Inc. - Manhattan Station  
15600 Bruns Road  
Manhattan, Illinois 60442-0007

John Fitzwater, Team Leader  
815/478-6104

1.4 Source Description

The BP Pipelines (North America), Inc. is located at 15600 Bruns Road, Manhattan. The source is a pipeline breakout station for crude oil and refined petroleum products. Materials being transferred by pipeline may be temporarily stored at the source depending on the schedule of the pipeline for shipment of material to different destinations.

Note: This narrative description is for informational purposes only and is not enforceable.

1.5 Title I Conditions

As generally identified below, this CAAPP permit contains certain conditions for emission units at this source that address the applicability of permitting programs for the construction and modification of sources, which programs were established pursuant to Title I of the Clean Air Act (CAA) and regulations thereunder. These programs include PSD and MSSCAM, and are implemented by the Illinois EPA pursuant to Sections 9, 9.1, 39(a) and 39.5(7)(a) of the Illinois Environmental Protection Act (Act). These conditions continue in effect, notwithstanding the expiration date specified on the first page of this permit, as their authority derives from Titles I and V of the CAA, as well as Titles II and X of the Act. (See also Condition 8.7.)

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

2.0 LIST OF ABBREVIATIONS AND ACRONYMS COMMONLY USED

acfm	Actual cubic feet per minute
ACMA	Alternative Compliance Market Account
Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ATU	Allotment Trading Unit
BACT	Best Available Control Technology
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System
CO	Carbon Monoxide
CPMS	Continuous Parameter Monitoring System
ERMS	Emissions Reduction Market System
°F	degrees Fahrenheit
ft <sup>3</sup>	cubic foot
gal	Gallon
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
ILCS	Illinois Compiled Statutes
Illinois EPA	Illinois Environmental Protection Agency
°K	degrees Kelvin
kPa	kiloPascals
kW	kilowatts
lb	pound
LAER	Lowest Achievable Emission Rate
m	meter
m <sup>3</sup>	Cubic meters
MACT	Maximum Achievable Control Technology
mg	Milligram
mm	Millimeter
mmBtu	Million British thermal units
mo	Month
MSSCAM	Major Stationary Sources Construction and Modification (35 IAC 203, New Source Review for non-attainment areas)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards
OM	Organic Material
PM	Particulate Matter

PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
PM <sub>2.5</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration (40 CFR 52.21, New Source Review for attainment areas)
psi	Pounds per square inch
psia	Pounds per square inch absolute
PSEU	Pollutant-specific emissions unit
RMP	Risk Management Plan
RICE	Reciprocating Internal Combustion Engine
SO <sub>2</sub>	Sulfur Dioxide
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
TANKS	USEPA Emission Estimating Program for Storage Tanks
TOC	Total Organic Compounds
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VCU	Vapor Combustion Unit
VOC	Volatile Organic Compounds
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
VPL	Volatile Petroleum Liquid
wt.	Weight
yr	year

### 3.0 CONDITIONS FOR INSIGNIFICANT ACTIVITIES

#### 3.1 Identification of Insignificant Activities

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

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

8,400 gallon fixed roof interface storage tanks  
(TK-43005 - TK-43009)

- 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:

None

- 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:

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

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

#### 3.2 Compliance with Applicable Requirements

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

- 3.2.1 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322 (see Attachment 2) and 35 IAC Part 266. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

- 3.2.2 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 218.301, which requires that organic material emissions not exceed 8.0 pounds per hour or, if no odor nuisance exists, do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.2.3 For each open burning activity, the Permittee shall comply with 35 IAC Part 237, including the requirement to obtain a permit for open burning in accordance with 35 IAC 237.201, if necessary.

3.2.4 For each storage tank that has a storage capacity greater than 946 liters (250 gallons) and, if no odor nuisance exists, that stores an organic material with a vapor pressure exceeding 2.5 psia at 70 °F, the Permittee shall comply with the applicable requirements of 35 IAC 218.122, which requires use of a permanent submerged loading pipe, submerged fill, or a vapor recovery system.

### 3.3 Addition of Insignificant Activities

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

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

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

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Emission Control Equipment
Group 1 Storage Tanks (See Attachment 6 for Details)	Existing External Floating Roof Petroleum Liquid Storage Tanks	External Floating Roof with either Liquid-Mounted or Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and Permanent Submerged Loading Pipe
Group 2 Storage Tank (See Attachment 6 for Details)	External Floating Roof Petroleum Liquid Storage Tank Subject to 40 CFR 60 Subpart K	External Floating Roof with either Liquid-Mounted or Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and Permanent Submerged Loading Pipe
Group 3 Storage Tank (See Attachment 6 for Details)	External Floating Roof Petroleum Liquid Storage Tank Subject to 40 CFR 60 Subpart Kb	External Floating Roof with either Liquid-Mounted or Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and Permanent Submerged Loading Pipe
Group 4 Storage Tank (See Attachment 6 for Details)	Internal Floating Roof Petroleum Liquid Storage Tanks Subject to 40 CFR 60 Subpart Kb	Internal Floating Roof with either a Mechanical Shoe or Liquid-Mounted Primary Seal and Permanent Submerged Loading Pipe
Group 5 Storage Tank (See Attachment 6 for Details)	Existing Internal Floating Roof Petroleum Liquid Storage Tank	Internal Floating Roof with Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe
Fugitive Emissions from Leaking Equipment and Components	Each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector used to transfer materials between the pipe line storage tanks	None
RICE Engine (Subject to NESHAP - 40 CFR 63 Subpart ZZZZ)	425 hp Diesel Generator	None
Emergency Fire Pump Engine	175 hp Diesel Engine	None

See Attachment 6 for more information regarding Tank designations and status.

## 5.0 OVERALL SOURCE CONDITIONS

### 5.1 Applicability of Clean Air Act Permit Program (CAAPP)

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

5.1.2 This permit is issued based on the source being a natural minor and area source of HAPs.

### 5.2 Area Designation

This permit is issued based on the source being located in an area that, as of the date of permit issuance, is designated nonattainment for the National Ambient Air Quality Standards for ozone (moderate nonattainment), and PM<sub>2.5</sub> and attainment or unclassifiable for all other criteria pollutants PM<sub>10</sub>, CO, lead, NO<sub>x</sub>, and SO<sub>2</sub>.

### 5.3 Source-Wide Applicable Provisions and Regulations

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

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

- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
- b. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, except as allowed by 35 IAC 212.123(b) and 212.124.

#### 5.3.3 Gasoline Volatility Standards

The Permittee shall comply with the standards and requirements for gasoline volatility pursuant to 35 IAC 218.585.

- a. 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 35 IAC 218.585(b) and (c) 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)]
- b. The Reid vapor pressure of gasoline, a measure of its volatility, shall not exceed 9.0 psi (62.07 kPa) during the

regulatory control period in 1990 and each year thereafter.  
[35 IAC 218.585(b)]

- c. During the regulatory control period, the "Permittee" shall state that the Reid vapor pressure of all gasoline leaving the source for use in Illinois complies with the Reid vapor pressure limitations set forth in 35 Ill. Adm. Code 218.585(b). Any operation receiving this gasoline shall be provided with a copy of an invoice, bill of lading, or other documentation used in normal business practice stating that the Reid vapor pressure of the gasoline complies with the State Reid vapor pressure standard. [35 IAC 218.585(h)(1)]
- d. The Permittee is prohibited from blending gasoline with ethanol at the source.
- e. The Permittee is prohibited from storing ethanol blended gasoline at the source.

The above limits shall not supersede any limitation in regard to the gasoline and reformulated gasoline volatility requirements shown in 40 CFR Part 80 -- Regulation Of Fuels And Fuel Additives.

#### 5.3.4 Ozone Depleting Substances

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

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

#### 5.3.5 Risk Management Plan (RMP)

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

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the

registration and submission of the RMP, as part of the annual compliance certification required by Condition 9.8.

Pursuant to Condition 5.4.5, the source is currently designated as not being subject to 40 CFR Part 68.

#### 5.3.6 Future Emission Standards

- a. Should this stationary source become subject to a new or revised regulation under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 9.8. This permit may also have to be revised or reopened to address such new or revised regulations (see Condition 9.12.2).
- b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable regulations under 40 CFR Parts 60, 61, 62, or 63, or 35 IAC Subtitle B that were promulgated after the date issued of this permit.

#### 5.3.7 Episode Action Plan

- a. Pursuant to 35 IAC 244.141, 244.142, and 244.143, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144 and is incorporated by reference into this permit.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared by the Director of the Illinois EPA or his or her designated representative.
- c. If an operational change occurs at the source which invalidates the plan, a revised plan shall be submitted to the Illinois EPA for review within 30 days of the change, pursuant to 35 IAC 244.143(d). Such plans shall be further revised if disapproved by the Illinois EPA.

#### 5.3.8 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

The Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart BBBBBB - National Emission Standards for

Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, Pipeline Facilities, and Gasoline Dispensing Facilities by the date(s) specified in such regulation and shall certify compliance with the applicable requirements of such regulation as part of the annual compliance certification required by 40 CFR Part 70 or 71 beginning in the year that compliance is required under a final and effective rule (i.e., 2011). These include but are not limited to the following:

- a. The affected source to which 40 CFR 63 Subpart BBBBBB applies is each area source pipeline breakout station (See Conditions 5.1.2) that is not subject to the control requirements of 40 CFR 63, Subparts R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals) (§§63.423 and 63.424) (See Conditions 5.4.1). [40 CFR 63.11081(a)(2)]
- b. In this case, the affected emission units to which 40 CFR 63 Subpart BBBBBB applies are the gasoline storage tanks and equipment components in vapor or liquid gasoline service that meet the criteria specified in Tables 1 through 3 in 40 CFR 63 Subpart BBBBBB. [40 CFR 63.11082(a)]
- c. Pursuant to 40 CFR 63.11082(b), (c), and (d), the affected source is an existing affected source since it was constructed before November 9, 2006 and it has not been reconstructed, as defined in 40 CFR 63.2, after November 9, 2006. [40 CFR 63.11082(d)]
- d. As an existing affected source, the Permittee must comply with the standards in 40 CFR 63 Subpart BBBBBB no later than January 10, 2011. [40 CFR 63.11083(b)]
- e. The Permittee shall comply with the applicable general requirements under 40 CFR 63 Subpart A as listed in 40 CFR 63 Subpart BBBBBB - Table 3 (40 CFR Table 3 To Subpart BBBBBB Of Part 63 -- Applicability Of General Provisions). [40 CFR 63.11098]

Additional requirements for the specific affected emission units, shown above, are provided in Section 7.0, as applicable.

#### 5.4 Source-Wide Non-Applicability of Regulations of Concern

- 5.4.1. This source is not subject to 40 CFR 63, Subparts R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals) because the source is not a major source of HAPs (i.e., aggregate HAP emissions from the source are less than 10 tons of each individual HAP and 25 tons for all HAPs), See also Condition 5.1.2).
- 5.4.2. This source is not subject to 40 CFR 63, SUBPART EEEE-National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) because the source is not a major source of HAPs (i.e., aggregate HAP emissions from the source

are less than 10 tons of each individual HAP and 25 tons for all HAPs), See also Condition 5.1.2).

- 5.4.3 This source is not subject to 40 CFR 61, Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene because the pumps, compressors, pressure relief devices, sampling connections, systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels at the source are not in benzene service as defined in 40 CFR 61.111.
- 5.4.4. This source is not subject to 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) because pumps, compressors, pressure relief devices, sampling connections, systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels at the source are not in volatile hazardous air pollutant service as defined in 40 CFR 61.241.
- 5.4.5. This source is not subject to the federal regulations for Chemical Accident Prevention in 40 CFR Part 68, because the source does not meet the applicability threshold quantity criteria shown in 40 CFR 68.10. (See also Condition 5.3.5)
- 5.4.6 This source is not subject to 35 IAC 212.302 through 212.316 and 35 IAC Part 212, Subpart U, because the source does not meet the applicability requirements shown in the respective sections. Specifically, the source is not a listed operation, based upon the SIC and SIC major groups shown in the above, and it is not located in the geographical areas defined in 35 IAC 212.324(a)(1) and 212.423(a). [35 IAC 212.302(a) and (b) and 212.700)]

5.5 Source-Wide Control Requirements and Work Practices

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

5.6 Source-Wide Production and Emission Limitations

5.6.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.6.1) are set for the purpose of establishing fees and are not federally enforceable (see Section 39.5(18) of the Act).

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
-----------	-----------

Pollutant	Tons/Year
Volatile Organic Material (VOM)	84.95
Sulfur Dioxide (SO <sub>2</sub> )	0.31
Particulate Matter (PM)	0.24
Nitrogen Oxides (NO <sub>x</sub> )	3.58
HAP, not included in VOM or PM	--
Total	89.08

#### 5.6.2 Other Source-Wide Production and Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to the federal rules for PSD, state rules for MSSCAM, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

### 5.7 Source-Wide Testing Requirements

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

- a. Testing by Owner or Operator: The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests. [35 IAC 201.282(a)]
- b. Testing by the Illinois EPA: The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary. [35 IAC 201.282(b)]
- c. Any such tests are also subject to the Testing Procedures of Condition 8.5 set forth in the General Permit Conditions of Section 8.

#### 5.7.2 Gasoline Volatility Standards

Pursuant to Condition 5.3.3, the Permittee shall comply with the standards for gasoline volatility pursuant to 35 IAC 218.585.

- a. 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 218.105. [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.
- b. 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 Ill. Adm. Code 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)]
- c. Any alternate to the sampling or testing methods or procedures contained in 35 IAC 218.585(d), (e), and (f) 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)]

#### 5.7.3 Monitoring VOL Operations

- a. Available data on the storage temperature may be used to determine the maximum true vapor pressure. 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.
- b. Vapor pressure must be:
  - i. Determined by ASTM Method D2879-83, incorporated by reference at 35 IAC 218.112(a)(1);
  - ii. Determined by ASTM Method D323-82, incorporated by reference at 35 IAC 218.112(a)(25);
  - iii. Measured by an appropriate method approved by the Illinois EPA and USEPA; or
  - iv. Calculated by an appropriate method approved by the Illinois EPA and USEPA.

- c. For refined petroleum products the vapor pressure may be obtained from available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Illinois EPA specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

Additional requirements for the specific affected emission units are provided in Section 7.0, as applicable.

#### 5.8 Source-Wide Monitoring Requirements

General monitoring requirements are not set for this source. However, there are provisions for unit specific monitoring set forth in Section 7 of this permit.

#### 5.9 Source-Wide Recordkeeping Requirements

##### 5.9.1 Annual Emission Records

- a. The Permittee shall maintain records of total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions for Specific Emission Units) of this permit to demonstrate compliance with Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act.
- b. The Permittee shall maintain records of the methods, procedures and calculations used to determine annual emissions. This includes: Calculations and equations ; emission factors; and as applicable assumptions and standard conditions used.

##### 5.9.2 General Records for Storage Tanks

- a. Pursuant to Condition 5.11, the Permittee shall maintain a log identifying which unit-specific condition (Section 7.1, 7.2, and 7.3 of this permit) each tank is complying with, if different than shown in Attachment 6, with date and supporting explanation for change in applicable requirements, pursuant to Section 39.5(7)(1)(i)(A) of the Act.
- b. The Permittee shall maintain records of the following items for each storage tank at the source with a capacity of 40 m<sup>3</sup> (approximately 10,500 gallons) or greater [Section 39.5(7)(b) of the Act]. These records shall be kept up to date for each tank at the source and be retained until the tank is removed from the source.
  - i. The date\* on which construction of the tank was commenced, with a copy of supporting documentation;

- ii. The date(s)\* on which modification or reconstruction, as defined in the NSPS, 40 CFR 60.14 and 60.15 respectively, were commenced on the tank, if applicable;
- iii. The dimensions of the tank and an analysis of capacity. [35 IAC 218.129(f) and 40 CFR 60.116b(b)]

\* If a date is prior to June 11, 1973, a specific date is not needed and documentation need only show commencement of construction prior to this date.

#### 5.9.3 Records for Floating Roof Storage Tanks

The Permittee shall maintain records of the following items for each storage tank equipped with a floating roof to allow calculation of VOM emissions from the storage tanks at the source so as to demonstrate compliance with the annual emission limits in Condition 5.6. These records shall be updated whenever there is a change in status of a storage tank that is brought about by actions at the source, such as painting, and during periodic inspections.

