ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
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JB PRITZKER, GOVERNOR JAMES JENNINGS, ACTING DIRECTOR

217/785-1705

CONSTRUCTION PERMIT -- NSPS and NESHAP SOURCE

PERMITTEE

Viridis Chemical Company
Attn: William J. McConnell
4852 Kingwood Drive, Suite E. #152
Kingwood, Texas 77345

Application No.: 24120011 I.D. No.: 143065BYP
Applicant's Designation: Date Received: December 16th, 2024
Subject: Ethyl Acetate Plant
Date Issued: April 16, 2025
Location: 1 Edmund Street, Peoria, Peoria County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of:

Eleven (11) Storage Tanks Consisting of:
Two (2) 33,880 Gallon Ethanol Storage Tanks (TNK6001A, TNK6001B);
Two (2) 33,880 Gallon Ethyl Acetate Storage Tanks (TNK6003A, TNK6003B);
One (1) 33,880 Gallon Intermediate Storage Tank (TNK6003C);
One (1) 33,880 Gallon "Heavies" Storage Tank (TNK6004);
One (1) 33,880 Gallon "Lights" Storage Tank (TNK6006);
One (1) 33,880 Gallon Aqueous Byproduct Tank (TNK6007);
One (1) 10,500 Gallon (Dehydration Tank TNK6008); and
Two (2) 250,000 Barge Loadout Tanks (TNK6009, TNK6010)

One (1) Truck/Rail Loadout Station with Vapor Recovery (LOD001);
One (1) Barge Loadout Station with Vapor Recovery (LOD002);
One (1) Reactive Distiller (DST001);
One (1) MEK Extraction Process (MEK001);
One (1) Dehydration Process (DHY001);
One (1) Product Distillation Purification Process (PUR001); and
One (1) 99.41mmBTU/hr Waste Product and Natural and Hydrogen Gas-Fired Oil Heater (HTR001)

One (1) Closed Vent System routing emissions to:

One (1) Flare FLR001, controlling: LOD001, LOD002, TNK6009, TNK6010, and PUR001;

One (1) Wet Scrubber SCB001, controlling: TNK6001A, TNK6001B, TNK6003A, TNK6003B, TNK6003C, TNK6004, TNK6006, TNK6007, TNK6008, DHY001, and MEK001; and

One (1) Dehydration & Reactive Distillation (DST001) system controlled by Oil Heater (HTR001)

And fugitive VOM and HAP emission from the following sources:
One (1) Cooling Tower (F001);
Equipment Leaks (Valves, Pumps, Connectors, Sampling locations, and Pressure Releases.) (F002); and
Paved Roadway Hauling (F003)

as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This permit is issued based on the emission of Hazardous Air Pollutants (HAP) as listed in Section 112(g) of the Clean Air Act from the equipment listed above being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements of Section 112(g) of the Clean Air Act.

b. This permit is issued based on construction of equipment listed above not constituting a new major source or major modification pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 204, Prevention of Significant Deterioration (PSD). The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the emissions of volatile organic material (VOM) from the above-listed equipment below the levels that would trigger the applicability of these rules.

c. Operation of the equipment listed above is allowed under this construction permit for a period of 180 days from the initial startup provided the Permittee completes the required emission testing in accordance with Condition 26.

d. Following successful completion of testing in accordance with Condition 26, the Permittee may continue to operate the plant under this construction permit until the Illinois EPA takes final action on the Permittee's request for an operating permit, provided that the Permittee submits a complete permit application on a timely basis as required by the Environmental Protection Act.

e. The operation of the emission units listed above under this construction permit shall not begin until construction of the associated air pollution control equipment is complete and reasonable measures short of actual operation have been taken to verify proper operation.

APPLICABLE EMISSION LIMITS/REGULATIONS

New Source Performance Standards (NSPS):

2. Oil Heater (HTR001) is subject to the New Source Performance Standards (NSPS) for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subparts A and Dc. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.48c(a) the Permittee shall submit notification of the date

of construction and actual startup of Oil Heater (HTR001). This notification shall include the design heat input capacity and identification of fuels to be combusted in Oil Heater (HTR001) and the annual capacity factor at which the owner or operator anticipates operating based on all fuels fired and based on each individual fuel fired.

3a. The Flare (FLR001) is subject to New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart A (General control device and work Practice requirements), 40 CFR 60.18. Pursuant to 40 CFR 60.18(b), 40 CFR 60.18(c) through (f) apply to Flares.

b. Pursuant to 40 CFR 60.18(c),

i. Flares shall be designed for and operated with no visible emissions as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

ii. Flares shall be operated with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f).

iii. An owner/operator has the choice of adhering to either the heat content specifications in 40 CFR 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR 60.18(c)(4), or adhering to the requirements in 40 CFR 60.18(c)(3)(i).

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

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

Where:

V_{max} = Maximum permitted velocity, m/sec.
K_1 = Constant, 6.0 volume-percent hydrogen.
K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.
X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in 40 CFR 60.17).

B. The actual exit velocity of a flare shall be determined by the method specified in 40 CFR 60.18(f)(4).

iv. And the Flare shall comply with one of the following:

A. Flares shall be designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), less than 18.3 m/sec (60 ft/sec),

B. Nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf)

C. Nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), less than the velocity, V_{max}, as determined by the method specified in 40 CFR 60.18(f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

c. Pursuant to 40 CFR 60.18(d), owners or operators of flares used to comply with the provisions of 40 CFR Part 60 Subpart A (General control device and work Practice requirements) shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

d. Pursuant to 40 CFR 60.18(e), flares used to comply with provisions of 40 CFR Part 60 Subpart A (General control device and work Practice requirements) shall be operated at all times when emissions may be vented to them.

e. Pursuant to 40 CFR 60.18(f),

i. Pursuant to 40 CFR 60.18(f)(1), Method 22 of appendix A to 40 CFR Part 60 shall be used to determine the compliance of flares with the visible emission provisions of 40 CFR Part 60 Subpart A (General control device and work Practice requirements). The observation period is 2 hours and shall be used according to Method 22.

ii. Pursuant to 40 CFR 60.18(f)(2), the presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

iii. Pursuant to 40 CFR 60.18(f)(3), the net heating value of the gas being combusted in a flare shall be calculated using the following equation:

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

where:

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

K = Constant, $1.740 \times 10^{-7} \left(\frac{1}{ppm}\right) \left(\frac{g\ mole}{scm}\right) \left(\frac{MJ}{kcal}\right)$

Where the standard temperature for $\left(\frac{g\ mole}{scm}\right)$ is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combution may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated

iv. Pursuant to 40 CFR 60.18(f)(4), The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip

v. Pursuant to 40 CFR 60.18(f)(5), The maximum permitted velocity, V_{max}, for flares complying with 40 CFR 60.18(c) shall be determined by the following equation:

$\text{Log}_{10}(V_{max}) = (H_T + 28.8)/31.7$
V_{max} = Maximum permitted velocity, M/sec
28.8 = Constant
31.7 = Constant
H_T = The net heating value as determined in 40 CFR 60.18(f)(3).

4a. The Scrubber, TNK6001A, TNK6001B, TNK6003A, TNK6003B, TNK6003C, TNK6004, TNK6006, TNK6007, TNK 6008, TNK6009, and TNK6010 are all subject to The New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After October 4, 2023, 40 CFR Part 60, Subparts A and Kc. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.110c(a), except as provided in 40 CFR 60.110c(b), the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 20,000 gallons (gal) (75.7 cubic meters (m^3)) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after October 4, 2023.

b. Pursuant to 40 CFR 60.112c(a), you must equip and operate each storage vessel affected facility meeting the thresholds in 40 CFR 60.110c(c)(1), (c)(2), (d)(1), or (d)(2) as specified in 40 CFR 60.112c (a)(1) through (4), as applicable

i. For each storage vessel affected facility containing a VOL that, as stored, has a maximum true vapor pressure of 11.1 psia (76.6

kPa) or more, the source must install and operate a closed vent system routed to a control device, fuel gas system, or process as specified in 40 CFR 60.112c(d).

ii. For each storage vessel affected facility complying with the closed vent system routed to a control device, fuel gas system, or process provisions specified in 40 CFR 60.112c(d) regardless of size.

iii. The permittee shall meet the applicable testing, monitoring, and inspection requirements specified in 40 CFR 60.113c, recordkeeping requirements specified in 40 CFR 60.115c, and reporting requirements specified in 40 CFR 60.116c.

c. Pursuant to 40 CFR 60.112c(d), you must design, install, and operate each affected storage vessel with a closed vent system that routes to a control device, fuel gas system, or process as specified in 40 CFR 60.112c(d)(1) through (7).

i. The storage vessel must be designed and operated to be routed through a closed vent system to a control device, fuel gas system, or process at all times the storage vessel contains VOL without venting to the atmosphere through either meeting the storage vessel design requirements specified in 40 CFR 60.112c(d)(1)(i) or the vapor recovery system design requirements specified in 40 CFR 60.112c(d)(1)(ii). Compliance with this requirement must be demonstrated according to 40 CFR 60.112c(d)(1)(iii). Any vacuum breaking device on the storage vessel must close while the storage vessel is still under vacuum of at least -0.1 inches of water (-0.0036 psig or -0.025 kPa gauge).

A. The storage vessel must be designed to operate at a gauge pressure of no less than 1 psi greater than the maximum true vapor pressure of the stored liquid and any back pressure anticipated when the storage vessel is filled at its maximum rate without venting to the atmosphere.

B. The vapor recovery system must be designed and operated to maintain the pressure in each storage vessel routed to a control device below the venting pressure of that storage vessel.

C. You must equip each pressure relief device and vacuum breaking device on a storage vessel with a device(s) or use a monitoring system that is capable of meeting the requirements in 40 CFR 60.112c(d)(1)(iii)(A) through (C). If all emissions from a pressure relief device are routed through a closed vent system to a control device, process, or fuel gas system, then you are not required to comply with the requirements of 40 CFR 60.112c(d)(1)(iii).

I. Identify the Pressure release event

II. Record the duration of each pressure release event

III. Notify operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device or vacuum breaking device itself or must be associated with each storage vessel to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

d. Pursuant to 40 CFR 60.112c(d)(2), except for closed vent systems operated and maintained under negative pressure, each closed vent system must meet the requirements specified in 40 CFR 60.112c(d)(2)(i) through (iii).

i. Pursuant to 40 CFR 60.112c(d)(2)(i), the closed vent system must be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 parts per million by volume (ppmv) above background, as determined using Method 21 of appendix A-7 to Part 60 as specified in 40 CFR 60.113c(c)(2) and (3), and as determined by observations for visible, audible, and olfactory indications of leaks. Visible, audible, and olfactory inspections must be performed quarterly and Method 21 of appendix A-7 instrument monitoring must be conducted at least annually.

ii. Pursuant to 40 CFR 60.112c(d)(2)(ii), except for pressure relief devices and except for open-ended valves or lines that use a cap, blind flange, plug, or second valve and follow the requirements specified in 40 CFR 60.482-6(a)(2), (b), and (c) or follow requirements codified in another regulation that are the same as 40 CFR 60.482-6(a)(2), (b), and (c), you must comply with the provisions of either 40 CFR 60.112c(d)(2)(ii)(A) or (B) for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.

A. Properly install, maintain, and operate a flow indicator that is capable of taking readings every 15 minutes. Install the flow indicator at the entrance to any bypass line.

B. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration.

iii. Pursuant to 40 CFR 60.112c(d)(2)(iii), you must equip each pressure relief device on a closed vent system with a device(s) or use a monitoring system that is capable of meeting the requirements in 40 CFR 60.112c(d)(2)(iii)(A) through (C). If all releases and potential leaks from a pressure relief device are routed through a closed vent system to a control device, process,

or fuel gas system, then you are not required to comply with the requirements of 40 CFR 60.112c(d)(2)(iii).

A. Identify the Pressure release event

B. Record the duration of each pressure release event

C. Notify operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device or vacuum breaking device itself or must be associated with each storage vessel to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.

e. Pursuant to 40 CFR 60.112c(d)(3), if you route emissions from a storage vessel to a control device, the control device must be designed and operated to reduce inlet VOC emissions by 98 percent or greater. If a flare is used as the control device or if an enclosed combustion device is used for which you elect to comply with the flare operating limits, you must meet the specifications described in 40 CFR 60.112c(d)(5). The control device must be operated at all times when emissions from an affected storage vessel are routed to it except as provided in 40 CFR 60.112c(d)(7).

f. Pursuant to 40 CFR 60.112c(d)(4), a system equivalent to those described in 40 CFR 60.112c(d)(1) through (3) as provided in 40 CFR 60.114c.

g. Pursuant to 40 CFR 60.112c(d)(7), To the extent practical, routine maintenance on the control device should be conducted when the storage vessel(s) is(are) out of VOL service. If you comply with all the provisions in 40 CFR 60.112c(d)(7)(i) through (iv), you may conduct routine maintenance on a control device while one or more storage vessels vented to the control device are storing a VOL.

i. The storage vessel(s) storing VOL must be designed to operate above the maximum true vapor pressure of the stored VOL according to 40 CFR 60.112c(d)(1)(i).

ii. The control device must be isolated from the storage vessel(s) using valves(s), blind flange(s), or similar device(s) at the control device or in the closed vent system as near as practical to the control device. You may purge the control device and downstream portion of the closed vent system to remove potentially explosive vapors and create a safe work environment only after the control device is isolated from the storage vessel(s).

iii. You must continue to comply with the bypass and pressure relief device monitoring requirements in 40 CFR 60.112c(d)(1)(iii), (d)(2)(ii), and (d)(2)(iii) and their associated recordkeeping

and reporting requirements. If there are multiple storage vessels connected to the closed vent system with significantly different pressure design limits, you must isolate individual storage vessels to prevent venting during planned maintenance. Compliance with this 40 CFR 60.112c(d)(7)(iii) may limit VOL addition to the storage vessel. If VOL is added to the storage vessel, there must be an approximately equivalent withdrawal of VOL such that the liquid level does not rise sufficiently to increase the pressure in the storage vessel to cause a pressure release from the storage vessel or the closed vent system.

iv. During this routine maintenance period the affected storage vessels cannot be actively degassed. If the storage vessel is to be emptied and actively degassed, the planned maintenance activity must be conducted when the storage vessel is out of VOL service.

h. Pursuant to 40 CFR 60.112c(e), For each storage vessel meeting the specifications in 40 CFR 60.112c(a)(3), you must meet the requirements in 40 CFR 60.112c(e)(1) through (3) during emptying and degassing of a storage vessel until the vapor space concentration in the storage vessel is less than 10 percent of the LEL or, for nonflammable liquids, 5,000 ppmv as methane. You must determine the LEL or methane concentration using process instrumentation or a portable measurement device and follow procedures for calibration and maintenance according to manufacturer's specifications. You must check instrument calibration and check the instrumental offset response each day the instrument is used and prior to discontinuing controlled degassing to confirm the accuracy of the instrument's readings.

i. Remove liquids from the storage vessel as much as practicable. Chemicals or a diluent such as a distillate fuel may be introduced into the storage vessel for the purpose of reducing vapor concentration before or during active degassing

ii. Comply with one of the following:

A. Reduce total VOC emissions by venting emissions through a closed vent system to a flare or enclosed combustion device for which you elect to comply with the flare provisions and meet the requirements specified in 40 CFR 60.112c(d)(5).

B. Reduce total VOC emissions by 98 weight percent by venting emissions through a closed vent system to any combination of non-flare control devices.

C. Reduce total VOC emissions by routing emissions to a fuel gas system or process and meet the requirements specified in 40 CFR 60.112c(d)(6).

i. Pursuant to 40 CFR 60.113c(d), for each affected storage vessel, you must determine the maximum true vapor pressure of the stored VOL according to the requirements specified in 40 CFR 60.113c(d)(1) and (2). For storage 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 storage 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.

i. Pursuant to 40 CFR 60.113c(d)(1), prior to the initial filling of the storage vessel or to the refilling of the storage vessel with a new VOL, the highest maximum true vapor pressure for the range of anticipated liquids to be stored, including mixtures for which you can define the range of concentrations for constituents in the mixture or with a known maximum Reid vapor pressure, must be determined using any one of the methods described in 60.113c(d)(1)(i) through (iv).

   A. As obtained from standard reference texts

   B. ASTM D6377-20 (incorporated by reference; see 40 CFR 60.17). Perform the method using a vapor-to-liquid ratio of 4:1, which is expressed in the method as VPCR.

   C. ASTM D6378-22 (incorporated by reference; see 40 CFR 60.17). Perform the method using a vapor-to-liquid ratio of 4:1.

   D. As measured by an appropriate method as approved by the Illinois EPA or USEPA.

ii. For each affected storage vessel storing a mixture of indeterminate composition or a mixture of unknown variable composition, the initial determination of the vapor pressure required by 40 CFR 60.113c(d)(1) must be a physical test using one of the methods specified in 40 CFR 60.113c(d)(1)(ii) through (iv). Additional physical tests using one of the methods specified in 60.113c(d)(1)(ii) through (iv) are required at least once every 6 calendar months thereafter as long as the measured vapor pressure remains below the applicable thresholds in 40 CFR 60.110c(c)(1), (c)(2), (d)(1), or (d)(2). If the vapor pressure measured under this 60.113c(d)(2) exceeds the threshold defined in 40 CFR 60.110c(c)(1), (c)(2), (d)(1), or (d)(2) the source must meet the requirements in 40 CFR 60.112c and the corresponding requirements in 40 CFR 60.113c through 60.116c. If the storage vessel does not have controls meeting the requirements in 40 CFR 60.112c, the storage vessel must be emptied and taken out of service until controls meeting the requirements in 40 CFR 60.112c can be installed. Upon compliance with the provisions in 40 CFR 60.112c, no additional vapor pressure monitoring is required.

5a. The Closed Vent System (CVS) and Equipment Leaks (Valves, Pumps, Connectors, Sampling locations, and Pressure Releases) (F002) at the this source are subject to the New Source Performance Standards (NSPS) for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or

Modification Commenced After April 25, 2023, 40 CFR Part 60, Subparts A and VVb. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.480b(a):

i. The provisions of 40 CFR 60 Subpart VVb apply to affected facilities in the synthetic organic chemicals manufacturing industry.

ii. The group of all equipment (defined in 40 CFR 60.481b) within a process unit is an affected facility.

b. Pursuant to 40 CFR 60.480b(b), any affected facility under 40 CFR 60.480b(a) that commences construction, reconstruction, or modification after April 25, 2023, shall be subject to the requirements of 40 CFR 60 Subpart VVb.

c. Pursuant to 40 CFR 60.482-4b(a), except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background as per test methods of 40 CFR 60.485b(c).

d. Pursuant to 40 CFR 60.482-4b(b)(1), after each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9b.

e. Pursuant to 40 CFR 60.482-4b(b)(2), no later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485b(c).

f. Pursuant to 40 CFR 60.482-4b(c), any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10b is exempted from the requirements of 40 CFR 60.482-4b(a-b).

g. Pursuant to 40 CFR 60.482-4b(d)(1), any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of 40 CFR 60.482-4b(a) and (b), provided the owner or operator complies with the requirements in 40 CFR 60.482-4b(d)(2).

h. Pursuant to 40 CFR 60.482-4b(d)(2), after each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 60.482-9b.

i. Pursuant to 40 CFR 60.482-5b(a), each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system,

except as provided in 40 CFR 60.482-1b(c) and 40 CFR 60.482-5b(c).

j. Pursuant to 40 CFR 60.482-5b(b), each closed-loop, or closed-vent system as required in 40 CFR 60.482-5b(a) shall comply with the following specified in 40 CFR 60.482-5b(b)(1) through (4).

i. Gases displaced during filling of the sample container are not required to be collected or captured

ii. Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied

iii. Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured

iv. Each closed-purge, closed-loop, or closed-vent system shall be designed and operated meet requirements in either 40 CFR 60.482-5b(b)(4)(i), (ii), (iii), or (iv).

A. Return the purged process fluid directly to the process line.

B. Collect and recycle the purged process fluid to a process

C. Capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 60.482-10b.

D. Collect, store, and transport the purged process fluid to any of the following systems or facilities:

I. A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams.

II. A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266

III. A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261

IV. A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 40 CFR 61.347

V. A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261

k. Pursuant to 40 CFR 60.482-6b(a)(1), each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1b(c) and 40 CFR 60.482-6b(d) and (e).

l. Pursuant to 40 CFR 60.482-6b(a)(2), the cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

m. Pursuant to 40 CFR 60.482-6b(b), each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

n. Pursuant to 40 CFR 60.482-6b(c), when a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 60.482-6b(a) at all other times.

o. Pursuant to 40 CFR 60.482-6b(e), open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system are not subject to 60.482-6b(a) through (c).

p. Pursuant to 40 CFR 60.482-10b(a), owners or operators of closed vent systems and control devices used to comply with provisions of 40 CFR Part 60 Subpart VVb shall comply with the provisions of 40 CFR 60.482-10b.

q. Pursuant to 40 CFR 60.482-10b(b), vapor recovery systems (for example, condensers and absorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 parts per million by volume (ppmv), whichever is less stringent.

r. Pursuant to 40 CFR 60.482-10b(d), the Flare shall also comply with the requirements of 40 CFR 60.18.

s. Pursuant to 40 CFR 60.482-10b(e), Owners or operators of control devices (The Scrubber, for this source) used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

t. Pursuant to 40 CFR 60.482-10b(f), each closed vent system (the CVS, at this source) shall be initially and annually inspected per the procedures in 40 CFR 60.485b(b), and annually visually inspected for visible, audible, or olfactory indications of leaks.

u. Pursuant to 40 CFR 60.482-10b(g), leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10b(h).

