

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF AIR

DIVISION of AIR POLLUTION CONTROL

PERMIT SECTION

PROJECT SUMMARY for the
DRAFT CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

Equilon Enterprises LLC - Des Plaines Terminal
d/b/a Shell Oil Products US
1605 E. Algonquin Road, Arlington Heights, Cook County

Illinois EPA ID Number: 031804AAK

Application Number: 95060062

Application Type: Renewal Permit

Start of Public Comment Period: May 27, 2010

Close of Public Comment Period: June 26, 2010

Permit Engineer/Technical Contact: Michael Davidson, 217/782-2113

Community Relations/Comments Contact: Brad Frost, 217/782-7027

(This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

I. INTRODUCTION

This source has applied for renewal of the Clean Air Act Permit Program (CAAPP) operating permit. The CAAPP is the program established in Illinois for operating permits for significant stationary sources as required by Title V of the federal Clean Air Act and Section 39.5 of Illinois' Environmental Protection Act. The conditions in a CAAPP permit are enforceable by the Illinois Environmental Protection Agency (Illinois EPA), the USEPA, and the public. This document is for informational purposes only and does not shield the Permittee from enforcement actions or its responsibility to comply with applicable regulations. This document shall not constitute a defense to a violation of the Act or any rule or regulation.

A CAAPP permit contains conditions identifying the applicable state and federal air pollution control requirements that apply to a source. The permit also establishes emission limits, appropriate compliance procedures, and specific operational flexibility. The appropriate compliance procedures may include monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the source is operating in accordance with the requirements of the permit. Further explanations of the specific provisions of the draft CAAPP permit are contained in the attachments to this document, which also identify the various emission units at the source.

- Change in responsible official and operator contact;
- Incorporation of the changes to Tanks DP-51, DP-53, and DP-57 which were previously shown to be internal floating roof tanks and are now shown to be fixed roof tanks (See Section 7.1)
- Inclusion of changes and the Title 1 limits show in Construction Permit 04060062 (See Section 7.4);
- Incorporation of new MACT/GACT regulation (i.e., 40 CFR 63 Subpart BBBBBB).

II. GENERAL SOURCE DESCRIPTION

a. Nature of source

Equilon Enterprises LLC - Des Plaines Terminal - d/b/a Shell Oil Products US - is located at 1605 E. Algonquin Road, Arlington Heights. The source is a petroleum products tank farm and distribution terminal. The terminal receives a variety of petroleum liquids from a pipeline or via truck, stores the liquid in bulk storage tanks, and delivers a portion of the stored liquid to trucks via loading racks. These petroleum liquids include various grades of gasoline, distillates, and denatured ethanol.

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Significant emission units at the source include: ten (10) fixed roof storage tanks which store petroleum distillates; seven (7) internal floating roof storage tanks which store various petroleum products and denatured ethanol; two (2) tank truck loading racks which are used to load and unload petroleum products and denatured alcohol; a groundwater treatment system; and fugitive emissions from various piping components

The two (2) tank truck loading racks are designated as the North Truck Loading Rack and South Truck Loading Rack, respectively. Ethanol and/or additives can be blended with the petroleum liquids during loading. The North Truck Loading Rack consists of four (4) lanes where Lane No. 1 through 3 is used to load petroleum distillates and gasoline. Lane No. 4 is dedicated to petroleum distillates and the unloading of ethanol and materials with low vapor pressure. Emissions from the North Truck Loading Rack during gasoline loading are controlled by a vapor recovery unit (VRU) which is monitored with a continuous monitoring system (CMS). The South Truck Loading Rack consists of three (3) lanes that are used to load petroleum distillates.

b. Ambient air quality status for the area

The source is located in an area that is currently designated nonattainment for the National Ambient Air Quality Standards for ozone (moderate nonattainment) and/or PM_{2.5} and attainment or unclassifiable for all other criteria pollutants carbon monoxide, lead, nitrogen dioxide, ozone, PM₁₀, sulfur dioxide.

c. Major source status

The source requires a CAAPP permit as a major source of volatile organic material (VOM) emissions.

d. Source Emissions

The following table lists annual emissions of criteria pollutants from this source, as reported in the Annual Emission Reports sent to the Illinois EPA.

Pollutant	Annual Emissions (tons)				
	2009	2008	2007	2006	2005
CO					
NO _x					
PM					
SO ₂					
VOM	31.2047	31.8650	31.6238	32.6903	32.9684
(top HAPs)					

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Pollutant	Annual Emissions (tons)				
	2009	2008	2007	2006	2005
XYLENE	0.3235	0.3470	0.3494	0.3502	0.2752
TOLUENE	0.2555	0.2721	0.2730	0.2752	0.2847

III. NEW SOURCE REVIEW/TITLE I CONDITIONS

This draft permit contains terms and conditions that address the applicability of permit programs for new and modified sources under Title I of the Clean Air Act (CAA) and regulations promulgated thereunder, including 40 CFR 52.21, Prevention of Significant Deterioration (PSD) and 35 IAC Part 203, Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the draft permit by T1, T1R, or T1N. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this draft permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them. Where the source has requested that the Illinois EPA establish new conditions or revise such conditions in a Title I permit, those conditions are consistent with the information provided in the CAAPP application and will remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

This draft permit would not establish any new Title I requirements or revised Title I requirements.

IV. COMPLIANCE INFORMATION

The source has certified compliance with all applicable rules and regulations; therefore, a compliance schedule is not required for this source. In addition, the draft permit requires the source to certify its compliance status on an annual basis.

V. PROPOSED ILLINOIS EPA ACTION/REQUEST FOR COMMENTS

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

Comments are requested by the Illinois EPA for the draft or proposed permit, pursuant to 35 IAC Part 252 and Sections 39.5(8) and (9) of the Illinois Environmental Protection Act. A final decision on the draft or proposed permit will not be made until the public, affected states, and USEPA have had an opportunity to comment. The Illinois EPA is not required to accept recommendations that are not based on applicable requirements. If substantial public interest is shown in this matter, the

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Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.

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ATTACHMENT 1: Summary of Source-Wide Requirements

The following table indicates the source-wide emissions control programs and planning requirements that are applicable to this source. These programs are addressed in Sections 5 and 6 of the draft permit.

Program/Plan	Applicable
Emissions Reduction Market System (ERMS) ¹	Yes
Nitrogen Oxides (NO ₂) Trading Program	No
Acid Rain Program	No
Compliance Assurance Monitoring (CAM) Plan	No
Fugitive Particulate Matter (PM) Operating Program	No
Risk Management Plan (RMP)	No
PM ₁₀ Contingency Measure Plan	No

1. The ERMS is a market-based program designed to reduce VOM emissions from stationary sources located in the Chicago ozone non-attainment area in order to contribute to reasonable further progress toward attainment (35 IAC Part 205). If applicable, this program is further described in Section 6.0 of the draft permit, including the Illinois EPA's determination of the source's baseline emissions and allotment of trading units under the ERMS.

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Table 1 (Section 5.0 - OVERALL SOURCE CONDITIONS of the draft permit)

Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 212.301 and 212.314: General fugitive particulate matter limitations; • 35 IAC 212.123(a): General opacity limitation • 35 IAC 214.301: General sulfur dioxide limitation • 35 IAC 218.585: Gasoline Volatility Standards • 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities <ul style="list-style-type: none"> o The source is an area source bulk gasoline that is not subject to the control requirements of 40 CFR part 63, subpart R - National Emission Standards For Gasoline Distribution Facilities (Bulk Gasoline Terminals And Pipeline Breakout Stations) (§§63.422, 63.423, and 63.424) or 40 CFR part 63, subpart CC - National Emission Standards For Hazardous Air Pollutants From Petroleum Refineries (§§63.646, 63.648, 63.649, and 63.650).
Streamlining	Not Applicable
Title I Conditions	<ul style="list-style-type: none"> • The draft permit contains limits on operation and emissions in Conditions 5.6.3. These limits were incorporated from Permit 95060062.