- a. The color of each storage tank;
- b. The condition of each storage tank; and
- c. The type and number of fittings.

If applicable, the Permittee may use emission calculation defaults and/or USEPA approved calculation procedures and reports to document the above.

#### 5.9.4 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

Pursuant to 40 CFR 63.11098, the Permittee shall comply with the applicable general recordkeeping requirements under 40 CFR 63 Subpart A as listed in 40 CFR 63 Subpart BBBBBB - Table 3 (40 CFR Table 3 To Subpart BBBBBB Of Part 63 -- Applicability Of General Provisions) after January 10, 2011.

Additional requirements for the specific affected emission units are provided in Section 7.0, as applicable.

#### 5.9.5 Gasoline Volatility Standards

The Permittee shall maintain records of the following items for gasoline leaving the source for use in Illinois [35 IAC 218.585(h)(2)]:

- a. Reid vapor pressure of each gasoline shipment;

- b. Quantity of each gasoline shipment; and
- c. Date of delivery of any gasoline shipment leaving the source for use in the state of Illinois.

#### 5.9.7 General Records

The Permittee shall maintain the following general records:

- a. The identification and properties of each petroleum liquid stored at the source, as related to emissions, i.e., vapor pressure and molecular weight;
- b. A current analysis of the tank or tanks in each group that would have the greatest emissions from storage of various liquids in the event that the Permittee does not choose to keep throughput records by individual tank, to identify the tank that should be assumed for emission calculations; and
- c. Copies of inspections and test reports required to verify compliance with the requirements of this permit.

#### 5.9.8 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

### 5.10 Source-Wide Reporting Requirements

#### 5.10.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the source with the permit requirements within 30 days, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. There are also reporting requirements for unit specific emission units set forth in Section 7 of this permit.

#### 5.10.2 Annual Emissions Report

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

5.10.3 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

- a. The Permittee shall comply with the applicable general notification and reporting requirements under 40 CFR 63 Subpart A as listed in 40 CFR 63 Subpart BBBBBB - Table 3 (40 CFR Table 3 To Subpart BBBBBB Of Part 63 -- Applicability Of General Provisions), after January 10, 2011.
- b. Notifications [40 CFR 63.11093]
  - i. The Permittee shall submit a Notification of Compliance Status as specified in §63.9(h). The Notification of Compliance Status must specify which of the compliance options included in 40 CFR 63 Subpart BBBBBB - Table 1 which are used to comply with 40 CFR 63 Subpart BBBBBB. [40 CFR 63.11093(b)]
  - ii. The Permittee shall submit additional notifications specified in §63.9, as applicable. [40 CFR 63.11093(d)]
- c. Reports [40 CFR 63.11095]
  - i. Pursuant to 40 CFR 63.11095(a), after January 10, 2011, the Permittee shall submit a semiannual compliance report to the Illinois EPA with the information required in Condition 7.4.10(c) (i) and 7.5.10(b) (i) and 40 CFR 63.11095(a) (1) and (a) (3).
  - ii. Pursuant to 40 CFR 63.11095(c), after January 10, 2011, the Permittee shall submit a semiannual excess emissions report, including the information specified in Condition 7.5.10(b) (i) and (ii) and 40 CFR 63.11095(a) (3) and (b) (5), only for a 6-month period during which an excess emission event has occurred. If no excess emission events have occurred during the previous 6-month period, no report is required.

Additional requirements for the specific affected emission units are provided in Section 7.0, as applicable.

5.11 Source-Wide Operational Flexibility/Anticipated Operating Scenarios

- a. The Permittee is authorized to store materials with a vapor pressure less than 0.5 psia at 70°F, e.g., distillate fuel oils or blend stocks, diesel fuel, and jet kerosene, in any storage tank identified in this permit as a VPL storage tank. In such instances, the unit-specific conditions in Section 7.0 of this permit applicable to such tank based on the storage of VPL shall no longer apply. 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 a storage tank, as defined in 35 IAC 201.102;  
and

- b. Upon resuming storage of VPL in such a tank, the applicable unit-specific conditions of Section 7.0 of this permit shall again apply to such tank. In addition, prior to returning such a tank to storage of VPL, the Permittee shall conduct applicable inspection of the tank for storage of VPL.

#### 5.12 Source-Wide Compliance Procedures

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

## 6.0 CONDITIONS FOR EMISSIONS CONTROL PROGRAMS

### 6.1 Emissions Reduction Market System (ERMS)

#### 6.1.1 Description of ERMS

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

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. 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 transaction account to cover its actual VOM emissions during the preceding season. A transaction account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources' transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

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

#### 6.1.2 Applicability

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

### 6.1.3 Obligation to Hold Allotment Trading Units (ATUs)

- a. Pursuant to 35 IAC 205.150(c)(1) and 35 IAC 205.720, and as further addressed by Condition 6.1.8, 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 6.1.5.
  - i. VOM emissions from insignificant emission units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;
  - ii. Excess VOM emissions associated with startup, malfunction, or breakdown of an emission unit as authorized in Section 7.0 of this permit, in accordance with 35 IAC 205.225;
  - iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);
  - iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and
  - v. VOM emissions from certain new and modified emission units as addressed by Condition 6.1.8(b), if applicable, in accordance with 35 IAC 205.320(f).
- b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

### 6.1.4 Market Transactions

- a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior to conducting any market transactions, as specified at 35 IAC 205.610(a).
- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).
- c. The source shall have at least one account officer designated for its Transaction Account, pursuant to 35 IAC 205.620(a).

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

#### 6.1.5 Emissions Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.1.3, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by the notice, as follows:
  - i. The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
  - ii. If the source had an emissions excursion for the seasonal allotment period immediately before the period for the present emissions excursion, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the owner or operator may request that ATUs equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

#### 6.1.6 Quantification of Seasonal VOM Emissions

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

No exceptions

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

IAC 205.750(a), and shall be submitted in accordance with the following:

- i. An initial emergency conditions report within two days after the time when such excess emissions occurred due to the emergency; and
- ii. A final emergency conditions report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

#### 6.1.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emissions Report, seasonal VOM emissions information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:
  - i. Actual seasonal emissions of VOM from the source;
  - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;
  - iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337;
  - iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;
  - v. If a source's baseline emissions have been adjusted due to a Variance, Consent Order, or CAAPP permit Compliance Schedule, as provided for in 35 IAC 205.320(e) (3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e) (3); and
  - vi. If a source is operating a new or modified emission unit for which three years of operational data is not yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.
- b. This report shall be submitted by November 30 of each year, for the preceding seasonal allotment period.

#### 6.1.8 Allotment of ATUs to the Source

- a. i. The allotment of ATUs to this source is 472 ATUs per seasonal allotment period.
- ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 48.26 tons per season.
  - A. This determination includes the use of 1995 and 1996 as baseline seasons.
- iii. The source's allotment reflects 88% of the baseline emissions (12% reduction), except for the VOM emissions from specific emission units excluded from such reduction, pursuant to 35 IAC 205.405, including units complying with MACT or using BAT, as identified in Condition 6.1.10 of this permit.
- iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal allotment period following issuance and, if not retired in this season, the next seasonal allotment period.

b. Contingent Allotments for New or Modified Emission Units

None

The source was not issued a construction permit prior to January 1, 1998 for the following new or modified emission units:

Emission Unit	Construction Permit No.	Date Issued
Storage Tank 7295	02050083	June 5, 2002

In accordance with 35 IAC Part 205, for the above referenced emission units, the source is required to hold the appropriate amount of ATUs for these emission units.

- c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 IAC Part 205, including:
  - i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 IAC 205.630;
  - ii. Deduction of ATUs as a consequence of emissions excursion compensation, in accordance with 35 IAC 205.720; and
  - iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 IAC 205.410.

6.1.9 Recordkeeping for ERMS

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

- a. Seasonal component of the Annual Emissions Report;
- b. Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.1.6(a); and
- c. Any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

#### 6.1.10 Exclusions from Further Reductions

- a. VOM emissions from the following emission units shall be excluded from the VOM emissions reductions requirements specified in 35 IAC 205.400(c) and (e) as long as such emission units continue to satisfy the following [35 IAC 205.405(a)]:
  - i. Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;
  - ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units, and internal combustion engines; and
  - iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

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

None

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

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

50,000 barrel internal floating roof petroleum liquid storage tanks 43000-43003 each equipped with a liquid mounted primary seal.

80,000 barrel internal floating roof petroleum liquid storage tank 43004 equipped with a liquid mounted primary seal.

**7.0 UNIT SPECIFIC CONDITIONS FOR SPECIFIC EMISSION UNITS**

7.1 Group 1 Storage Tanks - Existing External Floating Roof Petroleum Liquid Storage Tanks

7.1.1 Description

The Permittee operates external floating roof storage tanks each equipped with a mechanical shoe primary seal and a rim mounted secondary seal that store petroleum liquids (typically crude oil). Permanent submerged loading must be used at these tanks, minimizing turbulence and evaporation of VOM during loading.

Note: This narrative description is for informational purposes only and is not enforceable.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Storage Tank	Description	Construction Date	Emission Control Equipment
6722	External Floating Roof Petroleum Liquid Storage Tank	1944	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe
6825	External Floating Roof Petroleum Liquid Storage Tank	1944	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe
6971	External Floating Roof Petroleum Liquid Storage Tank	1951	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe
6972	External Floating Roof Petroleum Liquid Storage Tank	1951	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe
7170	External Floating Roof Petroleum Liquid Storage Tank	1948	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe

See Attachment 6 for more information regarding Tank designations and status.

#### 7.1.3 Applicable Provisions and Regulations

- a. The "affected storage tanks" for the purpose of these unit-specific conditions, are the storage tanks described in Conditions 7.1.1 and 7.1.2.
- b. "Affected storage tanks," for the purpose of these unit-specific conditions, are the group of a storage tanks that is subject to 35 IAC 218.121, 218.122(b), 218.123(b) and 218.124. Each storage tank with a capacity of 151.42 cubic meters (approx. 40,000 gallons) or more storing volatile petroleum liquid (VPL) is subject to the requirements of 35 IAC 218.123(b) unless it is specifically excluded pursuant to 35 IAC 218.123(a).

The status of all storage tanks at this source, including affected tanks, is summarized in Attachment 6.

#### 7.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected storage tanks not being subject to 35 IAC 218.120, 218.127, 218.128, and 218.129, because the affected tanks are used solely for the storage of petroleum liquids, pursuant to 35 IAC 218.119(e).
- b. The affected storage tanks are not subject to the requirements of 35 IAC Part 218, Subpart QQ or TT, because the affected tanks are subject to 35 IAC 218, Subpart B. [35 IAC 218.940(a) and (b) and 218.980(a) and (b)]
- c. The affected storage tanks are not subject to the New Source Performance Standards (NSPS) in 40 CFR Part 60, Subpart Subparts K, Ka or Kb, because the affected tanks were constructed prior to the applicability dates listed in the respective subparts, i.e., the affected tanks were constructed prior to June 11, 1973, May 18, 1978, and July 23, 1984, respectively. [40 CFR 60.110(c)(2), 40 CFR 60.110a(a), and 40 CFR 60.110b(a)]
- d. The affected storage tanks are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tanks use passive control measures, which include "seals, lids, or roofs", that are not a "control device" as per the definition in 40 CFR 64.1.
- e. The affected storage tanks are not subject to 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities, because the affected storage tanks do not store gasoline (See Condition 7.1.6). [40 CFR 63.11082(a)]

- f. The affected storage tanks are not subject to 40 CFR 63, Subpart EEEE—National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) because the source is not a major source of HAPs (i.e., aggregate HAP emissions from the source are less than 10 tons of each individual HAP and 25 tons for all HAPs), See also Condition 5.1.2).

7.1.5 Control Requirements and Work Practices

- a. Each affected tank shall be equipped with the following:
  - i. A permanent submerged loading pipe [35 IAC 218.122(b)]; and
  - ii. Pursuant to 35 IAC 218.121(b)(1) and 218.123(b)(1), the affected tanks shall be equipped with a floating roof which rests on the surface of the VPL and is equipped with a closure seal or seals between the roof edge and the tank wall. Such floating roof shall not be permitted if the VPL has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3°K (70°F). No person shall cause or allow the emissions of air contaminants into the atmosphere from any gauging or sampling devices attached to an affected tank, except during sampling or maintenance operations.
- b. Pursuant to 35 IAC 218.123(b), the Permittee shall not cause or allow the storage of any volatile petroleum liquid in any affected tank unless:
  - i. There are no visible holes, tears, or other defects in the seal or any seal fabric or material of the 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 [35 IAC 218.123(b)(3)(A)];
    - B. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports [35 IAC 218.123(b)(3)(B)]; and
    - C. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [35 IAC 218.123(b)(3)(C)]
- c. Pursuant to 35 IAC 218.124(a), the Permittee shall not cause or allow the storage of any volatile petroleum liquid in any affected tank unless:

- i. The affected storage tank is fitted with a continuous secondary seal extending from the floating roof to the tank wall (rim mounted secondary seal) [35 IAC 218.124(a) (1) (A) ]
- ii. Each seal closure device meets the following requirements [35 IAC 218.124(a) (2)]:
  - A. The seal is intact and uniformly in place around the circumference of the floating roof between the floating roof and tank wall; and
  - B. The accumulated area of gaps exceeding 0.32 centimeter ( 1/8 inch) in width between the secondary seal and the tank wall shall not exceed 21.2 square centimeters per meter of tank diameter (1.0 square inch per foot of tank diameter). Compliance with this requirement shall be determined by:
    - 1. Physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (0.125 in.) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and the tank wall; and
    - 2. Summing the area of the individual gaps.
- iii. Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers across at least 90 percent of the area of the opening [35 IAC 218.124(a) (3) ];
- iv. Openings are equipped with projections into the tank which remain below the liquid surface at all times [35 IAC 218.124(a) (4) ];

#### 7.1.6 Production and Emission Limitations

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

- a. Pursuant to Section 39.5(7) (a) of the Act and Conditions 5.4.1 through 5.4.4, 7.1.4, and 7.1.5(a) (ii), the Permittee shall only store non-gasoline volatile petroleum liquid with a maximum vapor pressure of not more than 12.5 psia at 70 °F in the affected storage tanks.

#### 7.1.7 Testing Requirements

Testing requirements are not set for the affected tanks. However, there are general testing requirements in Conditions 5.7 and 8.5.

7.1.8 Monitoring Requirements

- a. Pursuant to 35 IAC 218.123(b) (4), the Permittee shall perform routine inspections of each affected tank's floating roof seals through roof hatches semiannually to insure compliance with the applicable control and operating requirements in Condition 7.1.5(b).
- b. Pursuant to 35 IAC 218.123(b) (5), the Permittee shall perform a complete inspection of the cover and seal of any floating roof tank is 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.
- c. Pursuant to 35 IAC 218.124(a) (5), the Permittee shall perform routine inspections of each affected tank's floating roof seals through roof hatches prior to May 1 of each year to insure compliance with the applicable control and operating requirements in Condition 7.1.5(c).
- d.
  - i. Pursuant to 35 IAC 218.124(a) (6), the Permittee shall measure the secondary seal gap of each affected tank's floating roof prior to May 1 of each year and within 30 days of a written request from the Illinois EPA to insure compliance with Condition 7.1.5(c) (ii) (B).
  - ii. The Permittee shall notify the Illinois EPA 30 days in advance of any gap measurements to afford the Illinois EPA the opportunity to have an observer present.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Conditions 5.6.1 7.1.3, 7.1.5, 7.1.6, and 7.1.8, pursuant to Section 39.5(7) (b) of the Act:

- a. Pursuant to 35 IAC 218.123(b) (6), records of the results of inspections required under Conditions 7.1.8(a) and (b) ;
- b. Pursuant to 35 IAC 218.124(a) (7), records of the types of petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, the results of the inspections and the results of the secondary seal gap measurements required under Conditions 7.1.8(c) and (d);
- c. Pursuant to Conditions 7.1.9(a) and (b), the inspection records required above shall include the following:
  - i. Type of inspection;
  - ii. When the inspection and/or measurement was performed;

- iii. Who performed the inspection and/or measurement;
- iv. The method of inspection and/or measurement;
- v. The observed condition of each feature of the external floating roof (seals, roof deck and fittings) with raw data recorded during the inspection and/or measurement; and
- vi. The seal gap calculations described in Condition 7.1.5(c) (ii).
- ii. Throughput and Emissions Records
  - A. The throughput of each VPL stored in each affected tank on a monthly basis;
  - B. The number of roof landings on a monthly basis.
  - C. Methods, procedures and calculations used to determine emissions. This includes: calculations and equations (which may include output derived from computer generated programs or spreadsheets); emission factors; and as applicable assumptions and variables used to calculate emissions; and
  - D. VOM emissions attributable to each VPL stored in the storage tank, tons/month, with supporting calculations.
- iii. Maintenance, repair, and inspection records for the affected storage tanks, i.e., inspection, repair or replacement of the submerged loading pipe or submerged fill and/or roof seals, overall activities related to leak and or spill cleanups,

#### 7.1.10 Reporting Requirements

##### a. Deviations

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

- i. Any storage of VPL in an affected storage tank that is not in compliance with the control requirements (due to absence of the features required by Condition 7.1.5, e.g., "no rim-mounted secondary seal,") within 5 days of becoming aware of the non-compliance status.
- ii. Any storage of VPL in an affected storage tank that is out of compliance with the control requirements (Condition 7.1.5) due to damage, deterioration, or

other condition of the tank, within 30 days of becoming aware of the non-compliance status.