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

ii. Repair shall be completed no later than 15 calendar days after the leak is detected.

v. Pursuant to 40 CFR 60.482-10b(h), delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

w. Pursuant to 40 CFR 60.482-10b(j), any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10b(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10b(f)(1) and (2) if they comply with the requirements in 40 CFR 60.482-10b(j(1) and (2).

i. The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with 40 CFR 60.482-10b(f)(1) and (2; and

ii. The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

x. Pursuant to 40 CFR 60.482-10b(k), any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10b(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10b(f)(1) and (2) if they comply with the requirements specified in 40 CFR 60.482-10b(k)(1) through (3):

i. The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

ii. The process unit within which the closed vent system is located becomes an affected facility through 40 CFR 60.14 or 40 CFR 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

iii. The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent

system is exempt from inspection if it is operated under a vacuum.

6a. Product Distillation Purification Process (PUR001) is subject to the New Source Performance Standards (NSPS) for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023, 40 CFR Part 60, Subparts A and NNNa. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.

b. Pursuant to 40 CFR 60.662a(a), you must comply with the emission limits and standards specified in table 1 to 40 CFR Part 60 Subpart NNNa and the requirements specified in 40 CFR 60.662a(b) and (c) for each vent stream on and after the date on which the initial performance test required by 40 CFR 60.8 and 60.664a is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. The standards in this section apply at all times, including periods of startup, shutdown and malfunction. As provided in 40 CFR 60.11(f), this provision supersedes the exemptions for periods of startup, shutdown and malfunction in the general provisions in 40 CFR Part 60 Subpart A.

c. Pursuant to 40 CFR 60.662a(b), the following release events from an affected facility are a violation of the emission limits and standards specified in table 1 to 40 CFR Part Subpart NNNa.

i. Any relief valve discharge to the atmosphere of a vent stream.

ii. The use of a bypass line at any time on a closed vent system to divert emissions to the atmosphere, or to a control device or recovery device not meeting the requirements specified in 40 CFR 60.663a

d. Pursuant to 40 CFR 60.662a(c), You may designate a vent stream as a maintenance vent if the vent is only used as a result of startup, shutdown, maintenance, or inspection of equipment where equipment is emptied, depressurized, degassed, or placed into service. You must comply with the applicable requirements in 40 CFR 60.662a(c)(1) through (3) for each maintenance vent. Any vent stream designated as a maintenance vent is only subject to the maintenance vent provisions in 40 CFR 60.662a(c) and the associated recordkeeping and reporting requirements in 40 CFR 60.665a(g), respectively.

i. Prior to venting to the atmosphere, remove process liquids from the equipment as much as practical and depressurize the equipment to either: A flare meeting the requirements of 40 CFR 60.669a, as applicable, or using any combination of a non-flare control device or recovery device meeting the requirements in table 1 to 40 CFR Part Subpart NNNa until one of the following conditions, as applicable, is met

A. The vapor in the equipment served by the maintenance vent has a lower explosive limit (LEL) of less than 10 percent.

B. If there is no ability to measure the LEL of the vapor in the equipment based on the design of the equipment, the pressure in the equipment served by the maintenance vent is reduced to 5 pounds per square inch gauge (psig) or less. Upon opening the maintenance vent, active purging of the equipment cannot be used until the LEL of the vapors in the maintenance vent (or inside the equipment if the maintenance vent is a hatch or similar type of opening) is less than 10 percent.

C. The equipment served by the maintenance vent contains less than 50 pounds of total VOC

D. If, after applying best practices to isolate and purge equipment served by a maintenance vent, none of the applicable criterion in 40 CFR 60.662a(c)(1)(i) through (iii) can be met prior to installing or removing a blind flange or similar equipment blind, then the pressure in the equipment served by the maintenance vent must be reduced to 2 psig or less before installing or removing the equipment blind. During installation or removal of the equipment blind, active purging of the equipment may be used provided the equipment pressure at the location where purge gas is introduced remains at 2 psig or less.

ii. Except for maintenance vents complying with the alternative in 40 CFR 60.662a(c)(1)(iii), you must determine the LEL or, if applicable, equipment pressure using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications .

iii. For maintenance vents complying with the alternative in 40 CFR 60.662a(c)(1)(iii), you must determine mass of VOC in the equipment served by the maintenance vent based on the equipment size and contents after considering any contents drained or purged from the equipment. Equipment size may be determined from equipment design specifications. Equipment contents may be determined using process knowledge.

e. Pursuant to 40 CFR 60.665a(a), you must notify the Illinois EPA or USEPA of the specific provisions of 40 CFR 60.662a(c) with which the source have elected to comply. Notification must be submitted with the notification of initial start-up required by 40 CFR 60.7(a)(3). If the source elect at a later date to use an alternative provision of table 1 to this subpart with which the source will comply, then the source must notify the Illinois EPA or USEPA 90 days before implementing a change and, upon implementing the change, the source must conduct a performance test as specified by 40 CFR 60.664a within 180 days.

f. Pursuant to 40 CFR 60.665a(d), you must keep up to date, readily accessible continuous records of the flow indication specified in table 2 to 40 CFR Part 60 Subpart NNNa, as well as up-to-date, readily accessible records of all periods when the vent stream is diverted from the control device or recovery device or has no flow rate, including the records as specified 40 CFR 60.665a(d)(1) and (2).

   i. Pursuant to 40 CFR 60.665a(d), for each flow event from a relief valve discharge subject to the requirements in 40 CFR 60.662a(b)(1), the source must include an estimate of the volume of gas, the concentration of TOC in the gas and the resulting emissions of TOC that released to the atmosphere using process knowledge and engineering estimates.

   ii. For each flow event from a bypass line subject to the requirements in 40 CFR 60.662a(b)(2) and 60.670a(e), The source must maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device or recovery device not meeting the requirements in this subpart, The source must include an estimate of the volume of gas, the concentration of TOC in the gas and the resulting emissions of TOC that bypassed the control device or recovery device using process knowledge and engineering estimates

g. Pursuant to 40 CFR 60.665a(f), the source must keep up-to-date, readily accessible records of all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the initial visible emissions demonstration required by 40 CFR 63.670(h), as applicable; and all periods during the compliance determination when the pilot flame or flare flame is absent.

h. Pursuant to 40 CFR 60.665a(g), For each maintenance vent opening subject to the requirements of 40 CFR 60.662a(c), you must keep the applicable records specified 40 CFR 60.665a(g)(1) though (5).

   i. You must maintain standard site procedures used to inventory equipment for safety purposes (*e.g.*, hot work or vessel entry procedures) to document the procedures used to meet the requirements in 40 CFR 60.662a(c). The current copy of the procedures must be retained and available on-site at all times. Previous versions of the standard site procedures, as applicable, must be retained for five years.

   ii. If complying with the requirements of 40 CFR 60.662a(c)(1)(i), and the lower explosive limit at the time of the vessel opening exceeds 10 percent, identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and the lower explosive limit at the time of the vessel opening

   iii. If complying with the requirements of 40 CFR 60.662a(c)(1)(ii), and either the vessel pressure at the time of the vessel opening

exceeds 5 psig or the lower explosive limit at the time of the active purging was initiated exceeds 10 percent, identification of the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, the pressure of the vessel or equipment at the time of discharge to the atmosphere and, if applicable, the lower explosive limit of the vapors in the equipment when active purging was initiated

iv. If complying with the requirements of 40 CFR 60.662a(c)(1)(iii), records of the estimating procedures used to determine the total quantity of VOC in the equipment and the type and size limits of equipment that contain less than 50 pounds of VOC at the time of maintenance vent opening. For each maintenance vent opening that contains greater than 50 pounds of VOC for which the inventory procedures specified in 40 CFR 60.662a(g)(1) are not followed or for which the equipment opened exceeds the type and size limits established in the records specified in this 40 CFR 60.662a(g)(4), records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere

If complying with the requirements of 40 CFR 60.662a(c)(1)(iv), identification of the maintenance vent, the process units or equipment associated with the maintenance vent, records documenting actions taken to comply with other applicable alternatives and why utilization of this alternative was required, the date of maintenance vent opening, the equipment pressure and lower explosive limit of the vapors in the equipment at the time of discharge, an indication of whether active purging was performed and the pressure of the equipment during the installation or removal of the blind if active purging was used, the duration the maintenance vent was open during the blind installation or removal process, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere for each applicable maintenance vent opening.

7a. DST001 is subject to The New Source Performance Standards (NSPS) or Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes for Which Construction, Reconstruction, or Modification Commenced After April 25, 2023 40 CFR Part 60, Subparts A and RRRa. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.

b. Pursuant to 40 CFR 60.702a(a), You must comply with the emission limits and standards specified in NSPS RRRa Table 1 and the requirements specified in 40 CFR 60.702a (b) and (c) for each vent stream on and after the date on which the initial performance test required by 40 CFR 60.8 and 60.704a is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial start-up, whichever date comes first. The standards in this section apply at all times,

including periods of startup, shutdown and malfunction. As provided in 40 CFR 60.11(f), this provision supersedes the exemptions for periods of startup, shutdown and malfunction in the general provisions in 40 CFR 60 Subpart A .

c. Pursuant to 40 CFR 60.702a(b), The following release events from an affected facility are a violation of the emission limits and standards specified in NSPS RRRa Table 1.

i. Any relief valve discharge to the atmosphere of a vent stream.

ii. The use of a bypass line at any time on a closed vent system to divert emissions to the atmosphere, or to a control device or recovery device not meeting the requirements specified in 40 CFR 60.703a.

d. Pursuant to 40 CFR 60.702a(c) The source may designate a vent stream as a maintenance vent if the vent is only used as a result of startup, shutdown, maintenance, or inspection of equipment where equipment is emptied, depressurized, degassed, or placed into service. You must comply with the applicable requirements in 40 CFR 60.702a(c)(1) through (3) for each maintenance vent. Any vent stream designated as a maintenance vent is only subject to the maintenance vent provisions in 40 CFR 60.702a(c) and the associated recordkeeping and reporting requirements in 40 CFR 60.705a(g), respectively.

i. Prior to venting to the atmosphere, remove process liquids from the equipment as much as practical and depressurize the equipment to either: A flare meeting the requirements of 40 CFR 60.709a, as applicable, or using any combination of a non-flare control device or recovery device meeting the requirements in table 1 to this subpart until one of the following conditions, as applicable, is met.

A. The vapor in the equipment served by the maintenance vent has a lower explosive limit (LEL) of less than 10 percent.

B. If there is no ability to measure the LEL of the vapor in the equipment based on the design of the equipment, the pressure in the equipment served by the maintenance vent is reduced to 5 pounds per square inch gauge (psig) or less. Upon opening the maintenance vent, active purging of the equipment cannot be used until the LEL of the vapors in the maintenance vent (or inside the equipment if the maintenance is a hatch or similar type of opening) is less than 10 percent.

C. The equipment served by the maintenance vent contains less than 50 pounds of total VOC.

D. If, after applying best practices to isolate and purge equipment served by a maintenance vent, none of the applicable criterion in 40 CFR 60.702a(c)(1)(i) through (iii) can be met prior to installing or removing a blind

flange or similar equipment blind, then the pressure in the equipment served by the maintenance vent must be reduced to 2 psig or less before installing or removing the equipment blind. During installation or removal of the equipment blind, active purging of the equipment may be used provided the equipment pressure at the location where purge gas is introduced remains at 2 psig or less.

ii. Except for maintenance vents complying with the alternative in 40 CFR 60.702a(c)(1)(iii) , you must determine the LEL or, if applicable, equipment pressure using process instrumentation or portable measurement devices and follow procedures for calibration and maintenance according to manufacturer's specifications.

iii. For maintenance vents complying with the alternative in 40 CFR 60.702a(c)(1)(iii) , you must determine mass of VOC in the equipment served by the maintenance vent based on the equipment size and contents after considering any contents drained or purged from the equipment. Equipment size may be determined from equipment design specifications. Equipment contents may be determined using process knowledge.

e. Pursuant to 40 CFR 60.703a(a) and (b), if you vent emissions through a closed vent system to a boiler or process heater to comply with the TOC emission limit specified in table 1 to this subpart, then then the vent stream must be introduced into the flame zone of the boiler or process heater.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

8a. This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Chemical Manufacturing Area Sources, 40 CFR Part 63, Subparts A and VVVVVV. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.

b. Pursuant to 40 CFR 63.11495(a), if you have a CMPU subject to 40 CFR Part 63, Subpart VVVVVV, you must comply with 40 CFR 63.11495(a)(1) through (5).

i. Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in organic HAP service or metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form

ii. You must use any of the methods listed in below to control total organic HAP emissions from transfer of liquids containing Table 1 organic HAP to tank trucks or railcars. you are not required to

comply with 40 CFR 63.11495(a)(2), if you have notified the Illinois EPA or USEPA in your initial notification that a material is reactive or resinous, and you will not be able to comply with any of the methods in 40 CFR 63.11495(a)(2)(i) through (iv) for the transfer of such material.

A. Use submerged loading or bottom loading.

B. Route emissions to a fuel gas system or process in accordance with 40 CFR 63.982(d) of subpart SS.

C. Vapor balance back to the storage tank or another storage tank connected by a common header.

D. Vent through a closed-vent system to a control device.

iii. You must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service, as specified in 40 CFR 63.11495(a)(3)(i) through (v), to demonstrate compliance with 40 CFR 63.11495(a)(1) and to determine that the process vessels and equipment are sound and free of leaks. Alternatively, except when the subject CMPU contains metal HAP as particulate, inspections may be conducted while the subject process vessels and equipment are in VOC service, provided that leaks can be detected when in VOC service.

A. Inspections must be conducted at least quarterly

B. For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless the source demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, the source must still perform the inspection and demonstration in the next quarterly monitoring period.

C. As an alternative to conducting inspections, as specified in 40 CFR 63.11495(a)(3)(ii) , you may use Method 21 of 40 CFR part 60, appendix A-7, with a leak definition of 500 ppmv to detect leaks. you may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection conducted in accordance with 40 CFR 63.11495(a)(3)(ii) are due to a condition other than loss of HAP. The procedures in this 40 CFR 63.11495(a)(3)(iii) may not be used as an alternative to the inspection required by 40 CFR 63.11495(a)(3)(ii) for process vessels that contain metal HAP as particulate.

D. Inspections must be conducted while the subject CMPU is operating.

E. No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required.

iv. The source must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this 40 CFR 63.11495(a) , a leak will be considered "repaired" if a condition specified below is met

A. The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or

B. No bubbles are observed at potential leak sites during a leak check using soap solution, or

The system will hold a test pressure

v. The source must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair

c. Pursuant to 40 CFR 63.11495(b), for each heat exchange system subject to this subpart with a cooling water flow rate less than 8,000 gallons per minute (gal/min) and not meeting one or more of the conditions in 40 CFR 63.104(a), the source must comply with the following requirements, or as an alternative, the source may comply with any one of the requirements in Item 1.a or 1.b of Table 8 to 40 CFR Part 63 Subpart VVVVVV.

i. The source must develop and operate in accordance with a heat exchange system inspection plan. The plan must describe the inspections to be performed that will provide evidence of hydrocarbons in the cooling water. Among other things, inspections may include checks for visible floating hydrocarbon on the water, hydrocarbon odor, discolored water, and/or chemical addition rates. The source must conduct inspections at least once per quarter, even if the previous inspection determined that the indications of a leak did not constitute a leak as defined by 40 CFR 63.104(b)(6).

ii. The source must perform repairs to eliminate the leak and any indications of a leak or demonstrate that the HAP concentration in the cooling water does not constitute a leak, as defined by 40 CFR 63.104(b)(6), within 45 calendar days after indications of the leak are identified, or the source must document the reason for any delay of repair in you next semiannual compliance report.

iii. The source must keep records of the dates and results of each inspection, documentation of any demonstrations that indications of a leak do not constitute a leak, the dates of leak repairs, and, if applicable, the reasons for any delay in repair.

d. Pursuant to 40 CFR 63.11495(c), startup, shutdown, and malfunction (SSM) provisions in subparts that are referenced in 40 CFR 63.11495(a) and (b) do not apply.

e. Pursuant to 40 CFR 63.11495(d), at all times, the source must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA, 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 CMPU.

f. Pursuant to 40 CFR 63.11496(a), you must comply with the requirements in 40 CFR 63.11496(a)(1) through (4) for organic HAP emissions from your batch process vents for each CMPU using Table 1 organic HAP. If uncontrolled organic HAP emissions from all batch process vents from a CMPU subject to this subpart are equal to or greater than 10,000 pounds per year (lb/yr), you must also comply with the emission limits and other requirements in Table 2 to 40 CFR Part 63 Subpart VVVVVV.

   i. Pursuant to 40 CFR 63.11496(a)(1), You must determine the sum of actual organic HAP emissions from all of your batch process vents within a CMPU subject to this subpart using process knowledge, engineering assessment, or test data. Emissions for a standard batch in a process may be used to represent actual emissions from each batch in that process. You must maintain records of the calculations. Calculations of annual emissions are not required if you meet the emission standards for batch process vents in Table 2 to 40 CFR Part 63 Subpart VVVVVV.

   ii. Pursuant to 40 CFR 63.11496(a)(2), as an alternative to calculating actual emissions for each affected CMPU at you facility, the source may elect to estimate emissions for each CMPU based on the emissions for the worst-case CMPU. The worst-case CMPU means the CMPU at the affected source with the highest organic HAP emissions per batch. The worst-case emissions per batch are used with the number of batches run for other affected CMPU. Process knowledge, engineering assessment, or test data may be used to identify the worst-case process. The source must keep records of the information and procedures used to identify the worst-case process.

   iii. Pursuant to 40 CFR 63.11496(a)(3), If you current estimate is that emissions from batch process vents from a CMPU are less than 10,000 pounds per year (lb/yr), then the source must keep a record of the number of batches of each process operated per month. Also, the source must reevaluate you total emissions from batch process vents prior to making any process changes that affect emission calculations in 40 CFR 63.11496 (a)(1) and (2) . If projected emissions increase to 10,000 lb/yr or more, the source must be in compliance options for batch process vents in

Table 2 to this subpart upon initiating operation under the new operating conditions. The source must maintain records documenting the results of all updated emissions calculations.

g. Pursuant to 40 CFR 63.11496(b), you must comply with the requirements in 40 CFR 63.11496(b)(1) through (3) for organic HAP emissions from your continuous process vents for each CMPU subject to 40 CFR Part 63 Subpart VVVVVV using Table 1 organic HAP. If the total resource-effectiveness (TRE) index value for a continuous process vent is less than or equal to 1.0, the source must also comply with the emission limits and other requirements in Table 3 to 40 CFR Part 63 Subpart VVVVVV .

i. The source must determine the TRE index value according to the procedures in 40 CFR 63.115(d), except as specified in 40 CFR 63.11496(b)(1)(i) through (iii).

A. You are not required to calculate the TRE index value if the source control emissions in accordance with Table 3 to 40 CFR Part 63 Subpart VVVVVV.

B. 40 CFR 63.115(d)(1)(i) and (ii) are not applicable.

C. You may assume the TRE for a vent stream is >1.0 if the amount of organic HAP emitted in the vent stream is less than 0.1 pound per hour.

ii. If the current TRE index value is greater than 1, you must recalculate the TRE index value before the source make any process or operational change that affects parameters in the calculation. If the recalculated TRE is less than or equal to 1.0, then the source must comply with one of the compliance options for continuous process vents in Table 3 to 40 CFR Part 63 Subpart VVVVVV before operating under the new operating conditions. you must maintain records of all TRE calculations.

iii. If a recovery device as defined in 40 CFR 63.11502 is used to maintain the TRE index value at a level greater than 1.0 and less than or equal to 4.0, you must comply with 40 CFR 63.982(e) and the requirements specified therein.

h. Pursuant to 40 CFR 63.11496(c), if the source combine organic HAP emissions from batch process vents and continuous process vents, the source must comply with the more stringent standard in Table 2 or Table 3 to 40 CFR Part 63 Subpart VVVVVV that applies to any portion of the combined stream, or the source must comply with Table 2 for the batch process vents and Table 3 for the continuous process vents. The TRE index value for continuous process vents and the annual emissions from batch process vents shall be determined for the individual streams before they are combined, and prior to any control (e.g., by subtracting any emission contributions from storage tanks, continuous process vents or batch process vents, as applicable), in order to determine the most stringent applicable requirements.

i. Pursuant to 40 CFR 63.11497(a), the source must comply with the emission limits and other requirements in Table 5 to Subpart VVVVVV of Part 63 and in 40 CFR 63.11497(b) for organic HAP emissions from each of your storage tanks that meet the applicability criteria in Table 5 to 40 CFR Part 63 Subpart VVVVVV.

j. Pursuant to 40 CFR 63.11497(b), operate in accordance with 40 CFR 63.11497(b)(1) through (3) for periods of planned routine maintenance of a control device for storage tanks.

   i. Add no material to the storage tank during periods of planned routine maintenance.

   ii. Limit periods of planned routine maintenance for each control device (or series of control devices) to no more than 240 hours per year (hr/yr), or submit an application to the Illinois EPA or USEPA requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed and it must be submitted at least 60 days before the 240-hour limit will be exceeded.

   iii. Keep records of the day and time at which planned routine maintenance periods begin and end, and keep a record of the type of maintenance performed.

k. Pursuant to 40 CFR 63.11497(c), references to SSM provisions in subparts that are referenced in 40 CFR 63.11497(a) or (b) or Table 5 to 40 CFR Part 63 Subpart VVVVVV do not apply.

l. Pursuant to 40 CFR 63.11498(a), you must comply with the requirements in 40 CFR 63.11498(a)(1) and (2) and in Table 6, Item 1 to 40 CFR Part 63 Subpart VVVVVV for all wastewater streams from a CMPU subject to 40 CFR Part 63 Subpart VVVVVV. If the partially soluble HAP concentration in a wastewater stream is equal to or greater than 10,000 parts per million by weight (ppmw) and the wastewater stream contains a separate organic phase, then the source must also comply with Table 6, Item 2 to 40 CFR Part 63 Subpart VVVVVV for that wastewater stream. Partially soluble HAP are listed in Table 7 to 40 CFR Part 63 Subpart VVVVVV.

   i. Pursuant to 40 CFR 63.11498(a)(1), except as specified in 40 CFR 63.11498(a)(2) , you must determine the total concentration of partially soluble HAP in each wastewater stream using process knowledge, engineering assessment, or test data. Also, you must reevaluate the concentration of partially soluble HAP if you make any process or operational change that affects the concentration of partially soluble HAP in a wastewater stream

   ii. you are not required to determine the partially soluble concentration in wastewater that is hard piped to a combustion unit or hazardous waste treatment unit, as specified in Table 6, Item 2.b to 40 CFR Part 63 Subpart VVVVVV.

   iii. Pursuant to 40 CFR 63.11498(a)(2), separated organic material that is recycled to a process is no longer wastewater and no

longer subject to the wastewater requirements after it has been recycled.

m. Pursuant to 40 CFR 63.11498(b), the requirements in Item 2 of Table 6 to 40 CFR Part 63 Subpart VVVVVV do not apply during periods of startup or shutdown. References to SSM provisions in subparts that are referenced in 40 CFR 63.11498(a) or Table 6 to 40 CFR Part 63 Subpart VVVVVV do not apply.

n. Pursuant to 40 CFR 63.11501(a), you must meet the requirements of the General Provisions in 40 CFR part 63, subpart A, as shown in Table 9 to Subpart VVVVVV of Part 63. The General Provisions in other parts do not apply except when a requirement in an overlapping standard, which you determined is at least as stringent as subpart VVVVVV and with which you have opted to comply, requires compliance with general provisions in another part.

o. Pursuant to 40 CFR 63.11501(b), your Notice Of Compliance Status (NOCS) required by 40 CFR 63.9(h) must include the following additional information as applicable:

i. This certification of compliance signed by a responsible official:

A. "This facility complies with the management practices in 40 CFR 63.11495."

B. "This facility complies with the requirements in 40 CFR 63.11496 for HAP emissions from process vents."

C. "This facility complies with the requirements in 40 CFR 63.11496 and 40 CFR 63.11497 for surge control vessels, bottoms receivers, and storage tanks."