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Non-applicability	<ul style="list-style-type: none"> • 40 CFR 63, Subparts R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals): Aggregate actual HAP emissions from the source is less than 10 tons of each individual HAP and 25 tons for all HAPs. (See also Condition 5.6.2) • 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 and storage tanks at the source are not in benzene service as defined in 40 CFR 61.111. (See also Condition 5.5.1) • 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources): Applicable emission units are not in volatile hazardous air pollutant service as defined in 40 CFR 61.241. (See also Condition 5.5.1) • Chemical Accident Prevention in 40 CFR Part 68: Source does not meet the applicability threshold quantity criteria shown in 40 CFR 68.10. (See also Condition 5.5.3) • 35 IAC 212.302 through 212.216 & 35 IAC Part 212, Subpart U: Source does not meet the applicability requirements shown in the respective sections.
Periodic Monitoring (other than basic regulatory requirements)	
Testing	<ul style="list-style-type: none"> • General Testing requirement: 35 IAC 201.282 and Section 4(b) of the Act • HAP Testing to Verify Minor Source Status (Condition 5.6.2): 35 IAC 201.282 and Section 4(b) of the Act • Gasoline Volatility Standards: 35 IAC 218.585 • Monitoring VOL Operations: 35 IAC 218.128 - maximum true vapor pressure • 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities <ul style="list-style-type: none"> o The Permittee shall comply with the applicable general performance testing 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), See Appendix 8. <p>Additional requirements for the specific affected emission units are provided in Section 7.0, as applicable.</p>
Emissions Monitoring	None

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Operational Monitoring	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.
Inspections	None
Recordkeeping	<ul style="list-style-type: none"> • Annual Emission Records: Condition 5.6.1, pursuant to Section 39.5(7)(b) of the Act • General Records for Storage Tanks: Section 39.5(7)(b) and 39.5(7)(1)(i)(A) of the Act • Records for Floating Roof Storage Tanks: Condition 5.6, pursuant to Section 39.5(7)(b) of the Act • Records for Operating Scenarios: Condition 5.11 and 39.5(7)(1)(i)(A) of the Act • 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 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), See Appendix 8. • Additional requirements for the specific affected emission units are provided in Section 7.0, as applicable. • Gasoline Volatility Standards: 35 IAC 218.585(h)(2) • Records for VOM and HAP Emissions and Other Compliance Records: Condition 5.6 and 39.5(7)(1)(i)(A) of the Act
Reporting	
Prompt Reporting	General Source-Wide Reporting Requirements: Section 39.5(7)(f)(ii)
Other Reporting	<ul style="list-style-type: none"> • Annual Emissions Report and ; Annual Reporting of HAP Emissions: Condition 9.7 and Section 39.5(7)(b) of the Act • 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities <ul style="list-style-type: none"> o 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), See Appendix 8. o Notifications [40 CFR 63.11093] o Reports [40 CFR 63.11095]

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ATTACHMENT 2: Summary of Requirements for Specific Emission Units

The following tables include information on the requirements that apply to significant emission units at this source. The requirements are found in Section 7 of the draft permit, which is further divided into subsection, i.e., Section 7.1, 7.2, etc., for the different categories of units at the source. A separate table is provided for each subsection in Section 7 of the draft permit. An explanation of acronyms and abbreviations is contained in Section 2 of the draft permit.

Table 1 (Section 7.1 of the draft permit)

Emission Unit - Group 1 Storage Tanks Fixed roof storage tanks with a capacity greater than 40,000 gallons that store organic material with a vapor pressure less than 0.5 psia	
Description	The Permittee operates ten (10) fixed roof storage tanks which are used to store petroleum distillates. Permanent submerged loading is used at these tanks, minimizing turbulence and evaporation of VOM during loading.
Date Constructed	See Attachment 6 of the Permit
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	• None
Streamlining	Not Applicable
Title I Conditions	Not Applicable

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Emission Unit - Group 1 Storage Tanks Fixed roof storage tanks with a capacity greater than 40,000 gallons that store organic material with a vapor pressure less than 0.5 psia

Non-applicability

- 40 CFR Part 60, Subpart Subparts K, Ka or Kb: The affected storage tanks were constructed prior to the applicability dates listed in the subparts, i.e., the affected storage 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)]
 - 35 IAC 218.120, 218.127, 218.128, and 218.129: The organic liquids stored affected storage tank in the affected storage tanks has a maximum true pressure of less than 0.5 psia (See Condition 7.1.6). [35 IAC 218.119(a)]
 - 35 IAC 218.121, Storage Containers of VPL, or 35 IAC 218.123, Petroleum Liquid Storage Tanks: The vapor pressure of VOLs stored in the tank is less than 0.75 psia (See Condition 7.1.6). Therefore, the organic liquids stored in the tanks do not meet the definition for volatile petroleum liquid. [35 IAC 218.121 and 123]
- "Volatile petroleum liquid" means any petroleum liquid with a true vapor pressure that is greater than 1.5 psia (78 millimeters of mercury) at standard conditions. [35 IAC 211.7170]
- 35 IAC 218.122, Loading Operations: if no odor nuisance exists the limitations of 35 IAC 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) (See Condition 7.1.6) [35 IAC 218.122(c)].
 - 35 IAC Part 218, Subpart QQ or TT: The affected storage tanks are subject to 35 IAC 218, Subpart B [35 IAC 218.940(a) and (b) and 218.980(a) and (b)].
 - 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources: The affected storage tanks do not use an add-on control device to achieve compliance with an emission limitation or standard.
 - 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 do not store gasoline (See Condition 7.1.6) [40 CFR 63.11082(a)].

Periodic Monitoring (other than basic regulatory requirements)

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Emission Unit - Group 1 Storage Tanks Fixed roof storage tanks with a capacity greater than 40,000 gallons that store organic material with a vapor pressure less than 0.5 psia	
Testing	Testing requirements are not set for the affected storage tanks. However, there are general testing requirements in Conditions 5.7 and 8.5.
Emissions Monitoring	Monitoring requirements are not set for the affected storage tanks.
Operational Monitoring	Monitoring requirements are not set for the affected storage tanks.
Inspections	Inspection requirements are not set for the affected storage tanks.
Recordkeeping	<ul style="list-style-type: none"> • The storage of any material besides petroleum distillates or any organic liquid with a true vapor pressure greater than 0.5 psia. • Organic liquid throughput through each affected emission units; gal/month. • The VOM emissions attributable to each affected emission unit, with calculations; tons/month and ton/year.
Basis	<p>Periodic Monitoring is sufficient for these emission units because:</p> <ul style="list-style-type: none"> • There is a small likelihood of an exceedance.
Reporting	
Prompt Reporting	Any storage of any material besides petroleum distillates or any organic liquid with a true vapor pressure greater than 0.5 psia in an affected storage tank within five days of becoming aware of the non-compliance status, See Condition 7.1.6. This notification shall include a description of the event, the cause for the non-compliance, actions taken to correct the non-compliance, and the steps taken to avoid future non-compliance.
Other Reporting	None

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Table 2 (Section 7.2 of the draft permit)

Emission Unit - <u>Group 2 Storage Tanks</u> Existing Internal floating roof storage tanks - Not Subject to 40 CFR 60 Subpart K, Ka, or Kb	
Description	The Permittee operates internal floating roof storage tanks to store various petroleum products and denatured ethanol. Permanent submerged loading must be used at these tanks, minimizing turbulence and evaporation of VOM during loading.
Date Constructed	See Attachment 6 of the Permit
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 218.120(a): Storage tanks with a capacity greater than or equal to 40,000 gallons (151 m³) storing a VOL with a vapor pressure of 5.19 kPa (0.75 psia) or more but less than or equal to a maximum true vapor pressure of 76.52 kPa (11.1 psia) [Internal floating roof - 35 IAC 218.120(a)(1)]. • 35 IAC 218.121: Storage tanks with a capacity greater than or equal to 40,000 gallons (151 m³) storing a VPL with a vapor pressure of 10.34 kPa (1.5 psia) or greater at 294.3°K (70°F) [Internal floating roof - 35 IAC 218.121(b)(1)]. • 35 IAC 218.122: Storage tanks with a capacity of greater than 250 gal is required to be equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA. The Illinois EPA has not approved any alternative control [Submerged Loading Pipe - 35 IAC 218.122(b)]. • 35 IAC 218.123(a): Storage tank that stores volatile petroleum liquid is subject to the control requirements of 35 IAC 218.123(b) [Petroleum Liquid Storage Tanks - 35 IAC 218.123(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
Streamlining	Not Applicable
Title I Conditions	<ul style="list-style-type: none"> • Not Applicable

