



Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745



Permit No.: 54-02-C (R2)

Plant ID: 0000

Effective Date: 0/00/2015

Expiration Date: 0/00/2015

Hexion Inc.
6200 Camp Ground Road
Louisville, KY 40216

is authorized to install the described process equipment by the Louisville Metro Air Pollution Control District. Authorization is based on information provided with the application submitted by the company and in accordance with applicable regulations and the conditions specified herein.

Process equipment description:

One (1) MO Catalytic Oxidizer (C5), make Anguil, model 75 with change of monitoring requirements.

Applicable Regulation(s): 2.03, 2.16, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.25, 40 CFR 63 Subparts A, F, G, and H.

Process reference(s): 74-03-TV (R1)

Application No. 68176

Application Received: 11/24/2014

Permit Writer: Randy Schoenbaechler

Date of Public Comment 1/24/2015

{Manager1}
Air Pollution Control Officer
{date1}

Permit Revisions:

Revision No.	Issue Date	Public Notice Date	Type	Page No.	Description
Initial	5/9/2002	NA	Initial	Entire Permit	Catalytic Oxidizer
1	9/25/2014	8/10/2014	Significant	Entire Permit	Oxidizer operating parameter revision.
2	x/xx/2015	1/24/2015	Significant	9 (Specific Conditions S2.a.iii., S2.a.iv.) and 10 (Specific Condition S2.a.vii.)	Oxidizer monitoring revisions.

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator of the affected facility covered by this permit shall notify the District of any process change, equipment change, material change, or change in method or hours of operation. This requirement is applicable to those changes (except equipment changes) that may have the potential for increasing the emission of air contaminants to a level in excess of the applicable limits or standards specified in this permit or District regulations.
- G2. The owner or operator shall obtain new or revised permits from the District when:
(See District Regulation 2.16 for Title V sources. See District Regulation 2.17 for FEDOOP sources. See District Regulation 2.03 for other sources.)
- a. The company relocates to a different physical address.
 - b. The ownership of the company is changed.
 - c. The name of the company as shown on the permit is changed.
 - d. Permits are nearing expiration or have expired.
- G3. The owner or operator shall submit a timely application for changes according to G2. For minor sources only, the District does not require application for permit renewal. The District automatically commences the process of permit renewal for minor sources upon expiration. Timely renewal is not always achievable; therefore, the company is hereby authorized to continue operation in compliance with the latest District permit(s) until the District issues the renewed permit(s).
- G4. The owner or operator shall not be authorized to transfer ownership or responsibility of the permit. The District may transfer permits after appropriate notification (Form 100A) has been received and review has been made.
- G5. The owner or operator shall pay the required permit fees within 45 days after issuance of the SOF by the District, unless other arrangements have been proposed and accepted by the District.

- G6. This permit allows operation 8,760 hours per year unless specifically limited elsewhere in this permit.
- G7. The owner or operator shall submit emission inventory reports as required by Regulation 1.06.
- G8. The owner or operator shall timely report abnormal conditions or operational changes, which may cause excess emissions as required by Regulation 1.07.
- G9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G10. If a change in the Responsible Official (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form 100A) to the District within 30 calendar days of the date the RO change occurs.

Specific Conditions

S1. Standards (Regulation 2.03, section 6.1)

a. VOC

- i. The owner or operator shall limit the plant-wide VOC emissions for all emission points to 70 tons or less per 12 consecutive month period, based on the BACT analysis dated September 26, 2005. The plant-wide limit includes all process equipment, storage tanks, loading racks, etc. that emit VOCs. (Regulation 7.25, section 3.1)¹
- ii. Regulation 7.25 shall also apply to all affected facilities, as defined in Regulation 6.24, that were constructed before June 13, 1979 in addition to all affected facilities constructed after this date. (Regulation 7.25, section 3.1)

b. TAC

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.00 and 5.21)
- ii. The owner or operator shall not exceed the calendar year TAC limits listed in the following table for the listed Emission Points and Stack ID. (Regulation 5.21 Section 4.3)²

Equipment ID	Stack ID	Equipment Name	TAC Pollutant	Limit (ton/year)
E355-E359, E362, and E364-E366	S135	Equipment Controlled by Catalytic Incinerator combined	Formaldehyde	1.3055
			Ammonia	24.0*

*De Minimis

- iii. 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

¹ The company agreed to the VOC BACT limit being plant-wide in a letter dated February 16, 2007.

² TAC limits are based on EA Demonstration submitted by the company and received by the District on 2/14/2014. This unit has TAC emission standards since its EA Demonstration was based on controlled PTE. If the controlled PTE for the TAC is less than de minimis level, De Minimis is listed as the basis of the limit.

in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 5.21, section 4.3)

c. **HAP**

- i. The owner or operator shall limit plant-wide single HAP emissions to less than 10 tons per 12 consecutive month period. (Board Order Agreement 2142)
- ii. The owner or operator shall limit plant-wide total HAP emissions to less than 25 tons per 12 consecutive month period. (Board Order Agreement 2142)