- iii. Any storage of VPL in an affected storage tank that is out of compliance with the limit on the material that may be stored (Condition 7.1.6), within 30 days of becoming aware of the non-compliance status.

These notifications shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

b. Other Notifications and Reports

- i. The Permittee shall notify the Illinois EPA 30 days in advance of any gap measurements, required under 7.1.5(c) and 7.1.8(d) to afford the Illinois EPA the opportunity to have an observer present.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

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

- a. Changes in the material stored in an affected tank, provided the tank continues to comply with the Conditions in Section 7.1 of this permit. For example, material other than crude oil could be stored provided that all conditions in Section 7.1 are still met (including negative applicability conditions found in 7.1.4); and
- b. Changes accounted for in Condition 5.11.

7.1.12 Compliance Procedures

- a. Compliance with Conditions 7.1.3(b) and 7.1.5 shall be based on the monitoring and inspections, recordkeeping and reporting requirements in Conditions 7.1.8, 7.1.9, and 7.1.10, respectively.

7.2 Group 2 Storage Tank - External Floating Roof Petroleum Liquid Storage Tank Subject to 40 CFR 60 Subpart K

7.2.1 Description

The Permittee operates an external floating roof storage tank equipped with a mechanical shoe primary seal and a rim mounted secondary seal that stores petroleum liquids (typically crude oil). Permanent submerged loading must be used on the tank, minimizing turbulence and evaporation of VOM during loading.

Note: This narrative description is for informational purposes only and is not enforceable.

7.2.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Construction Date	Emission Control Equipment
7294	External Floating Roof Petroleum Liquid Storage Tank	8/1974	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe

See Attachment 6 for more information regarding Tank designations and status.

7.2.3 Applicable Provisions and Regulations

- a. The "affected storage tank" for the purpose of these unit-specific conditions, is the storage tank described in Conditions 7.2.1 and 7.2.2.
- b. An "affected storage tank" for the purpose of these unit-specific conditions, is a storage tank that is subject to 35 IAC 218.121 and 218.122(b).
- c. An "affected storage tank" for the purpose of these unit-specific conditions, is a storage tank that is subject to 40 CFR Part 60 Subpart K--Standards Of Performance For Storage Vessels For Petroleum Liquids For Which Construction, Reconstruction, Or Modification Commenced After June 11, 1973, And Prior To May 19, 1978
  - i. Applicability is based upon the following:
    - A. The tank being used to store volatile petroleum liquids with a storage capacity greater than 151,412 liters (40,000 gallons). [40 CFR 60.110(a)]

- B. The tank has a capacity greater than 246,052 liters (65,000 gallons) and commenced construction or modification after June 11, 1973, and prior to May 19, 1978. [40 CFR 60.110(c)(2)]

The status of all storage tanks at this source, including the affected storage tank, is summarized in Attachment 6.

#### 7.2.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.120, 218.127, 218.128, and 218.129, because the affected tank is used solely for the storage of petroleum liquids. [35 IAC 218.119(e)]
- b. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.123(b), because the affected storage tank is subject to a new source performance standards for storage vessels of petroleum liquid, See Condition 7.2.3(c). [35 IAC 218.123(a)(5)]
- c. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.124(a), because the affected storage tank is exempted under 35 IAC 218.123(a)(5) since the affected storage tank is subject to a new source performance standards for storage vessels of petroleum liquid, See Condition 7.2.3(c). [35 IAC 218.124(b)(1)]
- d. The affected storage tank is not subject to the requirements of 35 IAC Part 218, Subpart QQ or TT, because the affected tank is subject to 35 IAC 218, Subpart B. [35 IAC 218.940(a) and (b) and 218.980(a) and (b)]
- e. The affected storage tank is not subject to the New Source Performance Standards (NSPS) in 40 CFR Part 60, Subpart Ka or Kb, because the affected tank is subject to 40 CFR Part 60, Subpart K, See Condition 7.2.3(c).
- f. The affected storage tank is not subject to 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities, because the affected storage tank does not store gasoline (See Condition 7.2.6). [40 CFR 63.11082(a)]
- g. The affected storage tank is not subject to 40 CFR 63, Subpart EEEE-National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) because the source is not a major source of HAPs (i.e., aggregate HAP emissions from the source are less than 10 tons of each individual HAP and 25 tons for all HAPs). (See also Condition 5.1.2)
- h. The affected storage tank is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tank uses passive control

measures, which include seals, lids, or roof, that are not a "control device" as defined in 40 CFR 64.1.

#### 7.2.5 Control Requirements and Work Practices

- a. Each affected tank shall be equipped with the following:
- i. A floating roof which rests on the surface of the stored liquid and is equipped with a primary seal [35 IAC 218.121(b)(1) and 40 CFR 60.112(a)(1)];  
  
Pursuant to 35 IAC 211.2410; "Floating roof" means a roof on a stationary tank, reservoir, or other container which moves vertically upon change in volume of the stored material.  
  
Pursuant to 40 CFR 60.111(j); *Floating roof* means a storage vessel cover consisting of a double deck, pontoon single deck, internal floating cover or covered floating roof, which rests upon and is supported by the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank wall
  - ii. Pursuant to 35 IAC 218.121(b)(1), the affected storage tank shall be equipped with a floating roof which rests on the surface of the VPL and is equipped with a closure seal or seals between the roof edge and the tank wall. Such floating roof shall not be permitted if the VPL has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3°K (70°F). No person shall cause or allow the emissions of air contaminants into the atmosphere from any gauging or sampling devices attached to an affected tank, except during sampling or maintenance operations.
  - iii. A permanent submerged loading pipe. [35 IAC 218.122(b)]

#### 7.2.6 Production and Emission Limitations

In addition to the source-wide emission limitations in Condition 5.6, the affected storage tank is subject to the following:

- a. Pursuant to Section 39.5(7)(a) of the Act and Conditions 5.4.1 through 5.4.4, 7.2.4(a), (b), and (f), the Permittee shall only store non-gasoline volatile petroleum liquids and pursuant to 40 CFR 60.112(a)(1), the maximum vapor pressure of VPL stored in the affected tank shall not exceed 11.1 psia.

#### 7.2.7 Testing Requirements

Testing requirements are not set for the affected tank. However, there are general testing requirements in Conditions 5.7 and 8.5.

#### 7.2.8 Monitoring Requirements

- a. The Permittee shall fulfill all of the following applicable monitoring of operations requirements of 40 CFR Part 60 Subpart K for the affected tank [40 CFR 60.113].
  - i. Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Illinois EPA specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s). [40 CFR 60.113(b)]
  - ii. The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia). [40 CFR 60.113(c)]
- b. Pursuant to 39.5(7)(b) and (d) of the Act, the Permittee shall perform the following to verify that the affected tank is in compliance with the requirements listed in Conditions 5.6 and 7.2.5:
  - i. The Permittee shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. The inspection must verify that the seal is intact and uniformly in place around the circumference of the floating roof between the floating roof and tank wall.
    - A. If the external 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, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VPL.
    - B. The Permittee shall notify the Illinois EPA in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Illinois EPA the opportunity to inspect the storage vessel prior to refilling. If the required inspection is not planned and the owner or operator could not have known about the inspection 30 days in advance of 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.

- ii. The Permittee shall perform annual secondary seal gap measurements between the secondary seal and the tank wall. The measurement shall be performed as specified in 35 IAC 218.124(a)(2)(B) and 218.124(a)(6) as follows:
  - A. Physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (0.125 in.) uniform diameter probe passes freely (without forcing or binding against the seal) between the seal and the tank wall; and
    - ii) Summing the area of the individual gaps.

#### 7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected tank to demonstrate compliance with Conditions 5.6.1 7.2.3, 7.2.5, 7.2.6 and 7.2.8, pursuant to Section 39.5(7)(b) of the Act:

- a. 40 CFR Part 60 Subpart K

The Permittee shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period. [40 CFR 60.113(a)]

- b. The Permittee shall maintain the following general records:
  - i. Throughput and Emissions Records
    - A. The throughput of each VPL through each affected tank on a monthly basis;
    - B. The number of roof landings on a monthly basis.
    - C. Methods, procedures and calculations used to determine emissions. This includes: calculations and equations (which may include output derived from computer generated programs or spreadsheets); emission factors; and as applicable assumptions and variables used to calculate emissions; and

- D. VOM emissions attributable to each VPL stored in the storage tank, tons/month, with supporting calculations.
- ii. Records that are sufficient to identify whenever the tank is empty for any reason.
- iii. Maintenance, repair, and inspection records for the affected storage tank, i.e., inspection, repair or replacement of the submerged loading pipe or submerged fill and/or roof seals, and overall activities related to leak and or spill cleanups;
- iv. Records of the results of inspections required under Conditions 7.2.8(b) (i) and (b) (ii).

#### 7.2.10 Reporting Requirements

##### a. Deviations

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

- i. Any storage of VPL in an affected storage tank that is not in compliance with the control requirements (due to absence of the features required by Condition 7.2.5, e.g., "no submerged loading pipe,") within 5 days of becoming aware of the non-compliance status.
- ii. Any storage of VPL in an affected storage tank that is out of compliance with the control requirements (Condition 7.2.5) due to damage, deterioration, or other condition of the tank, within 30 days of becoming aware of the non-compliance status.
- iii. Any storage of VPL in an affected storage tank that is out of compliance with the limits on the material that may be stored shown in Condition 7.2.6, within 30 days of becoming aware of the non-compliance status.

These notifications shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

##### b. Other Notifications and Reports

- i. The Permittee shall notify the Illinois EPA 30 days in advance of any gap measurements to afford the Illinois EPA the opportunity to have an observer present.

#### 7.2.11 Operational Flexibility/Anticipated Operating Scenarios

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

- a. Changes in the material stored in an affected tank, provided the tank continues to comply with the Conditions in Section 7.2 of this permit. For example, material other than crude oil could be stored provided that all conditions in Section 7.2 are still met (including negative applicability conditions found in 7.2.4); and
- b. Changes accounted for in Condition 5.11.

7.2.12 Compliance Procedures

- a. Compliance with Conditions 7.2.3(c) and 7.2.5 shall be based inspections, recordkeeping and reporting requirements in Conditions 7.2.8, 7.2.9, and 7.2.10.

7.3 Group 3 Storage Tank - External Floating Roof Petroleum Liquid Storage Tank Subject to 40 CFR 60 Subpart Kb

7.3.1 Description

The Permittee operates an external floating roof storage tank equipped with a liquid mounted primary seal and a rim mounted secondary seal that stores petroleum liquids (typically crude oil). Permanent submerged loading must be used on the tank, minimizing turbulence and evaporation of VOM during loading. The tank is subject to specific NSPS requirements.

Note: This narrative description is for informational purposes only and is not enforceable.

7.3.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Construction Date	Emission Control Equipment
7295	External Floating Roof Petroleum Liquid Storage Tank	2003	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe

See Attachment 6 for more information regarding Tank designations and status.

7.3.3 Applicable Provisions and Regulations

- a. The "affected storage tank" for the purpose of these unit-specific conditions, is the storage tank described in Conditions 7.3.1 and 7.3.2.
- b. An "affected storage tank" for the purpose of these unit-specific conditions, is a storage tank that is subject to 35 IAC 218.121 and 218.122(b).
- c. An "affected storage tank" for the purpose of these unit-specific conditions, is a storage tank that is subject to 40 CFR Part 60 Subpart Kb-- Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
  - i. Applicability is based upon the following:
    - A. The affected tank having a capacity greater than or equal to 75 cubic meters (m<sup>3</sup>) that is used to store volatile organic liquids (VOL) for

which construction, reconstruction, or modification commenced after July 23, 1984). [40 CFR 60.110b(a)]

The status of all storage tanks at this source, including the affected storage tank, is summarized in Attachment 6.

#### 7.3.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.120, 218.127, 218.128, and 218.129, because the affected tank is used solely for the storage of petroleum liquids. [35 IAC 218.119(e)]
- b. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.123(b), because the affected storage tank is subject to a new source performance standards for storage vessels of petroleum liquid, See Condition 7.3.3(c). [35 IAC 218.123(a) (5)]
- c. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.124(a), because the affected storage tank is exempted under 35 IAC 218.123(a) (5) since the affected storage tank is subject to a new source performance standards for storage vessels of petroleum liquid, See Condition 7.3.3(c). [35 IAC 218.124(b) (1)]
- d. This permit is issued based on the affected storage tank not being subject to 35 IAC Part 218, Subpart QQ or TT, because the affected tank is subject to 35 IAC 218, Subpart B. [35 IAC 218.940(a) and (b) and 218.980(a) and (b)]
- e. The affected storage tank is not subject to the New Source Performance Standards (NSPS) in 40 CFR Part 60, Subpart K or Ka, because the affected tank is subject to 40 CFR Part 60, Subpart Kb, See Condition 7.3.3(c).
- f. This permit is issued based on the affected storage tank not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tank uses passive control measures, which include seals, lids, or roof, that are not a "control device" as defined in 40 CFR 64.1.
- g. The affected storage tank is not subject to 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities, because the affected storage tank does not store gasoline (See Condition 7.2.6). [40 CFR 63.11082(a)]
- h. The affected storage tank is not subject to 40 CFR 63, Subpart EEEE-National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) because the source is not a major source of HAPs (i.e., aggregate HAP emissions from the source are less than 10

tons of each individual HAP and 25 tons for all HAPs). (See also Condition 5.1.2)

#### 7.3.5 Control Requirements and Work Practices

- a. Each affected tank shall be equipped with the following:
  - i. A permanent submerged loading pipe [35 IAC 218.122(b)]; and
  - ii. Pursuant to 35 IAC 218.121(b)(1), the affected tanks shall be equipped with a floating roof which rests on the surface of the VPL and is equipped with a closure seal or seals between the roof edge and the tank wall. Such floating roof shall not be permitted if the VPL has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3°K (70°F). No person shall cause or allow the emissions of air contaminants into the atmosphere from any gauging or sampling devices attached to an affected tank, except during sampling or maintenance operations.

NOTE: There is also a more restrictive vapor pressure limitation in Condition 7.3.6(a) of the permit.

- b. 40 CFR Part 60 Subpart Kb

The Permittee shall equip the affected storage tank with an external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. The external floating roof must meet the following specifications [40 CFR 60.112b(a)(2)]:

- i. The external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal [40 CFR 60.112b(a)(2)(i)].
  - A. The primary seal shall be a mechanical shoe seal. Except as provided in 40 CFR 60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall [40 CFR 60.112b(a)(2)(i)(A)].
  - B. The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 40 CFR 60.113b(b)(4) [40 CFR 60.112b(a)(2)(i)(B)].
- ii. Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating

roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents 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. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening [40 CFR 60.112b(a) (2) (ii)].

- iii. The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible [40 CFR 60.112b(a) (2) (iii)].