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Emission Unit - <u>Group 2 Storage Tanks</u> Existing Internal floating roof storage tanks - Not Subject to 40 CFR 60 Subpart K, Ka, or Kb	
Non-applicability	<ul style="list-style-type: none"> • 40 CFR Part 60, Subpart Subparts K, Ka or Kb: The affected storage tanks were constructed prior to the applicability dates listed in the subparts, i.e., the affected storage 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)]. • 35 IAC 218.124: The affected storage tanks are not equipped with external floating roofs. • 35 IAC Part 218, Subpart QQ or TT: The affected storage tank is subject to 35 IAC 218, Subpart B [35 IAC 218.940(a) and (b) and 218.980(a) and (b)]. • 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources: The affected storage tanks are subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).
Periodic Monitoring (other than basic regulatory requirements)	
Testing	Testing requirements are not set for the affected storage tanks. However, there are general testing requirements in Conditions 5.7 and 8.5.
Emissions Monitoring	None
Operational Monitoring	<ul style="list-style-type: none"> • 35 IAC 218.128: Monitoring VOL Operations (i.e., storage temperature, maximum true vapor pressure)

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Emission Unit - Group 2 Storage Tanks Existing Internal floating roof storage tanks - Not Subject to 40 CFR 60 Subpart K, Ka, or Kb

<p>Inspections</p>	<ul style="list-style-type: none"> • 35 IAC 218.123(b)(4): Inspection of the floating roof seals at least tank semiannually • 35 IAC 218.123(b)(5): Inspection of the cover and seals of each affected storage tank whenever the tank is emptied for any reasons other than the transfer of liquid during the normal operation of the tank, or whenever repairs are made as a result of any semi-annual inspection or incidence of roof damage or defect. • 35 IAC 218.127(a)(1): 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 • 35 IAC 218.127(a)(2): 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. • 35 IAC 218.127(a)(3)]: Visually inspect the vessel as specified in 35 218.127(a)(4) at least every 5 years or visually inspect the vessel as specified in 35 IAC 218.127(a)(2) at least once every 12 months. • 35 IAC 218.127(a)(4): 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. • 35 IAC 218.127(a)(5): 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 35 218.127(a)(1) and (a)(4) above • 40 CFR 63.11092(e)(1): 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.
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Emission Unit - <u>Group 2 Storage Tanks Existing Internal floating roof storage tanks</u> - Not Subject to 40 CFR 60 Subpart K, Ka, or Kb	
Recordkeeping	<ul style="list-style-type: none"> • 35 IAC 218.123(b)(6): <ul style="list-style-type: none"> o List of the types of volatile petroleum liquid stored on a monthly basis; o Maximum true vapor pressure of each type of liquid as stored, psia; and o The results of any inspections or measurements required by the Condition 7.2.8(a), (b) and/or (c) [35 IAC 218.129(a)(2)]: • 35 IAC 218.123(b)(6): Records to identify whenever the tank is emptied for any reason other than the transfer of liquid during normal operation or whenever repairs are made as a result of regular inspections or incident of roof damage or defect. (See Condition 7.2.8(b) (Cover and Seal Inspection) • 35 IAC 218.129(a)(2): Record of each inspection performed as required by Condition 7.2.8(c)(i), (ii), (iii), and iv) and 35 IAC 218.127(a)(1), (a)(2), (a)(3), and (a)(4) • 40 CFR 63.11094(a): Records as specified in 40 CFR 60.115b if the Permittee is complying with options 2(a), 2(b), or 2(c) in Table 1 of 40 CFR 63, Subpart BBBBBB, except records shall be kept for at least 5 years. If the Permittee is complying with the requirements of option 2(d) in Table 1 of 40 CFR 63, Subpart BBBBBB, the Permittee shall keep records as specified in 40 CFR 63.1065.
Basis	<p>Periodic Monitoring is sufficient for these emission units because:</p> <ul style="list-style-type: none"> • Presumed by rule as the source is subject to a standard promulgated after Nov. 1990.
Reporting	
Prompt Reporting	<ul style="list-style-type: none"> • Within 5 days of the non-compliance status: Storage of VOL in an affected storage tank that is not in compliance with the control requirements (due to absence of the features required by Conditions 7.2.3(c) and 7.2.5, e.g., "no permanent submerged loading pipe,". • Within 30 days of the non-compliance status: Storage of VOL in an affected storage tank that is out of compliance with the control requirements (Conditions 7.2.3(c) and 7.2.5) due to damage, deterioration, or other condition of the tank. • Within 30 days of such occurrence: Any exceedance of the operational and emissions limitations in Condition 7.2.6.

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Emission Unit - Group 2 Storage Tanks Existing Internal floating roof storage tanks - Not Subject to 40 CFR 60 Subpart K, Ka, or Kb

Other Reporting

- 35 IAC 218.129(a)(3): Within 30 days after the inspection that detects any of the conditions described in Condition 7.2.8(c)(ii) and 35 IAC 218.127(a)(2)
- 35 IAC 218.129(a)(4): Within 30 days after the inspection required by Condition 7.2.8(c)(ii) and 35 IAC 218.127(a)(3) detects holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Condition 7.2.8(c)(iii)(B) and 35 IAC 218.127(a)(3)(B).
- 40 CFR 63.11095(a)(1): If you are complying with options 2(a), 2(b), or 2(c) in Table 1 to 40 CFR 63 Subpart BBBBBB, the information specified in 40 CFR 60.115b(a), 60.115b(b), or 60.115b(c), depending upon the control equipment installed, or, if you are complying with option 2(d) in Table 1 to 40 CFR 63 Subpart BBBBBB, the information specified in 40 CFR 63.1066.

Table 3 (Section 7.3 of the draft permit)

Emission Unit - Group 3 Storage Tanks Internal floating roof storage tanks - Subject to 40 CFR 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]	
Description	The Permittee operates internal floating roof storage tanks to store various petroleum products and denatured ethanol. Permanent submerged loading must be used at these tanks, minimizing turbulence and evaporation of VOM during loading.
Date Constructed	See Attachment 6 of the permit
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 35 IAC 218.122: Storage tanks with a capacity of greater than 250 gal is required to be equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA. The Illinois EPA has not approved any alternative control [Submerged Loading Pipe - 35 IAC 218.122(b)]. • 40 CFR 60 Subpart Kb: Applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m³) (20,000 gallons) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984 [40 CFR 60.110b(a)]. An "affected tank," for the purposes of these unit specific conditions is a storage tank that is subject to the control requirement of 40 CFR 60 Subpart Kb that relies on an internal floating roof for compliance. • 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities
Streamlining	The Permittee has requested that the overlapping requirements in 35 IAC 218.120, 218.121, 218.127, 218.128, and 218.129 be streamlined with the requirements of 40 CFR 60 Subpart Kb. The rationale provide by the Permittee indicates that the requirements of 40 CFR 60 Subpart Kb are as stringent or more stringent than the control, testing, monitoring, recordkeeping, and reporting requirements in the above listed 35 IAC 218 subsections.

(This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

Emission Unit - Group 3 Storage Tanks Internal floating roof storage tanks - Subject to 40 CFR 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]	
Title I Conditions	<ul style="list-style-type: none"> The draft permit contains limits on operation and emissions in Conditions 7.3.6. These limits were incorporated from the previous Title V permit issued on July 27, 2000
Non-applicability	<ul style="list-style-type: none"> 40 CFR Part 60, Subparts K or Ka: Because the affected storage tanks are subject to 40 CFR Part 60, Subparts Kb. Specifically, the affected storage tanks were modified after July 23, 1984 (See Attachment 6) [[40 CFR 60.110b(a)]. 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). 35 IAC 218.124: The affected storage tanks are not equipped with external floating roofs. 35 IAC Part 218, Subpart QQ or TT: The affected storage tank is subject to 35 IAC 218, Subpart B [35 IAC 218.940(a) and (b) and 218.980(a) and (b)]. 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources: The affected storage tanks are subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).
Periodic Monitoring (other than basic regulatory requirements)	
Testing	Testing requirements are not set for the affected storage tanks. However, there are general testing requirements in Conditions 5.7 and 8.5.
Emissions Monitoring	None
Operational Monitoring	<ul style="list-style-type: none"> 40 CFR 60.116b: Monitoring VOL Operations (i.e., storage temperature, maximum true vapor pressure)

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Emission Unit - Group 3 Storage Tanks Internal floating roof storage tanks - Subject to 40 CFR 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]

Inspections

- 40 CFR 60.113b(a)(1): 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)(2): 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.
- 40 CFR 60.113b(a)(3): Visually inspect the vessel as specified in 40 CFR 60.113b(a)(4) and Condition 7.3.8(a)(iv) at least every 5 years or visually inspect the vessel as specified in 40 CFR 60.113b(a)(2) and Condition 7.3.8(a)(ii) at least once every 12 months.
- 40 CFR 60.113b(a)(4): 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.
- 40 CFR 60.113b(a)(5): 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.
- 40 CFR 63.11092(e)(1): 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.