d. **HAP (non-LDAR) (Regulation 5.02, 40 CFR 63 Subparts A, F, G, and H)**

- i. The owner or operator of Silver Process Formaldehyde plant controlled by the silver plant boiler (C6) and the Metal Oxide Process Formaldehyde plant controlled by the MO plant catalytic oxidizer (C5), which are Group 1 process vents, shall each reduce emission of total organic hazardous air pollutant by 98 weight percent or to a concentration of 20 parts per million by volume, whichever is less stringent. The emission reduction or concentration shall be calculated on a dry basis, corrected to 3 percent oxygen. (Regulation 5.02, 40 CFR 63.113(a)(2))
- ii. Compliance with paragraph (a)(2) of this section of the federal regulation may be achieved by using any combination of combustion, recovery, and/or recapture devices, except that a recovery device may not be used to comply with paragraph (a)(2) of this section of the federal regulation by reducing emissions of total organic hazardous air pollutants by 98 weight-percent, except as provided in paragraph (a)(2)(ii) of this section of the federal regulation. (40 CFR 63.113(a)(2)(i))
- iii. An owner or operator may use a recovery device, alone or in combination with one or more combustion or recapture devices, to reduce emissions of total organic hazardous air pollutants by 98 weight-percent if all the conditions of paragraphs (a)(2)(ii)(A) through (a)(2)(ii)(D) of this section of the federal regulation are met. (40 CFR 63.113(a)(2)(ii))
 - 1) The recovery device (and any combustion device or recapture device which operates in combination with the recovery device to reduce emissions of total organic hazardous air pollutants by 98 weight-percent) was installed before the date of proposal of the subpart of this part 63 that makes this subpart G applicable to process vents in the chemical manufacturing process unit. (40 CFR 63.113(a)(2)(ii)(A))

- 2) The recovery device that will be used to reduce emissions of total organic hazardous air pollutants by 98 weight-percent is the last recovery device before emission to the atmosphere. (40 CFR 63.113(a)(2)(ii)(B))
 - 3) The recovery device, alone or in combination with one or more combustion or recapture devices, is capable of reducing emissions of total organic hazardous air pollutants by 98 weight-percent, but is not capable of reliably reducing emissions of total organic hazardous air pollutants to a concentration of 20 parts per million by volume. (40 CFR 63.113(a)(2)(ii)(C))
 - 4) If the owner or operator disposed of the recovered material, the recovery device would comply with the requirements of this subpart for recapture devices. (40 CFR 63.113(a)(2)(ii)(D))
- iv. If a boiler or process heater is used to comply with the percent reduction requirement or concentration limit specified in paragraph (a)(2) of this section of the federal regulation, then the vent stream shall be introduced into the flame zone of such a device. (40 CFR 63.113(b))
 - v. Each owner or operator of a process vent that uses a combustion device to comply with the requirements in 40 CFR 63.113 (a)(1) or (a)(2) of this subpart, or that uses a recovery device or recapture device to comply with the requirements in 40 CFR 63.113(a)(2) of this subpart, shall install monitoring equipment specified in paragraph (a)(1), (a)(2), (a)(3), (a)(4), or (a)(5) of this section of the federal regulation, depending on the type of device used. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. (40 CFR 63.114(a))
 - vi. Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required. (40 CFR 63.114(a)(1))
 - vii. Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed. (40 CFR 63.114(a)(1)(ii))³

³ Based on Company request received 6/13/2014 and 40 CFR 63.151(g). The monitoring and record keeping established by the Company in the initial notification of compliance received 10/15/2001, has been replaced with the conditions requested by the Company and laid out in Federal Regulations 40 CFR 63 Subparts SSSS, DDDD, and FFFF.

- viii. The owner or operator of a process vent shall comply with paragraph (d)(1) or (2) of this section of the federal regulation for any bypass line between the origin of the gas stream (i.e., at an air oxidation reactor, distillation unit, or reactor as identified in 40 CFR 63.107(b)) and the point where the gas stream reaches the process vent, as described in 40 CFR 63.107, that could divert the gas stream directly to the atmosphere. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph (d). (40 CFR 63.114(d))
- 1) Properly install, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in 40 CFR 63.118(a)(3). The flow indicator shall be installed at the entrance to any bypass line that could divert the gas stream to the atmosphere; (40 CFR 63.114(d)(1)) or
 - 2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the non-diverting position and the gas stream is not diverted through the bypass line. (40 CFR 63.114(d)(2))
- ix. For Group 1 storage vessels (E27, E34, E35, E36, and E354), the owner or operator shall reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, a closed vent system and control device, routing the emissions to a process or a fuel gas system, or vapor balancing in accordance with the requirements in 40 CFR 63.119(b), (c), (d), (e), (f), or (g), or equivalent as provided in 40 CFR 63.121. (40 CFR 63.119(a)(1))
- x. For Unit 1 Group 2 storage vessels, loading racks, and process vents (E1, E2, E3, E4, E6, E7, E8, E9, E10, E11, E13.1 through 13.60, E29, E30, E31, E32, and E37), there are no non-LDAR HAP standards for these emission points. (Board Order #2142, dated August 15, 2001)
- xi. For Unit 7 Group 2 storage vessels, loading racks, and process vents (E361, E364, E365, and E366), there are no non-LDAR HAP standards for these emission points. (Board Order #2142, dated August 15, 2001)

S2. Monitoring and Record Keeping (Regulation 2.03, section 6.1)