D. "This facility complies with the requirements in 40 CFR 63.11498 to treat wastewater streams."

ii. If you establish an operating limit for a parameter that will not be monitored continuously in accordance with 40 CFR 63.11496(g)(4) and 63.2450(k)(6), provide the information as specified in 40 CFR 63.11496(g)(4) and 63.2450(k)(6)

iii. A list of all transferred liquids that are reactive or resinous materials, as defined in 40 CFR 63.11502(b)

iv. If you comply with provisions in an overlapping rule in accordance with 40 CFR 63.11500, identify the affected CMPU, heat exchange system, and/or wastewater system; provide a list of the specific provisions with which you will comply; and demonstrate that the provisions with which you will comply are at least as stringent as the otherwise applicable requirements, including monitoring, recordkeeping, and reporting requirements, in 40 CFR Part 63 Subpart VVVVVV.

State Rules:

9a. Waste Product and Natural and Hydrogen Gas-Fired Oil Heater (HTR001), Flare (FLR001), Oil Heater (HTR001), and Paved Roadway Hauling (F003) are subject to 35 Ill. Adm. Code Part 212 Subpart B (Visible Emissions). Pursuant to 35 Ill. Adm. Code 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 35 Ill. Adm. Code 212.122.

b. Pursuant to 35 Ill. Adm. Code 212.123(b), 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 305 m (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. This source is subject to 35 Ill. Adm. Code Part 212 Subpart K (Fugitive Particulate Matter). Pursuant to 35 Ill. Adm. Code 212.301, 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 toward the zenith at a point beyond the property line of the source.

d. Pursuant to 35 Ill. Adm. Code 212.302(a), 35 Ill. Adm. code 212.304 through 212.310 and 212.312 shall apply to all mining operations (SIC major groups 10 through 14), manufacturing operations (SIC major groups 20 through 39 except for those operations subject to 35 Ill. Adm. Code Part 212 Subpart S (Grain-Handling and Grain-Drying Operations) that are outside the areas defined in 35 Ill. Adm. Code 212.324(a)(1)), and electric generating operations (SIC group 491), which are located in the areas defined by the boundaries of the following townships, notwithstanding any political subdivisions contained therein, as the township boundaries were defined on October 1, 1979, in the following counties:

Peoria: Richwoods, Limestone, Hollis, Peoria, City of Peoria

10. The Storage Tanks are subject to 35 Ill. Adm. Code 215 Subpart B (Organic Emissions from Storage and Loading Operations.) Pursuant to 35 Ill. Adm. Code 215.122, 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 facility having through-put of greater than 151 cubic meters per day (40,000 gal/day) into any railroad tank car, tank truck or trailer unless such loading facility is equipped with submerged loading pipes, submerged fill, 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.

11a. This source is subject to the 35 Ill. Adm. Code Part 215 Subpart Q (Leaks from Synthetic Organic Chemical and Polymer Manufacturing Equipment.) Pursuant to 35 Ill. Adm. Code 215.420, 35 Ill. Adm. Code 215.421 through 215.429 shall apply to all plants in the State of Illinois which manufacture synthetic organic chemicals and polymers, except those located in any of the following counties: Will, McHenry, Cook, DuPage, Lake, Kane, Madison, St. Clair, Macoupin, and Monroe.

b. Pursuant to 35 Ill. Adm. Code 215.429, the plan and schedule shall meet the requirements of 35 Ill. Adm. Code 201.

c. Pursuant to 35 Ill. Adm. Code 215.430, the owner or operator of a plant which processes more than 3660 mg/yr (4033 tons/year) gaseous and light liquid volatile organic material, and whose components are used to manufacture the synthetic organic chemicals or polymers listed in Appendix D, shall comply with 215.430 to 215.439.

d. Pursuant to 35 Ill. Adm. Code 215.431, the owner or operator shall prepare an inspection program plan which contains, at a minimum:

i. An identification of all components and the period in which each will be monitored pursuant to 215.432;

ii. The format for the monitoring log required by 215.434;

iii. A description of the monitoring equipment to be used when complying with 215.432; and

iv. A description of the methods to be used to identify all pipeline valves, pressure relief valves in gaseous service, all leaking components, and components exempted under Section 215.432(i) such that they are obvious and can be located by both plant personnel performing monitoring and Agency personnel performing inspections.

e. Pursuant to 35 Ill. Adm. Code 215.432, the owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Section 215.430 through 215.439, shall for the purpose of detecting leaks, conduct a component inspection program utilizing the test methods specified in USEPA Reference Method 21, 40 CFR 60, Appendix A (1986), incorporated by reference in Section 215.105, consistent with the following provisions:

i. Test annually those components operated near extreme temperature or pressure such that they would be unsafe to routinely monitor, and those components located more than two meters above permanent worker access structures or surfaces;

ii. Test quarterly all other pressure relief valves in gas service, pumps in light liquid service, valves in light liquid service and in gas service, and compressors.

iii. If less than or equal to 2 percent of the valves in light liquid service and in gas service tested pursuant to subsection (b) are

found not to leak for 5 consecutive quarters, no leak tests shall be required for three consecutive quarters. Thereafter, leak tests shall resume for the next quarter. If that test shows less than or equal to 2 percent of the valves in light liquid service and in gas service are leaking, then no tests are required for the next 3 quarters. If more than 2 percent are leaking, then tests are required for the next 5 quarters.

iv. Observe visually all pump seals weekly.

v. Test immediately any pump seal in light liquid service from which liquids are observed dripping.

vi. Test any relief valve within 24 hours after it has vented to the atmosphere.

vii. Routine instrument monitoring of valves which are not externally regulated, flanges, and components in heavy liquid service, is not required. However, any valve which is not externally regulated, flange, or component in heavy liquid service that is found to be leaking on the basis of sight, smell or sound shall be repaired as soon as practicable but no later than 30 days after the leak is found.

viii. Test immediately after repair any component that was found leaking.

ix. Within 1 hour of its detection, a weatherproof, readily visible tag, in bright colors such as red or yellow, bearing an identification number and the date on which the leak was detected must be affixed on the leaking component and remain in place until the leaking component is repaired.

x. Any component that is in vacuum service or any pressure relief devices connected to an operating flare header or to a vapor recovery devices is exempt from the monitoring requirements in this Section.

f. Pursuant to 35 Ill. Adm. Code 215.433, all leaking components must be repaired and retested as soon as practicable but no later than 15 days after the leak is found unless the leaking component cannot be repaired until the process unit is shut down. Records of repairing and retesting must be maintained in accordance with 215.434 and 215.435.

g. Pursuant to 35 Ill. Adm. Code 215.434(a), The owner or operator of a synthetic organic chemical or polymer manufacturing plant shall maintain a leaking components monitoring log which shall contain, at a minimum, the following information:

i. The name of the process unit where the component is located;

ii. The type of component (e.g., valve, seal);

iii. The identification number of the component;

iv. The date on which a leaking component is discovered;

v. The date on which a leaking component is repaired;

vi. The date and instrument reading of the recheck procedure after a leaking component is repaired;

vii. A record of the calibration of the monitoring instrument;

viii. The identification number of leaking components which cannot be repaired until process unit shutdown;

ix. The total number of valves in light liquid service and in gas service inspected; the total number and the percentage of these valves found leaking during the monitoring period.

h. Pursuant to 35 Ill. Adm. Code 215.434(b) and 215.434(c), copies of the monitoring log shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report was prepared. Additionally, Copies of the monitoring log shall be made available to the Agency upon verbal or written request prior to or at the time of inspection pursuant to Section 4(d) of the Environmental Protection Act (Act) (Ill. Rev. Stat. 1985, ch. 111 1/2, pars. 1001 et seq., at any reasonable time.

i. Pursuant to 35 Ill. Adm. Code 215.435, The owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to 215.430 through 215.439 shall Submit quarterly reports to the Agency on or before March 31, June 30, September 30, and December 31 of each year, listing all leaking components identified pursuant to 215.432 but not repaired within 15 days, all leaking components awaiting process unit shutdown, the total number of components inspected, the type of components inspected, and the total number of components found leaking, the total number of valves in light liquid service and in gas service inspected and the number and percentage of valves in light liquid service and in gas service found leaking. Additionally, the owner or operator must Submit a signed statement with the report attesting that all monitoring and repairs were performed as required under 215.430 through 215.436.

j. Pursuant to 35 Ill. Adm. Code 215.436 the Agency shall approve an alternative program of monitoring, recordkeeping, or reporting to that prescribed in Sections 215.430 through 215.438, upon a demonstration by the owner or operator of such plant that the alternative program will provide plant personnel and Agency personnel with an ability equivalent to the monitoring, recordkeeping or reporting requirements of 35 IAC Part 215 to identify and repair leaking components. The owner or operator utilizing an alternative monitoring program shall submit to the Agency an alternative monitoring program plan consistent with the provisions of 215.431.

k. All open-ended valves (as defined in 35 Ill. Adm. Code 211.4190) at the source are subject to 35 Ill. Adm. Code 215.437. Pursuant to 215.437:

i. Each open-ended valve shall be equipped with a cap, blind flange, plug, or a second valve, except during operations requiring fluid flow through the open-ended valve.

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

iii. Components which are open-ended valves and which serve as a sampling connection shall be controlled such that:

A. A closed purge system or closed vent system shall return purged process fluid to the process line with no detectable volatile organic material emissions to the atmosphere, or

B. A closed purge system or closed vent system shall collect and recycle purged process fluid to the process line with no detectable volatile organic material emissions to the atmosphere, or

C. Purged process fluid shall be transported to a control device that complies with the requirements of 215.438.

iv. In-situ sampling systems are exempt from Condition 4(s)(iii).

l. Pursuant to 35 Ill. Adm. Code 215.438, all control devices at this source used to comply with Condition 11(s)(iii) of this permit shall comply with the following:

i. If the control device is a vapor recovery system it shall be designed and operated to recover the volatile organic material emissions vented to it with an efficiency of 95 percent or greater.

ii. If the control device is an enclosed combustion device, it shall be designed and operated to reduce the volatile organic material emissions vented to it with an efficiency of 95 percent or greater, or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C.

iii. If the control device is a flare, it shall:

A. Be designed for and operated with no visible emissions as determined by USEPA Reference Method 22, 40 CFR 60, Appendix A, 1986 incorporated by reference in Section 215.105, except for periods not to exceed a total of 5 minutes during and 2 consecutive hours.

B. Be operated with a pilot flame present at all times and shall be monitored with a thermocouple or any other equivalent device to detect the presence of the pilot flame.

C. Be steam-assisted, air assisted, or nonassisted.

D. Be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steamassisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be calculated using the following equation:

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

Where: Hr = Net heating value of the sample, MJ/scm: where the net enthalpy per mole of offgas is based on combustion at 250 C and 760 mm Hg, but the standard temperature for determining the value corresponding to one mole is 200 C.

K = Constant, 1.740 x 10-7 (1/ppm)(gmole/scm)(MJ/kcal)

where standard temperature for (g mole/scm) is 20°C.

C_i = Concentration of sample component i, in ppm, as measured by USEPA Reference Method 18, 40 CFR 60, Appendix A (1986), and ASTM D 2504- 83, both incorporated by reference in Section 215.105.

H_i = Net heat of combustion of sample component i, kcal/g mole. The heats of combustion may be determined using ASTM D 2382-83, incorporated by reference in Section 215.105, if published values are not available or cannot be calculated.

E. Steam-assisted and nonassisted flares shall be designed and operated with an exit velocity, as determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by USEPA Reference Method 2 or 2A, 40 CFR 60, Appendix A (1986) incorporated by reference in Section 215.105, as appropriate; by the unobstructed (free) cross sectional area of the flare tip, less than 18 m/sec (60 ft/sec.).

NON-APPLICABLE REGULATIONS OF CONCERN

12a. Pursuant to 40 CFR 60.482-1b(f)(1), if a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified in the following table instead of monitoring as specified in 40 CFR 60.482-2b, 60.482-7b, and 60.483.2a:

Table 1 to Paragraph (f)(1)

Operating time (percent of hours during year)	Equivalent monitoring frequency time in use		
	Monthly	Quarterly	Semiannually
0 to <25	Quarterly	Annually	Annually.
25 to <50	Quarterly	Semiannually	Annually.
50 to <75	Bimonthly	Three quarters	Semiannually.
75 to 100	Monthly	Quarterly	Semiannually.

b. Pursuant to 40 CFR 60.482-1b(f)(2), Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in 40 CFR 60.482-1b(f)(1), provided the operating time of all such process units is considered.

c. Pursuant tO 40 CFR 60.482-1b(f)(3), the monitoring frequency specified in 40 CFR 60.482-1b(f)(1) are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (*e.g.*, month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in 40 CFR 60.482-1b(f)(3)(i) through (iv).

i. When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.

ii. When monitoring is conducted semiannually (*i.e.*, once every 2 quarters), monitoring events must be separated by at least 60 calendar days.

iii. When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.

iv. When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.

d. Pursuant to 40 CFR 60.482-1b(g), the standards in 40 CFR 60.482-1b through 60.482-11b apply at all times, including periods of startup, shutdown, and malfunction. As provided in 40 CFR 60.11(f), this provision supersedes the exemptions for periods of startup, shutdown, and malfunction in the general provisions in 40 CFR Part 60 Subpart A.

13a. Pursuant to 40 CFR 60.482-9b(a), delay of repair of equipment for which leaks have been detected will be allowed beyond the deadlines identified in 40 CFR Part 60 Subpart VVb if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

b. Pursuant to 40 CFR 60.482-9b(b), delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

c. Pursuant to 40 CFR 60.482-9b(c), delay of repair for valves and connectors will be allowed if The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 60.482-10b.

d. Pursuant to 40 CFR 60.482-9b(d), delay of repair for pumps will be allowed if Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

e. Pursuant to 40 CFR 60.482-9b(e), delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

f. Pursuant to 40 CFR 60.482-9b(f), when delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

14a. Pursuant to 40 CFR 60.482-11b(a), the owner or operator shall initially monitor all connectors in process units for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

b. Pursuant to 40 CFR 60.482-11b(b), except as allowed in 40 CFR 60.482-1b(c), 60.482-10b, or as specified in 40 CFR 60.482-11b(e), the owner or operator shall monitor all connectors in gas and vapor and light liquid service as specified 40 CFR 60.482-11b(a) and (b)(3).

i. The connectors shall be monitored to detect leaks by the method specified in 40 CFR 60.485b(b) and, as applicable, 40 CFR 60.485b(c).

ii. If an instrument reading greater than or equal to 500 ppm is measured, a leak is detected.

iii. The owner or operator shall perform monitoring, subsequent to the initial monitoring required in 60.482-11b(a), as specified in 60.482-11b(b)(3)(i) through (iii), and shall comply with the requirements of 60.482-11b(b)(3)(iv) and (v). The required period in which monitoring must be conducted shall be determined from 60.482-11b(b)(3)(i) through (iii) using the monitoring results from the preceding monitoring period. The percent leaking connectors shall be calculated as specified in 60.482-11b(c).

A. If the percent leaking connectors in the process unit was greater than or equal to 0.5 percent, then monitor within 12 months (1 year).

B. If the percent leaking connectors in the process unit was greater than or equal to 0.25 percent but less than 0.5 percent, then monitor within 4 years. An owner or operator may comply with the requirements of 40 CFR 60.482-11b(b) by monitoring at least 40 percent of the connectors within 2 years of the start of the monitoring period, provided all connectors have been monitored by the end of the 4-year monitoring period.

C. If the percent leaking connectors in the process unit was less than 0.25 percent, then monitor as provided in 60.482-11b(b)(3)(iii)(A) and either 60.482-11b(b)(3)(iii)(B) or (C), as appropriate.

I. An owner or operator shall monitor at least 50 percent of the connectors within 4 years of the start of the monitoring period.

II. If the percent of leaking connectors calculated from the monitoring results 40 CFR 60.482-11b(b)(3)(iii)(A) is greater than or equal to 0.35 percent of the monitored connectors, the owner or operator shall monitor as soon as practical, but within the next 6 months, all connectors that have not yet been monitored during the monitoring period. At the conclusion of monitoring, a new monitoring period shall be started pursuant 40 CFR 60.482-11b(b)(3), based on the percent of leaking connectors within the total monitored connectors.

III. If the percent of leaking connectors calculated from the monitoring results 40 CFR 60.482-11b(b)(3)(iii)(A) is less than 0.35 percent of the monitored connectors, the owner or operator shall monitor all connectors that have not yet been monitored within 8 years of the start of the monitoring period.

D. If, during the monitoring conducted in response to an originating scenario where the monitored connectors leaked at a rate below .25 percent, a connector is found to be leaking, it shall be re-monitored once within 90 days after repair to confirm that it is not leaking.

E. The owner or operator shall keep a record of the start date and end date of each monitoring period under this section for each process unit

c. Pursuant to 40 CFR 60.482-11b(c), for use in determining the monitoring frequency, as specified in 40 CFR 60.482-11b(a) and (b)(3), the percent leaking connectors as used in 40 CFR 60.482-11b(a) and (b)(3) shall be calculated by using the following equation:

$\%C_L = C_L/C_t * 100$
Where:
$\%C_L$ = Percent of leaking connectors as determined through periodic monitoring
C_L = Number of connectors measured at 500 ppm or greater, by the method specified in 40 CFR 60.485b(b).
C_t = Total number of monitored connectors in the process unit or affected facility.

d. Pursuant to 40 CFR 60.482-11b(d), when a leak is detected pursuant to 40 CFR 60.482-11b(a) and (b), it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9b. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

e. Pursuant to 40 CFR 60.482-11b(e), any connector that is designated, as described in 40 CFR 60.486b(f)(1), as an unsafe-to-monitor connector is exempt from 40 CFR 60.482-11b(a,b) if:

i. The owner or operator of the connector demonstrates that the connector is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-11b(a) and (b); and

ii. The owner or operator of the connector has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-11b(d) if a leak is detected.

f. Pursuant to 40 CFR 60.482-11b(f)(1), any connector that is inaccessible or that is ceramic or ceramic-lined (*e.g.*, porcelain, glass, or glass-lined), is exempt from the monitoring requirements of 60.482-11b(a) and (b), from the leak repair requirements of 60.482-11b(d), and from the recordkeeping and reporting requirements of 40 CFR 63.1038 and 63.1039. An inaccessible connector is one that meets any of the provisions specified in 60.482-11b(f)(1)(i) through (vi), as applicable:

i. Buried;

ii. Insulated in a manner that prevents access to the connector by a monitor probe;

iii. Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

iv. Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground;

v. Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold; or

vi. Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

g. Pursuant to 40 CFR 60.482-11b(f)(2), if any inaccessible, ceramic, or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

15a. Pursuant to 40 CFR 60.701a(a)(5), the provisions of 40 CFR 60.701a(a)(1) through (4) do not apply.

b. Pursuant to 40 CFR 60.704a(c), the requirement for initial and subsequent performance tests for are waived, in accordance with 40 CFR 60.8(b), when a vent stream is introduced into a boiler or process heater with the primary fuel. Therefore the Hot Oil Heater and closed vent system are not subject to the testing requirements of 40 CFR 60.704a.

16a. Pursuant to 40 CFR 63.11496(e), Exceptions to the requirements for the alternative standard requirements specified in Tables 2 and 3 to Subpart VVVVVV of Part 63 and 40 CFR 63.2505 are specified below:

i. When 40 CFR 63.2505 of subpart FFFF refers to Tables 1 and 2 to subpart FFFF and 40 CFR 63.2455 and 63.2460, it means Tables 2 and 3 to this subpart and 40 CFR 63.11496(a) and (b)

ii. Sections 63.2505(a)(2) and (b)(9) do not apply

iii. When 40 CFR 63.2505(b) references 40 CFR 63.2445 it means 40 CFR 63.11494(f) through (h)

iv. The requirements for hydrogen halide and halogen HAP apply only

to hydrogen halide and halogen HAP generated in a combustion device that is used to comply with the alternative standard

v. When 40 CFR 63.1258(b)(5)(ii)(B)(2) refers to a "notification of process change" report, it means the semi-annual compliance report required by 40 CFR 63.11501(d) for the purposes of this subpart

vi. CEMS requirements and data reduction requirements for CEMS specified in 40 CFR 63.2450(j) apply

b. This source is not subject to 40 CFR 63.11499 and NESHAP VVVVVV Table 8 because the cooling tower operates at less than 8000 gallons per minute at maximum flow.

c. Pursuant to 40 CFR 63.11500(b), this source shall comply with Table 2 and Table 3 of Subpart VVVVVV of Part 63 by complying with the equally/more stringent regulations of Subparts NNNa and RRRa of Part 60 which are included in this permit.