#### 7.3.6 Production and Emission Limitations

In addition to the source-wide emission limitations in Condition 5.6, the affected storage tank is subject to the following:

- a. Pursuant to Section 39.5(7) (a) of the Act and Conditions 5.4.1 through 5.4.4, and 7.3.4(a) through (c) and (g), the Permittee shall only store non-gasoline volatile petroleum liquid and pursuant to 40 CFR 60.112b(b), the maximum vapor pressure of VPL stored in the affected tank shall not exceed 76.6 kPa (11.1 psia).
- b.
  - i. Throughput of material for the affected Tank 7295 shall not exceed 441,504,000 gallons/month and 4,415,040,000 gallons/year. [T1]
  - ii. Emissions from the affected Tank 7295 including roof landing losses shall not exceed the following limits. Compliance with these limits shall be determined using the compliance procedures specified in Condition 7.3.12. [T1]

VOM Emissions	
<u>(Tons/Mo)</u>	<u>(Tons/Year)</u>

1.8	17.52
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- iii. 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]
- iv. The above limitations were established in Permit 02050083, 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].

#### 7.3.7 Testing Requirements

- a. As per Condition 7.3.9(a) and (c) and 40 CFR 60.116b, the Permittee is required to determine and keep records the vapor pressure of all VOLs stored in the affected storage tank. The Permittee shall determine the vapor pressure of the liquids stored in the affected storage tank as follows:
  - i. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below [40 CFR 60.116b(e)].
    - A. 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 [40 CFR 60.116b(e) (1)].
    - B. For crude oil the vapor pressure may be obtained from the following:
      - i. Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Illinois EPA specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s) [40 CFR 60.116b(e) (2) (i)].
      - ii. The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the

recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa [40 CFR 60.116b(e) (2) (ii)].

### 7.3.8 Monitoring Requirements

- a. The Permittee shall ensure proper operation of each affected storage tank through the following methods and procedures specified in 40 CFR 60, Subpart Kb (i.e., 40 CFR 60.113b(b)).
  - i. Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency. [40 CFR 60.113b(b) (1)]
    - A. Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed at least once every 5 years.
    - B. Measurements of gaps between the tank wall and the secondary seal shall be performed at least once per year.
  - ii. Determine gap widths and areas in the primary and secondary seals individually by the following procedures [40 CFR 60.113b(b) (2)]:
    - A. Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
    - B. Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm (1/8 inch) diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.
    - C. The total surface area of each gap described in Condition 7.3.8(a) (ii) (B) shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
  - iii. Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in Condition 7.3.8(a) (iv). [40 CFR 60.113b(b) (3)]

- iv. Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in Condition 7.3.8(a)(iv)(A) and (B) [40 CFR 60.113b(b)(4)]:
  - A. The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 square centimeters per meter of tank diameter (10.0 square inches per foot of tank diameter), and the width of any portion of any gap shall not exceed 3.81 cm (1.5 inches).
    - 1. One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm (24 inches) above the stored liquid surface.
    - 2. There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
  - B. The secondary seal is to meet the following requirements:
    - 1. The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in Condition 7.3.8(a)(ii)(C).
    - 2. The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters per meter of tank diameter (1.0 square inches per foot of tank diameter), and the width of any portion of any gap shall not exceed 1.27 cm (0.5 inches).
    - 3. There are to be no holes, tears, or other openings in the seal or seal fabric.
  - C. If a failure that is detected during inspections required in Condition 7.3.8(a)(i) 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(b). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

- v. Notify the Illinois EPA 30 days in advance of any gap measurements required by Condition 7.3.8(a) (i) to afford the Illinois EPA the opportunity to have an observer present. [40 CFR 60.113b(b) (5)]
- vi. Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. [40 CFR 60.113b(b) (6)]
  - A. If the external 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, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.
  - B. For all the inspections required by Condition 7.3.8(a) (vi), the owner or operator shall notify the Illinois EPA in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Illinois EPA the opportunity to inspect the storage vessel prior to refilling. If the inspection required by Condition 7.3.8(a) (vi) is not planned and the owner or operator could not have known about the inspection 30 days in advance of 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.

#### 7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected tank to demonstrate compliance with Conditions 5.6.1 7.3.3, 7.3.5 and 7.3.8, pursuant to Section 39.5(7) (b) of the Act:

- a. The Permittee shall fulfill all of the following applicable monitoring of operations requirements of 40 CFR Part 60 Subpart Kb for the affected tank [40 CFR 60.116b].
  - i. Readily accessible records showing the dimension of the affected storage tank and an analysis showing the capacity of the affected storage tank. [40 CFR 60.116b(b)]

- ii. Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. [40 CFR 60.116b(c)]
- b. The Permittee shall fulfill all of the following applicable recordkeeping of 40 CFR Part 60 Subpart Kb for the affected tank [40 CFR 60.115b].
  - i. The results of any inspections and/or measurements required by the Condition 7.3.8, [40 CFR 60.115b(b)(3)] including:
    - A. Type of inspection;
    - B. When the inspection and/or measurement was performed;
    - C. Who performed the inspection and/or measurement;
    - D. The method of inspection and/or measurement;
    - E. The observed condition of each feature of the external floating roof (seals, roof deck and fittings) with raw data recorded during the inspection and/or measurement; and
    - F. The calculations described in Condition 7.3.8(a)(ii) and (iii).
- c. The Permittee shall maintain the following general records [Section 39.5(7)(b) of the Act]:
  - i. Throughput and Emissions Records
    - A. The throughput of each VPL through each affected tank on a monthly basis;
    - B. The number of roof landings on a monthly basis.
    - C. Methods, procedures and calculations used to determine emissions. This includes: calculations and equations (which may include output derived from computer generated programs or spreadsheets ); emission factors; and as applicable assumptions and variables used to calculate emissions; and
    - D. VOM emissions attributable to each VPL stored in the storage tank, tons/month, with supporting calculations.
  - ii. Records that are sufficient to identify whenever the tank is empty for any reason.

- iii. Maintenance, repair, and inspection records for the affected storage tank, i.e., inspection, repair or replacement of the submerged loading pipe or submerged fill and/or roof seals, overall activities related to leak and or spill cleanups,;

#### 7.3.10 Reporting Requirements

##### a. Deviations

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

- i. Any storage of VPL in an affected storage tank that is not in compliance with the control requirements (due to absence of the features required by Condition 7.3.5, e.g., "no submerged loading pipe,") within 5 days of becoming aware of the non-compliance status.
- ii. Any storage of VPL in an affected storage tank that is out of compliance with the control requirements (Condition 7.3.5) due to damage, deterioration, or other condition of the tank, within 30 days of becoming aware of the non-compliance status.
- iii. Any storage of VPL in an affected storage tank that is out of compliance with the limits on the material that may be stored, throughput and emission limits shown in Condition 7.3.6, within 30 days of becoming aware of the non-compliance status.

These notifications shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps to be taken to avoid future non-compliance.

- b. The Permittee shall fulfill all of the following applicable reporting of operations requirements of 40 CFR Part 60 Subpart Kb for the affected tank [40 CFR 60.115b].
  - i. Within 60 days of performing the seal gap measurements required by Condition 7.3.8(a)(i), furnish the Illinois EPA with a report that contains information required under Condition 7.3.9(b). [40 CFR 60.115b(b)(2)]
  - ii. After each seal gap measurement that detects gaps exceeding the limitations specified by Condition 7.3.8(a)(iv), submit a report to the Illinois EPA within 30 days of the inspection. [40 CFR 60.115b(b)(4)]

- iii. The Permittee shall comply with the additional notification and reporting requirement shown in Condition 7.3.8(a)(iv) through (vi). [40 CFR 60.113b(b)(4) through (6)]

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

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

- a. Changes in the material stored in an affected tank, provided the tank continues to comply with the Conditions in Section 7.3 of this permit. For example, material other than crude oil could be stored provided that all conditions in Section 7.3 are still met (including negative applicability conditions found in 7.3.4); and
- b. Changes accounted for in Condition 5.11.

7.3.12 Compliance Procedures

- a. Compliance with Conditions 7.3.3(c) and 7.3.5 shall be based on inspections, recordkeeping and reporting requirements in Conditions 7.3.8, 7.3.9, and 7.3.10.

7.4 Group 4 Storage Tanks - Internal Floating Roof Petroleum Liquid Storage Tanks Subject to 40 CFR 60 Subpart Kb

7.4.1 Description

The Permittee operates five internal floating roof storage tanks each equipped with a mechanical shoe primary seal that store various petroleum products including gasoline and distillate fuel. Permanent submerged loading must be used at these tanks, minimizing turbulence and evaporation of VOM during filling.

Note: This narrative description is for informational purposes only and is not enforceable.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Construction Date	Emission Control Equipment
43000	Internal Floating Roof Petroleum Liquid Storage Tank	1986	Mechanical Shoe Primary Seal, and Permanent Submerged Loading Pipe
43001	Internal Floating Roof Petroleum Liquid Storage Tank	1986	Mechanical Shoe Primary Seal, and Permanent Submerged Loading Pipe
43002	Internal Floating Roof Petroleum Liquid Storage Tank	1986	Mechanical Shoe Primary Seal, and Permanent Submerged Loading Pipe
43003	Internal Floating Roof Petroleum Liquid Storage Tank	1986	Mechanical Shoe Primary Seal, and Permanent Submerged Loading Pipe
43004	Internal Floating Roof Petroleum Liquid Storage Tank	1986	Mechanical Shoe Primary Seal, and Permanent Submerged Loading Pipe

See Attachment 6 for more information regarding Tank designations and status.

7.4.3 Applicable Provisions and Regulations

- a. The "affected storage tanks" for the purpose of these unit-specific conditions, are storage tanks described in Conditions 7.4.1 and 7.4.2.
- b. The "affected storage tanks" for the purpose of these unit-specific conditions, are the group of storage tanks that is subject to 35 IAC 218.121 and 218.122 (b).

c. The "affected storage tanks," for the purposes of these unit specific conditions are storage tanks that are subject to the control requirement of 40 CFR 60 Subpart Kb that rely on an internal floating roof and a permanent submerged loading pipe for compliance.

i. Applicability is based upon the following:

A. The affected storage tanks each having a capacity greater than or equal to 75 cubic meters ( $m^3$ ) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification commenced after July 23, 1984). [40 CFR 60.110b(a)]

d. 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

The affected storage tanks are subject to 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities and as applicable the general requirements in 40 CFR 63 Subpart A. These requirements include but are not limited to the following [40 CFR 63.11087]:

i. The Permittee must meet each emission limit and management practice in 40 CFR 63 Subpart BBBBBB - Table 1, that applies to the affected gasoline storage tanks.

Table 1 to Subpart BBBBBB of Part 63.-Applicability Criteria, Emission Limits, and Management Practices for Storage Tanks

A gasoline storage tank with a capacity of greater than or equal to 75 $m^3$	(a) Reduce emissions of total organic HAP or TOC by 95 weight-percent with a closed vent system and control device as specified in 40 CFR 60.112b(a) (3); or
	(b) Equip each internal floating roof gasoline storage tank according to the requirements in 40 CFR 60.112b(a) (1), except for the secondary seal requirements under 40 CFR 60.112b(a) (1) (ii) (B) and the requirements in 40 CFR 60.112b(a) (1) (iv) through (ix); and

	(c) Equip each external floating roof gasoline storage tank according to the requirements in 40 CFR §60.112b(a) (2), except that the requirements of 40 CFR 60.112b(a) (2) (ii) shall only be required if such storage tank does not currently meet the requirements of 40 CFR 60.112b(a) (2) (i); or
	(d) Equip and operate each internal and external floating roof gasoline storage tank according to the applicable requirements in 40 CFR 63.1063(a) (1) and (b), and equip each external floating roof gasoline storage tank according to the requirements of 40 CFR 63.1063(a) (2) if such storage tank does not currently meet the requirements of 40 CFR 63.1063(a) (1).

- ii. The Permittee must comply with the requirements of 40 CFR 63 Subpart BBBBBB by the applicable dates specified in 40 CFR 63.11083 and Condition 5.3.8(d), except that storage vessels equipped with floating roofs and not meeting the requirements of 40 CFR 63.11087(a) must be in compliance at the first degassing and cleaning activity after January 10, 2011 or by January 10, 2018, whichever is first.
- iii. The Permittee must comply with the applicable testing and monitoring requirements specified in Condition 7.4.8 and 40 CFR 63.11092(e) and Condition 7.4.7.
- iv. The Permittee must submit the applicable notifications as required under Condition 5.10.4(b) and 40 CFR 63.11093.
- v. The Permittee must keep records and submit reports as specified in Condition 7.4.9(c) and 5.10.4(c) and 40 CFR 63.11094 and 63.11095, respectively.
- vi. If an unaffected gasoline storage tank is subject to, and complies with, the control requirements of 40 CFR part 60, subpart Kb, the affected storage tank will be deemed in compliance with 40 CFR 63.11087. The Permittee must report this determination in the Notification of Compliance Status report under Condition 5.10.4(b) and 40 CFR 63.11093(b).

See Attachment 6, for more information regarding Tank designations and status.

7.4.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected storage tanks not being subject to 35 IAC 218.120, 218.127, 218.128, and 218.129, because the affected tanks are used solely for the storage of petroleum liquids, pursuant to 35 IAC 218.119(e).

- b. This permit is issued based on the affected storage tanks not being subject to 35 IAC 218.123(b), because the affected tanks are subject to new source performance standards for storage vessels of petroleum liquid, 40 CFR Part 60, Subpart Kb, pursuant to 35 IAC 218.123(a)(5).
- c. This permit is issued based on the affected storage tanks not being subject to 35 IAC 218.124, because the affected tanks are equipped with internal floating roofs not external floating roofs.
- d. The affected storage tanks are not subject to the requirements of 35 IAC Part 218, Subpart QQ or TT, because the affected tank is subject to 35 IAC 218, Subpart B [35 IAC 218.940(a) and (b) and 218.980(a) and (b)].
- e. The affected storage tanks are not subject to 40 CFR 63, Subpart EEEE—National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) because the source is not a major source of HAPs (i.e., aggregate HAP emissions from the source are less than 10 tons of each individual HAP and 25 tons for all HAPs). (See also Condition 5.1.2)
- f. The affected storage tanks are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, not being subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tanks use passive control measures, which include seals, lids, or roof, that are not a “control device” as defined in 40 CFR 64.1.

#### 7.4.5 Control Requirements and Work Practices

- a. The affected storage tanks and associated internal floating roof shall be operated in compliance with the operating requirements of 40 CFR 60.112b(a)(1), as follows:
  - 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 [40 CFR 60.112b(a)(1)(i)].
  - 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 [40 CFR 60.112b(a)(1)(ii)]:

- 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 [40 CFR 60.112b(a) (1) (ii) (A)].
  - 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 [40 CFR 60.112b(a) (1) (ii) (B)].
  - 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 [40 CFR 60.112b(a) (1) (ii) (C)].
- iii. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents shall provide a projection below the liquid surface [40 CFR 60.112b(a) (1) (iii)].
  - 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 shall be equipped with a cover or lid which is maintained in a closed position at all times (i.e., no visible gaps) 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 [40 CFR 60.112b(a) (1) (iv)].
  - v. Automatic bleeder vents shall be equipped with a gasket and 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 [40 CFR 60.112b(a) (1) (v)].
  - vi. Rim space vents shall be equipped with a gasket and be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting [40 CFR 60.112b(a) (1) (vi)].
  - 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 [40 CFR 60.112b(a) (1) (vii)].

- viii. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover [40 CFR 60.112b(a) (1) (viii)].
  - ix. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover [40 CFR 60.112b(a) (1) (ix)].
- b. The affected storage tanks shall also be equipped with the following
- i. A permanent submerged loading pipe [35 IAC 218.122(b)]; and
  - ii. Pursuant to 35 IAC 218.121(b) (1), the affected tanks shall be equipped with a floating roof which rests on the surface of the VPL and is equipped with a closure seal or seals between the roof edge and the tank wall. Such floating roof shall not be permitted if the VPL has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3°K (70°F). No person shall cause or allow the emissions of air contaminants into the atmosphere from any gauging or sampling devices attached to an affected tank, except during sampling or maintenance operations.