a. VOC

- i. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall continuously monitor and record the temperature of the gas stream immediately before the catalyst bed while any process gas stream is being vented to it. Continuous monitoring and recording of the combustion temperature is defined as a frequency of four points equally spaced for each hour as outlined in 40 CFR 63.2 General Provisions.
- ii. When the Catalytic Thermal Oxidizer (C5) is operating and any process gas stream is being vented to it, the owner or operator shall maintain continuous inlet temperature records. The continuous data recorder shall record at least 95% of the temperature records. The owner or operator shall monthly calculate and record the percentage of time that temperature data was recorded for that month while any process gas was being vented to it or make a declaration that the catalytic oxidizer was not used during that month.
- iii. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall at least once each semi-annual period (January 1 – June 30 and July 1 – December 31) with a period of no less than three (3) months in-between conduct and record a visual inspection of the oxidizer system including the burner assembly and fuel supply lines for problems. If any problems are found the owner or operator shall initiate corrective action consistent with the manufacturer's recommendations.
- iv. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall at least once each semi-annual period (January 1 – June 30 and July 1 – December 31) with a period of no less than three (3) months in-between conduct and record a visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If any problems are found the owner or operator shall initiate corrective action consistent with the manufacturer's recommendations and a new performance test may need to be conducted within six (6) months of the initial observation. If catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Specific Conditions S2.a.vii of this permit) may need to be conducted within six (6) months of the date of catalyst replacement.
- v. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall maintain records, monthly, of the results of all visual inspections. Records of the results shall include the date of the inspection, the name of the person conducting the inspection, whether or not problems including but not limited to structural damage, channeling, abrasion, or settling were observed, and what if any corrective action was performed. If the catalytic oxidizer is not operated during a given month, then no visual inspections need to be performed and a negative declaration shall be entered in the record.

- vi. For the Catalytic Thermal Oxidizer (C5), the owner or operator shall annually conduct and record a sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures approved by the District on 06/17/2013. Sampling shall be conducted each calendar year at a period of no less than three (3) months apart. Results of the sampling and analysis shall be completed with sixty (60) days of the date the sample was taken. Records shall include the date the sample was taken, the name of the person taking the sample, the date analysis of the catalyst activity was completed, the results of the analysis including conversion efficiency, and what if any corrective action was performed. If catalyst is replaced in accordance with the manufacturer's recommendations a new performance test (as described in Specific Conditions S2.a.vii of this permit) may need to be conducted within six (6) months of the date of catalyst replacement.
 - vii. If the catalyst bed is replaced and is not of like kind and quality as the old catalyst, then a new performance test must be conducted within six (6) months of the catalyst change to determine destruction efficiency. If the catalyst bed is replaced and the replacement catalyst is of like kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and the previously established operating limits shall continue to be used for the Catalytic Oxidizer (C5). In lieu of a new performance test, the owner or operator may submit a signature guarantee from the manufacturer of the replacement catalyst stating that the replacement catalyst is of like kind and quality as the old catalyst and that the previously established operating limits shall continue to be used for the Catalytic Oxidizer (C5).
 - viii. For the Catalytic Thermal Oxidizer (MO CTO), the owner or operator shall maintain a record of the date, start time, and stop time for each bypass of the control device that occurred during each month. If there are no bypasses during the month the owner or operator shall record that there were no bypasses in the month. The owner or operator shall keep a monthly and year to date total of all times that the control device was bypassed.
 - ix. The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total plant-wide VOC emissions from all emission points.
- b. **TAC**
- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

- ii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis* at the time of the change.
- iii. The owner or operator shall monthly calculate and record the year to date TAC emissions from each month in the reporting period to determine the status of compliance for the emission points and corresponding emission limits listed in the table of S1.b.ii.
- iv. The owner or operator shall maintain a record of the date, start time, and stop time for each bypass of the control device that occurred during each month. If there are no bypasses during the month the owner or operator shall record that there were no bypasses in the month. The owner or operator shall keep a monthly and year to date total of all times that the control device was bypassed.

c. **HAP**

The owner or operator shall monthly calculate and record the monthly and 12 consecutive month total plant-wide total HAP and each single HAP emissions from all emission points.

d. **HAP (Non-LDAR)**

- i. For maintenance wastewaters, (40 CFR 63.105(a))
 - 1) The owner or operator shall prepare a description of maintenance procedures for management of wastewaters generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions shall:
 - (a) Specify the process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities. (40 CFR 63.105(b)(1))
 - (b) Specify the procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere; and (40 CFR 63.105(b)(2))
 - (c) Specify the procedures to be followed when clearing materials from process equipment. (40 CFR 63.105(b)(3))

- 2) The owner or operator shall modify and update the information required by 40 CFR 63.105(b) as needed following each maintenance procedure based on the actions taken and the wastewaters generated in the preceding maintenance procedure. (40 CFR 63.105(c))
- ii. Each owner or operator subject to the control provisions for Group 1 process vents in 40 CFR 63.113(a) or the provisions for Group 2 process vents with a TRE index value greater than 1.0 but less than or equal to 4.0 in 40 CFR 63.113(d) shall: (40 CFR 63.117(a))
- 1) Keep an up-to-date, readily accessible record of the data specified in paragraphs (a)(4) through (a)(8) of this section of the federal regulation, as applicable, (40 CFR 63.117(a)(1)) and
 - 2) Include the data in paragraphs (a)(4) through (a)(8) of this section of the federal regulation in the Notification of Compliance Status report as specified in 40 CFR 63.152(b) of this subpart. (40 CFR 63.117(a)(2))
 - 3) If any subsequent TRE determinations or performance tests are conducted after the Notification of Compliance Status has been submitted, report the data in paragraphs (a)(4) through (a)(8) of this section of the federal regulation in the next Periodic Report as specified in 40 CFR 63.152(c) of this subpart. (40 CFR 63.117(a)(3))
 - 4) Record the following when using a combustion device to achieve a 98 weight percent reduction in organic HAP or an organic HAP concentration of 20 parts per million by volume, as specified in 40 CFR 63.113(a)(2) of this subpart: (40 CFR 63.117(a)(4))
 - (a) The parameter monitoring results for incinerators, catalytic incinerators, boilers or process heaters specified in table 3 of this subpart, and averaged over the same time period of the performance testing. (40 CFR 63.117(a)(4)(i))
 - (b) For an incinerator, the percent reduction of organic HAP or TOC achieved by the incinerator determined as specified in 40 CFR 63.116(c) of this subpart, or the concentration of organic HAP or TOC (parts per million by volume, by compound) determined as specified in 40 CFR 63.116(c) of this subpart at the outlet of the incinerator on a dry basis corrected to 3 percent oxygen. (40 CFR 63.117(a)(4)(ii))