WORK PRACTICES/CONTROL PRACTICES

17a. Pursuant to 40 CFR 60.11(b), compliance with opacity standards in 40 CFR Part 60 shall be determined by conducting observations in accordance with Method 9 in appendix A of 40 CFR Part 60, any alternative method that is approved by the Illinois EPA or USEPA, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

b. Pursuant to 40 CFR 60.11(c), the opacity standards set forth in 40 CFR Part 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

c. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment 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 USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

18a. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved

areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.

b. Pursuant to 35 Ill. Adm. Code 212.307, all unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.

c. Pursuant to 35 Ill. Adm. Code 212.308, crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, storage bins and fine product truck and railcar loading operations shall be sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method in accordance with an operating program.

d. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 35 Ill. Adm. Code 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.

e. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:

   i. The name and address of the source;

   ii. The name and address of the owner or operator responsible for execution of the operating program;

   iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;

   iv. Location of unloading and transporting operations with pollution control equipment;

   v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code Part 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;

   vi. Estimated frequency of application of dust suppressants by location of materials; and

   vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.

f. Within 90 days from date of issuance of this permit a Fugitive Particulate Operating Program must be submitted by the Permittee pursuant to 35 Ill. Adm. Code 212.309 and is incorporated herein by reference. The source shall be operated under and shall comply with the provisions of this Fugitive Particulate Operating Program and any amendments to the Fugitive Particulate Operating Program submitted pursuant to Conditions 11(d) and (e).

g. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with 35 Ill. Adm. Code Part 212 Subpart K and shall be submitted to the Illinois EPA within 30 days of such amendment. Any future revision to the Fugitive Particulate Operating Program made by the Permittee during the permit term is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the Illinois EPA. In the event that the Illinois EPA notifies the Permittee of a deficiency with any revision to the Fugitive Particulate Operating Program, the Permittee shall be required to revise and resubmit the Fugitive Particulate Operating Program within 30 days of receipt of notification to address the deficiency.

19a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the Flare and Scrubber such that the Flare and Scrubber are kept in proper working condition and do not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.

c. This permit is issued based on the source not electing to operate an alternative equivalent system to comply with 40 CFR 60.112c(d)(1)-(3). Pursuant to 40 CFR 60.112c(d)(4), an equivalent system to those described in 40 CFR 60.112c(d)(1)-(3) may be used to control emissions if it meets the conditions provided in 40 CFR 60.114c.

d. For the Scrubber System, the Permittee shall equip, operate, and maintain instrumentation to measure the pH and flow rate of the scrubbant.

e. The following leak detection and repair provisions apply to accessible equipment components (i.e., valves, flanges, pump seals).

i. Conduct weekly audio, visual, and olfactory checks for leaks from all components described above.

ii. Repair any component from which a leak of volatile organic liquid can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found unless the leaking component cannot be repaired until the process

unit is shut down, and the leaking component must then be repaired before the unit is restarted.

f. The source must install, calibrate, operate, and maintain each CMS in accordance with the procedures in the source monitoring plan.

g. The source must develop a monitoring plan for the Flare using the information required from 40 CFR 63.671(b).

EMISSION LIMITS

20a. Emissions from and operation of the Storage Tanks controlled by the Scrubber shall not exceed the following Limits:

		EMISSIONS			
Emission Unit	Material Throughput (gal/yr)	VOM (lb/mmgal)	VOM (ton/yr)	HAP (lb/gal)	HAP (ton/yr)
TNK6001A	11,525,000	2.729	0.016	0	0
TNK6001B	11,525,000	2.729	0.016	0	0
TNK6003A	8,042,347	10.223	0.041	0	0
TNK6003B	8,042,347	10.223	0.041	0	0
TNK6003C	16,084,693	7.826	0.063	0	0
TNK6004	1,073,592	6.384	0.003	0	0
TNK6006	57,726	105.429	0.003	0	0
TNK6007	528,471	8.732	0.003	0	0
TNK6008	41,220,000	0.994	0.027	9.524E-3	8.110E-4
	Total:		0.213		8.110E-4

These limits are based on 16,084,693 gallons of annual Ethyl Acetate production, information provided in the application submitted by the source using Emission Master Tanks to estimate emissions, and the Scrubber operating at 98.5% capture rate efficiency.

b. Emissions from and operation of the storage tanks controlled by the Flare shall not exceed the following limits:

		EMISSIONS	
Emission Unit	Material Throughput (gal/yr)	VOM (lb/mmgal)	VOM (ton/yr)
TNK6009	8,042,347	48.600	0.195
TNK6010	8,042,347	48.600	0.195
	Total:		0.391

These limits are based on 16,084,693 gallons of annual Ethyl Acetate production, information provided in the application submitted by the source using Emission Master Tanks to estimate emissions, and the Flare

operating at 98% destruction efficiency.

c. Emissions from and operation of LOD001 at the source controlled by the Flare shall not exceed the following limits:

		E M I S S I O N S	
Material	Material Throughput (gal/yr)	VOM (lb/1000 gal)	VOM (ton/yr)
Ethyl Acetate	16,048,693	0.076	0.610
Heavies Product	1,073,592	2.243E-2	0.012
Light Product	57,276	0.035	0.001
		Total	0.623

These limits are based on information provided in the application submitted by the source, 0.6 saturation factor, equation from AP-42, Section 5.2-2, for loading losses, 98% capture efficiency from the Closed Vent System, and 98.7% capture efficiency from the Flare.

d. Emissions from and operation of LOD002 at the source controlled by the Flare shall not exceed the following limits:

		E M I S S I O N S	
Material	Material Throughput (gal/yr)	VOM (lb/1000 gal)	VOM (ton/yr)
Ethyl Acetate	16,048,693	0.063	0.508

These limits are based on information provided in the application submitted by the source, 0.5 Saturation Factor, equation from AP-42, Section 5.2-2, for loading losses, 98% capture efficiency from the Closed Vent System, and 98.7% destruction efficiency from the Flare.

e. Emissions from and operation of PUR001 at the source controlled by the flare FLR001 shall not exceed the following limits:

		E M I S S I O N S	
Material Throughput (lbs/hr)	Mass Fraction VOC	VOM (lb/hr)	VOM (ton/yr)
118.6	0.603	1.43	6.264

These limits are based on information provided in the application submitted by the source, 98% cumulative destruction efficiency from the flare, and 8,760 operating hours annually.

f. Emissions from and operation of DHY001 at the source controlled by the flare FLR001 shall not exceed the following limits:

		E M I S S I O N S	
Material Throughput (lbs/hr)	Mass Fraction VOC	VOM (lb/hr)	VOM (ton/yr)
169.06	0.983	2.49	10.918

These limits are based on based on information provided in the application submitted by the source, 98% cumulative destruction efficiency from the flare, and 8,760 operating hours annually.

g. Emissions from and operation of Reactive Distillation DST001 at the source controlled by the Hot Oil Heater HTR001 shall not exceed the following limits:

		E M I S S I O N S	
Material Throughput (lbs/hr)	Mass Fraction VOC	VOM (lb/hr)	VOM (ton/yr)
1093.1	0.369	8.07	35.42

These limits are based on based on information provided in the application submitted by the source, 98% capture by the Closed Vent System exhausting to the Hot Oil Heater or Flare during startup, shutdown, and maintenance, and 8,760 operating hours annually.

h. Emissions from and operation of MEK001 at the source controlled by the Scrubber shall not exceed the following limits:

Point T3001		E M I S S I O N S	
Material Throughput (lbs/hr)	Mass Fraction VOC	VOM (lb/hr)	VOM (ton/yr)
51.5	0.175	0.14	0.594

Point V3002		E M I S S I O N S	
Material Throughput (lbs/hr)	Mass Fraction VOC	VOM (lb/hr)	VOM (ton/yr)
9.1	0.003	0.0005	0.002

These limits are based on based on information provided in the application submitted by the source, 98% cumulative destruction efficiency from the flare, and 8,760 operating hours annually.

i. Emissions from and operation of the Hot Oil Heater shall not exceed the following limits:

Natural Gas Combustion: 808.496 MMscf/yr and 73.500 MMscf/mo.

		E M I S S I O N S	
Pollutant	Emission Factor (lbs/MMscf)	Tons/Mo.	Tons/Yr.
CO	84.00	3.087	33.96
NOx	32.00	1.176	12.94
So2	0.60	0.023	0.24
PM	7.60	0.279	3.07
VOM	5.50	0.202	2.22
Single Hap (Hexane)	1.80	0.066	0.728
Combined HAP	1.89	0.066	0.763

These limits are based on the worst-case scenario of 100% Natural Gas Combustion, 1020 BTU/scf, emission factors from AP-42, Table 1.4-1 (Supplement D, July 1998) for Low NOx burners < 100MMBTU/hr, and 8,760 hours of operation. The source may operate up to 40% combustion mix of waste stream.

j. Emissions from and operation of the Flare shall not exceed the following limits:

Natural Gas Combustion: 1.178 mmscf/yr and .143 mmscf/mo.
Waste Stream Combustion: 6794 mmBTU/yr and 618 mmBTU/mo.

	Pilot Emission Factors (lb/MMscf)	VOC Combustion Emission Factor (lb/mmBTU)	Emissions ton/mo.	Emissions ton/yr.
CO	84	0.31	0.100	1.103
NOx	32	0.068	0.023	0.250
SO2	0.6	0	0.001	0.001
PM	7.6	0	0.001	0.004
VOM/VOC	5.5	0.66	0.204	2.245

These limits are based on of 1020 BTU/scf, Pilot emission factors from

AP-42, Table 1.4-1 (Supplement D, July 1998) for Low NOx burners < 100MMBTU/hr, 76.7 lb/hr maximum VOC in waste stream, 10110 BTU/lb for Ethyl Acetate, an engineering assumption that ethyl acetate is the primary component of the VOC presence in waste stream and the primary fuel of combustion, 98% destruction of VOC during combustion, and 8,760 hours of operation.

k. Fugitive emissions from the operation of the Cooling Tower (EP-23) shall not exceed the following limits:

		EMISSIONS	
Circulation Rate(gal/hr)	Emission Factor PM (lbs/MMgal)	PM (lb/hr)	PM (ton/yr)
180,000	1.043	0.188	0.822

These limits are based on an emission factor from AP-42 Section 13.4 Wet Cooling Towers, information provided in the application, and 8,760 operating hours annually.

l. Fugitive emissions and generated from equipment leaks (F002) and the associated VOC and Hap concentrations shall not exceed the following limits:

i. Fugitive leaks from Stream 1 (DHY001)

Equipment	Fraction VOC	# of Units	Mass Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Ton/Month VOM	Ton/Year VOM
Valve - Gas	0.983	52	0.01313	0.92	0.021	0.235
Valve - Light Liquid	0.983	52	0.00887	0.88	0.022	0.238
Pressure Relief	0.983	4	0.2288	0.92	0.029	0.315
Connectors	0.983	53	0.00403	0.93	0.006	0.064
Open-ended Lines	0.983	7	0.00374	0	0.010	0.113
				TOTALS:	0.088	0.966

Equipment	# of Units	Acetaldehyde Emission Factor (lb/hr/unit)	HAP Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Acetaldehyde Ton/Mo	Acetaldehyde Ton/Yr	HAP Ton/Mo	HAP Ton/yr
Valve - Gas	52	0.000112918	0.0001313	0.92	0.001	0.002	0.001	0.002
Valve - Light Liquid	52	0.000076282	0.0000887	0.88	0.001	0.002	0.001	0.002
Pressure Relief	4	0.00196768	0.002288	0.92	0.001	0.003	0.001	0.003
Connectors	53	0.000034658	0.0000403	0.93	0.001	0.001	0.001	0.001
Open-ended Lines	7	0.000032164	0.0000374	0	0.001	0.001	0.001	0.001
				TOTALS:	0.005	0.009	0.005	0.010

These limits are based on the total equipment counts supplied in the application, unit emission factors from EPA "1995 Protocol for Equipment Leak Emission Estimates" Table 2-1: SOCMI Average Emission Factors, Monthly Control Factors from Nebraska Department of Environment and Energy Air Quality Permitting Application Form 6.0 Emission Point Information Instructions Section 6.10 Equipment Leaks for LDAR Programs using Monthly Monitoring, engineering estimates of the waste stream being composed of 98.3% VOC, 1% of waste stream being composed of HAP, and 0.86% of waste stream being composed of Acetaldehyde.

ii. Fugitive leaks from Stream 2 (DST001):

Equipment	Fraction VOC	# of Units	Mass Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Ton/Month VOM	Ton/Year VOM
Valve - Gas	0.3691	86	0.01313	0.92	0.013	0.146
Valve - Light Liquid	0.3691	208	0.00887	0.88	0.033	0.358
Pump - Light Liquid	0.3691	5	0.04378	0.78	0.007	0.078
Pressure Relief	0.3691	11	0.2288	0.92	0.030	0.326
Connectors	0.3691	80	0.00403	0.93	0.003	0.036
Open-ended Lines	0.3691	118	0.00374	0	0.065	0.713
Sample Connections	0.3691	5	0.033	0.93	0.002	0.019
				TOTALS:	0.152	1.676

Equipment	# of Units	Acetaldehyde Emission Factor (lb/hr/unit)	HAP Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Acetaldehyde Ton/Mo	Acetaldehyde Ton/Yr	HAP Ton/Mo	HAP Ton/yr
Valve - Gas	86	0.000112918	0.0001313	0.92	0.0045	0.0539	0.0045	0.0539
Valve - Light Liquid	208	0.000076282	0.0000887	0.88	0.011	0.132	0.011	0.132
Pump - Light Liquid	5	0.000376508	0.0004378	0.78	0.007	0.078	0.007	0.078
Pressure Relief	11	0.00196768	0.002288	0.92	0.027	0.325	0.027	0.325
Connectors	80	0.000034658	0.0000403	0.93	0.003	0.036	0.003	0.036
Open-ended Lines	118	0.000032164	0.0000374	0	0.06	0.713	0.06	0.713
Sample Connections	5	0.0002838	0.00033	0.93	0.002	0.019	0.002	0.019
				TOTALS:	0.052	0.618	0.052	0.618

These limits are based on the total equipment counts supplied in the application, unit emission factors from EPA "1995 Protocol for Equipment Leak Emission Estimates" Table 2-1: SOCMI Average Emission Factors, Monthly Control Factors from Nebraska Department of Environment and Energy Air Quality Permitting Application Form 6.0 Emission Point Information Instructions Section 6.10 Equipment Leaks for LDAR Programs using Monthly Monitoring, engineering estimates of the waste stream being composed of 36.91% VOC, 1% of waste stream being composed of HAP, and 0.86% of waste stream being composed of Acetaldehyde.

iii. Fugitive leaks from Stream 3 (MEK001):

Equipment	Fraction VOC	# of Units	Mass Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Ton/Month VOM	Ton/Year VOM
Valve - Gas	0.1754	5	0.01313	0.92	0.001	0.004
Valve - Light Liquid	0.1754	188	0.00887	0.88	0.014	0.154
Pump - Light Liquid	0.1754	4	0.04378	0.78	0.003	0.030
Pressure Relief	0.1754	5	0.2288	0.92	0.006	0.070
Connectors	0.1754	99	0.00403	0.93	0.002	0.021
Open-ended Lines	0.1754	22	0.00374	0	0.006	0.063
Sample Connections	0.1754	8	0.033	0.93	0.001	0.014
				TOTALS:	0.032	0.357

Equipment	# of Units	Acetaldehyde Emission Factor (lb/hr/unit)	HAP Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Acetaldehyde Ton/Mo	Acetaldehyde Ton/Yr	HAP Ton/Mo	HAP Ton/yr
Valve - Gas	5	0.000112918	0.0001313	0.92	0.001	0.001	0.001	0.001
Valve - Light Liquid	188	0.000076282	0.0000887	0.88	0.001	0.008	0.001	0.009
Pump - Light Liquid	4	0.000376508	0.0004378	0.78	0.001	0.001	0.001	0.002
Pressure Relief	5	0.00196768	0.002288	0.92	0.001	0.003	0.001	0.004
Connectors	99	0.000034658	0.0000403	0.93	0.001	0.001	0.001	0.001
Open-ended Lines	22	0.000032164	0.0000374	0	0.001	0.003	0.001	0.004
Sample Connections	8	0.0002838	0.00033	0.93	0.001	0.001	0.001	0.001
				TOTALS:	0.007	0.019	0.007	0.021

These limits are based on the total equipment counts supplied in the application, unit emission factors from EPA "1995 Protocol for Equipment Leak Emission Estimates" Table 2-1: SOCMI Average Emission Factors, Monthly Control Factors from Nebraska Department of Environment and Energy Air Quality Permitting Application Form 6.0 Emission Point Information Instructions Section 6.10 Equipment Leaks for LDAR Programs using Monthly Monitoring, engineering estimates of the waste stream being composed of 17.54% VOC, 1% of waste stream being composed of HAP, and 0.86% of waste stream being composed of Acetaldehyde.

iv. Fugitive leaks from Stream 4 (PUR001):

Equipment	Weight VOC	# of Units	Mass Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Ton/Month VOM	Ton/Year VOM
Valve - Gas	0.6029	27	0.01313	0.92	0.007	0.075
Valve - Light Liquid	0.6029	231	0.00887	0.88	0.059	0.649
Pump - Light Liquid	0.6029	8	0.04378	0.78	0.018	0.203
Pressure Relief	0.6029	11	0.2288	0.92	0.048	0.532
Connectors	0.6029	165	0.00403	0.93	0.011	0.123
Open-ended Lines	0.6029	32	0.00374	0	0.029	0.316
Sample Connections	0.6029	8	0.033	0.93	0.004	0.049
				TOTALS:	0.177	1.947

Equipment	# of Units	Acetaldehyde Emission Factor (lb/hr/unit)	HAP Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Acetaldehyde Ton/Mo	Acetaldehyde Ton/Yr	HAP Ton/Mo	HAP Ton/yr
Valve - Gas	27	0.000112918	0.0001313	0.92	0.001	0.001	0.001	0.001
Valve - Light Liquid	231	0.000076282	0.0000887	0.88	0.001	0.009	0.001	0.011
Pump - Light Liquid	8	0.000376508	0.0004378	0.78	0.001	0.003	0.001	0.003
Pressure Relief	11	0.00196768	0.002288	0.92	0.001	0.008	0.001	0.009
Connectors	165	0.000034658	0.0000403	0.93	0.001	0.002	0.001	0.002
Open-ended Lines	32	0.000032164	0.0000374	0	0.001	0.005	0.001	0.005
Sample Connections	8	0.0002838	0.00033	0.93	0.001	0.001	0.001	0.001
				TOTALS:	0.007	0.028	0.007	0.032

These limits are based on the total equipment counts supplied in the application, unit emission factors from EPA "1995 Protocol for Equipment Leak Emission Estimates" Table 2-1: SOCMI Average Emission Factors, Monthly Control Factors from Nebraska Department of Environment and Energy Air Quality Permitting Application Form 6.0 Emission Point Information Instructions Section 6.10 Equipment Leaks for LDAR Programs using Monthly Monitoring, engineering estimates of the waste stream being composed of 60.29% VOC, 1% of waste stream being composed of HAP, and 0.86% of waste stream being composed of Acetaldehyde.

v. Fugitive leaks from Stream 5 (Storage Tanks):

Equipment	Fraction VOC	# of Units	Mass Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Ton/Month VOM	Ton/Year VOM
Valve - Light Liquid	1	80	0.00887	0.88	0.034	0.373
Pump - Light Liquid	1	5	0.04378	0.78	0.019	0.211
Pressure Relief	1	8	0.2288	0.92	0.058	0.641
Connectors	1	75	0.00403	0.93	0.008	0.093
Open-ended Lines	1	51	0.00374	0	0.076	0.835
Sample Connections	1	7	0.033	0.93	0.006	0.071
				TOTALS:	0.202	2.224

Equipment	# of Units	Acetaldehyde Emission Factor (lb/hr/unit)	HAP Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Acetaldehyde Ton/Mo	Acetaldehyde Ton/Yr	HAP Ton/Mo	HAP Ton/yr
Valve - Light Liquid	80	0.000076282	0.0000887	0.88	0.001	0.003	0.001	0.004
Pump - Light Liquid	5	0.000376508	0.0004378	0.78	0.001	0.002	0.001	0.002
Pressure Relief	8	0.00196768	0.002288	0.92	0.001	0.006	0.001	0.006
Connectors	75	0.000034658	0.0000403	0.93	0.001	0.001	0.001	0.001
Open-ended Lines	51	0.000032164	0.0000374	0	0.001	0.007	0.001	0.008
Sample Connections	7	0.0002838	0.00033	0.93	0.001	0.001	0.001	0.001
				TOTALS:	0.006	0.020	0.006	0.022

These limits are based on the total equipment counts supplied in the application, unit emission factors from EPA "1995 Protocol for Equipment Leak Emission Estimates" Table 2-1: SOCMI Average Emission Factors, Monthly Control Factors from Nebraska Department of Environment and Energy Air Quality Permitting Application Form 6.0 Emission Point Information Instructions Section 6.10 Equipment Leaks for LDAR Programs using Monthly Monitoring, engineering estimates of the waste stream being composed of 100% VOC, 1% of waste stream being composed of HAP, and 0.86% of waste stream being composed of Acetaldehyde.

vi. Fugitive leaks from Stream 6 (Plant Remainders)

Equipment	Fraction VOC	# of Units	Mass Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Ton/Month VOM	Ton/Year VOM
Valve - Gas	1	60	0.01313	0.92	0.025	0.276
Valve - Light Liquid	1	160	0.00887	0.88	0.068	0.746
Pump - Light Liquid	1	4	0.04378	0.78	0.015	0.169
Pressure Relief	1	9	0.2288	0.92	0.066	0.722
Connectors	1	65	0.00403	0.93	0.007	0.080
Open-ended Lines	1	93	0.00374	0	0.138	1.523
Sample Connections	1	6	0.033	0.93	0.006	0.061
				TOTALS:	0.325	3.577

Equipment	# of Units	Acetaldehyde Emission Factor (lb/hr/unit)	HAP Emission Factor (lb/hr/unit)	Monthly Monitoring Efficiency	Acetaldehyde Ton/Mo	Acetaldehyde Ton/Yr	HAP Ton/Mo	HAP Ton/yr
Valve - Gas	60	0.000112918	0.0001313	0.92	0.001	0.002	0.001	0.003
Valve - Light Liquid	160	0.000076282	0.0000887	0.88	0.001	0.006	0.001	0.007
Pump - Light Liquid	4	0.000376508	0.0004378	0.78	0.001	0.001	0.001	0.002
Pressure Relief	9	0.00196768	0.002288	0.92	0.001	0.006	0.001	0.007
Connectors	65	0.000034658	0.0000403	0.93	0.001	0.001	0.001	0.001
Open-ended Lines	93	0.000032164	0.0000374	0	0.001	0.013	0.001	0.015
Sample Connections	6	0.0002838	0.00033	0.93	0.001	0.001	0.001	0.001
				TOTALS:	0.007	0.032	0.007	0.036

These limits are based on the total equipment counts supplied in the application, unit emission factors from EPA "1995 Protocol for Equipment Leak Emission Estimates" Table 2-1: SOCMI Average Emission Factors, Monthly Control Factors from Nebraska Department of Environment and Energy Air Quality Permitting Application Form 6.0 Emission Point Information Instructions Section 6.10 Equipment Leaks for LDAR Programs using Monthly Monitoring, engineering estimates of the waste stream being composed of 100% VOC, 1% of waste stream being composed of HAP, and 0.86% of waste stream being composed of Acetaldehyde.

m. Fugitive particulate matter emissions generated from hauling of materials on paved roads are considered negligible and shall not exceed a rate of 0.1 lb/hr and 0.44 ton/yr.

n. Acetaldehyde emissions from the operation of DST001 are considered negligible and shall not exceed a rate of 0.028 lb/hr and 0.124 ton/yr. Acetaldehyde emissions from the operation of DHY001 are considered negligible and shall not exceed a rate of 0.025 lb/hr and 0.111 ton/yr.

o. Compliance with the annual limits of this permit 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).