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<p>Emission Unit - Group 3 Storage Tanks Internal floating roof storage tanks - Subject to 40 CFR 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]</p>	
Recordkeeping	<ul style="list-style-type: none"> • General Records: <ul style="list-style-type: none"> ○ List of the types of volatile petroleum liquid stored on a monthly basis; ○ Maximum true vapor pressure of each type of liquid as stored, psia 40 CFR 60.116b(c)]; and ○ Records of the dimension of the storage vessel and an analysis of the capacity of the storage vessel [40 CFR 60.116b(b)]; ○ A record of each inspection performed as required by Condition 7.3.8(a) and 40 CFR 60.113b(a)(1), (a)(2), (a)(3), and (a)(4) [40 CFR 60.115b(a)(2)]. • 40 CFR 63.11094(a): Records as specified in 40 CFR 60.115b if the Permittee is complying with options 2(a), 2(b), or 2(c) in Table 1 of 40 CFR 63, Subpart BBBB, except records shall be kept for at least 5 years. If the Permittee is complying with the requirements of option 2(d) in Table 1 of 40 CFR 63, Subpart BBBB, the Permittee shall keep records as specified in 40 CFR 63.1065.
Basis	<p>Periodic Monitoring is sufficient for these emission units because:</p> <ul style="list-style-type: none"> • Presumed by rule as the source is subject to a standard promulgated after Nov. 1990.
Reporting	
Prompt Reporting	<ul style="list-style-type: none"> • Within 5 days of the non-compliance status: Storage of VOL in an affected storage tank that is not in compliance with the control requirements (due to absence of the features required by Conditions 7.3.3(c) and 7.3.5, e.g., "no permanent submerged loading pipe,". • Within 30 days of the non-compliance status: Storage of VOL in an affected storage tank that is out of compliance with the control requirements (Conditions 7.3.3(c) and 7.3.5) due to damage, deterioration, or other condition of the tank. • Within 30 days of such occurrence: Any exceedance of the operational and emissions limitations in Condition 7.3.6.

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Emission Unit - Group 3 Storage Tanks Internal floating roof storage tanks - Subject to 40 CFR 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]

Other Reporting

- 40 CFR 60.115b(a)(3): Within 30 days after the inspection that detects any of the conditions described in 7.3.8(a)(ii) and 40 CFR 60.113b(a)(2)
- 40 CFR 60.115b(a)(4): Within 30 days after the inspection required by Condition 7.3.8(a)(iii) and 40 CFR 60.113b(a)(3) detects holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Condition 7.3.8(a).
- 40 CFR 60.113b(a)(5): Notification in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required in order to afford the Illinois EPA the opportunity to have an observer present.
- 40 CFR 63.11095(a)(1): If you are complying with options 2(a), 2(b), or 2(c) in Table 1 to 40 CFR 63 Subpart BBBBBB, the information specified in 40 CFR 60.115b(a), 60.115b(b), or 60.115b(c), depending upon the control equipment installed, or, if you are complying with option 2(d) in Table 1 to 40 CFR 63 Subpart BBBBBB, the information specified in 40 CFR 63.1066.

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Table 4 (Section 7.4 of the draft permit)

Emission Unit - North Truck Loading Rack	
Description	<p>The North Truck Loading Rack consists of four (4) lanes where Lane No. 2 through 3 is used to load petroleum distillates and gasoline. Lane No. 1 and 4 is dedicated to petroleum distillates and the unloading of ethanol and materials with low vapor pressure. Emissions from the North Truck Loading Rack during gasoline loading are controlled by a vapor recovery unit (VRU) which is monitored with a continuous monitoring system (CMS). Ethanol and/or additives can be blended with the petroleum liquids during loading.</p> <p>The VOM emissions from the truck loading/unloading rack occur when material is loaded into delivery vehicles. A vapor recovery unit is used to capture and control the emissions that occur as a result of displacement of vapors in the delivery vehicles during gasoline loading. The VOM emissions from unloading material are accounted for in the working losses of the storage tanks that the material is loaded into, with the exception of fugitive emissions that are attributed to the components, i.e., valves, flanges, etc., associated with the truck loading stations.</p>
Date Constructed	<p>1988</p> <p>Modified - Addition of Two Lanes in 1992</p>
Emission Control Equipment	Vapor recovery unit (VRU) which is monitored with a continuous monitoring system (CMS)
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 40 CFR 60 Subpart XX (Standards of Performance for Bulk Gasoline Terminals) and 35 IAC 218.582 - Bulk Gasoline Terminals: • 35 IAC 218.122(a): No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading area having throughput of greater than 151 cubic meters per day (40,000 gal/day) into any railroad tank car, tank truck or trailer unless such loading area is equipped with submerged loading pipes or a device that is equally effective in controlling emissions and is approved by the Agency according to the provisions of 35 Ill. Adm. Code 201, and further processed consistent with 35 Ill. Adm. Code 218.108. • 40 CFR 63 Subpart BBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities

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Emission Unit - North Truck Loading Rack	
Streamlining	Not Applicable
Title I Conditions	<ul style="list-style-type: none"> The draft permit contains limits on operation and emissions on Lane 4 and 3 of the affected loading rack in Condition 7.4.6(c) and (d), respectively. These limits were incorporated from Permits 79070009 and 04060062, respectively.
Non-applicability	<ul style="list-style-type: none"> 35 IAC Part 218, Subpart QQ or TT: Because it is subject to 35 IAC 218, Subpart Y [35 IAC 218.940(a) and (b) and 218.980(a) and (b)]. 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources: Because it is subject to a NESHAP proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).
Periodic Monitoring (other than basic regulatory requirements)	
Testing	<ul style="list-style-type: none"> VRU Performance Tests Required <ul style="list-style-type: none"> 180 days after the issuance date of the permit; and 548 days (18 months) prior to the expiration date of this permit. VRU Compliance Performance Tests <ul style="list-style-type: none"> 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities
Emissions Monitoring	<ul style="list-style-type: none"> Continuous Emissions Monitoring System (CEMS) capable of measuring organic compound concentration [40 CFR 63.11092(b)(1)(i)(A) and 35 IAC 218.105(d)(2)(A)(iii)]
Operational Monitoring	<ul style="list-style-type: none"> Monthly leak inspection of the vapor collection system, the vapor processing system and each loading rack handling gasoline [40 CFR 60.502(j)]
Inspections	<ul style="list-style-type: none"> Monthly leak inspection of the vapor collection system, the vapor processing system and each loading rack handling gasoline [40 CFR 60.502(j)].

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Emission Unit - North Truck Loading Rack	
Recordkeeping	<ul style="list-style-type: none"> • General Recordkeeping <ul style="list-style-type: none"> ○ Identification and properties of each organic liquid distributed through the affected loading rack, as related to emissions, i.e., vapor pressure and molecular weight; ○ Amount of each organic liquid distributed through each affected loading rack (including MTBE-based gasoline), gal/month, and gal/year; ○ Emissions of VOM and HAP attributable to loading of petroleum products, tons/month and tons/year, with supporting calculations, calculated utilizing an approved USEPA methodology, such as Section 5.2 of the AP-42 and the control efficiency of a VRU as demonstrated in the most recent test;

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Emission Unit - North Truck Loading Rack

Recordkeeping
(continued)

- Records of Operations
 - Use of an affected loading rack for loading of any gasoline or tank truck when the associated VRU and/or the associated CMS was operating at parameters outside of those deemed acceptable under Conditions 7.4.3, 7.4.5 and 7.4.6
 - Use of an affected loading rack for the loading of any nonvapor-tight gasoline tank or a delivery vessel that does not display the appropriate sticker or has not provided a current certification (i.e., gasoline tank or a delivery vessel not meeting the requirements of Conditions 7.4.5(b) and/or (c)).
- Continuous Monitoring System
 - CEMS malfunction plan and/or Standard Operating Procedure;
- 40 CFR 60 Subpart XX - Standards Of Performance For Bulk Gasoline Terminals
 - Tank truck vapor tightness documentation required under Conditions 7.4.5(b)(i) and (c)(iii) and 35 IAC 218.582(a)(5), and 40 CFR 60.502(e) [40 CFR 60.505(a)].
 - Documentation file for each gasoline tank truck vapor tightness tests [40 CFR 60.505(b)].
 - Record of each monthly leak inspection required under Condition 7.4.8(b)(i) and 40 CFR 60.502(j).
 - Documentation of all notifications (i.e., notification of the owner or operator of each non-vapor-tight gasoline tank truck loaded at the affected facility) required under Condition 7.4.5(c)(iii)(D) and 40 CFR 60.502(e)(4) [40 CFR 60.505(d)].
 - Records of all replacements or additions of components performed on an existing vapor processing system for at least 3 years [40 CFR 60.505(f)].
- 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities
 - Records of the test results for each gasoline cargo tank loading at the facility as specified in 40 CFR 63.11094(b)(b)(1) through (3) [40 CFR 63.11094(b)].
 - As an alternative to keeping records at the terminal of each gasoline cargo tank test result as required in 40 CFR 63.11094(b), the Permittee may comply with the requirements in either 40 CFR 63.11094(c)(1) or (c)(2) [40 CFR 63.11094(c)].
 - Up-to-date, readily accessible record of the continuous monitoring data required under Condition 7.4.8(a) and 40 CFR 63.11092(b) or 63.11092(e) [40 CFR 63.11094(f)(1)].