- (c) For a boiler or process heater, a description of the location at which the vent stream is introduced into the boiler or process heater. (40 CFR 63.117(a)(4)(iii))
- iii. For catalytic oxidizer (C5) each parameter monitored according to tables 3 or 4 of this subpart or paragraph (e) of this section of the federal regulation, the owner or operator shall establish a range for the parameter that indicates proper operation of the control or recovery device. In order to establish the range, the information required in 40 CFR 63.152(b) of this subpart shall be submitted in the Notification of Compliance Status or the operating permit application or amendment. (40 CFR 63.117(f))
- iv. Each owner or operator using a control device to comply with 40 CFR 63.113 (a)(1) or (a)(2) of this subpart shall keep the following records up-to-date and readily accessible: (40 CFR 63.118(a))
 - 1) Continuous records of the equipment operating parameters specified to be monitored under 40 CFR 63.114(a) of this subpart and listed in table 3 of this subpart or specified by the Administrator in accordance with 40 CFR 63.114(c) and 40 CFR 63.117(e) of this subpart. (40 CFR 63.118(a)(1))
 - 2) Records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in 40 CFR 63.152(f). (40 CFR 63.118(a)(2))
 - 3) Hourly records of whether the flow indicator specified under 40 CFR 63.114(d)(1) was operating and whether a diversion was detected at any time during the hour, as well as records of the times and durations of all periods when the gas stream is diverted to the atmosphere or the monitor is not operating. (40 CFR 63.118(a)(3))
 - 4) Where a seal mechanism is used to comply with 40 CFR 63.114(d)(2) of this subpart, hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods 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, and records of any car-seal that has broken. (40 CFR 63.118(a)(4))
- v. The owner or operator who elects to use a fixed roof and an internal floating roof, as defined in 40 CFR 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section of the federal regulation shall comply with the requirements specified in paragraphs

(b)(1) through (b)(6) of this section of the federal regulation. (40 CFR 63.119(b))

Note: The intent of paragraphs (b)(1) and (b)(2) of this section of the federal regulation is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

- 1) The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section of the federal regulation. (40 CFR 63.119(b)(1))
 - (a) During the initial fill. (40 CFR 63.119(b)(1)(i))
 - (b) After the vessel has been completely emptied and degassed. (40 CFR 63.119(b)(1)(ii))
 - (c) When the vessel is completely emptied before being subsequently refilled. (40 CFR 63.119(b)(1)(iii))
- 2) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical. (40 CFR 63.119(b)(2))
- 3) Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. Except as provided in paragraph (b)(3)(iv) of this section of the federal regulation, the closure device shall consist of one of the devices listed in paragraph (b)(3)(i), (b)(3)(ii), or (b)(3)(iii) of this section of the federal regulation. (40 CFR 63.119(b)(3))
 - (a) A liquid-mounted seal as defined in 40 CFR 63.111 of this subpart. (40 CFR 63.119(b)(3)(i))
 - (b) A metallic shoe seal as defined in 40 CFR 63.111 of this subpart. (40 CFR 63.119(b)(3)(ii))
 - (c) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-

mounted, but both must be continuous seals. (40 CFR 63.119(b)(3)(iii))

- (d) If the internal floating roof is equipped with a vapor-mounted seal as of December 31, 1992, the requirement for one of the seal options specified in paragraphs (b)(3)(i), (b)(3)(ii), and (b)(3)(iii) of this section of the federal regulation does not apply until the earlier of the dates specified in paragraphs (b)(3)(iv)(A) and (b)(3)(iv)(B) of this section of the federal regulation. (40 CFR 63.119(b)(3)(iv))
 - i) The next time the storage vessel is emptied and degassed. (40 CFR 63.119(b)(3)(iv)(A))
 - ii) No later than 10 years after April 22, 1994. (40 CFR 63.119(b)(3)(iv)(B))
- 4) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports. (40 CFR 63.119(b)(4))
- 5) Except as provided in paragraph (b)(5)(viii) of this section, each internal floating roof shall meet the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section of the federal regulation. (40 CFR 63.119(b)(5))
 - (a) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents is to provide a projection below the liquid surface. (40 CFR 63.119(b)(5)(i))
 - (b) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid. The cover or lid shall be equipped with a gasket. (40 CFR 63.119(b)(5)(ii))
 - (c) Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening. (40 CFR 63.119(b)(5)(iii))
 - (d) Each automatic bleeder vent shall be gasketed. (40 CFR 63.119(b)(5)(iv))
 - (e) Each rim space vent shall be gasketed. (40 CFR 63.119(b)(5)(v))

- (f) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. (40 CFR 63.119(b)(5)(vi))
- (g) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. (40 CFR 63.119(b)(5)(vii))
- (h) If the internal floating roof does not meet any one of the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section of the federal regulation as of December 31, 1992, the requirement for meeting those specifications does not apply until the earlier of the dates specified in paragraphs (b)(5)(viii)(A) and (b)(5)(viii)(B) of this section of the federal regulation. (40 CFR 63.119(b)(5)(viii))
 - (i) The next time the storage vessel is emptied and degassed. (40 CFR 63.119(b)(5)(viii)(A))
 - (ii) No later than 10 years after April 22, 1994. (40 CFR 63.119(b)(5)(viii)(B))
- 6) Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting. (40 CFR 63.119(b)(6))
- vi. The owner or operator who elects to use a closed vent system and control device, as defined in 40 CFR 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) or (a)(2) of this section of the federal regulation shall comply with the requirements specified in paragraphs (e)(1) through (e)(5) of this section of the federal regulation. (40 CFR 63.119(e))
 - 1) Except as provided in paragraph (e)(2) of this section of the federal regulation, the control device shall be designed and operated to reduce inlet emissions of total organic HAP by 95 percent or greater. If a flare is used as the control device, it shall meet the

specifications described in the general control device requirements of 40 CFR 63.11(b) of subpart A of this part. (40 CFR 63.119(e)(1))