#### 7.4.6 Production and Emission Limitations

Pursuant to Section 39.5(7) (a) of the Act and 40 CFR 60.112b(b), the maximum vapor pressure of VPL stored in the affected tank shall not exceed 76.6 kPa (11.1 psia).

#### 7.4.7 Testing Requirements

- a. As per Condition 7.4.9(a) (iii) and 40 CFR 60.116b, the Permittee is required to determine and keep records of the vapor pressure of all VOLs stored in the affected storage tanks. The Permittee shall determine the vapor pressure of the liquids stored in the affected storage tanks as follows:
  - i. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below [40 CFR 60.116b(e)].
    - A. 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 [40 CFR 60.116b(e) (1)].

- B. For refined petroleum products the vapor pressure may be obtained from available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Illinois EPA specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s) [40 CFR 60.116b(e) (2) (i)].

#### 7.4.8 Monitoring Requirements

The Permittee shall fulfill the applicable testing and procedures requirements of 40 CFR 60.113b(a) for each affected tank equipped with an internal floating roof as follows:

- a. 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 [40 CFR 60.113b(a) (1)].
- b. 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 7.4.10 and 40 CFR 60.115b(a) (3). 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 [40 CFR 60.113b(a) (2)].
- c. For vessels equipped with a double-seal system as specified in 40 CFR 60.112b(a) (1) (ii) (B) [40 CFR 60.113b(a) (3)]:

- i. Visually inspect the vessel as specified in Condition 7.4.8(d) and 40 CFR 60.113b(a) (4) at least every 5 years; or
  - ii. Visually inspect the vessel as specified in Condition 7.4.8(b) and 40 CFR 60.113b(a) (2) .
- d. 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 Condition 7.4.8(b) and (c) (ii) and 40 CFR 60.113b(a) (2) and (a) (3)(ii) and at intervals no greater than 5 years in the case of vessels specified in Condition 7.4.8(c) (i) and 40 CFR 60.113b(a) (3) (i) [40 CFR 60.113b(a) (4)].
- e. The affected gasoline storage tanks subject to 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities, See Condition 7.4.3(d). The Permittee shall comply with the monitoring requirements 40 CFR 63 Subpart BBBBBB as follows:
 

Each owner or operator subject to the emission standard in §63.11087 for gasoline storage tanks shall comply with the requirements in 40 CFR 63.11092(e) (1).

  - i. In this case the affected gasoline storage tanks are equipped with internal floating roofs, See Condition 7.4.1 and 7.4.2, therefore the Permittee must perform inspections of the floating roof system according to the requirements of 40 CFR 60.113b(a) if the Permittee is complying with option 2(b) in Table 1 of 40 CFR 63 Subpart BBBBBB, or according to the requirements of 40 CFR 63.1063(c) (1) if the Permittee is complying with option 2(d) in Table 1 of 40 CFR 63 Subpart BBBBBB. [40 CFR 63.11092(e) (1) }

#### 7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each affected storage tank to demonstrate compliance with Conditions 5.6.1, and 7.4.8 and the applicable recordkeeping requirements

of 40 CFR 60.115b and 60.116b, pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall fulfill all of the following applicable monitoring of operations requirements of 40 CFR Part 60 Subpart Kb for the affected tank [40 CFR 60.116b].
  - i. Readily accessible records showing the dimension of the affected storage tank and an analysis showing the capacity of the affected storage tank. [40 CFR 60.116b(b)]
  - ii. Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. [40 CFR 60.116b(c)]
- b. The Permittee shall fulfill all of the following applicable recordkeeping of 40 CFR Part 60 Subpart Kb for the affected tank [40 CFR 60.115b].
  - i. Pursuant to 40 60.115b(a)(2), keep a record of each inspection performed as required by Condition 7.4.8(a), (b), (c), and (d) and 40 CFR 60.113b(a)(1), (a)(2), (a)(3), and (a)(4). 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).
- c. The Permittee shall maintain the following general records [39.5(7)(b) and (e) of the Act]:
  - i. Throughput and Emissions Records
    - A. The throughput of each VPL through each affected tank on a monthly basis;
    - B. The number of roof landings on a monthly basis.
    - C. Methods, procedures and calculations used to determine emissions. This includes: calculations and equations (which may include output derived from computer generated programs or spreadsheets ); emission factors; and as applicable assumptions and variables used to calculate emissions; and
    - D. VOM emissions attributable to each VPL stored in the storage tank, tons/month, with supporting calculations.
  - ii. Records that are sufficient to identify whenever the tank is empty for any reason.

- iii. Maintenance, repair, and inspection records for the affected storage tank, i.e., inspection, repair or replacement of the submerged loading pipe or submerged fill and/or roof seals, overall activities related to leak and or spill cleanups,
- iv. In conjunction with the records required under Condition 7.4.9(b), the Permittee shall keep and retain the following additional records pursuant to the inspection requirements in Condition 7.4.8,:
  - A. Type of inspection and/or the provision for the inspection pursuant to Condition 7.4.8;
  - B. When the inspection and/or measurement was performed;
  - C. Who performed the inspection and/or measurement; and
  - D. The method of inspection and/or measurement;
- d. 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

Pursuant to 40 CFR 63.11094(a), the Permittee shall keep records as specified in Condition 7.4.9(b) and 40 CFR 60.115b.

#### 7.4.10 Reporting Requirements

##### a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected storage tanks 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:

- i. Any storage of VOL in an affected tank that is not in compliance with the control requirements due to absence of the features required by Condition 7.4.5, e.g., "no submerged loading pipe", within five days of becoming aware of the non-compliance status.
- ii. Any storage of VOL in an affected tank that is out of compliance with the control requirements (Condition 7.4.5) due to damage, deterioration, or other condition of the tank, within 30 days of becoming aware of the non-compliance status.
- iii. Any exceedance of the emission and operational limits shown in Conditions 7.4.6 within 30 days of becoming aware of the non-compliance status.

b. Reports Required by 40 CFR 60, Subpart Kb

The Permittee shall submit written notifications and reports to the Illinois EPA, Compliance Section as required by the NSPS, for each affected tank, as follows:

- i. The Permittee shall 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 Condition 7.4.8(a) and (d) and 40 CFR 60.113b(a)(1) and (a)(4) to afford the Illinois EPA the opportunity to have an observer present. If the inspection required by Condition 7.4.8(d) and 40 CFR 60.113b(a)(4) 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)].
  - ii. If any of the conditions described in Condition 7.4.8(b) and 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 60.113b(a)(2), a report shall be furnished to the Illinois EPA within 30 days of the inspection. Each report shall include the information required in Condition 7.4.9(b)(i). This includes but is not limited to the following: 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)].
  - iii. After each inspection required by Condition 7.4.8(c) and 40 CFR 60.113b(a)(3) 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 7.4.8(c)(ii) and 40 CFR 60.113b(a)(3)(ii), 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 7.4.5(a) or 7.4.8(c) and 40 CFR 60.112b(a)(1) or 60.113b(a)(3) and list each repair made [40 CFR 60.115b(a)(4)].
- c. 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

- i. Pursuant to Condition 5.10.4(c) and 40 CFR 63.11095(a)(1), the Permittee shall submit a semi-annual compliance report, with the information specified in Condition 7.4.10(b)(ii) and (iii) and 40 CFR 60.115b(a).

#### 7.4.11 Operational Flexibility/Anticipated Operating Scenarios

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

- a. Changes in the material stored in an affected tank, provided the tank continues to comply with the Conditions in Section 7.4 of this permit. For example, material other than petroleum products could be stored provided that all conditions in Section 7.4 are still met (including negative applicability conditions found in 7.4.4); and
- b. Changes accounted for in Condition 5.11.

#### 7.4.12 Compliance Procedures

- a. Compliance with Conditions 7.4.3(b) and (c) and 7.3.5 shall be based inspections, recordkeeping and reporting requirements in Conditions 7.4.8, 7.4.9, and 7.4.10.

7.5 Group 5 Storage Tank - Existing Internal Floating Roof Petroleum Liquid Storage Tank

7.5.1 Description

The Permittee operates a former external floating roof tank that has had a geodesic dome installed. It is now being operated as an internal floating roof storage tank and is equipped with a mechanical shoe primary seal and a rim mounted secondary seal and permanent submerged loading in order to minimize turbulence and evaporation of VOM. The tank is used to store petroleum liquids (typically crude oil).

Note: This narrative description is for informational purposes only and is not enforceable.

7.5.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Construction Date	Emission Control Equipment
6973	Internal Floating Roof Petroleum Liquid Storage Tank	1951 Dome Installed November 2009	Mechanical Shoe Primary Seal, Rim-Mounted Secondary Seal, and a Permanent Submerged Loading Pipe

See Attachment 6 for more information regarding Tank designations and status.

7.5.3 Applicable Provisions and Regulations

- a. The "affected storage tank" for the purpose of these unit-specific conditions, is a storage tank described in Conditions 7.5.1 and 7.5.2.
- b. An "affected storage tank," for the purposes of these unit specific conditions is a storage tank that is subject to the control requirement of 35 IAC 218.121, 218.122(b), and 218.123 that relies on an internal floating roof and a permanent submerged loading pipe for compliance.

7.5.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.120, 218.127, 218.128, and 218.129, because the affected tank is used solely for the storage of petroleum liquids, pursuant to 35 IAC 218.119(e).
- b. This permit is issued based on the affected storage tank not being subject to 35 IAC 218.124, because the affected tank is equipped with an internal floating roof not an external floating roof.

- c. The affected storage tank is not subject to the requirements of 35 IAC Part 218, Subpart QQ or TT, because the affected tank is subject to 35 IAC 218, Subpart B. [35 IAC 218.940(a) and (b) and 218.980(a) and (b)]
- d. The affected storage tank is not subject to the New Source Performance Standards (NSPS) in 40 CFR Part 60, Subpart Subparts K, Ka or Kb, because the affected tank was constructed prior to the applicability dates listed in the respective subparts, i.e., the affected tank was constructed prior to June 11, 1973, May 18, 1978, and July 23, 1984, respectively. [40 CFR 60.110(c)(2), 40 CFR 60.110a(a), and 40 CFR 60.110b(a)]
- e. The affected storage tank is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected tank uses passive control measures, which include seals, lids, or roof, that are not a "control device" as per the definition in 40 CFR 64.1.
- f. The affected storage tank is not subject to 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities, because the affected storage tank does not store gasoline (See Condition 7.5.6). [40 CFR 63.11082(a)]
- g. The affected storage tank is not subject to 40 CFR 63, Subpart EEEEE-National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) because the source is not a major source of HAPs (i.e., aggregate HAP emissions from the source are less than 10 tons of each individual HAP and 25 tons for all HAPs). (See also Condition 5.1.2)

#### 7.5.5 Control Requirements and Work Practices

- a. The affected tank shall be equipped with the following:
  - i. A permanent submerged loading pipe [35 IAC 218.122(b)(1)]; and
  - ii. Pursuant to 35 IAC 218.121(b)(1) and 218.123(b)(1), the affected tank shall be equipped with a floating roof which rests on the surface of the VPL and is equipped with a closure seal or seals between the roof edge and the tank wall. Such floating roof shall not be permitted if the VPL has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3°K (70°F). No person shall cause or allow the emissions of air contaminants into the atmosphere from any gauging or sampling devices attached to an affected tank, except during sampling or maintenance operations.
- b. Pursuant to 35 IAC 218.123(b), the Permittee shall not cause or allow the storage of any volatile petroleum liquid in any affected tank unless::

- i. There shall be no visible holes, tears, or other defects in the seal or any seal fabric or material of the 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 [35 IAC 218.123(b)(3)(A)];
  - B. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports [35 IAC 218.123(b)(3)(B)]; and
  - C. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [35 IAC 218.123(b)(3)(C)]

#### 7.5.6 Production and Emission Limitations

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

- a. Pursuant to Section 39.5(7)(a) of the Act and Conditions 5.4.1 through 5.4.4, 7.5.4 and 7.5.5(a)(ii), the Permittee shall only store non-gasoline volatile petroleum liquid with a maximum vapor pressure of not more than 12.5 psia at 70 °F. in the affected storage tank.

#### 7.5.7 Testing Requirements

Testing requirements are not set for the affected tank. However, there are general testing requirements in Conditions 5.7 and 8.5.

#### 7.5.8 Monitoring Requirements

- a. Pursuant to 35 IAC 218.123(b)(4), the Permittee shall perform routine inspections of each affected tank's floating roof seals through roof hatches semiannually to insure compliance with the applicable control and operating requirements in Condition 7.5.5(b).
- b. Pursuant to 35 IAC 218.123(b)(5), the Permittee shall perform a complete inspection of the cover and seal of any floating roof tank is 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.

#### 7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected storage tank to demonstrate compliance with Conditions 5.6.1, and 7.5.8, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the results of inspections required under Conditions 7.5.8(a) or (b) [35 IAC 218.123(b)(6)];
- b. The Permittee shall maintain the following general records:
  - i. Throughput and Emissions Records
    - A. A list of the types of petroleum liquids stored on a monthly basis in the affected storage tank along with data regarding the physical properties of each petroleum liquid store in the affected storage tank, as related to emissions, i.e., vapor pressure and molecular weight;
    - B. The throughput of each petroleum liquid through the affected storage tank on a monthly basis;
    - C. The number of roof landings on a monthly basis;
    - D. Methods, procedures and calculations used to determine emissions. This includes: calculations and equations (which may include output derived from computer generated programs or spreadsheets ); emission factors; and as applicable assumptions and variables used to calculate emissions; and
    - E. VOM emissions attributable to each petroleum liquid stored in the affected storage tank, tons/month, with supporting calculations.
  - ii. Maintenance, repair, and inspection records for the affected storage tank, i.e., inspection, repair or replacement of the submerged loading pipe or submerged fill and/or roof seals, overall activities related to leak and or spill cleanups.

#### 7.5.10 Reporting Requirements

- a. Reporting of Deviations

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

- i. Any storage of VPL in the affected tank that is not in compliance with the control requirements due to

absence of the features required by Condition 7.5.5, e.g., "no submerged loading pipe," within five days of becoming aware of the non-compliance status.

- ii. Any storage of VPL in an affected tank that is out of compliance with the control requirements (Condition 7.5.5) due to damage, deterioration, or other condition of the tank, within 30 days of becoming aware of the non-compliance status.
- iii. Any storage of VPL in the affected storage tank that is out of compliance with the limit on the material that may be stored (Condition 7.5.6), within 30 days of becoming aware of the non-compliance status.

#### 7.5.11 Operational Flexibility/Anticipated Operating Scenarios

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

- a. Changes in the material stored in an affected tank, provided the tank continues to comply with the Conditions in Section 7.5 of this permit. For example, material other than crude oil could be stored provided that all conditions in Section 7.5 are still met (including negative applicability conditions found in 7.5.4); and
- b. Changes accounted for in Condition 5.11.

#### 7.5.12 Compliance Procedures

- a. Compliance with Conditions 7.5.3(b) and (c) and 7.5.5 shall be based inspections, recordkeeping and reporting requirements in Conditions 7.5.8, 7.5.9, and 7.5.10.

7.6 Fugitive Emissions from Leaking Equipment and Components  
Control: None

7.6.1 Description

Fugitive emissions from leaking equipment and components, i.e., each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector, which are generated during the processing of material through the piping distributed throughout the source. Equipment and components associated with storage tanks that are insignificant activities under Section 3 of this permit are not covered by this Section of the permit.

Note: This narrative description is for informational purposes only and is not enforceable.

7.6.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Fugitive Emissions from Leaking Equipment Components	Each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector used to transfer materials between the pipe line and significant unit storage tanks	None

7.6.3 Applicable Provisions and Regulations

- a. The "affected leaking equipment components", for the purposes of these unit-specific conditions are each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector, processing material through the piping distributed throughout the source as described in Conditions 7.6.1 and 7.6.2.