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Emission Unit - North Truck Loading Rack	
Recordkeeping (continued)	<ul style="list-style-type: none"> o Record and report simultaneously with the Notification of Compliance Status required under 40 CFR 63.11093(b) [40 CFR 63.11094(f)(2)]: o Up-to-date, readily accessible copy of the monitoring and inspection plan required under Condition 7.4.8(a)(i)(A)(1)(I)(bb)(BB) and 40 CFR 63.11092(b)(1)(iii)(B)(2) [40 CFR 63.11094(f)(3)]. o Up-to-date, readily accessible record of all system malfunctions, as specified in Condition 7.4.8(a)(i)(A)(1)(I)(bb)(BB)(v) and 40 CFR 63.11092(b)(1)(iii)(B)(2)(v) [40 CFR 63.11094(f)(4)]. <p>If an owner or operator requests approval to use a vapor processing system or monitor an operating parameter other than those specified in 40 CFR 63.11092(b), the owner or operator shall submit a description of planned reporting and recordkeeping procedures [40 CFR 63.11094(f)(5)].</p>
Basis	<p>Periodic Monitoring is sufficient for this emission unit because:</p> <ul style="list-style-type: none"> • Presumed by rule as the source is subject to a standard promulgated after Nov. 1990.
Reporting	
Prompt Reporting	<ul style="list-style-type: none"> • Notification within 15 days of operation of an affected loading rack, VRU and/or CMS in excess of the limitations of Conditions 5.6.3 and 7.4.5.
Other Reporting	<ul style="list-style-type: none"> • Annual Report <ul style="list-style-type: none"> o Monthly and annual throughputs for each affected loading rack for each month of the previous calendar year sufficient to demonstrate compliance with the 12 month running total of Condition 5.3.6, gallons/month and gallons/year; o Monthly and annual emissions of VOM attributable to the loading of petroleum products for each affected loading rack for each month of the previous calendar year sufficient to demonstrate compliance with the 12 month running total of Condition 5.3.6, tons/month and tons/year; o Annual emissions of VOM attributable to fugitive losses (valves, pump seals, etc.) from the loading rack components sufficient to demonstrate compliance with total emissions limitation of Condition 5.3.6; and

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Emission Unit - North Truck Loading Rack	
Other Reporting (Continued)	<ul style="list-style-type: none"> o Summarization of any use of an affected loading rack to load delivery vessels (gasoline tank trucks) into trucks that did not meet the requirements of Conditions 7.4.5(b)(i)(E) and/or (c)(iii), including: <ul style="list-style-type: none"> • Semi-Annual Reports <ul style="list-style-type: none"> o Summary of any use of an affected loading rack when the affected loading rack, VRU or CMS exceeded operational limits or when they were malfunctioning.

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Table 5 (Section 7.5 of the draft permit)

Emission Unit - South Truck Loading Rack	
Description	<p>The south truck loading/unloading rack consists of three lanes. These lanes are used only for the loading of distillates and jet fuel.</p> <p>As a result of displacement of vapors in the delivery vehicles during loading, VOM emissions occur. The VOM emissions from unloading material are accounted for in the working losses of the storage tanks that the material is loaded into, with the exception of fugitive emissions that are attributed to the components, i.e., valves, flanges, etc., associated with the truck loading stations.</p>
Date Constructed	Prior to 1983
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • None
Streamlining	Not Applicable
Title I Conditions	<ul style="list-style-type: none"> • None
Non-applicability	<ul style="list-style-type: none"> • 35 IAC 218.582 (Bulk Gasoline Terminals), 40 CFR 60 Subpart XX - Standards of Performance for Bulk Gasoline Terminals or 40 CFR 63 Subpart BBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities: Because the loading rack is not allowed to load gasoline into gasoline tank trucks. • 35 IAC 218.122, Loading Operations: Since if no odor nuisance exists the limitations of 35 IAC 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) (See Condition 7.5.6) [35 IAC 218.122(c)]. • 35 IAC Part 218, Subpart QQ or TT: Because the aggregate potential to emit VOM from the subject units does not exceed 25 tpy [35 IAC 218.940(b)(1) and 218.980(b)(1)]. • 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources: Because the affected loading rack do not use an add-on control device to achieve compliance with an emission limitation or standard.

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Emission Unit - South Truck Loading Rack	
Periodic Monitoring (other than basic regulatory requirements)	
Testing	Testing requirements are not set for the affected loading rack.
Emissions Monitoring	Not Applicable
Operational Monitoring	Not Applicable
Inspections	An inspection is required at least once for each calendar month that the affected loading racks are used for loading
Recordkeeping	<ul style="list-style-type: none"> • General Recordkeeping <ul style="list-style-type: none"> ○ Identification and properties of each organic liquid distributed through the affected loading rack, as related to emissions, i.e., vapor pressure and molecular weight; ○ Amount of each organic liquid distributed through each affected loading rack (including MTBE-based gasoline), gal/month, and gal/year; ○ Emissions of VOM and HAP attributable to loading of petroleum products, tons/month and tons/year, with supporting calculations, calculated utilizing an approved USEPA methodology, such as Section 5.2 of the AP-42 and the control efficiency of a VRU as demonstrated in the most recent test; • Records of Operations and Inspection <ul style="list-style-type: none"> ○ The use of an affected loading rack for the loading of any material other than those listed in Condition 7.5.6(a). ○ A record of each leak inspection (Condition 7.5.8) ○ Documentation demonstrating that the vapor pressure of the materials loaded on the loading rack is less than 17.24 kPa (2.5 psia) or at 294.3°K (70°F). (See Conditions 7.5.4(b) and 7.5.6(a)(ii)) ○ Documentation demonstrating that the aggregate potential to emit VOM from the subject units does not exceed 25 tpy (See Condition 7.5.4(c)).
Basis	<p>Periodic Monitoring is sufficient for this emission unit because:</p> <ul style="list-style-type: none"> • The source has a substantial margin of compliance. • There is a small likelihood of an exceedance.
Reporting	

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Emission Unit - South Truck Loading Rack	
Prompt Reporting	<ul style="list-style-type: none"> • Notification within 15 days of operation of the affected loading rack in excess of the limitations 7.5.6. • Operation of the affected loading rack in excess of the limits specified in Conditions 7.5.4, 7.5.6 and 7.5.8 within 30 days of such occurrence.
Other Reporting	<ul style="list-style-type: none"> • Summarization of any use of an affected loading rack out of compliance with the limitations of Conditions 7.5.4, 7.5.6 and 7.5.8

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Table 6 (Section 7.6 of the draft permit)

Emission Unit - Fugitive Emissions from Leaking Equipment Components	
Description	Fugitive emissions from leaking equipment 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.
Date Constructed	
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	<ul style="list-style-type: none"> • 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities <ul style="list-style-type: none"> o The affected equipment components in vapor or liquid gasoline service are subject to the 40 CFR 63 Subpart BBBBBB
Streamlining	The Permittee has requested that the overlapping requirements in 35 IAC 218.142 be streamlined with the requirements of 40 CFR 63.11089. The rationale provide by the Permittee indicates that the leak detection and repair requirements of 40 CFR 63.11089 are as stringent or more stringent than the volumetric leak limitation in 35 IAC 218.142.
Title I Conditions	<ul style="list-style-type: none"> • None
Non-applicability	<ul style="list-style-type: none"> • 35 IAC Part 218, Subpart QQ or TT, because the potential to emit VOM from the subject units does not exceed 25 tpy. • 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because affected leaking equipment components do not use an add-on control device to achieve compliance with an emission limitation or standard.
Periodic Monitoring (other than basic regulatory requirements)	
Testing	Testing requirements are not set for the affected leaking equipment components.
Emissions Monitoring	Not Applicable
Operational Monitoring	Not Applicable