- 2) If the owner or operator can demonstrate that a control device installed on a storage vessel on or before December 31, 1992 is designed to reduce inlet emissions of total organic HAP by greater than or equal to 90 percent but less than 95 percent, then the control device is required to be operated to reduce inlet emissions of total organic HAP by 90 percent or greater. (40 CFR 63.119(e)(2))
 - 3) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of paragraph (e)(1) or (e)(2) of this section of the federal regulation, as applicable, shall not exceed 240 hours per year. (40 CFR 63.119(e)(3))
 - 4) The specifications and requirements in paragraphs (e)(1) and (e)(2) of this section of the federal regulation for control devices do not apply during periods of planned routine maintenance. (40 CFR 63.119(e)(4))
 - 5) The specifications and requirements in paragraphs (e)(1) and (e)(2) of this section of the federal regulation for control devices do not apply during a control system malfunction. (40 CFR 63.119(e)(5))
 - 6) An owner or operator may use a combination of control devices to achieve the required reduction of total organic hazardous air pollutants specified in paragraph (e)(1) of this section of the federal regulation . An owner or operator may use a combination of control devices installed on a storage vessel on or before December 31, 1992 to achieve the required reduction of total organic hazardous air pollutants specified in paragraph (e)(2) of this section of the federal regulation. (40 CFR 63.119(e)(6))
- vii. To demonstrate compliance with 40 CFR 63.119(b) of this subpart (storage vessel equipped with a fixed roof and internal floating roof) or with 40 CFR 63.119(d) of this subpart (storage vessel equipped with an external floating roof converted to an internal floating roof), the owner or operator shall comply with the requirements in paragraphs (a)(1) through (a)(7) of this section of the federal regulation. (40 CFR 63.120(a))
- 1) The owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service),

according to the schedule specified in paragraphs (a)(2) and (a)(3) of this section of the federal regulation. (40 CFR 63.120(a)(1))

- 2) For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this section of the federal regulation. (40 CFR 63.120(a)(2))
 - (a) Visually inspect the internal floating roof and the seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 CFR 63.100 of subpart F of this part. (40 CFR 63.120(a)(2)(i))
 - (b) Visually inspect the internal floating roof, the seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least once every 10 years after the compliance date specified in 40 CFR 63.100 of subpart F of this part. (40 CFR 63.120(a)(2)(ii))
- 3) For vessels equipped with a double-seal system as specified in 40 CFR 63.119(b)(3)(iii) of this subpart, the owner or operator shall perform either the inspection required in paragraph (a)(3)(i) of this section of the federal regulation or the inspections required in both paragraphs (a)(3)(ii) and (a)(3)(iii) of this section of the federal regulation. (40 CFR 63.120(a)(3))
 - (a) The owner or operator shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed and at least once every 5 years after the compliance date specified in 40 CFR 63.100 of subpart F of this part; (40 CFR 63.120(a)(3)(i)) or
 - (b) The owner or operator shall visually inspect the internal floating roof and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 CFR 63.100 of subpart F of this part, (40 CFR 63.120(a)(3)(ii)) and
 - (c) Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve

seals (if any) each time the vessel is emptied and degassed and at least once every 10 years after the compliance date specified in 40 CFR 63.100 of subpart F of this part. (40 CFR 63.120(a)(3)(iii))

- viii. If during the inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section of the federal regulation, the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage vessel, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 calendar days. If a failure that is detected during inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section of the federal regulation cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical. (40 CFR 63.120(a)(4))
- ix. Except as provided in paragraph (a)(6) of this section of the federal regulation, for all the inspections required by paragraphs (a)(2)(ii), (a)(3)(i), and (a)(3)(iii) of this section of the federal regulation, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present. (40 CFR 63.120(a)(5))
- x. If the inspection required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section of the federal regulation is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to refilling. (40 CFR 63.120(a)(6))
- xi. If during the inspections required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section of the federal regulation, the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the

seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with organic HAP. (40 CFR 63.120(a)(7))

- xii. Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 CFR 40 CFR 63.119 through 40 CFR 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 CFR 63.150 of this subpart. (40 CFR 63.123(a))
- xiii. An owner or operator who elects to comply with 40 CFR 63.119(b) of this subpart shall keep a record that each inspection required by 40 CFR 63.120(a) of this subpart was performed.(40 CFR 63.123(c))
- xiv. An owner or operator who uses the by-pass provisions of 40 CFR 63.119(f)(3) of this subpart shall keep in a readily accessible location the records specified in paragraphs (h)(1) through (h)(3) of this section of the federal regulation. (40 CFR 63.123(h))
 - 1) The reason it was necessary to by-pass the process equipment or fuel gas system; (40 CFR 63.123(h)(1))
 - 2) The duration of the period when the process equipment or fuel gas system was by-passed; (40 CFR 63.123(h)(2))
 - 3) Documentation or certification of compliance with the applicable provisions of 40 CFR 63.119(f)(3)(i) through 40 CFR 63.119(f)(3)(iii). (40 CFR 63.123(h)(3))
- xv. For each Group 2 transfer rack, the owner or operator shall maintain records as required in 40 CFR 63.130(f). No other provisions for transfer racks apply to the Group 2 transfer rack. (40 CFR 63.126(c))
- xvi. Each owner or operator of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in paragraphs (f)(1) through (f)(3) of this section of the federal regulation in a readily accessible location on site: (40 CFR 63.130(f))