TESTING

21a. Pursuant to 40 CFR 60.8(a), except as specified in 40 CFR 60.8(a)(1), (a)(2), (a)(3), and (a)(4), within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).

b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:

i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;

ii. Approves the use of an equivalent method;

iii. Approves the use of an alternative method the results of which the Illinois EPA or USEPA has determined to be adequate for indicating whether a specific source is in compliance;

iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or

v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.

c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

d. Pursuant to 40 CFR 60.8(d), the owner or operator of an affected facility shall provide the Illinois EPA or USEPA at least 30 days prior notice of any performance test, except as specified under other subparts of 40 CFR Part 60, to afford the Illinois EPA or USEPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to

operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Illinois EPA or USEPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Illinois EPA or USEPA by mutual agreement.

e. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

i. Sampling ports adequate for test methods applicable to such facility. This includes:

A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

ii. Safe sampling platform(s).

iii. Safe access to sampling platform(s).

iv. Utilities for sampling and testing equipment.

f. Pursuant to 40 CFR 60.8(f)(1), unless otherwise specified in the applicable subpart of 40 CFR Part 60, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard under 40 CFR Part 60. For the purpose of determining compliance with an applicable standard under 40 CFR Part 60, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Illinois EPA's or USEPA's approval, be determined using the arithmetic mean of the results of the two other runs.

g. Pursuant to 40 CFR 60.11(e)(2), except as provided in 40 CFR 60.11(e)(3), the owner or operator of an affected facility to which an opacity standard in 40 CFR Part 60 applies shall conduct opacity observations in accordance with 40 CFR 60.11(b), shall record the opacity of emissions, and shall report to the Illinois EPA or USEPA the opacity results along with the results of the initial performance test required under 40 CFR 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

22a. Pursuant to 40 CFR 60.113c(c)(1)(i) the source must install, calibrate, maintain, and operate a backpressure regulator valve calibrated to open at the minimum pressure set point corresponding to the minimum inlet gas flow rate of the Flare. The set point must be consistent with manufacturer specifications for minimum flow or pressure and must be supported by an engineering evaluation. At least annually, the source must confirm that the backpressure regulator valve set point is correct and consistent with the engineering evaluation and manufacturer specifications and that the valve fully closes when not in the open position.

b. Pursuant to 40 CFR 60.113c(c)(1)(ii) the Scrubber must be tested no later than 180 days from startup and subsequently tested no later than 60 calendar months after each previous performance test. All tests must be submitted pursuant to the regulations of 40 CFR 60.116(c)e. Tests performed on the Scrubber to demonstrate compliance with 40 CFR 60.113c must be performed in the following manner:

i. Each performance test must demonstrate that the control device achieves control greater than or equal to the rate specified in 40 CFR 60.112c(d)(3) (98 percent). Performance tests must be conducted under such conditions as the Illinois EPA or USEPA specifies based on representative performance of the affected source for the period being tested. The source may not conduct performance tests during periods of malfunction. The source must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent the entire range of normal operation, including operational conditions for maximum emissions if such emissions are not expected during maximum production. The Source must make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of performance tests.

ii. The source must conduct a minimum of three test runs. Each test run must be at least 1 hour long.

iii. The following methods in 40 CFR Part 60 Appendix A, except as provided in 40 CFR 60.8(b), must be used as reference methods to determine compliance with the percent reduction requirement.

A. Method 1 or 1A of 40 CFR Part 60 Appendix A-1, as appropriate, for selection of the sampling sites. Sampling sites must be located at the inlet of the first control device and at the outlet of the final control device to determine compliance with a control device percent reduction requirement.

B. Method 2, 2A, 2C, or 2D of 40 CFR Part 60 Appendix A-1, as appropriate to determine the gas volumetric flow rate

C. Method 25A of 40 CFR Part 60 Appendix A-7. Use propane as the calibration gas. The source must use Method 4 of appendix A-3 to this part to convert the Method 25A of

appendix A-7 results to a dry basis.

iv. Calculate percent reduction efficiency using the method and equations listed in 40 CFR 60.113c(c)(1)(ii)(D)

v. Pursuant to 40 CFR 60.113c(c)(1)(ii)(E), the source must submit operating parameters to monitor in the performance test notice provided to the Illinois EPA or USEPA pursuant to 40 CFR 60.8(d).

A. Using continuous monitoring system (CMS) data, the source must calculate the hourly average of each operating parameter. The source must demonstrate compliance by maintaining the operating parameter at or above the minimum operating parameter limit on a 3-hour rolling average basis. For each hour, calculate the hourly value of the operating parameter from you CMS. Average the three most recent hours of data to determine the 3-hour average. Determine the 3-hour rolling average by recalculating the 3-hour average each hour. The source must not include periods of data collected during monitoring system breakdowns, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy in the operating parameter averages.

23a. Pursuant to 40 CFR 60.485b(a), in conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60 appendix A and in 40 CFR 60.485b(b)

b. Pursuant to 40 CFR 60.485b(b), the owner or operator shall determine compliance with the standards in 40 CFR 60.482-1b through 40 CFR 60.482-11b (except 40 CFR 60.482-3b for which this source has no subject equipment) as follows:

i. Method 21 of appendix A-7 to this part shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

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

B. A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be

used during that day's monitoring.

ii. A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of 40 CFR Part 60, Appendix A-7, section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in 40 CFR 60.486b(e)(8). Divide the arithmetic difference of the initial and post-test calibration response by the corresponding calibration gas value for each scale and multiply by 100 to express the calibration drift as a percentage.

A. If a calibration drift assessment shows a negative drift of more than 10 percent, then all equipment with instrument readings between the appropriate leak definition and the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) that was monitored since the last calibration must be re-monitored

B. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) monitored since the last calibration may be re-monitored.

c. Pursuant to 40 CFR 60.485b(c), the owner or operator shall determine compliance with the no-detectable-emission standards in 40 CFR 60.482-2b(e), 60.482-4b, 60.482-7b(f), and 60.482-10b(e) as follows:

i. The owner or operator will perform the tests required by 40 CFR 60.485b(b) for the referenced emissions units, control devices or components/equipment.

ii. Method 21 of 40 CFR Part 60 Appendix A-7 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

d. Pursuant to 40 CFR 60.485b(d), each piece of equipment shall be tested unless the source can demonstrate the process unit the equipment services is not in VOC service. To demonstrate the source shall use:

i. Procedures that conform to the general methods in ASTM E168-16 (Reapproved 2023), E169-16 (Reapproved 2022), or E260-96 (Reapproved 2019) (incorporated by reference, see 40 CFR 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment

ii. Organic compounds that are considered by the Agency to have

negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

iii. Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Agency disagrees, the preceding determination method(s) shall be used.

e. Pursuant to 40 CFR 60.485b(e), The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply:

i. The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F). Standard reference texts or ASTM D2879-23 (incorporated by reference, see 40 CFR 60.17) shall be used to determine the vapor pressures

ii. The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H_2O at 68 °F) is equal to or greater than 20 percent by weight

iii. The fluid is a liquid at operating conditions.

f. Pursuant to 40 CFR 60.485b(f), any samples used in conjunction with 40 CFR 60.485b(d,e,g) shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

g. Pursuant to 40 CFR 60.485b(g), The owner or operator shall determine compliance with the standards of flares as follows:

i. Method 22 of 40 CFR Part 60 Appendix A-7 shall be used to determine visible emissions.

ii. A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

iii. The net heating value (HT) of the gas being combusted in a flare shall be computed using the following equation.

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

Where:
K = Conversion constant, 1.740×10^{-7} (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674×10^{-6} [(g-mole)(Btu)/(ppm-scf-kcal)] (English units).
C_i = Concentration of sample component "i," ppm
H_i = net heat of combustion of sample component "i" at 25 °C and 760 mm Hg (77 °F and 14.7 psi), kcal/g-mole.

iv. Method 18 of appendix A-6 to this part and ASTM D1945-14 (Reapproved 2019) (incorporated by reference, see 40 CFR 60.17) shall be used to determine the concentration of sample component "i." ASTM D6420-18 (incorporated by reference, see 40 CFR 60.17) may be used in lieu of Method 18, under the conditions specified below:

A. If the target compounds are all known and are all listed in Section 1.1 of ASTM D6420-18 as measurable.

B. ASTM D6420-18 may not be used for methane and ethane

C. ASTM D6420-18 may not be used as a total VOC method

v. ASTM D240-19 or D4809-18 (incorporated by reference, see 40 CFR 60.17) shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

vi. Method 2, 2A, 2C, or 2D of 40 CFR Part 60 Appendix A-7 to this part, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

24a. Pursuant to 35 Ill. Adm. Code 201.282, 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:

i. 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. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. 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.

ii. 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.

b. Testing required by Conditions 25 and 26 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

25a. Pursuant to 35 Ill. Adm. Code 212.107, for both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. 35 Ill. Adm. Code Part 212 Subpart A shall not apply to 35 Ill. Adm. Code 212.301.

b. Pursuant to 35 Ill. Adm. Code 212.109, except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.

c. Pursuant to 35 Ill. Adm. Code 212.110(a), measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR Part 60, Appendix A, Methods 5, 5A, 5D, or 5E.

d. Pursuant to 35 Ill. Adm. Code 212.110(b), the volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4.

e. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.

26a. Within 60 days after achieving the maximum rate at which the following control devices will be operated, but not later than 180 days after initial startup of the unit, a stack test shall be conducted during conditions which are representative of maximum operating conditions and maximum emissions. During the stack test the concentrations of Volatile Organic Matter and Hazardous Air Pollutants (HAP) shall be measured by an approved testing service. These tests shall be conducted to determine compliance with the emissions limits of this

permit. Thereafter, the testing shall be conducted no later than five (5) years from the preceding test date.

b. The following methods and procedures shall be used for testing of emissions from the Scrubber SCR001, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A and 40 CFR 63, Appendix A for USEPA test methods.

Sample and Velocity Traverses for Stationary Sources	USEPA Method 1
Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)	USEPA Method 2
Gas Analysis for the Determination of Dry Molecular Weight	USEPA Method 3
Determination of Moisture Content in Stack Gases	USEPA Method 4
Determination of Particulate Matter Emissions from Stationary Sources	USEPA Method 5
Visual Determination of the Opacity of Emissions from Stationary Sources	USEPA Method 9
Determination of Carbon Monoxide Emissions from Stationary Sources	USEPA Method 10
Measurement of gaseous organic compound emissions by gas chromatography	USEPA Method 18
Determination of total gaseous organic concentration using a flame ionization analyzer	USEPA Method 25a
Measurement of Vapor Phase Organic and Inorganic Emissions of Extractive Fourier Transform Infrared (FTIR) Spectroscopy	USEPA Method 320

c. The following methods and procedures shall be used for testing of emissions from HTR001, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A and 40 CFR 63, Appendix A for USEPA test methods.

Sample and Velocity Traverses for Stationary Sources	USEPA Method 1
Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)	USEPA Method 2
Gas Analysis for the Determination of Dry Molecular Weight	USEPA Method 3
Determination of Moisture Content in Stack Gases	USEPA Method 4
Determination of Particulate Matter Emissions from Stationary Sources	USEPA Method 5
Visual Determination of the Opacity of Emissions from Stationary Sources	USEPA Method 9
Determination of Carbon Monoxide Emissions from Stationary Sources	USEPA Method 10
Measurement of gaseous organic compound emissions by gas chromatography	USEPA Method 18
Determination of total gaseous organic concentration using a flame ionization analyzer	USEPA Method 25
MEASUREMENT OF VAPOR PHASE ORGANIC AND INORGANIC EMISSIONS BY EXTRACTIVE FOURIER TRANSFORM INFRARED (FTIR) SPECTROSCOPY	USEPA Method 320

d. At least 60 days prior to the actual date of each test or testing regimen, a written test plan shall be submitted to the Illinois EPA for review. The Illinois EPA may accept protocol less than 60 days prior to testing provided it does not interfere with the Illinois EPA's ability to review and comment on the protocol and does not deviate from the applicable state or federal statutes. This plan shall describe the specific procedures for testing, including as a minimum:

i. The name (or other identification) of the emission unit(s) to be tested and the name and address of the facility at which they are located;

ii. The name and address of the independent testing service(s) performing the tests, with the names of the individuals who may be performing sampling and analysis and their experience with similar tests;

iii. The specific determinations of emissions and/or performance which are intended to be made, including the site(s) in the ductwork or stack at which sampling will occur;

iv. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of the maximum emissions, maximum operating rate, minimum control performance, the levels of operating parameters for the emission unit, including associated control equipment, at or within which compliance is intended to be shown, and the means by which the operating parameters will be determined;

v. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods. The specific sampling, analytical and quality control procedures which will be used, with an identification of the standard methods upon which they are based;

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

vii. Any proposed use of an alternative test method, with detailed justification; and

viii. The format and content of the Source Test Report.

e. The Permittee shall provide the Illinois EPA with written notification of testing at least thirty (30) days prior to testing to enable the Illinois EPA to have an observer present. This notification shall include the name of emission unit(s) to be tested, scheduled date and time, and contact person with telephone number.

f. If testing is delayed, the Permittee shall promptly notify the Illinois EPA by facsimile, at least five (5) days prior to the scheduled date of

testing or immediately, if the delay occurs in the five (5) days prior to the scheduled date. This notification shall also include the new date and time for testing, if set, or a separate notification shall be sent with this information when it is set.

g. The Permittee shall submit the Final Test Report(s) for these tests accompanied by a cover letter stating whether or not compliance was shown to the Illinois EPA without delay, within 30 days after the test results are compiled, but no later than 60 days after the date of testing or sampling. The Final Test Report shall include as a minimum:

i. General information describing the test, including the name and identification of the emission source which was tested, date of testing, names of personnel performing the tests, and Illinois EPA observers, if any;

ii. A summary of results;

iii. Description of test procedures and method(s), including description and map of emission units and sampling points, sampling train, testing and analysis equipment, and test schedule;

iv. Detailed description of test conditions, including:

A. List and description of the equipment (including serial numbers or other equipment specific identifiers) tested and process information (i.e., mode(s) of operation, process rate/throughput, fuel or raw material consumption rate, and heat content of the fuels);

B. Control equipment information (i.e., equipment condition and operating parameters) during testing; and

C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.

v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration. Identification of the applicable regulatory standards that the testing was performed to demonstrate compliance with, a comparison of the test results to the applicable regulatory standards, and a statement whether the test(s) demonstrated compliance with the applicable standards;

vi. An explanation of any discrepancies among individual tests, failed tests or anomalous data;

vii. The results of all quality control evaluation, including a copy of all quality control data; and

viii. The applicable operating parameters of the pollution control device(s) recorded during testing (temperature, pressure drop, etc.), if any.

h. Satisfactory completion of this test so as to demonstrate compliance with applicable emission standards is a prerequisite to issuance of an operating permit, pursuant to 35 Ill. Adm. Code 201.160(b).

MONITORING

27a. Pursuant to 40 CFR 60.113c(c)(1)(iv), for each source that is equipped with a closed vent system and a flare to meet the requirements in 40 CFR 60.112c(d) or enclosed combustion device electing to comply with the requirements in 40 CFR 60.112c((d)(5), you must conduct visible emission observations as specified in 40 CFR 60.113c(c)(1)(iv)(A) and install, operate, and maintain CMS for flares following the requirements specified in 40 CFR 63.671 and as specified in 40 CFR 60.112c(c)(1)(iv)(B) and (C).

i. If visible emissions are observed for more than 1 continuous minute during normal duties, visible emissions observation using Method 22 of appendix A-7 to this part must be conducted for 2 hours or until 5-minutes of visible emissions are observed.

ii. As an alternative to determining the flare tip velocity rate for each 15-minute block to determine compliance with the flare tip velocity operating limit as specified in 40 CFR 63.670(k)(2), you may elect to conduct a one-time flare tip velocity operating limit compliance assessment as provided in 40 CFR 60.113c(c)(1)(iv)(C)(*1*) through (*4*). If the flare or storage vessel control configurations change (*e.g.*, flare tip modified or additional storage vessel or other sources are added for which vapors are directed to the flare), you must repeat this one-time assessment based on the new configuration.

A. Determine the unobstructed cross-sectional area of the flare tip, in units of square feet, as specified in 40 CFR 63.670(k)(1)

B. Determine the maximum flow rate, in units of cubic feet per second, based on the maximum cumulative loading rate for a 15-minute block period considering maximum filling rates for all storage vessel affected facilities controlled by the flare and, if applicable, considering the maximum release pressure of any other vapors directed to the flare

C. Calculate the maximum flare tip velocity as the maximum flow rate section divided by the unobstructed cross-sectional area of the flare tip.

D. Demonstrate that the maximum flare tip velocity is less than 60 feet per second.

b. Pursuant to 40 CFR 60.113c(c)(2), you must conduct the instrument monitoring 40 CFR 60.113c(c)(2)(i) through (iii). you must conduct the initial instrument monitoring within 180 days of an affected facility

being connected to the closed vent system. Subsequent instrument inspections must be conducted within 365 days of the previous inspection. Visual, audible, and olfactory inspections must be conducted quarterly.

i. Conduct instrument monitoring using the procedures in Method 21 of appendix A-7 to Part 60. The detection instrument must meet the performance criteria of Method 21 of appendix A-7, except that the instrument response factor criteria in section 8.1.1 of Method 21 of appendix A-7 must be for the average composition of the fluid and not for each individual organic compound in the stream. For streams that contain nitrogen, air, water, or other inerts that are not organic VOC, the representative stream response factor must be determined on an inert-free basis. The instrument reading that defines a leak is 500 ppmv (as methane). The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A-7. The calibration gases in 40 CFR 60.113c(c)(2)(i)(A) and (B) must be used. The drift assessment specified in 40 CFR 60.113c(c)(2)(i)(C) must be performed at the end of each monitoring day.

   A. At the end of each monitoring day, check the instrument using the same calibration gas that was used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 to this part, section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. If multiple scales are used, record the instrument reading for each scale used. Divide the arithmetic difference of the initial and post-test calibration response by the corresponding calibration gas value for each scale and multiply by 100 to express the calibration drift as a percentage. If a calibration drift assessment shows a negative drift of more than 10 percent, then re-monitor all equipment monitored since the last calibration with instrument readings between the leak definition and the leak definition multiplied by (100 minus the percent of negative drift) divided by 100. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment with instrument readings above the leak definition and below the leak definition multiplied by (100 plus the percent of positive drift) divided by 100 monitored since the last calibration may be re-monitored.

ii. Any parts of the closed vent system that are designated as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.113c(c)(2)(i) of this section if the conditions of 40 CFR 60.113c(c)(2)(ii)(A) and (B) are met.

   A. The owner or operator determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence

of complying with 40 CFR 60.113c(c)(2)(i); and

B. The owner or operator has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.

iii. Any parts of the closed vent system that are designated as difficult-to-inspect are exempt from the inspection requirements of 40 CFR 60.113c(c)(2)(i) if the provisions of 40 CFR 60.113c(c)(2)(iii)(A) and (B) apply.

A. The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and

B. The owner or operator has a written plan that requires inspection of the equipment at least once every 60 calendar months.

c. Pursuant to 40 CFR 60.113c(c)(3), Leaks, as indicated by an instrument reading greater than 500 ppmv or emissions detected by visible, audible, and olfactory methods, shall be repaired as soon as practical following the requirements outlined in 40 CFR 60.113c(c)(3)(i) and (ii).

i. Except as allowed by 40 CFR 60.113c(c)(3)(ii), a first attempt at repair shall be made no later than 5 days after the leak is detected. Repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

ii. Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe or if the owner or operator determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical.

d. Pursuant to 40 CFR 60.113c(c)(4), you must develop a monitoring plan that covers each CMS used to demonstrate continuous compliance for your control device as outlined in 40 CFR 60.113c(c)(4)(i) and (ii). You must install, calibrate, operate, and maintain each CMS in accordance with the procedures in your monitoring plan.

i. For each control device other than those specified in 40 CFR 60.113c(c)(4)(ii), your monitoring plan must contain the information required in 40 CFR 60.113c(c)(4)(i)(A) through (G).