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Emission Unit - Fugitive Emissions from Leaking Equipment Components	
Inspections	Conditions 7.6.3(b)(i) and 7.6.8, each calendar month, the affected components are required to be inspected during the loading of tank trucks for total organic compounds liquid or vapor leaks.
Recordkeeping	<ul style="list-style-type: none"> • The number of components (i.e., valves, pump seals, etc.) in light liquid, heavy liquid or vapor service, as applicable; • Emissions of VOM attributable to fugitive losses (valves, pump seals, etc.), tons/month and tons/year, with supporting calculations, calculated utilizing the compliance procedures in Condition 7.7.12 or other approved USEPA methodology; • Inspection Records <p>A record of each monthly leak inspection required under (Condition 7.6.5).</p> <ul style="list-style-type: none"> • 40 CFR 63 Subpart BBBBBB - National Emission Standards For Hazardous Air Pollutants For Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, And Pipeline Facilities <ul style="list-style-type: none"> o The Permittee shall comply with the applicable recordkeeping requirements specified in §63.11094(d) and (e), See Appendix 8.
Basis	<p>Periodic Monitoring is sufficient for these emission units because:</p> <ul style="list-style-type: none"> • Presumed by rule as the source is subject to a standard promulgated after Nov. 1990.
Reporting	
Prompt Reporting	Notification within 30 days of operation in excess of the limitations of Conditions 5.6.3 and 7.6.5.
Other Reporting	Not Applicable

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Table 7 (Section 7.8 of the draft permit)

Emission Unit - Storm Water, Water Bottoms and Groundwater (SWWB & G) Treatment System	
Description	The Permittee operates a storm water, water bottoms and groundwater (SWWB & G) treatment system to remove organic contaminants. Collected storm water, water bottoms and groundwater is processed through 2 oil/water separators and an air stripper.
Date Constructed	--
Emission Control Equipment	None
Applicable Rules and Requirements	
Emission Standards	None
Streamlining	Not Applicable
Title I Conditions	Not Applicable
Non-applicability	<ul style="list-style-type: none"> The affected Oil/Water Separators at the source are not subject to 35 IAC 218.141(a) because the expected effluent organic material concentration is less than 200 gal/day and the vapor pressure of the organic material is below 17.24 kPa (2.5 psia) at 294.3°K (70°F) [35 IAC 218.141(a)].
Periodic Monitoring (other than basic regulatory requirements)	
Testing	Testing requirements are not set for the affected emission units.
Emissions Monitoring	Monitoring requirements are not set for the affected emission units.
Operational Monitoring	Monitoring requirements are not set for the affected emission units.
Inspections	None

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Emission Unit - Storm Water, Water Bottoms and Groundwater (SWWB & G) Treatment System	
Recordkeeping	<ul style="list-style-type: none"> • Permittee shall maintain a logbook for the operation of the affected emission units <ul style="list-style-type: none"> o Operating rate of the SWWB & G treatment system, in gallons of influent water per hour, on at least a weekly basis. • Records of the following items so as to demonstrate compliance with the limits in Condition 5.6.1: <ul style="list-style-type: none"> o Amount of water processed by the system, o Concentrations of organic compounds, in ppbm, o Annual emissions of HAP and VOM, in tons, with supporting calculations. • Documentation demonstrating that affected emission units are in compliance with the requirements in 7.7.3(b) and 7.7.4.
Basis	<p>Periodic Monitoring is sufficient for these emission units because:</p> <ul style="list-style-type: none"> • There is a small likelihood of an exceedance.
Reporting	
Prompt Reporting	Emissions of VOM from the affected SWWB & G Treatment System in excess of the limits specified in Condition 7.7.3(b) and 7.7.4 within 30 days of such occurrence.
Other Reporting	Not Applicable

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ATTACHMENT 3: Prompt Reporting of Deviations

Prompt reporting of deviations is critical in order to have timely notice of deviations and the opportunity to respond, if necessary. The effectiveness of the permit depends upon, among other important elements, timely and accurate reporting. The Illinois EPA, USEPA and the public rely on timely and accurate reports submitted by the Permittee to measure compliance and to direct investigation and follow-up activities. Prompt reporting is evidence of a Permittee's good faith in disclosing deviations and describing the steps taken to return to compliance and prevent similar incidents.

Any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in this CAAPP permit is a deviation subject to prompt reporting. Additionally, any failure to comply with any permit term or condition is a deviation of that permit term or condition and must be reported to the Illinois EPA as a permit deviation. The deviation may or may not be a violation of an emission limitation or standard. A permit deviation can exist even though other indicators of compliance suggest that no emissions violation or exceedance has occurred. Reporting permit deviations does not necessarily result in enforcement action. The Illinois EPA has the discretion to take enforcement action for permit deviations that may or may not constitute an emission limitation or standard or the like, as necessary and appropriate.

Section 39.5(7)(f)(ii) of the Illinois Environmental Protection Act, which mirrors 40 CFR 70.6(a)(3)(iii)(B), requires prompt reporting of deviations from the permit requirements. The permitting authority (in this case, Illinois EPA) has the discretion to define "prompt" in relation to the degree and type of deviation likely to occur. Furthermore, Section 39.5(7)(f)(i) of the Illinois Environmental Protection Act, which mirrors 40 CFR 70.6(a)(3)(iii)(A) requires that monitoring reports must be submitted at least every 6 months. Therefore, USEPA generally considers anything less than 6 months to be "prompt" as long as the selected time frame is justified appropriately (60 Fed. Reg. 36083, 36086 (July 13, 1995)).

The USEPA has stated that, for purposes of administrative efficiency and clarity, it is acceptable to define prompt in each individual permit. The Illinois EPA has elected to follow this approach and defines prompt reporting on a permit by permit basis. In instances where the underlying applicable requirement contains "prompt" reporting, this frequency or a shorter frequency of reporting is the required timeframe used in this permit. Where the underlying applicable requirement fails to explicitly set forth the timeframe for reporting deviations, the Illinois EPA has developed a structured manner to determine the reporting approach used in this permit.

The Illinois EPA generally uses a time frame of 30 days to define prompt reporting of most deviations. Also, for certain permit conditions in individual permits, the Illinois EPA may require an alternate timeframe that is less than 30 days if the permit requirement justifies a shorter reporting time period. Under certain circumstances, EPA may establish a deviation reporting period longer than 30 days, but, in no event exceeding 6 months. Where it has established a deviation reporting period other than 30 days in an

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individual permit (specifically Section 7.x.10), the Illinois EPA has explained the reason for the alternative timeframe. (See Attachment 2 of this Project Summary.)

The timing for certain deviation reporting may be different when a source or emission unit at a source warrants reporting to address operation, independent of the occurrence of any deviations. This is the case for a source that is required to perform continuous monitoring for the emission unit, for which quarterly or semi-annual "monitoring" reports are appropriate. Where appropriate, reporting of deviations has generally been combined in, or coordinated with these quarterly or semi-annual reports, so that the overall performance of the plant can be reviewed in a comprehensive fashion. This will allow a more effective and efficient review of the overall performance of the source by the Illinois EPA and other interested parties, as well as by the source itself.

At the same time, there are certain deviations for which quicker reporting is appropriate. These are deviations for which individual attention or concern may be warranted by the Illinois EPA, USEPA, and other interested parties. Under this scenario, emphasis has been placed primarily on deviations that could represent substantial violations of applicable emission standards or lapses in control measures at the source. For these purposes, depending on the deviation, immediate notification may be required and preceded by a follow-up report submitted within 15 days, during which time the source may further assess the deviation and prepare its detailed plan of corrective action.

In determining the timeframe for prompt reporting, the Illinois EPA assesses a variety of criteria such as:

- historical ability to remain in continued compliance,
- level of public interest in a specific pollutant and/or source,
- seriousness of the deviation and potential to cause harm,
- importance of applicable requirement to achieving environmental goals,
- designation of the area (i.e., non-attainment or attainment),
- consistency among industry type and category,
- frequency of required continuous monitoring reports (i.e., quarterly),
- type of monitoring (inspection, emissions, operational, etc.), and
- air pollution control device type and operation

These prompt reporting decisions reflect the Illinois EPA's consideration of the possible nature of deviations by different emission units and the responses that might be required or taken for those different types of deviations. As a consequence, the conditions for different emission units may identify types of deviations which include but are not limited to: 1) Immediate (or very quick) notification; 2) Notification within 30 days as the standard; or 3) Notification with regular quarterly or semi-annual monitoring reports.