- 1) An analysis demonstrating the design and actual annual throughput of the transfer rack; (40 CFR 63.130(f)(1))
 - 2) An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations. (40 CFR 63.130(f)(2))
 - 3) An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. (40 CFR 63.130(f)(3))
 - (a) For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated. (40 CFR 63.130(f)(3)(i))
 - (b) For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred. (40 CFR 63.130(f)(3)(ii))
- xvii. For the Group 2 process wastewater, the owner or operator shall keep in a readily accessible location the following records: (40 CFR 63.147(b)(8))
- 1) Process unit identification and description of the process unit. (40 CFR 63.147(b)(8)(i))
 - 2) Stream identification code. (40 CFR 63.147(b)(8)(ii))
 - 3) For existing sources, concentration of table 9 compound(s) in parts per million, by weight. For new sources, concentration of table 8 and/or table 9 compound(s) in parts per million, by weight. Include documentation of the methodology used to determine concentration. (40 CFR 63.147(b)(8)(iii))
 - 4) Flow rate in liter per minute. (40 CFR 63.147(b)(8)(iv))
- xviii. Owners or operators required to keep continuous records by 40 CFR 63.118, 40 CFR 63.130, 40 CFR 63.147, 40 CFR 63.150, or other sections of this subpart shall keep records as specified in paragraphs (f)(1) through (f)(7) of this section of the federal regulation, unless an alternative

recordkeeping system has been requested and approved under 40 CFR 63.151(f) or (g) or 40 CFR 63.152(e) or under 40 CFR 63.8(f) of subpart A of this part, and except as provided in paragraph (c)(2)(ii)(C) of this section of the federal regulation or in paragraph (g) of this section of the federal regulation. If a monitoring plan for storage vessels pursuant to 40 CFR 63.120(d)(2)(i) requires continuous records, the monitoring plan shall specify which provisions, if any, of paragraphs (f)(1) through (f)(7) of this section of the federal regulation apply. (40 CFR 63.152(f))

- 1) The monitoring system shall measure data values at least once every 15 minutes. (40 CFR 63.152(f)(1))
- 2) The owner or operator shall record either: (40 CFR 63.152(f)(2))
 - (a) Each measured data value; (40 CFR 63.152(f)(2)(i)) or
 - (b) Block average values for 15-minute or shorter periods calculated from all measured data values during each period or at least one measured data value per minute if measured more frequently than once per minute. (40 CFR 63.152(f)(2)(ii))
- 3) If the daily average value of a monitored parameter for a given operating day is within the range established in the Notification of Compliance Status or operating permit, the owner or operator shall either: (40 CFR 63.152(f)(3))
 - (a) Retain block hourly average values for that operating day for 5 years and discard, at or after the end of that operating day, the 15-minute or more frequent average values and readings recorded under paragraph (f)(2) of this section of the federal regulation; (40 CFR 63.152(f)(3)(i)) or
 - (b) Retain the data recorded in paragraph (f)(2) of this section of the federal regulation for 5 years. (40 CFR 63.152(f)(3)(ii))
- 4) If the daily average value of a monitored parameter for a given operating day is outside the range established in the Notification of Compliance Status or operating permit, the owner or operator shall retain the data recorded that operating day under paragraph (f)(2) of this section of the federal regulation for 5 years. (40 CFR 63.152(f)(4))
- 5) Daily average values of each continuously monitored parameter shall be calculated for each operating day, and retained for 5 years,

except as specified in paragraphs (f)(6) and (f)(7) of this section of the federal regulation. (40 CFR 63.152(f)(5))

- (a) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous. (40 CFR 63.152(f)(5)(i))
 - (b) The operating day shall be the period defined in the operating permit or the Notification of Compliance Status. It may be from midnight to midnight or another daily period. (40 CFR 63.152(f)(5)(ii))
- 6) If all recorded values for a monitored parameter during an operating day are within the range established in the Notification of Compliance Status or operating permit, the owner or operator may record that all values were within the range and retain this record for 5 years rather than calculating and recording a daily average for that operating day. For these operating days, the records required in paragraph (f)(3) of this section of the federal regulation shall also be retained for 5 years. (40 CFR 63.152(f)(6))
- 7) Monitoring data recorded during periods identified in paragraphs (f)(7)(i) through (f)(7)(v) of this section of the federal regulation shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating. (40 CFR 63.152(f)(7))
- (a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; (40 CFR 63.152(f)(7)(i))
 - (b) Start-ups; (40 CFR 63.152(f)(7)(ii))
 - (c) Shutdowns; (40 CFR 63.152(f)(7)(iii))
 - (d) Malfunctions; (40 CFR 63.152(f)(7)(iv))
 - (e) Periods of non-operation of the chemical manufacturing process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies. (40 CFR 63.152(f)(7)(v))

S3. Reporting (Regulation 2.03, section 6.1)

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All semi-annual compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11

The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 st through June 30 th	August 29 th
July 1 st through December 31 st	March 1 st

- Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.
- Signature and title of company responsible official.