A. The parameter to be monitored and the operating limit for the parameter

B. Sampling interface (*e.g.*, thermocouple) location such that

the monitoring system will provide representative measurements.

C. Description of the monitoring system specifications, including the detector signal analyzer, data acquisition, and calculations

D. Equipment performance checks, system accuracy audits, or other audit procedures, including the following:

I. The source must conduct the CMS equipment performance checks, system accuracy audits, or other audit procedures specified in the monitoring plan at least once every 12 calendar months.

II. The source must also conduct calibration checks following any period of more than 24 hours throughout which the sensor exceeded the manufacturer's specified maximum range unless the source install a new sensor.

III. At least quarterly, the source must inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion, unless the source use a redundant CMS.

IV. Daily checks for indications that the system is responding.

E. Description of how periods of data collected during CMS breakdowns, out-of-control periods, repairs, maintenance periods, instrument adjustments, or checks to maintain precision and accuracy, calibration checks, and zero (low-level), mid-level (if applicable), and high-level adjustments will be excluded from operating parameter averages.

F. Ongoing operation and maintenance procedures.

G. Ongoing recordkeeping procedures.

28a. Pursuant to 40 CFR 60.482-2b(a)(1), each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485b(b), except as provided in 40 CFR 60.482-1b(c) and (f) and 40 CFR 60.482-2b€ and (f). A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in 40 CFR 60.482-1b(c) and 40 CFR 60.482-2b(d), (e), and (f).

b. Pursuant to 40 CFR 60.482-2b(a)(2), each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 CFR 60.482-1b(f).

c. Pursuant to 40 CFR 60.482-2b(b)(1), the instrument reading that defines a leak is specified in 40 CFR 60.482-2b(b)(1)(i) and (ii).

   i. 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers;

   ii. 2,000 ppm or greater for all other pumps.

d. Pursuant to 40 CFR 60.482-2b(b)(2), if there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either 40 CFR 60.482-2b(b)(2)(i) or (ii). This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in 40 CFR 60.482-2b(b)(1)(i) or (ii), whichever is applicable.

   i. Monitor the pump within 5 days as specified in 40 CFR 60.485b(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in 40 CFR 60.482-2b (b)(1)(i) or (ii), whichever is applicable. The leak shall be repaired using the procedures in 40 CFR 60.482-2b(c).

   ii. Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in 40 CFR 60.482-2b(c) or by eliminating the visual indications of liquids dripping.

e. Pursuant to 40 CFR 60.482-2b(c)(1), when a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9b.

f. Pursuant to 40 CFR 60.482-2b(c)(2), a first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in 40 CFR 60.482-2b(c)(2)(i) and (ii), where practicable.

   i. Tightening the packing gland nuts.

   ii. Ensuring that the seal flush is operating at design pressure and temperature.

g. Pursuant to 40 CFR 60.482-2b(d), each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2b(a), provided the requirements specified in 40 CFR 60.482-2b(d)(1) through (6) are met.

   i. Each dual mechanical seal system is:

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

      B. Equipped with a barrier fluid degassing reservoir that is

routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10b; or

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

ii. The barrier fluid system is in heavy liquid service or is not in VOC service.

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

iv. A. Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

B. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either 40 CFR 60.482-2b(d)(4)(ii)(A) or (B) prior to the next required inspection.

I. Monitor the pump within 5 days as specified in 40 CFR 60.485b(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.

II. Designate the visual indications of liquids dripping as a leak.

v. A. Each sensor as is checked daily or is equipped with an audible alarm.

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

C. If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in 40 CFR 60.482-2b(d)(5)(ii), a leak is detected.

vi. A. When a leak is detected pursuant to 40 CFR 60.482-2b(d)(4)(ii)(A), it shall be repaired as specified in 40 CFR 60.482-2b(c.

B. A leak detected pursuant to 40 CFR 60.482-2b(d)(5)(iii), shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor.

C. A designated leak pursuant to 40 CFR 60.482-2b(d)(4)(ii)(B)

of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

h. Pursuant to 40 CFR 60.482-2b(e), any pump that is designated, as described in 40 CFR 60.486b(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2b(a), (c), and (d) if the pump:

i. Has no externally actuated shaft penetrating the pump housing;

ii. Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR 60.485b(c); and

iii. Is tested for compliance with 40 CFR 60.482-2b(e) initially upon designation, annually, and at other times requested by the Illinois EPA or USEPA.

i. Pursuant to 40 CFR 60.482-2b(f), if any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of 40 CFR 60.482-10b, it is exempt from 40 CFR 60.482-2b(a) through (e).

j. Pursuant to 40 CFR 60.482-2b(g), any pump that is designated as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2b(a) and (d)(4) through (6) if:

i. The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2b(a); and

ii. The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2b(c) if a leak is detected.

k. Pursuant to 40 CFR 60.482-7b(a)(1), each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR 40 60.485b(b) and shall comply with 40 CFR 60.482-7b(b) through (e), except as provided in 40 CFR 60.482-7b(f), (g), and (h), 40 CFR 60.482-1b(c) and (f), and 40 CFR 60.483-1b and 60.483-2b.

l. Pursuant to 40 CFR 60.482-7b(a)(2), a valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to 40 CFR 60.482-7b(a)(2)(i) or (ii), except for a valve that replaces a leaking valve

and except as provided in 40 CFR 60.482-7b(f), (g), and (h), 40 CFR 60.482-1b(c), and 40 CFR 60.483-1b and 60.483-2b.

i. Monitor the valve as in 40 CFR 60.482-7b(a)(1). The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

ii. If the existing valves in the process unit are monitored in accordance with 40 CFR 60.483-1b or 40 CFR 60.483-2b, count the new valve as leaking when calculating the percentage of valves leaking as described in 40 CFR 60.483-2b(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

m. Pursuant to 40 CFR 60.482-7b(b), If an instrument reading of 100 ppm or greater is measured, a leak is detected.

n. Pursuant to 40 CFR 60.482-7b(c)(1)(i), any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

o. Pursuant to 40 CFR 60.482-7b(c)(1)(ii), as an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

p. Pursuant to 40 CFR 60.482-7b(c)(2), if a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

q. Pursuant to 40 CFR 60.482-7b(d)(1), when a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9b.

r. Pursuant to 40 CFR 60.482-7b(d)(2), a first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

s. Pursuant to 40 CFR 60.482-7b(e), first attempts at repair include, but are not limited to, the following best practices where practicable:

i. Tightening of bonnet bolts;

ii. Replacement of bonnet bolts;

iii. Tightening of packing gland nuts;

iv. Injection of lubricant into lubricated packing.

t. Pursuant to 40 CFR 60.482-7b(f), any valve that is designated, as described in 40 CFR 60.486b(e)(2), for no detectable emissions, as

indicated by an instrument reading of less than 100 ppm above background, is exempt from the requirements of 40 CFR 60.482-7b(a) if the valve:

i. Has no external actuating mechanism in contact with the process fluid,

ii. Is operated with emissions less than 100 ppm above background as determined by the method specified in 40 CFR 60.485b(c), and

iii. Is tested for compliance with 40 CFR 60.482-7b(f)(2) initially upon designation, annually, and at other times requested by the Illinois EPA or USEPA.

u. Pursuant to 40 CFR 60.482-7b(g), any valve that is designated, as described in 40 CFR 60.486b(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 60.482-7b(a) if:

i. The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 60.482-7b (a), and

ii. The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

v. Pursuant to 40 CFR 60.482-7b(h), any valve that is designated, as described in 40 CFR 60.486b(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7b(a) if:

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

ii. The process unit within which the valve is located either:

A. Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator.

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

w. Pursuant to 40 CFR 60.482-8b(a), if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall follow either one of the following procedures:

i. The owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485b(b) and shall comply with the requirements of 40 CFR 60.482-8b(b) through (d).

ii. The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

x. Pursuant to 40 CFR 60.482-8b(b), if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

y. Pursuant to 40 CFR 60.482-8b(c)(1), when a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9b.

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

29a. Pursuant to 40 CFR 60.669a(j), If you choose to determine compositional analysis for net heating value with a continuous process mass spectrometer, then you must comply with the requirements specified in 40 CFR 60.669a(j)(1) through (7).

i. You must meet the requirements in 40 CFR 63.671(e)(2) of this chapter. You may augment the minimum list of calibration gas components found in 40 CFR 63.671(e)(2) with compounds found during a pre-survey or known to be in the gas through process knowledge.

ii. Calibration gas cylinders must be certified to an accuracy of 2 percent and traceable to National Institute of Standards and Technology (NIST) standards.

iii. For unknown gas components that have similar analytical mass fragments to calibration compounds, the source may report the unknowns as an increase in the overlapped calibration gas compound. For unknown compounds that produce mass fragments that do not overlap calibration compounds, the source may use the response factor for the nearest molecular weight hydrocarbon in the calibration mix to quantify the unknown component's NHVvg.

iv. The source may use the response factor for n-pentane to quantify any unknown components detected with a higher molecular weight than n-pentane.

v. The source must perform an initial calibration to identify mass fragment overlap and response factors for the target compounds.

vi. The source must meet applicable requirements in Performance Specification 9 of appendix B of 40 CFR Part 60, for continuous monitoring system acceptance including, but not limited to, performing an initial multi-point calibration check at three concentrations following the procedure in Section 10.1 and performing the periodic calibration requirements listed for gas chromatographs in table 13 to part 63, subpart CC, of this chapter, for the process mass spectrometer. The source may use the alternative sampling line temperature allowed under Net

Heating Value by Gas Chromatograph in table 13 to part 63, subpart CC, of this chapter.

vii. The average instrument calibration error (CE) for each calibration compound at any calibration concentration must not differ by more than 10 percent from the certified cylinder gas value. The CE for each component in the calibration blend must be calculated using equation 1 to this 40 CFR 60.669a(j)(7).

$$CE = \frac{C_m - C_a}{C_a} x\ 100 \text{ (Eq. 1)}$$

Where:

Cm = Average instrument response (ppm)

Ca = Certified cylinder gas value (ppm)

b. Pursuant to 40 CFR 60.669a(k), if the source use a gas chromatograph or mass spectrometer for compositional analysis for net heating value, then the source may choose to use the CE of $NHV_{measured}$ versus the cylinder tag value NHV as the measure of agreement for daily calibration and quarterly audits in lieu of determining the compound-specific CE. The CE for NHV at any calibration level must not differ by more than 10 percent from the certified cylinder gas value. The CE must be calculated using equation 2 to 40 CFR 60.669a(k).

$$CE = \frac{NHV_{measured} - NHV_a}{NHV_a} x\ 100 \text{ (Eq. 2)}$$

Where:

$NHV_{measured}$ = Average instrument response (Btu/scf)

NHV_a = Certified cylinder gas value (Btu/scf)

c. Pursuant to 40 CFR 60.669a(l), Instead of complying with 40 CFR 63.670(q), the source must comply with the reporting requirements specified in 40 CFR 60.669a(l)(1) and (2).

i. The notification requirements specified in 40 CFR 60.665a(a).

ii. The semiannual report specified in 40 CFR 60.665a(j)(4) must include the items specified in 40 CFR 60.669a (l)(2)(i) through (vi).

A. Records as specified in 40 CFR 60.669a(m)(1) for each 15-minute block during which there was at least one minute when regulated material is routed to a flare and no pilot flame or flare flame is present. Include the start and stop time and date of each 15-minute block.

B. Visible emission records as specified in 40 CFR 60.669a (m)(2)(iv) for each period of 2 consecutive hours during which visible emissions exceeded a total of 5 minutes.

C. The periods specified in 40 CFR 60.669a(m)(6). Indicate the date and start and end times for each period, and the net heating value operating parameter(s) determined following the methods in 40 CFR 63.670(k) through (n) as applicable.

D. For flaring events meeting the criteria in 40 CFR 63.670(o)(3) and 60.669a (f).

I. The start and stop time and date of the flaring event.

II. The length of time in minutes for which emissions were visible from the flare during the event.

III. For steam-assisted, air-assisted, and non-assisted flares, the start date, start time, and duration in minutes for periods of time that the flare tip velocity exceeds the maximum flare tip velocity determined using the methods in 40 CFR 63.670(d)(2) and the maximum 15-minute block average flare tip velocity in ft/sec recorded during the event.

IV. Results of the root cause and corrective actions analysis completed during the reporting period, including the corrective actions implemented during the reporting period and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.

30a. The Closed Vent System is subject to 40 CFR 60.670a and 40 CFR 60.710a "What are my requirements for closed vent systems?" which are identical requirements. For brevity of the permit, the source shall comply with 40 CFR 60.710a by complying with the requirements of 40 CFR 60.670a.

b. Except as provided in 40 CFR 60.670a(f) and (g), you must inspect each closed vent system according to the procedures and schedule specified in 40 CFR 60.670a(a)(1) through (3).

i. Conduct an initial inspection according to the procedures in 40 CFR 60.670a(b) unless the closed vent system is operated and maintained under negative pressure;

ii. Conduct annual inspections according to the procedures in 40 CFR 60.670a(b) unless the closed vent system is operated and maintained under negative pressure; and

iii. Conduct annual inspections for visible, audible, or olfactory indications of leaks

c. Pursuant to 40 CFR 60.670a(b)(1), you must inspect each closed vent system according to the procedures specified in 40 CFR 60.670a(b)(1)

through (6).

i. Inspections must be conducted in accordance with Method 21 of appendix A of 40 CFR Part 60.

d. Pursuant to 40 CFR 60.670a(b)(2)(i), except as provided in 40 CFR 60.670a(b)(2)(ii) , the detection instrument must meet the performance criteria of Method 21 of appendix A of 40 CFR Part 60, except the instrument response factor criteria in section 3.1.2(a) of Method 21 must be for the average composition of the process fluid not each individual volatile organic compound in the stream. For process streams that contain nitrogen, air, or other inerts which are not organic hazardous air pollutants or volatile organic compounds, the average stream response factor must be calculated on an inert-free basis.

e. Pursuant to 40 CFR 60.670a(b)(2)(ii), if no instrument is available at the plant site that will meet the performance criteria specified in 40 CFR 60.670a(b)(2)(i), the instrument readings may be adjusted by multiplying by the average response factor of the process fluid, calculated on an inert-free basis as described in 40 CFR 60.670a(b)(2)(i).

f. Pursuant to 40 CFR 60.670a(b)(3), the detection instrument must be calibrated before use on each day of its use by the procedures specified in Method 21 of appendix A of 40 CFR Part 60.

g. Pursuant to 40 CFR 60.670a(b)(4), calibration gases must be Zero air (less than 10 parts per million hydrocarbon in air); and Mixtures of methane in air at a concentration less than 2,000 parts per million. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in 40 CFR 60.670a(b)(2)(i) . In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

h. Pursuant to 40 CFR 60.670a(b)(5), the source may elect to adjust or not adjust instrument readings for background. If the source elect to not adjust readings for background, all such instrument readings must be compared directly to the applicable leak definition to determine whether there is a leak.

i. Pursuant to 40 CFR 60.670a(b)(6), if the source elect to adjust instrument readings for background, the source must determine the background concentration using Method 21 of appendix A of 40 CFR Part 60. After monitoring each potential leak interface, subtract the background reading from the maximum concentration indicated by the instrument. The arithmetic difference between the maximum concentration indicated by the instrument and the background level must be compared with 500 parts per million for determining compliance.

j. Pursuant to 40 CFR 60.670a(c), leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual, audio, or olfactory inspections, must be repaired as soon as practicable, except as provided in 40 CFR 60.670a(d).

i. A first attempt at repair must be made no later than 5 calendar days after the leak is detected.

ii. Repair must be completed no later than 15 calendar days after the leak is detected.

k. Pursuant to 40 CFR 60.670a(d), delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 60.2, or if the source determine that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be complete by the end of the next shutdown.

l. Pursuant to 40 CFR 60.670a(f), any parts of the closed vent system that are designated, as described in 40 CFR 60.670a(h) , as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.670a(a)(1) and (2) if The source determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of compliance and The source have a written plan that requires inspection of the equipment at least once every 5 years.

m. Pursuant to 40 CFR 60.670a(g), any parts of the closed vent system that are designated, as described in 40 CFR 60.670a(h) , as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.670a(a)(1) and (2) if The source determine that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface and The source have a written plan that requires inspection of the equipment at least once every 5 years.

n. Pursuant to 40 CFR 60.670a(h), the source must record the information specified below,

i. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

ii. Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

iii. For each inspection during which a leak is detected, a record of the information specified below:

A. The instrument identification numbers; operator name or initials; and identification of the equipment.

B. The date the leak was detected and the date of the first

attempt to repair the leak.

C. Maximum instrument reading measured by the method specified in 40 CFR 60.670a(c) after the leak is successfully repaired or determined to be nonrepairable.

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

E. The name, initials, or other form of identification of the owner or operator (or designee) whose decision it was that repair could not be effected without a shutdown.

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

G. Dates of shutdowns that occur while the equipment is unrepaired.

H. The date of successful repair of the leak.

iv. For each inspection conducted in accordance with 40 CFR 60.670a(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

v. For each inspection conducted in accordance with 40 CFR 60.670a(a)(3) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

31a. Pursuant to 35 Ill. Adm. Code 215.422, the owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to Section 215.421 shall prepare an inspection program plan which contains, at a minimum:

i. An identification of all components and the period in which each will be monitored pursuant to 215.423;

ii. The format for the monitoring log required by 215.424;

iii. A description of the monitoring equipment to be used pursuant to 215.423; and

iv. A description of the methods to be used to identify all pipeline valves, pressure relief valves in gaseous service, all leaking components, and the ball and plug valves and pumps exempted under 215.423(h) such that they are obvious and can be located by both plant personnel performing monitoring and Agency personnel performing inspections

b. Pursuant to 35 Ill. Adm. Code 215.423, the owner or operator of a source subject to Section 215.420 shall, for the purposes of detecting

leaks, conduct a component inspection program consistent with the following provisions:

i. Test annually those components operated near extreme temperature or pressure such that they would be unsafe to routinely monitor, and those components located more than two meters above or away from permanent worker access structures or surfaces;

ii. Test all other pressure relief valves in gaseous service, pump seals, pipelines valves, process drains and compressor seals not earlier than March 1 or later than June 1 of each year;

iii. If more than 2 percent of the components tested pursuant to subsection (b) are found to leak, again test all pressure relief valves in gaseous service, pipeline valves in gaseous service and compressor seals by methods and procedures approved by the Agency not earlier than June 1 or later than September 1 of each year;

iv. Observe visually all pump seals weekly;

v. Test immediately any pump seal from which liquids are observed dripping;

vi. Test any relief valve within 24 hours after it has vented to the atmosphere;

vii. Test immediately after repair any component that was found leaking; and

viii. Ball and plug valves, inaccessible valves, storage tank valves, pumps equipped with mechanical seals, pressure relief devices connected to an operating flare header or vapor recovery device are exempt from the monitoring requirements in this Section.

c. Pursuant to 35 Ill. Adm. Code 215.424, all leaking components must be repaired and retested as soon as practicable but no later than 21 days after the leak is found unless the leaking component cannot be repaired until the process united is shutdown or the repair part is received. Records of repairing and retesting must be maintained in accordance with 35 Ill. Adm. Code 215.425 and 215.426.

32. This permit is issued based on a complete and satisfactory Enhanced LDAR Monitoring Plan, Flare Monitoring Plan, and Inspection/Monitoring Plans (for unsafe-to-inspect equipment) being submitted to the Agency no later than 180 days from the issuance date of this permit.

RECORD KEEPING

33a. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

b. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:

The Illinois EPA or USEPA, upon notification to the source, may require the owner or operator to maintain all measurements as required by 40 CFR 60.7(f), if the Illinois EPA or USEPA determines these records are required to more accurately assess the compliance status of the affected source.

34. Pursuant to 40 CFR 60.48c(g)(1) the owner or operator of shall record and maintain records of the amount of each fuel combusted in HTR001 during each operating day. These required records section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

35a. Pursuant to 40 CFR 60.115c(a), except as otherwise specified in 40 CFR 60.115c(b) through (d), you must keep copies of all records required by this section and all reports required under 40 CFR 60.116c for at least 5 years.

b. Pursuant to 40 CFR 60.115c(d)(3), after installing a closed vent system (CVS) routed to a control device (Flare or Scrubber) the source must keep records of:

i. The make and model of the backpressure regulator valve, date of installation, and inlet flow rating. Maintain records of the engineering evaluation and manufacturer specifications that identify the pressure set point corresponding to the minimum inlet gas flow rate, the annual confirmation that the backpressure regulator valve set point is correct and consistent with the engineering evaluation and manufacturer specifications, and the annual confirmation that the backpressure regulator valve fully closes when not in open position.

ii. The CMS monitoring plan. Retain this plan for the life of the control equipment.

iii. Monitoring for the closed vent system required by 40 CFR 60.113c(c)(4) conducted, including the date of inspection.

iv. The written plan(s) for unsafe-to-inspect and difficult-to-inspect portions of the closed vent system.

v. For each leak detected during the monitoring conducted under 40 CFR 60.113c(c)(2) and (3), the source must record: the date the leak was detected; the location of the leak; the method used to

detect the leak (Method 21 of appendix A-7 to this part or visible, audible, and olfactory methods); and the maximum concentration reading obtained by Method 21 of appendix A-7, if applicable. For each repair attempt, the source must record: the date of each repair attempt; the actions taken to repair the leak during each repair attempt; and date the repair was completed. If the repair is delayed, the source must record the reason for the delay and the date the source expect to complete the repair.

vi. For each bypass line, maintain a record of the following, as applicable: readings from the flow indicator; each inspection of the seal or closure mechanism; the date and time of each instance when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out.

vii. For each pressure relief device or vacuum breaking device on a storage vessel or closed vent system required to be monitored according to 40 CFR 60.112c(d)(1)(iii) or (d)(2)(iii): the device type; the monitoring device or system used for the device; data from the device or system indicating whether a pressure release occurred; and the date, time, and duration of each pressure release, if applicable

c. Pursuant to 40 CFR 60.115c(d)(4), upon installing the CVS routed to the Scrubber, the source must keep the following records:

i. Each performance test

ii. All CMS performance checks, audits, maintenance, and repairs.

iii. The hourly values recorded by the CMS and all 3-hour rolling averages

iv. The periods when the CMS is not operational.

d. Pursuant to 40 CFR 60.115c(d)(5), after installing a closed vent system routed to a flare to comply with 40 CFR 60.112c(d) or an enclosed combustion device for which you elected to comply with 40 CFR 60.112c(d)(5), you must keep the following records.

i. Pilot flame or flare flame monitoring as specified in 40 CFR 60.115c(d)(5)(i)(A) and (B).