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The Illinois EPA's decision to use the above stated prompt reporting approach for deviations as it pertains to establishing a shorter timeframe in certain circumstances reflects the criteria discussed as well as USEPA guidance on the topic.

- 40 CFR 71.6(a)(3)(iii)(B) specifies that certain potentially serious deviations must be reported within 24 or 48 hours, but provides for semi-annual reporting of other deviations. (Serious or severe consequences)
- FR Vol. 60, No. 134, July 13, 1995, pg. 36086 states that prompt should generally be defined as requiring reporting within two to ten days of the deviation, but longer time periods may be acceptable for a source with a low level of excess emissions. (intermediate consequences)
- Policy Statement typically referred to as the "Audit Policy" published by the USEPA defines prompt disclosure to be within 21 days of discovery. (Standard for most "pollutant limiting" related conditions)
- Responses to various States by USEPA regarding other States' definition of prompt.

As a result, the Illinois EPA's approach to prompt reporting for deviations as discussed herein is consistent with the requirements of 39.5(7)(f)(ii) of the Act as well as 40 CFR part 70 and the CAA. This reporting arrangement is designed so that the source will appropriately notify the Illinois EPA of those events that might warrant individual attention. The timing for these event-specific notifications is necessary and appropriate as it gives the source enough time to conduct a thorough investigation into the causes of an event, collecting any necessary data, and to develop preventative measures, to reduce the likelihood of similar events, all of which must be addressed in the notification for the deviation.

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ATTACHMENT 4: Periodic Monitoring Discussion

The Illinois EPA must evaluate whether sufficient monitoring is contained in each source's CAAPP permit to assure compliance with regulations developed to meet Clean Air Act requirements. Under the CAAPP permit program, periodic monitoring is required for each emission point at a source subject to Clean Air Act requirements. No emission points are categorically exempt from this requirement.

Significant benefits of Title V include compliance assurance and public access to data. Periodic monitoring provides data sources can use to promptly identify and correct compliance problems and to certify compliance. This data is also reported to the Illinois EPA and available to the USEPA and to the public. Periodic monitoring provides information and compliance tools to the public that may not otherwise always be available under state law.

USEPA has not mandated specific monitoring or protocols for developing monitoring to meet the above requirements. Periodic monitoring determinations are therefore made on a case-by-case basis. Because of the case-by-case nature of periodic monitoring determinations, it is important that the determinations are made consistent with Section 39.5 of the Act.

What is Periodic Monitoring?

In addition to gathering all requirements that apply to a source into one document, the CAAPP permit is meant to enable the public, USEPA, and the Illinois EPA to know whether the source can comply with those requirements. To achieve that goal, every CAAPP permit must include adequate "periodic monitoring." What this means is that the CAAPP permit must require the source to perform monitoring, recordkeeping and reporting so that it can assure the Illinois EPA, USEPA and the public that it is complying with its CAAPP permit or that it is identifying, reporting and addressing non-compliance. Ensuring that a CAAPP permit includes adequate periodic monitoring is the most important aspect of permit development.

Monitoring is a broad term that describes a source's ongoing activities to determine how it is operating in relation to its emission limitations and standards. Monitoring provisions must be set forth in the permit. The monitoring must be done at the source's initiative and a requirement to prepare or maintain a "monitoring plan" is not enough. Inspections by the Illinois EPA are also not sufficient.

The most obvious type of pollution monitoring is the direct measurement of smokestack emissions. Sometimes, a source is equipped with continuous emissions monitoring systems (CEMS) or continuous opacity monitoring systems (COMS). As their name implies, these systems are designed to directly measure smokestack emissions on a continuous basis. While continuous monitoring is one of the best ways to assure sources are in compliance with an emission limitation, installation of CEMS and COMS may be technically or economically infeasible compared to frequent manual monitoring. If a source has CEMS and COMS, these systems are identified in the source's CAAPP permit. If a source lacks CEMS and COMS, the source may be required to install these systems. However, the Illinois EPA may decide that some other type of monitoring (This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

is sufficient to assure the sources compliance with applicable requirements.

Periodic monitoring must be included with all types of permit conditions, not just those that directly limit pollution levels. For example, a CAAPP permit is likely to include conditions that require equipment maintenance and work practices. For these types of conditions, recordkeeping, and inspections is usually necessary to satisfy the periodic monitoring requirement. Monitoring includes activities such as:

- Continuous Emission Monitoring Systems (CEMS)
- Continuous Opacity Monitoring Systems (COMS)
- Parametric Emissions Monitoring (PEMS)
- Parametric Monitoring (continuous or at specified intervals)
- Periodic Source Testing
- Readings/Inspections
- Recordkeeping

Periodic Monitoring, a term used in 39.5(7)(d)(ii) of the Act, describes the combination of monitoring required by the applicable requirements and monitoring created in the CAAPP permit as necessary to meet the CAA requirement that the permit that assure compliance with the applicable requirements. Periodic monitoring is required because some applicable requirements do not contain adequate provisions for determining whether a source is in compliance with its emissions limitations or how this is to be accomplished.

In addition to the requirement for periodic monitoring, permits must contain "conditions as are necessary to assure compliance." This requirement is reflected in 39.5(7)(d)(ii) of the Act, which requires "monitoring sufficient to yield reliable data from the relevant time period that are representative of the sources compliance" and 39.5(7)(a) of the Act, which requires all CAAPP permits to contain "testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit."

If the permit contains good periodic monitoring, the source can most certainly be held accountable if it violates applicable air quality requirements. Without adequate periodic monitoring, it may be more difficult for the Illinois EPA, USEPA and a member of the public to determine whether a source is violating an air quality requirement. Also, good periodic monitoring will provide the source with information necessary to identify and minimize compliance problems and assist the source with the annual certification of compliance.

When is Periodic Monitoring Presumed in a Rule?

Sometimes, the underlying statute or regulation explicitly requires a source to perform a particular kind of monitoring. Any monitoring that is specifically required by statute or regulation must be included in the CAAPP permit. However, many air quality statutes and regulations do not identify a monitoring method. And, even when a monitoring method is specified, there is often no indication of how often the monitoring must be performed. Many statutes and regulations require a (This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

source to perform an initial test to demonstrate compliance, but never require any additional monitoring.

Periodic monitoring is not required unless the applicable requirement "requires no periodic testing, specifies no frequency, or requires only a one-time test." If the underlying State or federal standard requires a source to perform a specific type of testing or monitoring from time to time (yearly, monthly, weekly, daily, hourly), then this satisfies the periodic monitoring requirement of 40 CFR 70.6(a)(3)(i)(B). If an underlying requirement (1) has no periodic testing or monitoring, (2) does not mention how frequently testing or monitoring should be done, or (3) requires just a one-time test, then periodic monitoring is added to the CAAPP permit. The basic types of scenarios that are presumed to already contain sufficient monitoring requirements are those such as:

- NSPS and NESHAP promulgated after November 15, 1990
- When the Pollutant Specific Emission Unit is subject to a CAM Plan
- Federal or SIP standards specifying a continuous compliance determination method
- Acid Rain/CAIR/CAMR rules

What is the Process for Evaluating Periodic Monitoring?

In evaluating periodic monitoring, Illinois EPA determines whether a source's applicable requirements already contain adequate monitoring, and, if not, identifies additional necessary monitoring after consideration of certain factors. Review each applicable requirement emission limit or standard to determine what monitoring, recordkeeping and reporting (MRR) is associated with the emission limit. Note that periodic monitoring is only required if there is an applicable emission limit or standard. The term emission limit includes mass, rate and concentration limits, technology requirements, percent reduction requirements, work practice standards, process or control device parameters, and design, operational, or maintenance requirements. Determine whether the monitoring yields reliable data from the relevant time period that are representative of the source's compliance, and will assure compliance with the emissions limit or standard. Even if the MRR is not presumptively acceptable, it may still be acceptable. If the monitoring is not adequate to assure compliance, monitoring must be added to the permit. There are often various monitoring options that would satisfy the periodic monitoring requirement.