a. VOC

- i. The owner or operator shall report the following information regarding the plant-wide emission limit;
 - 1) Emission unit ID number and emission point ID number,
 - 2) The beginning and ending date of the reporting period,
 - 3) Total plant-wide monthly and 12 consecutive month VOC emissions for each month from all emission points,
 - 4) Identification of all periods of exceedance of the VOC emission limits, and
 - 5) Description of any corrective action taken for each exceedance.
- ii. The owner or operator shall report the following information regarding the Catalytic Thermal Oxidizer (MO CTO):
 - 1) Emission unit ID number and emission point ID number;
 - 2) The beginning and ending date of the reporting period;

- 3) Identification of any failure to perform the required maintenance;
- 4) Identification of all periods where the temperature deviated from the standard on a three hour average;
- 5) The percentage of time that data was recorded for each month; and
- 6) Description of any corrective action taken for each exceedance.

b. TAC

- i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.
- ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)
- iii. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in S2.b.ii.
- iv. The owner or operator shall report the following information regarding the emission limits listed in the table of S1.b:
 - 1) Emission unit ID number and emission point ID number;
 - 2) The beginning and ending date of the reporting period;
 - 3) The year to date TAC emissions from each month in the reporting period from emission points listed to determine compliance with corresponding emission limits listed;
 - 4) Identification of all periods of exceedance of the TAC emission limits; and
 - 5) Description of any corrective action taken for each exceedance.

c. HAP

The owner or operator shall report the following information regarding the plant-wide emission limit:

- i. Emission unit ID number and emission point ID number;
 - ii. The beginning and ending date of the reporting period;
 - iii. Total plant-wide monthly and 12 consecutive month HAP emissions for each month;
 - iv. Identification of all periods of exceedance of the HAP emission limits; and
 - v. Description of any corrective action taken for each exceedance.
- d. **HAP (Non-LDAR)**
- i. Except as specified under paragraphs (c)(5) and (c)(6) of this section of the federal regulation, a report containing the information in paragraphs (c)(2), (c)(3), and (c)(4) of this section of the federal regulation shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The first report shall be submitted no later than 8 months after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. (40 CFR 40 CFR 63.152(c)(1))
 - ii. The Company has elected to comply with the reporting requirement of (40 CFR 40 CFR 63.152(c)(1)) by submitting non-LDAR HON reports concurrently with the LDAR HON reports as specified in 40 CFR 63.182(d) and which shall contain the following information at a minimum:
 - 1) For Group 1 process vents, report the duration of periods when monitoring data is not collected for each excursion caused by insufficient monitoring data as defined in 40 CFR 63.152(c)(2)(ii)(A) of this subpart. (40 CFR 63.118(f)(2))
 - 2) For Group 1 process vents, report the times and durations of all periods recorded under paragraph (a)(3) of this section of the federal regulation when the gas stream is diverted to the atmosphere through a bypass line. (40 CFR 63.118(f)(3))
 - 3) For Group 1 process vents, report periods recorded under paragraph (a)(4) of this section of the federal regulation in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out. (40 CFR 63.118(f)(4))

- 4) Whenever a process change, as defined in 40 CFR 63.115(e), is made that causes a Group 2 process vent to become a Group 1 process vent, the owner or operator shall submit a report within 180 calendar days after the process change as specified in 40 CFR 63.151(j). The report shall include: (40 CFR 63.118(g))
 - (a) A description of the process change; (40 CFR 63.118(g)(1))
 - (b) The results of the recalculation of the flow rate, organic HAP concentration, and TRE index value required under 40 CFR 63.115(e) and recorded under 40 CFR 63.118(c), (d), or (e); and (40 CFR 63.118(g)(2))
 - (c) A statement that the owner or operator will comply with the provisions of 40 CFR 63.113 of this subpart for Group 1 process vents by the dates specified in 40 CFR 63 Subpart F. (40 CFR 63.118(g)(3))
 - 5) Whenever a process change, as defined in 40 CFR 63.115(e), is made that causes a Group 2 process vent with a TRE greater than 4.0 to become a Group 2 process vent with a TRE less than 4.0, the owner or operator shall submit a report within 180 calendar days after the process change. The report may be submitted as part of the next periodic report. The report shall include: (40 CFR 63.118(h))
 - (a) A description of the process change, (40 CFR 63.118(h)(1))
 - (b) The results of the recalculation of the TRE index value required under 40 CFR 63.115(e) and recorded under 40 CFR 63.118(c), and (40 CFR 63.118(h)(2))
 - (c) A statement that the owner or operator will comply with the requirements specified in 40 CFR 63.113(d). (40 CFR 63.118(h)(3))
- iii. The owner or operator shall submit Periodic Reports as required by 40 CFR 63.152(c) of this subpart and shall submit as part of the Periodic Reports the information specified in paragraphs (d), (e), (f), and (g) of this section. (40 CFR 63.122(a)(4))
- 1) An owner or operator who elects to comply with 40 CFR 63.119(b) of this subpart by using a fixed roof and an internal floating roof or with 40 CFR 63.119(d) of this subpart by using an external floating roof converted to an internal floating roof shall submit, as part of the Periodic Report required under 40 CFR 63.152(c) of this

subpart, the results of each inspection conducted in accordance with 40 CFR 63.120(a) of this subpart in which a failure is detected in the control equipment. (40 CFR 63.122(d))