- b. Pumps And Compressors

No person shall cause or allow the discharge of more than 32.8 ml (2 cu in) of VOL with vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3° K (70°F) into the atmosphere from any pump or compressor in any 15 minute period at standard conditions. [35 IAC 218.142]

- c. 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

The affected leaking equipment components in vapor or liquid gasoline service are subject to the 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals,

Bulk Plants, And Pipeline Facilities and as applicable the general requirements in 40 CFR 63 Subpart A

These requirements include but are not limited to the following: [40 CFR 63.11089]

- i. The Permittee shall perform a monthly leak inspection of all equipment in gasoline service, as defined in 40 CFR 63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR 63.11089(a)]
- ii. A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR 63.11089(b)]
- iii. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in Condition 7.6.3(c)(iv) and 40 CFR 63.11089(d). [40 CFR 63.11089(c)]
- iv. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report specified in Condition 5.10.4(c) and 40 CFR 63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR 63.11089(d)]
- v. Pursuant to 40 CFR 63.11089(e), the Permittee must comply with the requirements of 40 CFR 63 Subpart BBBBBB by January 10, 2011, see Condition 5.3.8(d) and 40 CFR 63.11083.
- vi. The Permittee must submit the applicable notifications as required under Condition 5.10.4(b) and 40 CFR 63.11093. [40 CFR 63.11089(f)]
- vii. The Permittee must keep records and submit reports as specified in Condition 7.2.9(e) and 5.10.4(c) and 40 CFR 63.11094 and 63.11095, respectively, 63.11094 and 63.11095. [40 CFR 63.11089(g)]

#### 7.6.4 Non-Applicability of Regulations of Concern

- a. The affected leaking equipment components are not subject to the requirements of 35 IAC Part 218, Subpart QQ or TT, because the potential to emit VOM from the subject units does not exceed 25 tpy.

- b. The affected leaking equipment components are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because they do not use an add-on control device to achieve compliance with an emission limitation or standard.

7.6.5 Control Requirements and Work Practices

Pursuant to 39.5(7) (b) and (d) of the Act, the Permittee shall periodically monitor the affected leaking equipment components that are in refined petroleum product (i.e., gasoline or diesel) service for leaks each calendar month, in order to determine total organic compounds liquid or vapor leaks. For purposes of this inspection, 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. If the leaking component cannot be repaired until the process unit is shut down, the leaking component must then be repaired before the unit is restarted.

The Permittee may combine the above referenced leak inspection requirement with the monthly leak inspection requirements shown in Condition 7.6.3(c) and 40 CFR 63.11089 for equipment in gasoline service.

7.6.6 Production and Emission Limitations

Production and emission limitations are not set for the affected leaking equipment components. However, there are source-wide production and emission limitations set forth in Condition 5.6.

7.6.7 Testing Requirements

Testing requirements are not set for the affected leaking equipment components.

7.6.8 Monitoring Requirements

Monitoring requirements are not set for the affected leaking equipment components.

7.6.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected leaking equipment components to demonstrate compliance with Conditions 5.6.1, 7.6.3, 7.6.4, and 7.6.5, pursuant to Section 39.5(7) (b) of the Act:

- a. The number of components (i.e., valves, pump seals, etc.) in light liquid, heavy liquid or vapor service, as applicable;
- b. Emissions of VOM attributable to fugitive losses (valves, pump seals, etc.), tons/month and tons/year, with supporting calculations;

c. General Inspection Records

A record of each monthly leak inspection required under (Condition 7.6.5) shall be kept on file at the facility. Inspection records shall include, as a minimum, the following information:

- 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, including the date each leak was repaired and the reasons for any repair interval in excess of 15 days; and
- v. Name of the person that performed the inspection.

d. 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

The Permittee shall comply with the applicable recordkeeping requirements specified in §63.11094(d) and (e).

- i. The Permittee shall prepare and maintain a record describing the types, identification numbers, and locations of all equipment in gasoline service. For facilities electing to implement an instrument program under 40 CFR 63.11089, the record shall contain a full description of the program. [40 CFR 63.11094(d)]
- ii. The Permittee shall record in the log book for each leak that is detected the information specified in 40 CFR 63.11094(e) (e) (1) through (7). [40 CFR 63.11094(e)]
  - A. The equipment type and identification number.
  - B. The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell).
  - C. The date the leak was detected and the date of each attempt to repair the leak.
  - D. Repair methods applied in each attempt to repair the leak.
  - F. "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak.

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

H. The date of successful repair of the leak.

#### 7.6.10 Reporting Requirements

a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected leaking equipment components 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:

Notification within 30 days of operation out of compliance with the limitations of Conditions 5.6.3, 7.6.3 and/or 7.6.5. Specifically this includes failure to perform the required monitoring for leaking components and/or failure to comply with the repair requirements in the applicable limitations listed above.

b. 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

i. Pursuant to Condition 5.10.4(c)(i) and 40 CFR 63.11095(a), the Permittee shall include the following information in the semi-annual compliance report required in Condition 5.10.4(c)(i):

The number of equipment leaks not repaired within 15 days after detection. [40 CFR 63.11095(a)(3)]

ii. Pursuant to Condition 5.10.4(c)(ii) and 40 CFR 63.11095(c), the Permittee shall submit a semiannual excess emissions report, including the information specified in Condition 7.6.10(b)(i) and as shown below, only for a 6-month period during which an excess emission event has occurred. If no excess emission events have occurred during the previous 6-month period, no report is required.

A. Pursuant to 40 CFR 63.11095(b), excess emission events for the affected leaking components are 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 [40 CFR 63.11095(b)(5)]. For such events, submit the following information:

I. The date on which the leak was detected;

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

II. The reasons for the delay of repair; and

IV. The date of successful repair.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected leaking equipment components. However, there are provisions for source-wide operational flexibility set forth in Condition 5.11 of this permit.

7.6.12 Compliance Procedures

- a. Compliance with the operational and emission limitations of Conditions 5.5 and 7.6.3, and 7.6.5 shall be demonstrated through the inspection/monitoring, recordkeeping and reporting requirements of Conditions 7.6.3 and 7.6.5, 7.6.9, and 7.6.10.

7.7 RICE Engine (Subject to NESHAP - 40 CFR 63 Subpart ZZZZ)  
Control: None

7.7.1 Description

The diesel fired reciprocating internal combustion engine (RICE) is used to provide power to a stationary emergency electrical generator.

Note: This narrative description is for informational purposes only and is not enforceable.

7.7.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description (Model Year)	Power Output	Fuel Type	Emission Control Equipment
Emergency Electrical Generator	Cummins 1982	425 hp	Diesel	None

7.7.3 Applicable Provisions and Regulations

- a. The "affected emergency stationary RICE" for the purpose of these unit-specific conditions, is the diesel engine described in Conditions 7.7.1 and 7.7.2.
- b. Pursuant to 35 IAC 212.123,
  - i. 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.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c.
  - i. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
  - ii. Pursuant to 35 IAC 214.304, the emissions from the burning of fuel at process emission sources located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with

applicable Subparts B through F of 35 IAC Part 214. Therefore, pursuant to 35 IAC 214.122(b)(2), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmbtu/hr), burning liquid fuel exclusively to exceed 0.3 lbs/mmbtu of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned.

- d. The affected emergency stationary RICE is subject to 40 CFR Part 63 Subpart ZZZZ--National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines
  - i. Pursuant to 40 CFR 63.6590(a)(1)(iii), an existing stationary RICE located at an area source (See Condition 5.1.2) is an affected source pursuant to 40 CFR Part 63 Subpart ZZZZ, a stationary RICE is existing if construction or reconstruction commenced for the stationary RICE was before June 12, 2006, See Section 7.7.2.
  - ii. Pursuant to 40 CFR 63.6595(a)(1), the Permittee must comply with the applicable emission limitations and operating limitations of 40 CFR 63 subpart ZZZZ no later than May 3, 2013.
  - iii. Pursuant to 40 CFR 63.6665 and Table 8 of 40 CFR 63 Subpart ZZZZ, the Permittee must comply with the General Provisions shown in 40 CFR 63 Subpart A (i.e., 40 CFR 63.1 through 63.15) that apply. This requirement excludes the provisions that are not applicable as shown in Conditions 7.7.4(h) and (i).

#### 7.7.4 Non-Applicability of Regulations of Concern

- a. The affected emergency stationary RICE is not subject to the New Source Performance Standards (NSPS) for Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII, because the Permittee did not commence construction (date that construction commences is the date the engine is ordered by the Permittee) of the affected emergency stationary RICE after July 11, 2005 where the affected engine were manufactured after April 1, 2006 and are not fire pump engines, pursuant to 40 CFR 60.4200(a)(2)(i).
- b. The affected emergency stationary RICE is not subject to the Acid Rain Program, 40 CFR 72, because the affected emergency stationary RICE is a non-utility unit, pursuant to 40 CFR 72.6(b)(8). Pursuant to 40 CFR 72.2, a "utility unit" is defined as a unit owned or operated by a utility (i.e., an entity that "sells electricity").

- c. The affected emergency stationary RICE is not subject to 35 IAC 212.321 or 212.322, since a process weight rate cannot be determined because liquid and gaseous fuels and combustion air are excluded from the definition of process weight rate, as per the definition in 35 IAC 211.5250, so that such rules cannot reasonably be applied.
- d. The affected emergency stationary RICE is not subject to 35 IAC 216.121 and 217.141 because the affected emergency stationary RICE is not a fuel combustion unit, as defined by 35 IAC 211.2470.
- e. The affected emergency stationary RICE is not subject to 35 IAC 214.121 and 35 IAC 214 Subparts C through F, pursuant to 35 IAC 214.304, because the affected emergency stationary RICE's rated actual heat input is less than 73.2 MW (250 mmbtu/hr) and because it is defined as a "new emission source", as defined by 35 IAC 201.102, respectively.
- f. The affected emergency stationary RICE is not subject to 35 IAC Part 217, Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines, because the affected engine is an emergency or standby unit as defined by 35 IAC 211.1920 [35 IAC 217.386(b) (1)].
- g. The affected emergency stationary RICE is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected engine does not use an add-on control device to achieve compliance with an emission limitation or standard. [40 CFR 64.2(a) (2)]
- h. The affected emergency stationary RICE is not subject to the notifications requirements in 40 CFR 63.7(b) and (c), 63.8(e), (f) (4) and (f) (6), 63.9(b) through (e), and (g) and (h), because the emergency stationary RICE is excluded from the listed provisions [40 CFR 63.6645(a) (5)]
- i. The affected emergency stationary RICE is not subject to the performance tests or other compliance demonstration, pursuant to 40 CFR 63.6612, 63.6615, and 63.6620 and Tables 3, 4 and 5 of 40 CFR 63 Subpart ZZZZ, since, the affected emergency stationary RICE is not subject to any the numerical emission limitations pursuant to 40 CFR 63.6603(a) and Tables 2b and 2d of 40 CFR 63 Subpart ZZZZ.

#### 7.7.5 Control Requirements and Work Practices

- a. 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
  - i. Pursuant to 63.6603(a) and Table 2d of 40 CFR 63 Subpart ZZZZ, the Permittee must comply with the following management practices<sup>2</sup>:

1. Change oil and filter every 500 hours of operation or annually, whichever comes first;<sup>1</sup>
2. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

<sup>1</sup>Sources have the option to utilize an oil analysis program as described in Condition 7.7.5(a)(vii) and 40 CFR 63.6625(i) in order to extend the specified oil change requirement.

<sup>2</sup>If the affected emergency stationary RICE is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required above, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable

- ii. Pursuant to 63.6605(a), the Permittee must be in compliance with all applicable emission limitations and operating limitations of 40 CFR 63 Subpart ZZZZ at all times.
- iii. Pursuant to 63.6605(b), the Permittee must operate and maintain the affected emergency stationary RICE, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Illinois EPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
- iv. Pursuant to 40 CFR 63.6625(e), the Permittee must operate and maintain the affected emergency stationary

RICE according to the manufacturer's emission-related written instructions or develop a maintenance plan specific to the affected emergency stationary RICE which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

- v. Pursuant to 40 CFR 63.6625(f), the Permittee must install a non-resettable hour meter if one is not already installed.
- vi. Pursuant to 40 CFR 63.6625(i), the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 7.7.5(a)(i). The oil analysis must be performed at the same frequency specified for changing the oil in Condition 7.7.5(a)(i). The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil before continuing to use the engine. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine specified in Condition 7.7.5(a)(iv) (above).

#### 7.7.6 Production and Emission Limitations

Production and emission limitations are not set for the affected emergency stationary RICE. However, there are source-wide production and emission limitations set forth in Condition 5.6.

#### 7.7.7 Testing Requirements

- a.
  - i. Upon written request by the Illinois EPA, the Permittee shall have the opacity of the exhaust from the affected emergency stationary RICE tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for specific engine(s) within 70 calendar days of the request, or on the date engine(s) next operates, or on the date agreed upon by the Illinois EPA, whichever is later.

- iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
- iv. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
- v. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - A. Date and time of testing.
  - B. Name and employer of qualified observer.
  - C. Copy of current certification.
  - D. Description of observation conditions.
  - E. Description of diesel engine operating conditions.
  - F. Raw data.
  - G. Opacity determinations.
  - H. Conclusions.
- b. i. In the event that the fuel oil supplier is unable to provide the sulfur content of the fuel oil supply for the affected emergency stationary RICE, the Permittee shall have the sulfur content of the oil supply to the affected emergency stationary RICE, in lbs/mmBtu, determined from an analysis of representative sample of the oil supply, as follows, pursuant to Section 39.5(7) (d) of the Act:
  - A. From a sample taken no later than 90 days after first operating the affected diesel engines pursuant to this permit, provided, however, that if such sample is taken following operation of the affected diesel engines, the sample shall be taken prior to adding more oil to the storage tank.

- B. From a sample taken no later than 30 days after acceptance of a shipment of fuel whose sulfur content would not meet Condition 7.7.3(c) based upon supplier data, provided however, that if the affected diesel engines are operated following acceptance of such a shipment, the sample shall be taken prior to adding a subsequent shipment of oil to the relevant storage tank.
  - C. From a sample taken no later than 30 days after a request for such a sample is made by the Illinois EPA, provided, however, that such sample shall be taken prior to adding more oil to the relevant storage tank.
- ii. Sampling and analysis, including that which forms the basis for the suppliers' data, shall be conducted using methods that would be acceptable under the federal New Source Performance Standards for Stationary Gas Turbines, 40 CFR 60.335(b)(2) and (c) or the federal Acid Rain Program, 40 CFR 75, Appendix D, Optional SO<sub>2</sub> Emissions Data Protocol for Gas-Fired and Oil-Fired Units e.g., ASTM D4057-88 and ASTM D129-91 or the Regulation Of Fuels And Fuel Additives - Part 80, Subpart I-Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel, 40 CFR 80.580.

Note: Condition 7.7.7(b)(ii) is for fuel testing methodology only, and is in no way intended to subject the source to those provisions.

#### 7.7.8 Monitoring Requirements

- a.
  - i. If the affected emergency stationary RICE is routinely operated or exercised to confirm that the engine will operate when needed, the operation and opacity of the engine shall be formally observed by operating personnel for the affected engine or a member of Permittee's environmental staff on a regular basis to assure that the affected emergency stationary RICE is operating properly, which observations shall be made at least every six months.
  - ii. If the affected emergency stationary RICE is not routinely operated or exercised, i.e., the time interval between operation of the engine is typically greater than six months, the operation and opacity of the engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected engine.
  - iii. The Permittee shall also conduct formal observations of operation and opacity of the affected emergency stationary RICE upon written request by the Illinois

EPA. With the agreement of the Illinois EPA, the Permittee may schedule these observations to take place during periods when it would otherwise be operating the affected emergency stationary RICE.

Note: The "formal observation" required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected emergency stationary RICE who would be able to make a determination based upon the observed opacity as to whether or not the engine was running properly, and subsequently initiate a corrective action if necessary.

#### 7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for the affected emergency stationary RICE to demonstrate compliance with Conditions 5.6.1 and 7.7.3, pursuant to Section 39.5(7)(b) of the Act:

- a. i. An operating log for the affected emergency stationary RICE, which shall include the following information:
  - A. Information for each time the affected emergency stationary RICE is operated, with date, time, duration, and purpose (i.e., exercise or power service). Monthly and annual records of hours of operation of each engine and total hours of operation.
  - B. Information for the observations conducted pursuant to Condition 7.7.8(a) or 7.7.7(a), with date, time, personnel, and findings.
    - I. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for an affected diesel engine that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations for Condition 7.7.7(a). For each occasion on which such observations are made, these records shall include the identity of the observer, a description of the various observations that were made, the observed opacity, and copies of the raw data sheets for the observations.
    - II. The Permittee shall keep records for all formal observations of opacity conducted pursuant to Condition 7.7.8(a). For each occasion on which observations are made, these records shall include the date,

time, identity of the observer, a description of the various observations that were made, whether or not the affected diesel engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.