The frequency and averaging period of the emission limit of the monitoring must be made clear (periodic = e.g., hourly, daily, annual, etc.). When the emission limit has no time element (e.g., 0.5 grains/dscf), the relevant time period is the time needed to conduct an emission test. The relevant time period can be instantaneous as well (e.g., no holes or cracks in a lid for any amount of time). The data collected should provide for a reasonable assessment of the sources compliance status with permit emission limits.

Factors Considered in Evaluating Periodic Monitoring

- Likelihood of violating an applicable requirement. (Margin of compliance with the applicable requirement)

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- Presence of add-on controls to comply with underlying rules. (If controls are required, consider whether the controls will assure compliance with the emission limit. If so, the best option may be to monitor the control equipment for proper operation instead of or in addition to the process.)
- Variability of emission level over time. (Consider how close a unit's emissions are to the emission limits during normal and anticipated upset operations.)
- Consider how emissions may vary. (Emissions may vary day to day under normal operation, e.g., as a turbine or engine increases or decreases load emissions change. Emissions may vary slowly over time, e.g., SCR catalyst may degrade over time. Emissions may vary quickly due to malfunction, e.g., a baghouse bag may break.)
- Monitoring data already available. (The source often maintains monitoring, process, maintenance, or control equipment data of emission units even if not required under an applicable requirement. Consider whether these activities would assure compliance; if so, they may be the best fit monitoring option for that source.)
- Technical and economic feasibility
- Monitoring done for similar emission Units/Emissions. (Existing CAAPP and construction permits, Federal, State and Local rules, CAM Guidelines Document)
- Will the monitoring method yield reliable data with respect to the emission limit?
- Will the monitoring method provide data that can be related to the relevant time period over which compliance with the emission limit is determined?
- Will the monitoring data be collected at a frequency that will provide information that is representative of the sources compliance with the permit?
- Is the monitoring condition written in a way that is practically enforceable? (Practical Enforceability involves ensuring that the following items are present: Frequency of monitoring, Data averaging period, Procedures for checking data validity, Minimum period of data availability, Recordkeeping, Prompt deviation and summary reports)

What is the Periodic Monitoring Criterion?

Compliance Assurance Monitoring that assures compliance is designed to:

- Monitor key parameters which determine compliance
- Be done at a frequency consistent with the likely variability of emissions and margin of compliance
- Detect deviations within specific timeframes (provide information to operator to correct problems promptly)
- Provide information that the Illinois EPA, USEPA and the public could use for enforcement

Margin of compliance: Amount of monitoring varies based on how a unit is operating with respect to emission limits (x% of emission limit); less monitoring if there is a comfortable margin of compliance. In determining margin of compliance, consider accuracy of emission estimation method - less monitoring if reliable emission factors exist. (This Project Summary generally describes the source and explains the draft permit. This document has been prepared pursuant to Section 39.5(8)(b) of the Illinois Environmental Protection Act, which requires "a statement that sets forth the legal and factual basis for the draft CAAPP permit conditions.")

Consider reference method accuracy range. AP-42 or other emission factor accuracy, e.g., rating and range of emission factor.

Consider existence of control equipment and variability:

- Look at emissions over time under normal/upset conditions (within an individual unit)
- More variability more monitoring; less variability less monitoring. Variability within margin of compliance is acceptable.
- Also consider variability within a source category.
- Equipment failure or degradation.

Source size: Vary monitoring based on unit size as a lb/day or ton/year threshold based on potential uncontrolled emissions, e.g., more monitoring if uncontrolled emissions exceed major source threshold.

Burden/Cost to Permittee: Cost of equipment, personnel (training, time spent on job, etc), administrative costs (e.g., time and expense of MRR), burden on agency (i.e., inspections, record review), reasonableness (does it make sense?), time to implement condition, technical feasibility of monitoring and test methods (e.g., stack testing of fugitive emissions), existing burden for monitoring.

Consistency: Consistency means monitoring may be different but consistently meets the established criteria. Consistency is important between similar or identical sources, e.g., with regard to size, source emission unit category, types of emissions and emission limits.

Historical capability to demonstrate compliance: A source that has a history of violating emission limitations is likely to be required more frequent monitoring than a source that has a strong record of compliance.

Step Description

Preliminary investigation. The first step toward establishing appropriate monitoring is to identify the need for additional monitoring for the emitting processes or applicable requirements at this point.

Brainstorm possible MRR types. Next, brainstorm potential monitoring proposals. Ideas for monitoring proposals may come from experience, from the source, be developed by applying technologies used for similar source categories, or they may be innovative.

Choose MRR method and frequency. Choose the most appropriate monitoring method and frequency. Some of the criteria, such as technical feasibility and data necessary to determine compliance on an ongoing basis will be mandatory. A monitoring method that is not technologically feasible, or that will not provide necessary data cannot be chosen. For other criteria such as cost and consistency, there is not the mandatory element. The relative merits of each option with respect the criteria must be considered. Keep in mind that periodic monitoring can include a mix of monitoring techniques. For

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example, a sources permit might require daily or weekly inspections of pollution control equipment in addition to a stack test every few months or years.

Also, instead of requiring a source to monitor emissions coming from its smokestack, a permit might allow a source to monitor some other aspect of its operations instead. This type of monitoring is called "surrogate" (e.g., substitute) monitoring. Surrogate monitoring is allowed when (1) monitoring of actual emissions is technically or economically infeasible and/or impractical, and (2) surrogate monitoring is adequate to assure compliance with the underlying applicable requirement. The CAA "does not prohibit the use of an appropriate surrogate pollutant for individual species to confirm compliance. "A surrogate may be used to regulate pollutants if it is 'reasonable' to do so. "A surrogate may attribute characteristics of a subclass of substances to an entire class of substances if doing so is scientifically reasonable"; (NRDC v. EPA, 822 F.2d 104, 125 (D.C. Cir. 1987).

A three part analysis is generally used for determining whether the use of a surrogate is reasonable: (1) "the emissions are invariably present or characterized by the surrogate (i.e., demonstrate and quantify a consistent correlation between PM stack emissions and their HAP metal content)," (2) "the control technology indiscriminately captures the target pollutant along with the surrogate or characterizes the effect on the target pollutant;" and (3) "the only means by which facilities 'achieve' reductions in the target pollutant." If these criteria are satisfied then the surrogate may be considered given the potential impact upon emissions." A surrogate is not a reasonable surrogate where other factors (for instance, the HAP content of a raw material affects HAP metal emissions.)" play a role in the reduction of emissions in the target pollutant (for instance, "PM might not be an appropriate surrogate for HAP metals if switching fuels would decrease HAP metal emissions without causing a corresponding reduction in total PM emissions.)" The use of a surrogate "eliminates the cost of performance testing to comply with numerous standards for individual species." 64 Fed. Reg. at 31,916/3.

Conclusions

Where the periodic monitoring does not fall within one of the below categories for the basic periodic monitoring established in the majority of the permits, further explanation is provided in the emission unit specific section of this Statement of Basis (Project Summary). Each emission unit specific section in this Project Summary has a section that is identified as "Justification for Periodic Monitoring" that will give the basis for the type of periodic monitoring described in the tables. Based upon the information provided in the above discussion and analysis that is performed to evaluate periodic monitoring, the results generally fall into a set of specific categories as follows:

1. Work practice standards are generally assured through the use of periodic inspections and the frequency is established based on the emission unit size, capability to comply, historical compliance and margin of compliance.

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2. Production limits are generally assured through the use of recordkeeping for the specific raw material or finished product.
3. Emission limits are generally assured by means of a couple different methodologies (the choice of methodology is based on the evaluation of the factors described above):
 - a. Performance testing on a set frequency based on the factors identified above,
 - b. Emission factors/engineering calculations based on specific recordkeeping requirements that are representative of the scientific units for which the emission factor/calculation is based,
 - c. Surrogate monitoring such as fuel sampling or raw material testing.
4. Control requirements are generally assured through the use of establishing operating parameters to be monitored that ensure proper functioning of the control device and are representative of the operation.

The mechanism by which the data is collected is also generally established such as a specific reference method (i.e., Method 9 or Method 311) or generally accepted test procedure such as an ASTM or ANSI test method. It also generally will identify the type of monitoring such as pressure sensor, thermocouple or flow gauge. The relevant timeframe is generally established by looking to the likelihood of an exceedance, the margin of compliance and historical capability to comply with a particular standard. These timeframes generally fall into specific slots when a CEM or COM is not available and can be hourly, daily, weekly, monthly or annual. The averaging periods are generally a rolling average commensurate with the monitoring frequency and the established limit.