- 2) For vessels for which annual inspections are required under 40 CFR 63.120 (a)(2)(i) or (a)(3)(ii) of this subpart, the specifications and requirements listed in paragraphs (d)(1)(i) through (d)(1)(iii) of this section apply. (40 CFR 63.122(d)(1))
 - (a) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel. (40 CFR 63.122(d)(1)(i))
 - (b) Except as provided in paragraph (d)(1)(iii) of this section, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied. (40 CFR 63.122(d)(1)(ii))
 - (c) If an extension is utilized in accordance with 40 CFR 63.120(a)(4) of this subpart, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 CFR 63.120(a)(4) of this subpart; and describe the date the storage vessel was emptied and the nature of and date the repair was made. (40 CFR 63.122(d)(1)(iii))
- 3) For vessels for which inspections are required under 40 CFR 63.120 (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this subpart, the specifications and requirements listed in paragraphs (d)(2)(i) and (d)(2)(ii) of this section apply. (40 CFR 63.122(d)(2))
 - (a) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the

atmosphere; or the slotted membrane has more than 10 percent open area. (40 CFR 63.122(d)(2)(i))

- (b) Each Periodic Report required under 40 CFR 63.152(c) of this subpart shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made. (40 CFR 63.122(d)(2)(ii))
- iv. An owner or operator who elects to comply with 40 CFR 63.119(e) of this subpart by installing a closed vent system and control device shall submit, as part of the next Periodic Report required by 40 CFR 63.152(c) of this subpart, the information specified in paragraphs (g)(1) through (g)(3) of this section of the federal regulation. (40 CFR 63.122(g))
 - 1) As required by 40 CFR 63.120(d)(4) and 40 CFR 63.120(e)(3) of this subpart, the Periodic Report shall include the information specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this section for those planned routine maintenance operations that would require the control device not to meet the requirements of 40 CFR 63.119 (e)(1) or (e)(2) of this subpart, as applicable. (40 CFR 63.122(g)(1))
 - (a) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6 months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods. (40 CFR 63.122(g)(1)(i))
 - (b) A description of the planned routine maintenance that was performed for the control device during the previous 6 months. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of 40 CFR 63.119 (e)(1) or (e)(2) of this subpart, as applicable, due to planned routine maintenance. (40 CFR 63.122(g)(1)(ii))
 - 2) If a control device other than a flare is used, the Periodic Report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status in accordance with 40 CFR 63.120(d)(3)(i) of this subpart. The description shall include the

information specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this section. (40 CFR 63.122(g)(2))

- (a) Identification of the control device for which the measured parameters were outside of the established ranges, (40 CFR 63.122(g)(2)(i)) and
 - (b) Cause for the measured parameters to be outside of the established ranges. (40 CFR 63.122(g)(2)(ii))
- v. Each owner or operator of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in paragraphs (f)(1) through (f)(3) of this section in a readily accessible location on site: (40 CFR 63.130(f))
- vi. An analysis demonstrating the design and actual annual throughput of the transfer rack; (40 CFR 63.130(f)(1))
- vii. An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations. (40 CFR 63.130(f)(2))
- viii. An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack. (40 CFR 63.130(f)(3))
- ix. For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated. (40 CFR 63.130(f)(3)(i))
- x. For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred. (40 CFR 63.130(f)(3)(ii))
 - 1) Reports of start-up, shutdown, and malfunction required by 40 CFR 63.10(d)(5) of subpart A. The start-up, shutdown and malfunction reports may be submitted on the same schedule as the Periodic Reports required under paragraph (c) of this section instead of the schedule specified in 40 CFR 63.10(d)(5) of subpart A. (40 CFR 63.152(d)(1))

- xi. For storage vessels, the notifications of inspections required by 40 CFR 63.122 (h)(1) and (h)(2) of this subpart. (40 CFR 63.152(d)(2))

S4. Testing (Regulation 2.03, section 6.1)

- i. Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days of achieving normal operation if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency or accept a District approved assumed efficiency unless a previous stack test has resulted in a lower efficiency.
- ii. The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.
- iii. For VOC the owner or operator shall construct all equipment in such a manner that the following testing requirements can be performed.
 - 1) The owner or operator shall perform EPA Reference Methods 316 and 18 on the inlet and outlet of the control device. During the performance test the inlet temperature of the catalyst bed shall be recorded at least every 15 minutes. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit. In lieu of the control efficiency test, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

- 2) The owner or operator shall perform a capture efficiency test using EPA guidelines. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification subject to approval by the District.
- 3) The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. They shall include the EPA test methods that will be used for VOC compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a Protocol Checklist for Performance Test for the information to be submitted in the protocol.
- 4) The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing.⁴
- 5) The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.
- 6) The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of completion of the performance test.

Fee Comment

The construction permit fee of \$2,542.40 is based on the Schedule of Fees table in Regulation 2.08, section 12, Significant Revision.

⁴ Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- 1. Facility name, location, and ID #;
- 2. Responsible Official and environmental contact names;
- 3. Permit numbers which are requiring the test to be conducted;
- 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- 5. Alternative test methods or description of modifications to the test methods to be used;
- 6. Purpose of the test including equipment, and pollutant to be tested; the purpose may be described in the permit which requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- 7. Tentative test dates (these may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation);
- 8. Maximum rated production capacity of the system;
- 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate based on limits);
- 10. Method to be used for determining rate of production during the performance test;
- 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- 12. Description of normal operation cycles;
- 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- 14. Process flow diagram;
- 15. List the type and manufacturer of the control equipment if any;
- 16. List the control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test; note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- 17. How quality assurance and accuracy of the data will be maintained, including;
 - Sample identification and chain-of-custody procedures;
 - Are audit samples required for this test Method (EPA contact number for audit samples 919-541-1062) if yes then please make samples available to the District for observation during the stack test;
 - Audit sample provider;
 - Number of audit samples to be used;
- 18. Pipe, duct, stack, or flue diameter to be tested;
- 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
 - Method 1 if stack is >12"
 - Method 1a if stack is between 4" and 12"
 - Alternate method of determination for <4"

- If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- 21. The Stack Test Review fee shall be submitted with each stack test protocol.