A. The output of the monitoring device used to detect the presence of a pilot flame as required in 40 CFR 63.670(b). Retain these records for a minimum of 2 years.

B. Each 15-minute block during which there was at least 1 minute that no pilot flame was present when VOL vapors were routed to the flare. Each record must identify the start and end time and date of each 15-minute block.

ii. Visible emissions observations as specified in 40 CFR

60.115c(d)(5)(ii)(A) through (B), as applicable.

A. If visible emissions observations are performed using Method 22 of appendix A-7 to this part, the record must identify the date, the start and end time of the visible emissions observation, and the number of minutes for which visible emissions were observed during the observation. If the owner or operator performs visible emissions observations more than one time during a day, include separate records for each visible emissions observation performed

B. For each 2-hour period for which visible emissions are observed for more than 5 minutes in 2 consecutive hours but visible emissions observations according to Method 22 of appendix A-7 to this part were not conducted for the full 2-hour period, the record must include the date, the start and end time of the visible emissions observation, and an estimate of the cumulative number of minutes in the 2-hour period for which emissions were visible based on best information available to the owner or operator

iii. Each 15-minute block period during which operating values are outside of the applicable operating limits specified in 40 CFR 63.670(d) through (f) when vapors from a storage vessel affected facility are directed to the flare for at least 15-minutes identifying each specific operating limit that was not met.

iv. The 15-minute block average cumulative flows for the flare vent gas, along with the date and start and end time for the 15-minute block. If multiple monitoring locations are used to determine cumulative vent gas flow, total steam, perimeter assist air, and premix assist air, retain records of the 15-minute block average flows for each monitoring location for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years. If pressure and temperature monitoring is used, retain records of the 15-minute block average temperature, pressure and molecular weight of the flare vent gas for each measurement location used to determine the 15-minute block average cumulative flows for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years.

v. The flare vent gas compositions specified to be monitored under 40 CFR 63.670(j). Retain records of individual component concentrations from each compositional analyses for a minimum of 2 years. If an NHV_{vg} analyzer is used, retain records of the 15-minute block average values for a minimum of 5 years, as well as records of quality assurance activities conducted on the analyzer and any cylinder gas certificates. If the source demonstrate you gas streams have consistent composition using the provisions in 40 CFR 63.670(j)(6), retain records of the current application for which the source are using for as long as the source use the

fixed NHV_{vg} as determined using the provisions in 40 CFR 63.670(j)(6)

vi. Each 15-minute block average operating parameter calculated following the methods specified in 40 CFR 63.670(k) through (n), as applicable. 40 CFR 63.670(n) is not applicable.

vii. All periods during which the source did not perform monitoring according to the procedures in 40 CFR 63.670(g), (i), and (j) as applicable. Note the start date, start time, and duration in minutes for each period

viii. If the source conduct a one-time flare tip velocity operating limit compliance assessment according to 40 CFR 60.113c(c)(1)(iv)(C), a copy of the assessment, including all calculations for as long as the source use this compliance method

ix. For each parameter monitored using a CMS, retain the records specified below:

A. For each deviation, record the start date and time, duration, cause, and corrective action taken.

B. For each period when there is a CMS outage or the CMS is out of control, record the start date and time, duration, cause, and corrective action taken

C. Each inspection or calibration of the CMS including a unique identifier, make, and model number of the CMS, and date of calibration check

e. Pursuant 40 CFR 60.115c(e), if you are required to meet the degassing requirements in 40 CFR 60.112c(a)(3), you must maintain records necessary to demonstrate compliance with the requirements in 40 CFR 60.112c(e) including, if appropriate, records of existing standard site procedures used to empty and degas (deinventory) equipment for safety purposes.

36a. Pursuant to 40 CFR 60.482-10b(l), the source shall keep records of the following:

i. Identification of all parts of the closed vent system (CVS) that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment

ii. Identification of all parts of the closed vent system (CVS) that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

iii. For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486b(c).

iv. For each inspection conducted in accordance with 40 CFR

60.485b(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

v. For each visual inspection conducted in accordance with 40 CFR 60.482-10b(f) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

b. Pursuant to 40 CFR 60.486b(a)(1), each owner or operator shall comply with the recordkeeping requirements of 40 CFR Part 60 Subpart VVb.

c. Pursuant to 40 CFR 60.486b(a)(3), the owner or operator shall record the information specified below for each monitoring event: required by 40 CFR 60.482-2b, 60.482-7b, 60.482-8b, 60.482-11b, and 60.483-2b.

i. Monitoring instrument identification

ii. Operator identification

iii. Equipment identification

iv. Date of monitoring

v. Instrument reading

d. Pursuant to 40 CFR 60.486b(b), When each leak is detected as specified in 40 CFR 60.482-2b, 60.482-7b, 60.482-8b, 60.482-11b, the following requirements apply:

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

ii. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7b(c) and no leak has been detected during those 2 months

iii. The identification on a connector may be removed after it has been monitored as specified in 40 CFR 60.482-11b(b)(3)(iv) and no leak has been detected during that monitoring.

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

e. Pursuant to 40 CFR 60.486b(c), when each leak is detected as specified in 40 CFR 60.482-2b, 60.482-7b, 60.482-8b, and 60.482-11b, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location.

i. The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak.

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

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

iv. Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR Part 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

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

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

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

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

ix. The date of successful repair of the leak.

f. Pursuant to 40 CFR 60.486b(d), the following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10b shall be recorded and kept in a readily accessible location:

i. Detailed schematics, design specifications, and piping and instrumentation diagrams

ii. The dates and descriptions of any changes in the design specifications.

iii. A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10b, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

iv. Periods when the closed vent systems and control devices required in 40 CFR 60.482-2b, 60.482-3b, 60.482-4b, and 60.482-5b are not operated as designed, including periods when a flare pilot light does not have a flame.

v. Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2b, 60.482-3b, 60.482-4b, and 60.482-5b.

g. Pursuant to 40 CFR 60.486b(e), the following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1b through 60.482-11b (excluding 40 CFR 60.482-3b) shall be recorded in a log that

is kept in a readily accessible location:

i. A list of identification numbers for equipment subject to the requirements of this subpart.

ii. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2b(i), and 60.482-7b(f).

iii. The designation of equipment as subject to the requirements of of 40 CFR 60.482-2b(e), or 40 CFR 60.482-7b(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement.

iv. A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4b.

v. The dates of each compliance test as required in 40 CFR 60.482-2b(e), 60.482-4b, and 60.482-7b(f). Also record the background level the maximum instrument reading during each compliance test.

vi. A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with 40 CFR 60.482-1b(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

vii. The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.

viii. Records of the information specified below for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of 40 CFR Part 60 Appendix A-7 and 40 CFR 60.485b(b):

A. Date of calibration and initials of operator performing the calibration.

B. Calibration gas cylinder identification, certification date, and certified concentration.

C. Instrument scale(s) used.

D. A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A-7 of 40 CFR Part 60.

E. Results of each calibration drift assessment required by 40 CFR 60.485b(b)(*i.e.*, instrument reading for calibration at end of monitoring day and the calculated percent difference

from the initial calibration value).

F. If an owner or operator makes their own calibration gas, a description of the procedure used.

ix. The connector monitoring schedule for each process unit as specified in 40 CFR 60.482-11b(b).

x. Records of each release from a pressure relief device subject to 40 CFR 60.482-4b.

h. Pursuant to 40 CFR 60.486b(f), the following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7b(g) and (h), all pumps subject to the requirements of 40 CFR 60.482-2b(g), and all connectors subject to the requirements of 40 CFR 60.482-11b(e) shall be recorded in a log that is kept in a readily accessible location.

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

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

i. Pursuant to 40 CFR 60.486b(h), the Design criterion required in 40 CFR 60.482-2b(d) and 60.482-3b(e) and explanation of the design criterion information and any subsequent changes to the design criterion shall be recorded in a log that is kept in a readily accessible location.

j. Pursuant to 40 CFR 60.486b(k), the recordkeeping provisions of 40 CFR 60.7(b) and (d) do not apply to the source for the purposes of NSPS VVb.

k. Pursuant to 40 CFR 60.486b(l), any records required to be maintained by this subpart that are submitted electronically via the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

37a. Pursuant to 40 CFR 60.669a(m), instead of complying with 40 CFR 63.670(p), the source must keep the flare monitoring records specified below:

i. Retain records of the output of the monitoring device used to detect the presence of a pilot flame or flare flame as required in 40 CFR 63.670(b) and the presence of a pilot flame as required in 40 CFR 60.669a(i)(4) for a minimum of 2 years. Retain records of each 15-minute block during which there was at least one

minute that no pilot flame or flare flame is present when regulated material is routed to a flare for a minimum of 5 years. For a pressure-assisted multi-point flare that uses cross-lighting, retain records of each 15-minute block during which there was at least one minute that no pilot flame is present on each stage when regulated material is routed to a flare for a minimum of 5 years. The source may reduce the collected minute-by-minute data to a 15-minute block basis with an indication of whether there was at least one minute where no pilot flame or flare flame was present

ii. Retain records of daily visible emissions observations as specified below, for a minimum of 3 years

A. To determine when visible emissions observations are required, the record must identify all periods when regulated material is vented to the flare.

B. If visible emissions observations are performed using Method 22 of appendix A-7 of 40 CFR Part 60, then the record must identify whether the visible emissions observation was performed, the results of each observation, total duration of observed visible emissions, and whether it was a 5-minute or 2-hour observation. Record the date and start time of each visible emissions observation.

C. If a video surveillance camera is used pursuant to 40 CFR 63.670(h)(2), then the record must include all video surveillance images recorded, with time and date stamps.

D. For each 2-hour period for which visible emissions are observed for more than 5 minutes in 2 consecutive hours, then the record must include the date and start and end time of the 2-hour period and an estimate of the cumulative number of minutes in the 2-hour period for which emissions were visible.

iii. The 15-minute block average cumulative flows for flare vent gas and, if applicable, total steam, perimeter assist air, and premix assist air specified to be monitored under 40 CFR 63.670(i), along with the date and time interval for the 15-minute block. If multiple monitoring locations are used to determine cumulative vent gas flow, total steam, perimeter assist air, and premix assist air, then retain records of the 15-minute block average flows for each monitoring location for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years. If pressure and temperature monitoring is used, then retain records of the 15-minute block average temperature, pressure, and molecular weight of the flare vent gas or assist gas stream for each measurement location used to determine the 15-minute block average cumulative flows for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years.

iv. The flare vent gas compositions specified to be monitored under 40 CFR 63.670(j). Retain records of individual component concentrations from each compositional analysis for a minimum of 2 years. If an NHVvg analyzer is used, retain records of the 15-minute block average values for a minimum of 5 years.

v. Each 15-minute block average operating parameter calculated following the methods specified in 40 CFR 63.670(k) through (m), as applicable.

vi. All periods during which operating values are outside of the applicable operating limits specified in 40 CFR 63.670(d) through (f) and 40 CFR 60.669a(i) when regulated material is being routed to the flare.

vii. All periods during which the source do not perform flare monitoring according to the procedures in 40 CFR 63.670(g) through (j).

viii. Records of periods when there is flow of vent gas to the flare, but when there is no flow of regulated material to the flare, including the start and stop time and dates of periods of no regulated material flow.

ix. Records when the flow of vent gas exceeds the smokeless capacity of the flare, including start and stop time and dates of the flaring event.

x. For any corrective action analysis for which implementation of corrective actions are required in 40 CFR 63.670(o)(5), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

38a. Pursuant to 40 CFR 60.705a(a), you must notify the Agency of the specific provisions in NSPS RRRa Table 1 or 40 CFR 60.702a(c) with which the source have elected to comply. Notification shall be submitted with the notification of initial start-up required by 40 CFR 60.7(a)(3). If the source elect at a later date to comply with an alternative provision of 40 CFR 60.702a, then the source must notify the Illinois EPA or USEPA 90 days before implementing a change and, upon implementing the change, the source must conduct a performance as specified by 40 CFR 60.704a within 180 days

b. Pursuant to 40 CFR 60.705a(g), For each maintenance vent opening subject to the requirements of 40 CFR 60.702a(c), the source must keep the applicable records specified below:

i. The source must maintain standard site procedures used to deinventory equipment for safety purposes (*e.g.*, hot work or vessel entry procedures) to document the procedures used to meet

the requirements in 40 CFR 60.702a(c). The current copy of the procedures must be retained and available on-site at all times. Previous versions of the standard site procedures, as applicable, must be retained for five years

ii. If complying with the requirements of 40 CFR 60.702a(c)(1)(iii), records of the estimating procedures used to determine the total quantity of VOC in the equipment and the type and size limits of equipment that contain less than 50 pounds of VOC at the time of maintenance vent opening. For each maintenance vent opening that contains greater than 50 pounds of VOC for which the inventory procedures specified in 40 CFR 60.705a(g)(1) are not followed or for which the equipment opened exceeds the type and size limits established in the records specified in this 40 CFR 60.705a(g)(4), records that identify the maintenance vent, the process units or equipment associated with the maintenance vent, the date of maintenance vent opening, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere.

iii. If complying with the requirements of 40 CFR 60.702a(c)(1)(iv), identification of the maintenance vent, the process units or equipment associated with the maintenance vent, records documenting actions taken to comply with other applicable alternatives and why utilization of this alternative was required, the date of maintenance vent opening, the equipment pressure and lower explosive limit of the vapors in the equipment at the time of discharge, an indication of whether active purging was performed and the pressure of the equipment during the installation or removal of the blind if active purging was used, the duration the maintenance vent was open during the blind installation or removal process, and records used to estimate the total quantity of VOC in the equipment at the time the maintenance vent was opened to the atmosphere for each applicable maintenance vent opening

39a. Pursuant to 40 CFR 63.11501(c), you must maintain files of all information required 40 CFR Part 63 Subpart VVVVVV for at least 5 years following the date of each occurrence according to the requirements in 40 CFR 63.10(b)(1). If you are subject, the source must comply with the recordkeeping and reporting requirements of 40 CFR 63.10(b)(2)(iii) and (vi) through (xiv), and the applicable requirements specified in 40 CFR 63.11501(c)(1) through (8).

i. For each CMPU subject to 40 CFR Part 63 Subpart VVVVVV, the source must keep the records specified 40 CFR 63.11501(c)(1)(1) through(viii).

A. Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in 40 CFR 63.11495(a)(5).

B. Records of small heat exchange system inspections, demonstrations of indications of leaks that do not

constitute leaks, repairs, and reasons for any delay in repair as specified in 40 CFR 63.11495(b).

C. If batch process vent emissions are less than 10,000 lb/yr for a CMPU, records of batch process vent emission calculations, as specified in 40 CFR 63.11496(a)(1), the number of batches operated each month, as specified in 40 CFR 63.11496(a)(3), and any updated emissions calculations, as specified in 40 CFR 63.11496(a)(3). Alternatively, keep records of the worst-case processes or organic HAP usage, as specified in 40 CFR 63.11496(a)(2) and (4), respectively.

D. Records of all TRE calculations for continuous process vents as specified in 40 CFR 63.11496(b)(2).

E. Records of metal HAP emission calculations as specified in 40 CFR 63.11496(f)(1) and (2). If total uncontrolled metal HAP process vent emissions from a CMPU subject to this subpart are estimated to be less than 400 lb/yr, also keep records of either the number of batches per month or operating hours, as specified in 40 CFR 63.11496(f)(2).

F. Records identifying wastewater streams and the type of treatment they receive, as specified in Table 6 to Subpart VVVVVV of Part 63.

G. Records of the date, time, and duration of each malfunction of operation of process equipment, control devices, recovery devices, or continuous monitoring systems used to comply with this subpart that causes a failure to meet a standard. The record must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions.

H. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation

ii. For each storage tank subject to Table 5 to 40 CFR Part 63 Subpart VVVVVV, the source must keep records specified in 40 CFR 63.11501(c)(4)(i) through (vi).

A. Keep records of the vessel dimensions, capacity, and liquid stored, as specified in 40 CFR 63.1065(a).

B. If you vent emissions to a control device other than a flare, keep records of the operating plan and measured parameter values, as specified in 40 CFR 63.985(c) and 63.998(d)(2).

C. If you vent emissions to a flare, keep records of all

periods of operation during which the flare pilot flame is absent, as specified in 40 CFR 63.987(c) and 63.998(a)(1), and keep records of closed-vent systems, as specified in 40 CFR 63.998(d)(1).

D. For periods of planned routine maintenance of a control device, keep records of the day and time at which each maintenance period begins and ends, and keep records of the type of maintenance performed, as specified in 40 CFR 63.11497(b)(3).

iii. For each wastewater stream subject to Item 2 in Table 6 to 40 CFR Part 63 Subpart VVVVVV, keep records of the wastewater stream identification and the disposition of the organic phase(s), as specified in Item 2 to Table 6 to 40 CFR Part 63 Subpart VVVVVV.

iv. The source must keep a record of all transferred liquids that are reactive or resinous materials, as defined in 40 CFR 63.11502(b), and not included in the NOCS

v. For continuous process vents subject to Table 3 to 40 CFR Part 63 Subpart VVVVVV, keep records of the occurrence and duration of each startup and shutdown of operation of process equipment, or of air pollution control and monitoring equipment.

40. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.

41a. Pursuant to 35 Ill. Adm. Code 215.425(a), the owner or operator of a synthetic organic chemical or polymer manufacturing plant shall maintain a leaking components monitoring log which shall contain, at a minimum, the following information:

i. The name of the process unit where the component is located;

ii. The type of component (e.g., valve, seal);

iii. The identification number of the component;

iv. The date on which a leaking component is discovered;

v. The date on which a leaking component is repaired;

vi. The date and instrument reading of the recheck procedure after a leaking component is repaired;

vii. A record of the calibration of the monitoring instrument;

viii. The identification number of leaking components which cannot be repaired until process unit shutdown; and

ix. The total number of components inspected and the total number of components found leaking during that monitoring period.

b. Pursuant to 35 Ill. Adm. Code 215.425(b), copies of the monitoring log shall be retained by the owner or operator for a minimum of two years after the date on which the record was made or the report prepared.

c. Pursuant to 35 Ill. Adm. Code 215.425(c), copies of the monitoring log shall be made available to the Agency, upon verbal or written request, at any reasonable time.

42a. The source shall keep records of the following to demonstrate compliance with the emissions and operations limits of this permit:

i. Records addressing use of good operating practices for the Flare and Wet Scrubber associate with the Close Vent System:

A. Records for periodic inspection of the Flare and Scrubber with date, individual performing the inspection, and nature of inspection; and

B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

ii. The Permittee shall keep a copy of the Fugitive Particulate Operating Program, any amendments or revisions to the Fugitive Particulate Operating Program, and the Permittee shall also keep a record of activities completed according to the Fugitive Particulate Operating Program;

iii. Records of the pH and flow rate of the scrubbant in the Wet Scrubber System, measured on routine basis;

iv. Ethanol Received (gallons/mo, gallons/yr);

v. Ethyl Acetate Produced (gallons/month, gallons/yr);

vi. "Lights" Product Produced (gallons/month, gallons/yr);

vii. "Heavies" Product Produced (gallons/month, gallons/yr);

viii. Ethyl Acetate, "Lights" and "Heavies" transferred by LOD001 (gallons/month, gallons/yr);

ix. Ethyl Acetate transferred by LOD001 (gallons/month, gallons/year);

x. "Lights" product transferred by LOD002 (gallons/month, gallons/year);

xi. "Heavies" product transferred by LOD002 (gallons/month, gallons/year);

xii. Ethyl Acetate transferred by LOD002 (gallons/month,

gallons/year);

xiii. Natural gas combusted by FLR001 (mmscf/month, mmscf/year);

xiv. VOC combusted by FLR001 (lb/month, lb/yr);

xv. Operation of FLR001 in VOC combustion (hr/month, hr/year);

xvi. Operation of HTR001 in combustion (hr/month, hr/year);

xvii. Operation of DST001, DHY001, PUR001, MEK001, and EP-23 (hr/month, hr/year);

xviii. Operation of each equipment unit under F002 (hr/month, hr/year)

xix. Throughput, in gallons/month and gallons/year, recorded individually with respect to the unit, for the following Storage Tanks: TNK6001A, TNK6001B, TNK6003A, TNK6003B, TNK6003C, TNK6004, TNK6006, TNK6007, TNK6008, TNK6009, and TNK6010; and

xx. Monthly and Annual emissions of NO_x, CO, SO_2, VOM, PM, and individual and combined HAPs from the source with supporting calculations (tons/mo, tons/yr).

b. All records and logs required by Condition 41(a) of this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

REPORTING

43a. Pursuant to 40 CFR 60.7(a), any owner or operator subject to the provisions of 40 CFR Part 60 shall furnish the Illinois EPA or USEPA written notification or, if acceptable to both the Illinois EPA or USEPA and the owner or operator of a source, electronic notification, as follows:

i. A notification 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.

ii. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.

iii. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is

specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Illinois EPA or USEPA may request additional relevant information subsequent to this notice.