- ii. A maintenance and repair log for the affected emergency stationary RICE, listing activities performed with date. If applicable, this includes any reconstruction of an affected engine, as defined in 40 CFR 63.2.
- b. Fuel usage for the affected engine:
- i. Total fuel usage for the affected engine, gallons/month and gallons/year.
- c. The following records related to the sulfur content of the oil fuel supply and SO<sub>2</sub> emissions of the affected engine:
- i. Records for each shipment of fuel for the affected engine, including date, supplier, quantity (in gallons), sulfur content, and whether the SO<sub>2</sub> emissions from the burning of such fuel would meet the standard in Condition 7.7.3(c). [See Condition 7.7.12(b)(ii).]
  - ii. The Permittee shall maintain records of the sulfur content of the fuel oil supply to the affected engine, based on the weighted average of material in the storage tank, or the sulfur content of the supply shall be assumed to be the highest sulfur content in any shipment in the tank.
- d. Emissions from the affected engine (i.e., NO<sub>x</sub>, CO, SO<sub>2</sub>, VOM, and PM) in tons/month and tons/year with supporting calculations and data as required by Condition 7.7.9.
- e. 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
- i. Pursuant to 40 CFR 63.6655(d) and Table 6 of 40 CFR 63 Subpart ZZZZ, the Permittee must keep records of plans and/or instructions used to demonstrate continuous compliance with emission limitations and operating limitations shown in Condition 7.7.8(b)(i) (i.e., manufacturer's emission-related operation and maintenance instructions or, if applicable, a maintenance plan developed by the Permittee).
  - ii. Pursuant to 40 CFR 63.6655(e), the Permittee must keep records of the maintenance conducted on the affected emergency stationary RICE in order to demonstrate that

engine was operated and maintained according to the maintenance plan required under Condition 7.7.8(b) (i);

- iii. Pursuant to 40 CFR 63.6655(f), the Permittee must keep records of the hours of operation of the affected emergency stationary RICE that is recorded through the non-resettable hour meter required under Condition 7.7.8(b) (ii). The Permittee is required to document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the Permittee must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

#### 7.7.10 Reporting Requirements

##### a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of an affected engine 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:

- i. Emissions of opacity and SO<sub>2</sub>, from the affected emergency stationary RICE in excess of the limits specified in Conditions 7.7.3 within 30 days of such occurrence.
- ii. Operation of the affected emergency stationary RICE in noncompliance with the requirements specified in Condition 7.7.5 within 30 days of such occurrence.

##### b. 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

- i. Pursuant to 40 CFR 63.6650(a) and (b) and Table 7 of 40 CFR 63 Subpart ZZZZ, the Permittee must submit semiannual Compliance reports according to the schedule in Condition 8.6.1.
- ii. Pursuant to 40 CFR 63.6650(c) (1) through (5), the Compliance report must contain the following information:
  - A. Company name, Source ID number and address.
  - B. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

- C. Date of report and beginning and ending dates of the reporting period.
  - D. If Permittee experiences a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of the affected emergency stationary RICE to minimize emissions in accordance with Condition 7.7.5(a)(iii), including actions taken to correct a malfunction.
  - E. If there are no deviations from any emission limitations or operating limitations that are applicable to the affected emergency stationary RICE, the Permittee shall include a statement in the report that there were no deviations from the emission limitations or operating limitations during the reporting period.
- iii. Pursuant to 40 CFR 63.6650(d), for each deviation from an emission or operating limitation that occurs for the affected emergency stationary RICE, the Compliance report must contain the following information:
- A. The total operating time of the affected emergency stationary RICE at which the deviation occurred during the reporting period.
  - B. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- c. Reporting of Construction and/or Reconstruction

If applicable, the Permittee shall comply with the reporting requirements of 40 CFR Part 60 Subpart IIII, for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines and 40 CFR Part 60 Subpart A, for any new or reconstructed stationary RICE. This includes but is not limited to the following: [40 CFR 63.6590(c)]

- i. Notice of plans to reconstruct an affected engine, postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced [40 CFR 60.15(d)]
- ii. Notifications as required pursuant to 40 CFR 60.4214(a) and/or 60.4245(c), of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later

than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form. [40 CFR 60.7(a)(1)]

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected engine.

7.7.12 Compliance Procedures

- a. Compliance with the PM emission limitations of Conditions 7.7.3(b) is addressed by the requirements of Condition 7.7.5(a), the testing requirements in Condition 7.7.7(a), the monitoring requirements of Condition 7.7.8(a), the records required in Condition 7.7.9(a), and the reports required in Condition 7.7.10(a).
- b.
  - i. Compliance with the SO<sub>2</sub> emission limitation of Condition 7.7.3(c)(i) is addressed by the requirements of Condition 7.7.5, the testing requirements in Condition 7.7.7(b), and the records and reports required in Conditions 7.7.9(b) and (c) and 7.7.10(a).
  - ii. For this purpose, complete conversion of sulfur into SO<sub>2</sub> shall be assumed, e.g., SO<sub>2</sub> emissions in lb/mmBtu are twice the sulfur content of the fuel supply, in lb/mmBtu, using the following equation:

$$\text{SO}_2 \text{ ppm} = \frac{\text{Fuel sulfur content (lb/mmBtu)} \times 2 \times 1/64 \times 385.2 \times 1,000,000}{\text{Engine exhaust rate factor (scf/mmBtu)}}$$

Note: Stoichiometric combustion of distillate oil with the maximum available sulfur content, i.e., 1.0 percent, would result in an SO<sub>2</sub> concentration in the exhaust that is well below the 2000 ppm limit in Condition 7.7.3(c)(i), i.e., only about 500 ppm, based on 10,320 scf/mmBtu, the F-factor for oil in USEPA's Reference Method 19.

- c. Compliance with the emission limits in Conditions 5.6 are addressed by the records and reports required in Conditions 7.7.9 and 7.7.10.
- d. 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
  - i. Pursuant to 40 CFR 63.6640(a) and Table 6 of 40 CFR 63 Subpart ZZZZ, in order to demonstrate continuous compliance the Permittee must comply with the following work or management practices:
    - A. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

- B. Develop and follow a maintenance plan specific to the affected emergency stationary RICE which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- ii. Pursuant to 40 CFR 63.6640(b), the Permittee must report each instance in which the affected emergency stationary RICE did not meet each operating limitation in Condition 7.6.5(a)(i). These instances are deviations and must be reported according to the requirements in Condition 7.6.10.
  - iii. Pursuant to 40 CFR 63.6640(e) and Table 8 of 40 CFR 63 Subpart ZZZZ, the Permittee must report each instance in which the requirements in Table 8 which apply to the affected emergency stationary RICE were not meet.
  - iv. Pursuant to 40 CFR 63.6640(f), the Permittee must demonstrate continuous compliance with the operating and management practices shown in Condition 7.6.5(a) by operating the affected emergency stationary RICE according to the following requirements.
    - A. Pursuant to 40 CFR 63.6640(f)(1), the Permittee is prohibited from any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year;.
    - B. Pursuant to 40 CFR 63.6640(f)(2), there is no time limit on the use of the affected emergency stationary RICE in emergency situations.
    - C. Pursuant to 40 CFR 63.6640(f)(3), the Permittee may operate the affected emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Illinois EPA - Compliance Section for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of the affected emergency stationary RICE beyond 100 hours per year.
    - iv. Pursuant to 40 CFR 63.6640(f)(4), the Permittee may operate the affected emergency stationary RICE up to 50 hours per year in non-emergency

situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for the source to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that the Permittee may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this Condition, as long as the power provided by the financial arrangement is limited to emergency power.

7.8 Emergency Fire Pump Engine  
Control: None

7.8.1 Description

The engine is a process emission unit used for powering an emergency fire pump. The engine is classified as a distillate fuel oil (diesel) fired stationary compression ignition (CI) internal combustion engine (ICE).

Note: This narrative description is for informational purposes only and is not enforceable.

7.8.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description (Model Year)	Power Output	Fuel Type	Emission Control Equipment
Engine Group #2 Fire Pump Engine	AC Fire Pump with Clarke engine November 2010	175 hp	Diesel	None

7.8.3 Applicable Provisions and Regulations

- a. The "affected diesel engine" for the purpose of these unit-specific conditions, is the diesel engine described in Conditions 7.8.1 and 7.8.2.
- b. Pursuant to 40 CFR 60.4200(a)(2), the affected diesel engine is subject to the NSPS for Compression Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart IIII, because the Permittee is an owner or operator of a stationary CI ICE that commenced construction after July 11, 2005 where the stationary CI ICE was:

Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006, pursuant to 40 CFR 60.4200(a)(2)(ii).

- i. Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to 40 CFR Part 60, Subpart IIII, for all pollutants, pursuant to 40 CFR 60.4205(c).

Table 4 to Subpart IIII of Part 60—  
Emission Standards for Stationary Fire  
Pump Engines - in g/KW-hr (g/HP-hr)

Model year(s): 2009+  
Maximum engine power: 130≤KW<225 (175≤HP<300)

NMHC + NOX	CO	PM
4.0 (3.0)	3.5 (2.6)	0.20 (0.15)

- ii. Pursuant to 40 CFR 60.4218, the Permittee must comply with the applicable General Provisions in 40 CFR 60.1 through 60.19 listed in Table 8 of 40 CFR 60 Subpart I.1111.
- c. Pursuant to 35 IAC 212.123,
- i. 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.
  - ii. The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 1000 ft radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- d. i. Pursuant to 35 IAC 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
- ii. Pursuant to 35 IAC 214.304, the emissions from the burning of fuel at process emission sources located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with applicable Subparts B through F of 35 IAC Part 214. Therefore, pursuant to 35 IAC 214.122(b) (2), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmbtu/hr), burning liquid fuel exclusively to exceed 0.3 lbs/mmbtu of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned.

7.8.4 Non-Applicability of Regulations of Concern

- a. The affected diesel engine is not subject to the New Source Performance Standards (NSPS) for Spark Ignition Internal Combustion Engines, 40 CFR Part 60, Subpart JJJJ, because the affected diesel engine is by definition, 40 CFR 60.4248,

a compression ignition engine rather than a spark ignition engine.

- b. Pursuant to 40 CFR 63.6590(c), the affected diesel engine is excluded from certain requirements of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR Part 63, Subpart ZZZZ, because the affected diesel engine is a new stationary RICE, as defined under 40 CFR Part 63, Subpart ZZZZ, located at an area source and is both an emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP and a compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP. Therefore, the affected diesel engine must meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR part 60 Subpart IIII, for compression ignition engines (See Condition 7.8.3(b)). No further requirements apply for such engines under 40 CFR Part 63, Subpart ZZZZ.
- c. The affected diesel engine is not subject to the Acid Rain Program, 40 CFR 72, because the affected diesel engine is a non-utility unit, pursuant to 40 CFR 72.6(b)(8). Pursuant to 40 CFR 72.2, a "utility unit" is defined as a unit owned or operated by a utility (i.e., an entity that "sells electricity").
- d. The affected diesel engine is not subject to 35 IAC 212.321 or 212.322, due to the unique nature of such units, a process weight rate cannot be set because liquid and gaseous fuels and combustion air are excluded from the determination of process weight rate, as per the definition in 35 IAC 211.5250, so that such rules cannot reasonably be applied, pursuant to 35 IAC 212.323.
- e. The affected diesel engine is not subject to 35 IAC 216.121 and 217.141 because the affected diesel engine is not a fuel combustion unit, as defined by 35 IAC 211.2470
- f. The affected diesel engine is not subject to 35 IAC 214.121 and 35 IAC 214 Subparts C through F, pursuant to 35 IAC 214.304, because the affected diesel engine's rated actual heat input is less than 73.2 MW (250 mmbtu/hr) and because it is defined as a "new emission source", as defined by 35 IAC 201.102, respectively.
- g. The affected diesel engine is not subject to 35 IAC Part 217, Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines, because the affected engine is an emergency or standby unit as defined by 35 IAC 211.1920 [35 IAC 217.386(b)(1)].
- h. The affected diesel engine is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the affected diesel engine are is subject to a NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).



#### 7.8.5 Control Requirements and Work Practices

- a. At all times, including periods of startup, shutdown, and malfunction, the source owner or operator shall, to the extent practicable, maintain and operate any affected diesel engine in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or the USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].
- b.
  - i. Pursuant to 40 CFR 60.4206, owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.
  - ii.
    - I. Pursuant to 40 CFR 60.4207(b), owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. Specifically, pursuant to 40 CFR 80.510(b)(1)(i), the sulfur content of the diesel fuel used shall not exceed 15 ppm.
- c. Diesel shall be the only fuel fired in the affected diesel engine.
- d. The Illinois EPA shall be allowed to sample all fuels stored at the source.

#### 7.8.6 Production and Emission Limitations

Production and emission limitations are not set for the affected diesel engine. However, there are source-wide production and emission limitations set forth in Condition 5.6.

#### 7.8.7 Testing Requirements

- a.
  - i. Upon written request by the Illinois EPA, the Permittee shall have the opacity of the exhaust from the affected diesel engine(s) tested during representative operating conditions as determined by a qualified observer in accordance with USEPA Test Method 9, as further specified below, pursuant to Section 39.5(7)(d) of the Act.
  - ii. Such testing shall be conducted for the affected diesel engine(s) within 60 calendar days of the request, or on the date the affected diesel engine

next operates, or on the date agreed upon by the Illinois EPA, whichever is later.

- iii. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both less than 10.0 percent.
  - iv. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
  - v. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
  - vi. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
  - vii. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
    - A. Date and time of testing.
    - B. Name and employer of qualified observer.
    - C. Copy of current certification.
    - D. Description of observation conditions.
    - E. Description of engine operating conditions.
    - F. Raw data.
    - G. Opacity determinations.
    - H. Conclusions.
- b. i. Pursuant to Section 39.5(7)(d) of the Act and Condition 7.8.5(b), in the event that the diesel fuel supplier is unable to provide the sulfur content of the diesel fuel supply for the affected diesel engine, the Permittee shall have the sulfur content of the diesel fuel supply to the affected diesel engine, in ppm, determined from an analysis of representative sample of the diesel fuel supply, as follows,:
- A. From a sample taken no later than 90 days after first operating the affected diesel engine pursuant to this permit, provided, however, that if such sample is taken following operation of the affected diesel engine, the sample shall be

taken prior to adding more diesel fuel to the storage tank.

- B. From a sample taken no later than 30 days after acceptance of a shipment of fuel whose sulfur content would not meet Condition 7.8.5(b) based upon supplier data, provided however, that if the affected diesel engine are operated following acceptance of such a shipment, the sample shall be taken prior to adding a subsequent shipment of diesel fuel to the relevant storage tank.
  - C. From a sample taken no later than 30 days after a request for such a sample is made by the Illinois EPA, provided, however, that such sample shall be taken prior to adding more diesel fuel to the relevant storage tank.
- ii. Sampling and analysis, including that which forms the basis for the suppliers' data, shall be conducted using methods shown under the federal Regulation Of Fuels And Fuel Additives - Part 80, Subpart I-Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel, 40 CFR 80.580.

Note: Other than Condition 7.8.7(b)(ii) is for fuel testing methodology only, and is in no way intended to subject the source to those provisions under 40 CFR Part 80 Subpart I.

- c. i. Pursuant to 40 CFR 60.4212, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant 40 CFR 60 Subpart IIII must do so according to the paragraphs below:
  - I. The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, pursuant to 40 CFR 60.4212(a).
  - II. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engine in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engine under 40 CFR part 1039, pursuant to 40 CFR 60.4212(b).
  - III. Pursuant to 40 CFR 60.4212(c), exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engine in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements,

rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from Equation 1 in 40 CFR 60.4212(c).

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engine in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in 40 CFR 60.4213, as appropriate.