44a. Pursuant to 40 CFR 60.487b(a), each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Illinois EPA or USEPA beginning 6 months after the initial startup date. Beginning on July 15, 2024, or once the report template for this subpart has been available on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for 1 year, whichever date is later, submit all subsequent reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in 40 CFR 60.487b(g). The date report templates become available will be listed on the CEDRI website. Unless the Illinois EPA or USEPA or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. All semiannual reports must include the following general information: company name, address (including county), and beginning and ending dates of the reporting period.

b. Pursuant to 40 CFR 60.487b(b), the initial semiannual report to the Illinois EPA or USEPA shall include the following information:

i. Process unit identification.

ii. Number of valves subject to the requirements of 40 CFR 60.482-7b, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7b(f).

iii. Number of pumps subject to the requirements of 40 CFR 60.482-2b, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2b(e) and those pumps complying with 40 CFR 60.482-2b(f).

iv. Number of compressors subject to the requirements of 40 CFR 60.482-3b, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3b(i) and those compressors complying with 40 CFR 60.482-3b(h).

v. Number of connectors subject to the requirements of 40 CFR 60.482-11b.

c. Pursuant to 40 CFR 60.487b(c), all semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486b:

i. Process unit identification.

ii. For each month during the semiannual reporting period,
   A. Number of valves for which leaks were detected as described in 40 CFR 60.482-7b(b) or 40 CFR 60.483-2b,
   B. Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7b(d)(1),

   C. Number of pumps for which leaks were detected as described in 40 CFR 60.482-2b(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),

   D. Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2b(c)(1) and (d)(6),

   E. Number of compressors for which leaks were detected as described in 40 CFR 60.482-3b(f),

   F. Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3b(g)(1),

   G. Number of connectors for which leaks were detected as described in 40 CFR 60.482-11b(b)

   H. Number of connectors for which leaks were not repaired as required in 40 CFR 60.482-11b(d), and

   I The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

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

vi. Revisions to items reported according to 40 CFR 60.487b(b) if changes have occurred since the initial report or subsequent revisions to the initial report.

45a. Pursuant to 40 CFR 60.665a(j), you must submit to the Illinois EPA or USEPA semiannual reports of the information specified in 40 CFR 60.665a(j)(1) through (9) . you are exempt from the reporting requirements specified in 40 CFR 60.7(c). If there are no exceedances, periods, or events specified in 40 CFR 60.665a(j)(1) through (9) that occurred during the reporting period, then the source must include a statement in you report that no exceedances, periods, and events specified in 40 CFR 60.665a(j)(1) through (9) occurred during the reporting period. The initial report must be submitted within 6 months after the initial start-up-date. On and after July 15, 2024 or once the report template for this subpart has been available on the Compliance and Emissions Data Reporting Interface (CEDRI) website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for 1 year, whichever date is later, the source must submit all subsequent reports using the appropriate electronic report template on the CEDRI website for this subpart and following the procedure specified in 40 CFR 60.665a(k) . The date report templates become available will be

listed on the CEDRI website. Unless the Illinois EPA or USEPA or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. All semiannual reports must include the following general information: company name, address (including county), and beginning and ending dates of the reporting period.

i. For each flare subject to the requirements in 40 CFR 60.669a, the semiannual report must include an identification of the flare and the items specified in 40 CFR 60.669a(l)(2)

ii. For each closed vent system subject to the requirements in 40 CFR 60.670a, the semiannual report must include an identification of the closed vent system and the items specified in 40 CFR 60.670a(i).

b. This source must follow the additional reporting requirements listed in 40 CFR 60.665a(k) through (r).

46a. This source must follow the reporting requirements of 40 CFR 60.705a(k) through (o), (t), and (v).

47. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.

48a. Pursuant to 35 Ill. Adm. Code 215.426, the owner or operator of a synthetic organic chemical or polymer manufacturing plant subject to 35 Ill. Adm. Code 215.420 shall:

i. Submit a report to the Illinois EPA prior to the 1st day of July and October listing all leaking components identified pursuant to 35 Ill. Adm. Code 215.423 but not repaired within 21 days, all leaking components awaiting process unit shutdown, the total number of components inspected and the total number of components found leaking;

ii. Submit a signed statement with the report attesting that all monitoring and repairs were performed as required under 35 Ill. Adm. Code 215.421 through 215.427.

49. The Permittee shall submit a written notification to the Illinois EPA, Bureau of Air, Compliance Section Manager, of the initial startup of each emission unit and control equipment within thirty (30) calendar days of the initial start-up.

50a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit or otherwise, the Permittee shall submit a report to the Illinois EPA's

Bureau of Air Compliance Section in Springfield, Illinois within thirty (30) days after the exceedance or deviation. The report shall identify the duration and the emissions impact of the exceedance or deviation, a copy of the relevant records and information to resolve the exceedance or deviation, and a description of the efforts to reduce emissions from, and the duration of exceedance or deviation, and to prevent future occurrences of any such exceedance or deviation.

b. One (1) copy of required reports and notifications shall be sent to:

i. Via mail or overnight delivery:

Via USPS	Via Other Means
Illinois EPA, Bureau of Air Compliance Section (MC 40) 2520 West Iles Avenue P.O. Box 19276 Springfield, IL 62794-9276	Illinois EPA, Bureau of Air Compliance Section (MC 40) 2520 West Iles Avenue Springfield, IL 62704

ii. In addition, a copy of notifications and reports required by this permit that concern emission testing and monitoring shall also be sent electronically to EPA.BOA.SMU@Illinois.gov. For large files, the Permittee may request to use the Illinois EPA OneDrive Request File or another approved method. The Permittee shall include the facility's ID Number on all correspondence.

If you have any questions on this permit, please call Benjamin Tapscott at 217/785-1705.

William D. Marr

William D. Marr
Manager, Permit Section
Bureau of Air

WDM:BMT:tan

Table 1 to Subpart VVVVVV of Part 63—Hazardous Air Pollutants Used To Determine Applicability of Chemical Manufacturing Operations

As required in 40 CFR 63.11494(a), chemical manufacturing operations that process, use, or produce the HAP shown in the following table are subject to subpart VVVVVV.

Type of HAP	Chemical name	CAS No.
1. Organic compounds	a. 1,3-butadiene	106990
	b. 1,3-dichloropropene	542756
	c. Acetaldehyde	75070
	d. Chloroform	67663
	e. Ethylene dichloride	107062
	f. Hexachlorobenzene	118741
	g. Methylene chloride	75092
	h. Quinoline	91225
2. Metal compounds	a. Arsenic compounds	
	b. Cadmium compounds	
	c. Chromium compounds	
	d. Lead compounds	
	e. Manganese compounds	
	f. Nickel compounds	
3. Others	a. Hydrazine	302012

Table 5 to Subpart VVVVVV of Part 63—Emission Limits and Compliance Requirements for Storage Tanks

As required in 40 CFR 63.11497, the source must comply with the requirements for storage tanks as shown in the following table.

For each * * *	The source must * * *	Except * * *
1. Storage tank with a design capacity ≥40,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the maximum true vapor pressure (MTVP) of total organic HAP at the storage temperature is ≥5.2 kPa and <76.6 kPa.	a. Comply with the requirements of subpart WW of this part;	i. All required seals must be installed by the compliance date in 40 CFR 63.11494.

For each * * *	The source must * * *	Except * * *
	b. Reduce total organic HAP emissions by ≥95 percent by weight by operating and maintaining a closed-vent system and control device (other than a flare) in accordance with 40 CFR 63.982(c); or	i. Compliance may be based on either total organic HAP or TOC; ii. When the term storage vessel is used in subpart SS of this part, the term storage tank, surge control vessel, or bottoms receiver, as defined in 40 CFR 63.11502 of this subpart, applies; and iii. The requirements do not apply during periods of planned routine maintenance of the control device, as specified in 40 CFR 63.11497(b).
	c. Reduce total HAP emissions by operating and maintaining a closed-vent system and a flare in accordance with 40 CFR 63.982(b); or	i. The requirements do not apply during periods of planned routine maintenance of the flare, as specified in 40 CFR 63.11497(b); and ii. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in 40 CFR 63.11502 of this subpart.
	d. Vapor balance in accordance with 40 CFR 63.2470(e); or	i. To comply with 40 CFR 63.1253(f)(6)(i), the owner or operator of an offsite cleaning or reloading facility must comply with 40 CFR 63.11494 and 40 CFR 63.11502 instead of complying with 40 CFR 63.1253(f)(7)(ii), except as specified in item 1.d.ii and 1.2.iii of this table. ii. The reporting requirements in 40 CFR 63.11501 do not apply to the owner or operator of the offsite cleaning or reloading facility. iii. As an alternative to complying with the monitoring, recordkeeping, and reporting provisions in 40 CFR 63.11494 through 63.11502, the owner or operator of an offsite cleaning or reloading facility may comply as specified in 40

For each * * *	The source must * * *	Except * * *
		CFR 63.11500 with any other subpart of this part 63 which has monitoring, recordkeeping, and reporting provisions as specified in 40 CFR 63.11500.
	e. Route emissions to a fuel gas system or process in accordance with the requirements in 40 CFR 63.982(d) and the requirements referenced therein.	i. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in 40 CFR 63.11502.
2. Storage tank with a design capacity ≥20,000 gallons and <40,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the MTVP of total organic HAP at the storage temperature is ≥27.6 kPa and <76.6 kPa	a. Comply with one of the options in Item 1 of this table	i. The information specified above for Items 1.a., 1.b., 1.c., 1.d, and 1.e, as applicable.
3. Storage tank with a design capacity ≥20,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the MTVP of total organic HAP at the storage temperature is ≥76.6 kPa	a. Comply with option b, c, d, or e in Item 1 of this table	i. The information specified above for Items 1.b., 1.c., 1.d, and 1.e, as applicable.
4. Storage tank described by Item 1, 2, or 3 in this table and emitting a halogenated vent stream that is controlled with a combustion device	a. Reduce emissions of hydrogen halide and halogen HAP by ≥95 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv by using a halogen reduction device after the combustion device according to the requirements in 40 CFR 63.11496(d); or	
	b. Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to ≤20 ppmv by using a	

For each * * *	The source must * * *	Except * * *
	halogen reduction device before the combustion device according to the requirements in 40 CFR 63.11496(d).	

[74 FR 56041, Oct. 29, 2009, as amended at 77 FR 75760, Dec. 21, 2012]

Table 6 to Subpart VVVVVV of Part 63—Emission Limits and Compliance Requirements for Wastewater Systems

[As required in 40 CFR 63.11498, the source must comply with the requirements for wastewater systems as shown in the following table]

For each . . .	The source must . . .	And the source must . . .
1. Wastewater stream	a. Discharge to onsite or offsite wastewater treatment or hazardous waste treatment	i. Maintain records identifying each wastewater stream and documenting the type of treatment that it receives. Multiple wastewater streams with similar characteristics and from the same type of activity in a CMPU may be grouped together for recordkeeping purposes.
2. Wastewater stream containing partially soluble HAP at a concentration ≥10,000 ppmw and separate organic and water phases	a. Use a decanter, steam stripper, thin film evaporator, or distillation unit to separate the water phase from the organic phase(s); or	i. For the water phase, comply with the requirements in Item 1 of this table, and ii. For the organic phase(s), recycle to a process, use as fuel, or dispose as hazardous waste either onsite or offsite, and iii. Keep records of the wastewater streams subject to this requirement and the disposition of the organic phase(s).
	b. Hard pipe the entire wastewater stream to onsite treatment as a hazardous waste, or hard pipe the entire wastewater stream to a point of transfer to onsite or offsite hazardous waste treatment.	i. Keep records of the wastewater streams subject to this requirement and the disposition of the wastewater streams.

[77 FR 75761, Dec. 21, 2012]

Table 7 to Subpart VVVVVV of Part 63—Partially Soluble HAP

As required in 40 CFR 63.11498(a), the source must comply with emission limits for wastewater streams that contain the partially soluble HAP listed in the following table.

Partially soluble HAP name	CAS No.
1. 1,1,1-Trichloroethane (methyl chloroform)	71556
2. 1,1,2,2-Tetrachloroethane	79345
3. 1,1,2-Trichloroethane	79005
4. 1,1-Dichloroethylene (vinylidene chloride)	75354
5. 1,2-Dibromoethane	106934
6. 1,2-Dichloroethane (ethylene dichloride)	107062
7. 1,2-Dichloropropane	78875
8. 1,3-Dichloropropene	542756
9. 2,4,5-Trichlorophenol	95954
10. 1,4-Dichlorobenzene	106467
11. 2-Nitropropane	79469
12. 4-Methyl-2-pentanone (MIBK)	108101
13. Acetaldehyde	75070
14. Acrolein	107028
15. Acrylonitrile	107131
16. Allyl chloride	107051
17. Benzene	71432
18. Benzyl chloride	100447
19. Biphenyl	92524
20. Bromoform (tribromomethane)	75252
21. Bromomethane	74839
22. Butadiene	106990
23. Carbon disulfide	75150
24. Chlorobenzene	108907
25. Chloroethane (ethyl chloride)	75003
26. Chloroform	67663
27. Chloromethane	74873
28. Chloroprene	126998
29. Cumene	98828
30. Dichloroethyl ether	111444
31. Dinitrophenol	51285
32. Epichlorohydrin	106898
33. Ethyl acrylate	140885
34. Ethylbenzene	100414

Partially soluble HAP name	CAS No.
35. Ethylene oxide	75218
36. Ethylidene dichloride	75343
37. Hexachlorobenzene	118741
38. Hexachlorobutadiene	87683
39. Hexachloroethane	67721
40. Methyl methacrylate	80626
41. Methyl-t-butyl ether	1634044
42. Methylene chloride	75092
43. N-hexane	110543
44. N,N-dimethylaniline	121697
45. Naphthalene	91203
46. Phosgene	75445
47. Propionaldehyde	123386
48. Propylene oxide	75569
49. Styrene	100425
50. Tetrachloroethylene (per- chloroethylene)	127184
51. Tetrachloromethane (carbon tetrachloride)	56235
52. Toluene	108883
53. Trichlorobenzene (1,2,4-)	120821
54. Trichloroethylene	79016
55. Trimethylpentane	540841
56. Vinyl acetate	108054
57. Vinyl chloride	75014
58. Xylene (m)	108383
59. Xylene (o)	95476
60. Xylene (p)	106423

Table 9 to Subpart VVVVVV of Part 63—Applicability of General Provisions to Subpart VVVVVV

As required in 40 CFR 63.11501(a), the source must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as shown in the following table.

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.1(a)(1), (a)(2), (a)(3), (a)(4),	Applicability	Yes	

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
(a)(6), (a)(10)-(a)(12) (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)			
63.1(a)(5), (a)(7)-(a)(9), (b)(2), (c)(3), (c)(4), (d)	Reserved	No	
63.2	Definitions	Yes	
63.3	Units and Abbreviations	Yes	
63.4	Prohibited Activities and Circumvention	Yes	
63.5	Preconstruction Review and Notification Requirements	Yes	
63.6(a), (b)(1)-(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1)(iii), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes	
63.6(b)(6), (c)(3), (c)(4), (d), (h)(3), (h)(5)(iv)	Reserved	No	
63.6(e)(1)(i) and (ii), (e)(3), and (f)(1)	SSM Requirements	No	See 40 CFR 63.11495(d) for general duty requirement.
63.6(h)(1)-(h)(4), (h)(5)(i)-(h)(5)(iii), (h)(6)-(h)(9)		No	Subpart VVVVVV does not include opacity or visible emissions (VE) standards or require a continuous opacity monitoring system (COMS).
63.7(a)(1), (a)(3), (a)(4), (c), (e)(4), and (f)-(h)	Performance Testing Requirements	Yes	
63.7(a)(2), (b), (d), (e)(2)-(e)(3)	Performance Testing Schedule, Notification of Performance Test, Performance Testing Facilities, and Conduct of Performance Tests	Yes/No	Requirements apply if conducting test for metal HAP control; requirements in 40 CFR 63.997(c)(1), (d), (e), and 63.999(a)(1) apply, as referenced in 40 CFR 63.11496(g), if conducting test for organic HAP or hydrogen halide and halogen HAP control device.

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.7(e)(1)	Performance Testing	No	See 40 CFR 63.11496(f)(3)(ii) if conducting a test for metal HAP emissions. See 40 CFR 63.11496(g) and 63.997(e)(1) if conducting a test for continuous process vents or for hydrogen halide and halogen emissions. See 40 CFR 63.11496(g) and 63.2460(c) if conducting a test for batch process vents.
63.8(a)(1), (a)(4), (b), (c)(1)(ii), (c)(2)-(c)(3), (f)(1)-(5)	Monitoring Requirements	Yes	
63.8(a)(2)	Monitoring Requirements	No	
63.8(a)(3)	Reserved	No	
63.8(c)(1)(i)	General Duty to Minimize Emissions and CMS Operation	No	
63.8(c)(1)(iii)	Requirement to Develop SSM Plan for CMS	No	
63.8(c)(4)		Yes	Only for CEMS. CPMS requirements in 40 CFR part 63, subpart SS are referenced from 40 CFR 63.11496. Requirements for COMS do not apply because subpart VVVVVV does not require COMS.
63.8(c)(5)		No	Subpart VVVVVV does not require COMS.
63.8(c)(6)-(c)(8), (d)(1)-(d)(2), (e), (f)(6)		Yes	Requirements apply only if the source use a continuous emission monitoring system (CEMS) to demonstrate compliance with the alternative standard in 40 CFR 63.11496(e).
63.8(d)(3)	Written Procedures for CMS	Yes	Requirement applies except for last sentence, which refers to an SSM plan. SSM

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
			plans are not required.
63.8(g)(1)-(g)(4)		Yes	Data reduction requirements apply only if the source use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e). COMS requirements do not apply. Requirement in 40 CFR 63.8(g)(2) does not apply because data reduction for CEMS are specified in 40 CFR part 63, subpart FFFF.
63.8(g)(5)		No	Data reduction requirements for CEMS are specified in 40 CFR 63.2450(j)(4), as referenced from 40 CFR 63.11496. CPMS requirements are specified in 40 CFR part 63, subpart SS, as referenced from 40 CFR 63.11496.
63.9(a), (b)(1), (b)(2), (b)(4), (b)(5), (c), (d), (e), (i)	Notification Requirements	Yes	
63.9(b)(3), (h)(4)	Reserved	No	
63.9(f)		No	Subpart VVVVVV does not contain opacity or VE limits.
63.9(g)		Yes	Additional notification requirement applies only if the source use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.9(h)(1)-(h)(3), (h)(5)-(h)(6)		Yes	Except subpart VVVVVV does not contain opacity or VE limits.
63.9(i)		Yes	
63.9(j)	Change in Information Already Provided	No	Notification of process changes that affect a compliance determination are required in 40 CFR 63.11501(d)(4).
63.10(a)	Recordkeeping	Yes	

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
	Requirements		
63.10(b)(1)		Yes	
63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns	No	See 40 CFR 63.11501(c)(8) for recordkeeping of occurrence and duration of each startup and shutdown for continuous process vents that are subpart to Table 3 to this subpart.
63.10(b)(2)(ii)	Recordkeeping of Malfunctions	No	See 40 CFR 63.11501(c)(1)(vii) and (viii) for recordkeeping of (1) date, time, duration, and volume of excess emissions and (2) actions taken during malfunction.
63.10(b)(2)(iii)	Maintenance Records	Yes	
63.10(b)(2)(iv) and (v)	Actions Taken to Minimize Emissions During SSM	No	
63.10(b)(2)(vi), (x), (xi), (xiii)		Yes	Apply only if the source use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.10(b)(2)(vii)-(b)(2)(ix), (b)(2)(xii), (b)(2)(xiv)		Yes	
63.10(b)(3)		Yes	
63.10(c)(1), (c)(5)-(c)(6), (c)(13)-(c)(14)		Yes	Apply only if the source use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.10(c)(7)-(8)	Additional Recordkeeping Requirements for CMS-Identifying Exceedances and Excess Emissions	Yes	
63.10(c)(10)	Recordkeeping Nature and Cause of Malfunctions	No	See 40 CFR 63.11501(c)(1)(vii) and (viii) for malfunctions recordkeeping requirements.

Citation	Subject	Applies to Subpart VVVVVV?	Explanation
63.10(c)(11)	Recording Corrective Actions	No	See 40 CFR 63.11501(c)(1)(vii) and (viii) for malfunctions recordkeeping requirements.
63.10(c)(12)		Yes	
63.10(c)(15)	Use of SSM Plan	No	
63.10(c)(2)-(c)(4), (c)(9)	Reserved	No	
63.10(d)(1), (d)(2), (d)(4), (e)(1), (e)(2), (f)	Reporting Requirements	Yes	
63.10(d)(3)		No	Subpart VVVVVV does not include opacity or VE limits.
63.10(d)(5)	SSM Reports	No	See 40 CFR 63.11501(d)(8) for reporting requirements for malfunctions.
63.10(e)(1)-(e)(2)		Yes	Apply only if the source use CEMS to demonstrate compliance with alternative standard in 40 CFR 63.11496(e).
63.10(e)(3)		Yes	
63.10(e)(4)		No	Subpart VVVVVV does not include opacity or VE limits.
63.11	Control Device Requirements	Yes	
63.12	State Authorities and Delegations	Yes	
63.13	Addresses	Yes	
63.14	Incorporations by Reference	Yes	
63.15	Availability of Information and Confidentiality	Yes	
63.16	Performance Track Provisions	Yes	

[74 FR 56041, Oct. 29, 2009, as amended at 77 FR 75762, Dec. 21, 2012]

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL
P. O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:

   a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,

   b. to have access to and copy any records required to be kept under the terms and conditions of this permit,

   c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,

   d. to obtain and remove samples of any discharge or emission of pollutants, and

   e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

   a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,

   b. 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 proposed facilities,

   c. does not release the Permittee from compliance with the other applicable statues and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,

   d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.

b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.

7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or

b. upon finding that any standard or special conditions have been violated, or

c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.