#### 7.8.8 Monitoring Requirements

- a.
  - i. If an affected diesel engine is routinely operated or exercised to confirm that the affected diesel gas engine will operate when needed, the operation and opacity of the affected diesel engine shall be formally observed by operating personnel for the affected diesel engine or a member of Permittee's environmental staff on a regular basis to assure that the affected diesel engine is operating properly, which observations shall be made at least every six months.
  - ii. If an affected diesel engine is not routinely operated or exercised, i.e., the time interval between operation of an affected diesel engine is typically greater than six months, the operation and opacity of the affected diesel engine shall be formally observed as provided above each time the Permittee carries out a scheduled exercise of the affected diesel engine.
  - iii. The Permittee shall also conduct formal observations of operation and opacity of an affected diesel engine upon written request by the Illinois EPA. With the agreement of the Illinois EPA, the Permittee may schedule these observations to take place during periods when it would otherwise be operating the affected diesel engine.

Note: The "formal observation" required above is not intended to be a USEPA Test Method 9 opacity test, nor does the observation require a USEPA Test Method 9 certified observer. It is intended to be performed by personnel familiar with the operation of the affected diesel engine who would be able to make a determination based from the observed opacity as to whether or not the affected diesel engine was running properly, and subsequently initiate a corrective action if necessary.

- b. Pursuant to 40 CFR 60.4209, if you are an owner or operator, you must meet the applicable monitoring requirements of 40 CFR 60.4209, as described below. In addition, you must also meet the monitoring requirements specified in 40 CFR 60.4211, as found in Section 7.8.12.

- i. If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine, pursuant to 40 CFR 60.4209(a).

#### 7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.9, the Permittee shall maintain records of the following items for each the affected diesel engine to demonstrate compliance with Conditions 5.6.1 and 7.8.3 through 7.8.6, pursuant to Section 39.5(7)(b) of the Act:

- a. i. An operating log for the affected diesel engine, which shall include the following information:
  - A. Information for each time the affected diesel engine is operated, with date, time, duration, and purpose (i.e., exercise or firewater service). Monthly and annual records of hours of operation for the affected diesel engine and total hours of operation based upon readings from the non-resettable hour meter required under Condition 7.8.8(b).
  - B. Information for the observations conducted pursuant to Condition 7.8.8(a) or 7.8.7(a), with date, time, personnel, and findings.
    - I. The Permittee shall keep records for all opacity measurements made in accordance with USEPA Method 9 for an affected diesel engine that it conducts or that are conducted on its behalf by individuals who are qualified to make such observations for Condition 7.8.7(a). For each occasion on which such observations are made, these records shall include the identity of the observer, a description of the various observations that were made, the observed opacity, and copies of the raw data sheets for the observations.
    - II. The Permittee shall keep records for all formal observations of opacity conducted pursuant to Condition 7.8.8(a). For each occasion on which observations are made, these records shall include the date, time, identity of the observer, a description of the various observations that were made, whether or not the affected diesel engine was running properly, and whether or not corrective action is necessary and was subsequently initiated.

- C. Information identifying any deviation from Condition 7.8.5(b).
  - ii. A maintenance and repair log for the affected diesel engine and associated equipment, listing activities performed with date.
  - iii. Documentation verifying that the the affected diesel engine is in compliance with the requirements in Conditions 7.8.5(a) and (b)
  - iv. Records of any test plans and test reports performed pursuant to Condition 7.8.7.
  - v. Pursuant to Condition 7.8.5(b)(ii), records of diesel fuel sulfur content which may be provided by either fuel supplier or the results of testing conducted under Condition 7.8.7
- b. Fuel usage for the affected diesel engine:
  - i. Total usage of diesel, gal/month and gal/year.
- c. Emissions from each affected diesel engine (i.e., NO<sub>x</sub>, CO, SO<sub>2</sub>, VOM, and PM) in tons/month and tons/year with all data, assumptions, and supporting calculations maintained and documented.

#### 7.8.10 Reporting Requirements

##### a. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA, Air Compliance Unit, of deviations of the affected diesel engine 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:

- i. Emissions of opacity from the affected diesel engine in excess of the limits specified in Conditions 7.8.3 within 30 days of such occurrence.
  - ii. Operation of the affected diesel engine in noncompliance with the requirements specified in Condition 7.8.5 within 30 days of such occurrence.
- b. Pursuant to 40 CFR 60.4214(b), if the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to 40 CFR 60 Subpart I IIII, if the emergency engine does not meet the standards applicable to non-emergency engine in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non- resettable hour meter. The owner must

record the time of operation of the engine and the reason the engine was in operation during that time.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

Operational flexibility is not set for the affected diesel engine.

7.8.12 Compliance Procedures

- a. Compliance with the emission limitations of Conditions 7.8.3(b) is addressed by the requirements of Condition 7.8.5, the testing requirements in Condition 7.8.7(b), the monitoring requirements of Condition 7.8.8, the records required in Condition 7.8.9(a) (v) - (c) and (d), and the reports required in Condition 7.8.10(b), and the below:
  - i. Pursuant to 40 CFR 60.4211(a), the Permittee must comply with the emission standards specified in 40 CFR 60 Subpart I, must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, the Permittee may only change those settings that are permitted by the manufacturer. The Permittee must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to the affected emission unit.
  - ii. Pursuant to 40 CFR 60.4211(e), emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The Permittee may petition the Illinois EPA for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Any operation other than emergency operation, and maintenance and testing as permitted above, is prohibited.
- b. Compliance with the opacity emission limitations of Conditions 7.8.3(c) is addressed by the requirements of Condition 7.8.5(a), the testing requirements in Condition 7.8.7(a), the monitoring requirements of Condition 7.8.8(a), the records required in Condition 7.8.9(a), and the reports required in Condition 7.8.10(a).
- c. Compliance with the SO<sub>2</sub> emission limitations of Condition 7.8.3(d) (i) and (ii) is addressed by the requirements of

Condition 7.8.5(b) (ii), the testing requirements in Condition 7.8.7(b), and the records and reports required in Conditions 7.8.9(b) and (c) and 7.8.10(a).

- c. Compliance with the emission limits in Conditions 5.6 are addressed by the records and reports required in Conditions 7.8.9 and 7.8.10.

## 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 \_\_\_\_\_ (the date of issuance of the proposed permit) unless this permit has been modified to reflect such new requirements.

### 8.2 Applicability of Title IV Requirements (Acid Deposition Control)

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

### 8.3 Emissions Trading Programs

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

### 8.4 Operational Flexibility/Anticipated Operating Scenarios

#### 8.4.1 Changes Specifically Addressed by Permit

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

#### 8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

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

- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
  - i. Describe the physical or operational change;
  - ii. Identify the schedule for implementing the physical or operational change;
  - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
  - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
  - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Conditions 8.6.3 and 8.6.4.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

Reports summarizing required monitoring as specified in the conditions of this permit shall be submitted to the Illinois EPA every six months as follows, unless more frequent submittal of such reports is required in Sections 5 or 7 of this permit [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1

Monitoring Period

Report Due Date

July - December

March 1

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

8.6.2 Test Notifications

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

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations;
- e. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

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

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;

- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

#### 8.6.4 Reporting Addresses

- a. Unless otherwise specified in the particular provision of this permit or in the written instructions distributed by the Illinois EPA for particular reports, reports and notifications shall be sent to the Illinois EPA - Air Compliance Unit with a copy sent to the Illinois EPA - Air Regional Field Office.
- b. As of the date of issuance of this permit, the addresses of the offices that should generally be utilized for the submittal of reports and notifications are as follows:

- i. Illinois EPA - Air Compliance Unit

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

- ii. Illinois EPA - Air Quality Planning Section

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

- iii. Illinois EPA - Air Regional Field Office

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

- iv. USEPA Region 5 - Air Branch

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

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

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

8.7 Title I Conditions

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

## 9.0 STANDARD PERMIT CONDITIONS

### 9.1 Effect of Permit

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

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

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Section 39.5(7) (j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

### 9.2 General Obligations of Permittee

#### 9.2.1 Duty to Comply

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

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

#### 9.2.2 Duty to Maintain Equipment

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

### 9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless this permit provides for such continued operation consistent with the Act and applicable Illinois Pollution Control Board regulations [Section 39.5(6)(c) of the Act].

### 9.2.4 Disposal Operations

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

### 9.2.5 Duty to Pay Fees

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

## 9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents as may be required by law and in accordance with constitutional limitations, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Sections 4 and 39.5(7)(a) and (p)(ii) of the Act]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
  - i. At reasonable times, for the purposes of assuring permit compliance or applicable requirements; or
  - ii. As otherwise authorized by the CAA, or the Act.

- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any regulated activity, discharge or emission at the source authorized by this permit.

#### 9.4 Obligation to Comply with Other Requirements

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

#### 9.5 Liability

##### 9.5.1 Title

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

##### 9.5.2 Liability of Permittee

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

##### 9.5.3 Structural Stability

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

##### 9.5.4 Illinois EPA Liability

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

##### 9.5.5 Property Rights

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

#### 9.6 Recordkeeping

##### 9.6.1 Control Equipment Maintenance Records

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

##### 9.6.2 Records of Changes in Operation

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

#### 9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7) (e) (ii) of the Act].
- b. Other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

#### 9.7 Annual Emissions Report

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

#### 9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7) (p) (v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Unit, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

#### 9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee

that meets the requirements of Section 39.5(5) of the Act and applicable regulations [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as Attachment 1 to this permit.

#### 9.10 Defense to Enforcement Actions

##### 9.10.1 Need to Halt or Reduce Activity Not a Defense

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

##### 9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence [Section 39.5(7)(k) of the Act]:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

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

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

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

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

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations [Section 39.5(7)(k)(iv) of the Act].

#### 9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this

permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

## 9.12 Reopening and Reissuing Permit for Cause

### 9.12.1 Permit Actions

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

### 9.12.2 Reopening and Revision

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

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit.
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program.
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or that inaccurate statement were made in establishing the emission standards or limitations, or other terms or conditions of this permit.
- d. The Illinois EPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

### 9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation and reissuance under Section 39.5(15) of the Act, pursuant to Sections 39.5(5) (e) and (i) of the Act.

### 9.12.4 Duty to Provide Information

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

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

#### 9.13 Severability Clause

The provisions of this permit are severable. In the event of a challenge to any portion of the permit, other portions of the permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected and the rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7) (i) of the Act].

#### 9.14 Permit Expiration and Renewal

Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of this CAAPP permit will remain in effect until the issuance of a renewal permit [Section 39.5(5) (1) and (o) of the Act].

Note: Pursuant to Sections 39.5(5) (h) and (n) of the Act, upon submittal of a timely and complete renewal application, the permitted source may continue to operate until final action is taken by the Illinois EPA on the renewal application, provided, however, that this protection shall cease if the applicant fails to submit any additional information necessary to evaluate or take final action on the renewal application as requested by the Illinois EPA in writing. For a renewal application to be timely, it must be submitted no later than 9 months prior to the date of permit expiration.

#### 9.15 General Authority for the Terms and Conditions of this Permit

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

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

**10.0 ATTACHMENTS**

Attachment 1 Example Certification by a Responsible Official

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

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Official Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Attachment 2 Emissions of Particulate Matter from Process Emission Units

a. New Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 [35 IAC 212.321].

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

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

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

where:

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

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

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

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

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

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

<u>Metric</u>		<u>English</u>	
P	E	P	E
<u>Mg/hr</u>	<u>kg/hr</u>	<u>T/hr</u>	<u>lb/hr</u>
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75

Metric		English	
P	E	P	E
<u>Mg/hr</u>	<u>kg/hr</u>	<u>T/hr</u>	<u>lb/hr</u>
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.1	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

iv. For process weight rates of less than 100 pounds per hour, the allowable rate is 0.5 pounds per hour [35 IAC 266.110].

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

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

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

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

where:

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

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

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

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

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

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

<u>Metric</u>		<u>English</u>	
P	E	P	E
<u>Mg/hr</u>	<u>kg/hr</u>	<u>T/hr</u>	<u>lb/hr</u>
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.2	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.0	8.7	10.00	19.20
13.0	11.1	15.00	25.20
18.0	13.8	20.00	30.50
23.0	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

iv. For process weight rates of less than 100 pounds per hour, the allowable rate is 0.5 pounds per hour [35 IAC 266.110].

Attachment 3 Compliance Assurance Monitoring (CAM) Plan

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

#### Attachment 4 Guidance

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

##### Guidance On Revising A CAAPP Permit:

[www.epa.state.il.us/air/caapp/caapp-revising.pdf](http://www.epa.state.il.us/air/caapp/caapp-revising.pdf)

##### Guidance On Renewing A CAAPP Permit:

[www.epa.state.il.us/air/caapp/caapp-renewing.pdf](http://www.epa.state.il.us/air/caapp/caapp-renewing.pdf)

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

[www.epa.state.il.us/air/caapp/index.html](http://www.epa.state.il.us/air/caapp/index.html)

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

[www.epa.state.il.us/air/caapp/199-caapp.pdf](http://www.epa.state.il.us/air/caapp/199-caapp.pdf)  
[www.epa.state.il.us/air/permits/197-fee.pdf](http://www.epa.state.il.us/air/permits/197-fee.pdf)

Attachment 5 Guidance On Relevant Regulations and other Information  
Referenced In The Permit

- Links to relevant regulations are available from Illinois EPA's Internet site:

<http://www.epa.state.il.us/regulations.html>

- Illinois Regulations are shown on the Illinois Pollution Control Boards Internet Site:

<http://www.ipcb.state.il.us/SLR/IPCBandIEPAEnvironmentalRegulations-Title35.asp>

- Links to USEPA Regulations are shown on the USEPA Internet Site:

<http://www.epa.gov/lawsregs/>

Other Information and Guidance:

- Rule and Implementation Information for Gasoline Distribution MACT (40 CFR 63, Subpart R) and the proposed GACT (40 CFR 63 Subpart BBBBBB):

<http://www.epa.gov/ttn/atw/gasdist/gasdispg.html>

- Rule and Implementation Information for NSPS for Diesel Engines (Compression Ignition Engines)

<http://www.epa.gov/ttn/atw/nsps/cinsps/cinspspg.html>

- Rule and Implementation Information for RICE MACT (40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)

<http://www.epa.gov/ttn/atw/rice/ricepg.html>

- AP-42 - Chapter 7: Liquid Storage Tanks

<http://www.epa.gov/ttn/chief/ap42/ch07/index.html>

- Protocol for Equipment Leak Emission Estimates (EPA 453/R-95-017), November 1995

<http://www.epa.gov/ttn/chief/efdocs/equiplks.pdf>

Attachment 6 - Summary of Storage Tank Features and Groupings

TABLE 1-1

	<u>Capacity (Barrels)</u>	<u>Tank Type</u>	<u>Primary Seal</u>	<u>Secondary Seal</u>	<u>Material Stored</u>	<u>Typical Maximum True Vapor Pressure (psia at 70°F)</u>	<u>Date Constructed</u>
Group 1							
6722	91,000	External Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	1944
6825	91,000	External Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	1944
6971	167,000	External Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	1951
6972	167,000	External Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	1951
7170	107,143	External Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	1948
Group 2							
7294	330,000	External Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	8/1974
Group 3							
7295	330,000	External Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	2003

<u>Group/Tank No.</u>	<u>Capacity (Barrels)</u>	<u>Tank Type</u>	<u>Primary Seal</u>	<u>Secondary Seal</u>	<u>Material Stored</u>	<u>Maximum True Vapor Pressure (psia at 70°F)</u>	<u>Date Constructed</u>
Group 4							
43000	50,000	Internal Floating Roof	Mechanical Shoe	None	Petroleum Liquid	8.3	1986
43001	50,000	Internal Floating Roof	Mechanical Shoe	None	Petroleum Liquid	8.3	1986
43002	50,000	Internal Floating Roof	Mechanical Shoe	None	Petroleum Liquid	8.3	1986
43003	50,000	Internal Floating Roof	Mechanical Shoe	None	Petroleum Liquid	8.3	1986
43004	80,000	Internal Floating Roof	Mechanical Shoe	None	Petroleum Liquid	8.3	1986
Group 5							
6973	167,000	Domed Internal Floating Roof	Mechanical Shoe	Rim- Mounted	Petroleum Liquid	RVP 7	1951

One (1) Barrel (petroleum, U. S.) = Forty-two (42) Gallons (U. S.)

